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Text Part Number: 78EE117C99-1111888340

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1.383 freebsd-tty-headers n/a
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1.516 libidn 2.2.0 1.el8
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1.517 shared-mime-info 1.10 r0
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1.518 libsolv 0.7.16-1.el8
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1.591 libxml 2.3.0 r0

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1.592 kmod 25 16.el8

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1.601 cronie 1.5.2 4.el8

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1.603 iputils s20190709 r0

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1.604 libdb 5.3.28-40.el8

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1.605 cyrus-sasl 2.1.0

- 1.605.1 Notifications
- 1.605.2 Available under license
- 1.606 intltool 0.51.0 r0**
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- 1.607.1 Available under license
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- 1.608.1 Available under license
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- 1.610 libsigsegv 2.11 5.el8**
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- 1.611 ftp-h 4.4BSD?**
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- 1.612 gpt-fdisk 1.0.4 r0**
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1.658 libtpms2 0.7+gitAUTOINC+1ea1261c05 r0

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1.664 libffi 3.1-22.el8

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1.1 python-ipy 0.83 r0

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1.2 sysstat 12.1.6 r0

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1.3 python3-importlib-metadata 0.23 r0

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1.4 libnsl2 1.2.0 2.20180605git4a062cf.e18

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1.5 ima-evm-utils 1.1 5.el8

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1.7 curl 7.61.1-17.el8

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1.8 cyrus-sasl 2.1.27 5.el8

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 * Rob Earhart
 * Rob Siemborski
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1.9 python-pretend 1.0.9 r0

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1.10 libfastjson 0.99.8 2.e18

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1.11 python-attrs 19.2.0 r0

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1.12 gzip 1.10 r0

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1.13 libevdev 5.7-2.el8

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THANKS

Thanks to Ericsson for funding this work, providing real-life use cases, and testing.

Special thanks to Michel Dagenais and the [http://www.dorsal.polymtl.ca/\[DORSAL laboratory\]](http://www.dorsal.polymtl.ca/[DORSAL laboratory]) at cole Polytechnique de Montral for the LTTng journey.
LTTng UST - Userspace Tracer

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1.17 sg3-utils 1.44 r0

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@smallexample

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@c Local Variables:

@c ispell-local-pdict: "ispell-dict"

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Version 3, 29 June 2007

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```
.gitignore
#
builds/unix/pkg.m4
#
docs/FTL.TXT
docs/GPLv2.TXT
#
include/freetype/internal/fthash.h
#
src/base/fthash.c
src/base/md5.c
src/base/md5.h
#
src/bdf/bdf.c
src/bdf/bdf.h
src/bdf/bdfdrivr.c
src/bdf/bdfdrivr.h
src/bdf/bdferror.h
src/bdf/bdflib.c
src/bdf/module.mk
src/bdf/README
src/bdf/rules.mk
#
src/pcf/module.mk
src/pcf/pcf.c
src/pcf/pcf.h
src/pcf/pcfdrivr.c
src/pcf/pcfdrivr.h
src/pcf/pcferror.h
src/pcf/pcfread.c
src/pcf/pcfread.h
src/pcf/pcfutil.c
src/pcf/pcfutil.h
src/pcf/README
src/pcf/rules.mk
#
src/zip/adler32.c
src/zip/infblock.c
src/zip/infblock.h
src/zip/infcodes.c
src/zip/infcodes.h
src/zip/inffixed.h
src/zip/inflate.c
src/zip/inftrees.c
src/zip/inftrees.h
src/zip/infutil.c
src/zip/infutil.h
src/zip/zconf.h
```

```
src/gzip/zlib.h
src/gzip/zutil.c
src/gzip/zutil.h
#
src/tools/apinames.c
src/tools/frandom/frandom.c
#
# EOF
```

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1.26 go-context git r0

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1.27 shadow 4.6 r0

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be

linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is

interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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@ignore

@c Set file name and title for man page.

@setfilename gpl

@settitle GNU General Public License

@c man begin SEEALSO

gfdl(7), fsf-funding(7).

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@item

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@item

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@item

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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That's all there is to it!
DRuntime: Runtime Library for the D Programming Language

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

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1.29 libnl3 3.5.0 r0

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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1.30 glibc 2.28-145.el8

1.30.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
# All rights reserved
```

Found in path(s):

```
* /opt/cola/permits/1130449880_1615190737.4/0/glibc-tar/glibc/test/Makefile.binos
```

No license file was found, but licenses were detected in source scan.

```
/* PUBLIC DOMAIN Oct 2002 <marc@snafu.org> */
```

Found in path(s):

```
* /opt/cola/permits/1130449880_1615190737.4/0/glibc-tar/glibc/test/test_pthread_kill.c
```

1.31 e2fsprogs 1.45.6 1.el8

1.31.1 Available under license :

This is the Debian GNU/Linux prepackaged version of the static EXT2 file system consistency checker (e2fsck.static). The EXT2 utilities were written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

Sources were obtained from <http://sourceforge.net/projects/e2fsprogs>

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```

#
# This is a Makefile stub which handles the creation of BSD shared
# libraries.
#
# In order to use this stub, the following makefile variables must be defined.
#
# BSDLIB_VERSION = 1.0
# BSDLIB_IMAGE = libce
# BSDLIB_MYDIR = et
# BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#

all:: image

real-subdirs:: Makefile
@echo " MKDIR pic"
@mkdir -p pic

BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic

image: $(BSD_LIB)

$(BSD_LIB): $(OBJS)
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
$(MV) pic/$(BSD_LIB) .
$(RM) -f ../$(BSD_LIB)
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \
`echo $(my_dir) | sed -e 's;lib/;;'~/$(BSD_LIB) $(BSD_LIB))

install-shlibs install:: $(BSD_LIB)
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
@-$(LDCONFIG)

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::
$(RM) -f $(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)

clean::
$(RM) -rf pic
$(RM) -f $(BSD_LIB)
$(RM) -f ../$(BSD_LIB)

```

This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

<http://sourceforge.net/projects/e2fsprogs>

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This is the Debian GNU/Linux prepackaged version of the translation files of the EXT2 file system utilities. The EXT2 utilities were written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

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Index: tdbsa/tdb.c

=====

--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

*/

/*

- Unix SMB/CIFS implementation.
+ trivial database library - standalone version

- trivial database library - private includes

-

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Theodore Ts'o
23-June-2007

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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if

the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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1.36 ipch 8.3

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The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a ``work based on the library" and a ``work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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1.42 python3-gevent 1.4.0 r0

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greentest/2.7pypy
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greentest/3.5

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gevent/libuv/_corecffi_source.c
gevent/libuv/_corecffi_cdef.c

Originally based on code from <https://github.com/veege/guv>

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1.43 python3-pysocks 1.7.1 r0

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1.45 screen 4.6.2 r0

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1.47 csrp 1.0

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1.48 tcp-dump 4.9.3-1.el8

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1.49 bcrypt 3.2.0

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1.50 syslogd 1.5.1 r0

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1.52 cryptsetup 2.2.1 r0

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1.55 rdma-core 30.2 r0

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Upstream-Name: rdma-core

Upstream-Contact: Doug Ledford <dledford@redhat.com>,

Leon Romanovsky <Leon@kernel.org>

Source: <https://github.com/linux-rdma/rdma-core>

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```
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```

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```
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Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type 'show c' for details.
```

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```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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/* compr1c.h --

This file is part of the LZO real-time data compression library.

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Markus F.X.J. Oberhumer
<markus@oberhumer.com>
<http://www.oberhumer.com/opensource/lzo/>
*/

```
#define LZO_NEED_DICT_H 1
#include "config1c.h"

#if !defined(COMPRESS_ID)
#define COMPRESS_ID LZO_PP_ECONCAT2(DD_BITS,CLEVEL)
#endif

#include "lzo1b_c.ch"

/*****
//
*****/

#define LZO_COMPRESS \
    LZO_PP_ECONCAT3(lzo1c_,COMPRESS_ID,_compress)

#define LZO_COMPRESS_FUNC \
    LZO_PP_ECONCAT3(_lzo1c_,COMPRESS_ID,_compress_func)

/*****
//
*****/

const lzo_compress_t LZO_COMPRESS_FUNC = do_compress;

LZO_PUBLIC(int)
LZO_COMPRESS ( const lzo_bytep in, lzo_uint in_len,
               lzo_bytep out, lzo_uintp out_len,
               lzo_voidp wrkmem )
{
    return _lzo1c_do_compress(in,in_len,out,out_len,wrkmem,do_compress);
}
```

/* vim:set ts=4 sw=4 et: */

1.59 six 1.15.0

1.59.1 Available under license :

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The primary author and maintainer of six is Benjamin Peterson. He would like to acknowledge the following people who submitted bug reports, pull requests, and otherwise worked to improve six:

Marc Abramowitz
immerrr again
Alexander Artemenko
Aymeric Augustin
Lee Ball
Ben Bariteau
Ned Batchelder
Wouter Bolsterlee
Brett Cannon
Jason R. Coombs
Julien Danjou
Ben Darnell
Ben Davis
Jon Dufresne
Tim Graham
Thomas Grainger
Max Grender-Jones
Joshua Harlow
Toshiki Kataoka

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Ivan Levkivskyi
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James Mills
Jordan Moldow
Berker Peksag
Sridhar Ratnakumar
Erik Rose
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Peter Ruibal
Miroslav Shubernetskiy
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Anthony Sottile
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1.60 libarchive 3.3.3-1.el8

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1.61 ethtool 5.8-5.el8

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```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/journalctl          usr/bin/journalctl
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemctl          usr/bin/systemctl
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemd-inhibit    usr/bin/systemd-inhibit
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemd-notify     usr/bin/systemd-notify
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemd-tmpfiles    usr/bin/systemd-tmpfiles
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/udevadm             usr/bin/udevadm
contrib/yocto/CGE7/journald.conf                             etc/systemd/journald.conf
infra/systemd/system.conf                                    etc/systemd/system.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/systemd/user.conf       etc/systemd/user.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/udev/udev.conf          etc/udev/udev.conf
/usr/lib/systemd/systemd                                     init
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system-generators/systemd-fstab-generator
usr/lib/systemd/system-generators/systemd-fstab-generator
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/basic.target
usr/lib/systemd/system/basic.target
/usr/lib/systemd/system/reboot.target                        usr/lib/systemd/system/ctrl-alt-del.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/dev-hugepages.mount
usr/lib/systemd/system/dev-hugepages.mount
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/dev-mqueue.mount
usr/lib/systemd/system/dev-mqueue.mount
infra/systemd/emergency.service                             usr/lib/systemd/system/emergency.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/emergency.target
usr/lib/systemd/system/emergency.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/final.target
usr/lib/systemd/system/final.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/halt.target
usr/lib/systemd/system/halt.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/kexec.target
usr/lib/systemd/system/kexec.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/local-fs-pre.target
usr/lib/systemd/system/local-fs-pre.target
infra/systemd/local-fs.target                               usr/lib/systemd/system/local-fs.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/network-online.target
usr/lib/systemd/system/network-online.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/network.target
usr/lib/systemd/system/network.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/paths.target
usr/lib/systemd/system/paths.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/poweroff.target
usr/lib/systemd/system/poweroff.target
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/reboot.target
usr/lib/systemd/system/reboot.target
```

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/remote-fs.target
 usr/lib/systemd/system/remote-fs.target
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.service
 usr/lib/systemd/system/rescue.service
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.target
 usr/lib/systemd/system/rescue.target
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/shutdown.target
 usr/lib/systemd/system/shutdown.target
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/slices.target
 usr/lib/systemd/system/slices.target
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sockets.target
 usr/lib/systemd/system/sockets.target
 /usr/lib/systemd/system/systemd-journald.socket
 usr/lib/systemd/system/sockets.target.requires/systemd-journald.socket
 /usr/lib/systemd/system/systemd-udev-control.socket
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-control.socket
 /usr/lib/systemd/system/systemd-udev-kernel.socket
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-kernel.socket
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-config.mount
 usr/lib/systemd/system/sys-kernel-config.mount
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-debug.mount
 usr/lib/systemd/system/sys-kernel-debug.mount
 /usr/lib/systemd/system/dev-hugepages.mount
 usr/lib/systemd/system/sysinit.target.wants/dev-hugepages.mount
 /usr/lib/systemd/system/dev-mqueue.mount
 usr/lib/systemd/system/sysinit.target.wants/dev-mqueue.mount
 /usr/lib/systemd/system/sys-kernel-config.mount
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-config.mount
 /usr/lib/systemd/system/sys-kernel-debug.mount
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-debug.mount
 /usr/lib/systemd/system/systemd-journal-flush.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-journal-flush.service
 /usr/lib/systemd/system/systemd-journald.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-journald.service
 /usr/lib/systemd/system/systemd-modules-load.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-modules-load.service
 /usr/lib/systemd/system/systemd-sysctl.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-sysctl.service
 /usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup-dev.service
 /usr/lib/systemd/system/systemd-tmpfiles-setup.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup.service
 /usr/lib/systemd/system/systemd-udev-trigger.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev-trigger.service
 /usr/lib/systemd/system/systemd-udev.service
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev.service
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-halt.service
 usr/lib/systemd/system/systemd-halt.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-journal-flush.service
usr/lib/systemd/system/systemd-journal-flush.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-journald-dev-log.socket
usr/lib/systemd/system/systemd-journald-dev-log.socket

infra/systemd/systemd-journald.service.d/visible.conf
usr/lib/systemd/system/systemd-journald.service.d/visible.conf

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-fsck@.service
usr/lib/systemd/system/systemd-fsck@.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-journald.socket
usr/lib/systemd/system/systemd-journald.socket

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-kexec.service
usr/lib/systemd/system/systemd-kexec.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-modules-load.service
usr/lib/systemd/system/systemd-modules-load.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-poweroff.service
usr/lib/systemd/system/systemd-poweroff.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-reboot.service
usr/lib/systemd/system/systemd-reboot.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-sysctl.service
usr/lib/systemd/system/systemd-sysctl.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service
usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup.service
usr/lib/systemd/system/systemd-tmpfiles-setup.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-settle.service
usr/lib/systemd/system/systemd-udev-settle.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-trigger.service
usr/lib/systemd/system/systemd-udev-trigger.service

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-control.socket
usr/lib/systemd/system/systemd-udev-control.socket

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-kernel.socket
usr/lib/systemd/system/systemd-udev-kernel.socket

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/timers.target
usr/lib/systemd/system/timers.target

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/time-sync.target
usr/lib/systemd/system/time-sync.target

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/umount.target
usr/lib/systemd/system/umount.target

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd
usr/lib/systemd/systemd

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/bin/systemd-socket-activate
usr/bin/systemd-socket-activate

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-bootchart
usr/lib/systemd/systemd-bootchart

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-fsck
usr/lib/systemd/systemd-fsck

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-journald
usr/lib/systemd/systemd-journald

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-modules-load

```

usr/lib/systemd/systemd-modules-load
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-shutdown
usr/lib/systemd/systemd-shutdown
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-sysctl          usr/lib/systemd/systemd-
sysctl
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-timedated
usr/lib/systemd/systemd-timedated
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-udev          usr/lib/systemd/systemd-
udev
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/udev/rules.d/50-udev-default.rules
usr/lib/udev/rules.d/50-udev-default.rules
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/udev/rules.d/99-systemd.rules    usr/lib/udev/rules.d/99-
systemd.rules
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/bin/systemd-analyze                usr/bin/systemd-analyze
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/machine.slice
usr/lib/systemd/system/machine.slice
infra/systemd/systemd-journald.service.d/visible.conf                    usr/lib/systemd/system/systemd-
journald.service.d/visible.conf

infra/systemd/sysctl/inotify-user-instances.conf                        etc/sysctl.d/inotify-user-instances.conf

```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/systemd-common

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(include systemd-common)

```

infra/systemd/switchroot/sysinit.target          usr/lib/systemd/system/sysinit.target
infra/systemd/switchroot/systemd-journald.service  usr/lib/systemd/system/systemd-
journald.service
infra/systemd/switchroot/systemd-timedated.service  usr/lib/systemd/system/systemd-
timedated.service
infra/systemd/switchroot/systemd-udev.service      usr/lib/systemd/system/systemd-
udev.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-journald-audit.socket
usr/lib/systemd/system/systemd-journald-audit.socket

```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/systemd-swrt

No license file was found, but licenses were detected in source scan.

Original Creation Date Unknown

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```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/staprun      usr/bin/staprun
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/libexec/systemtap/stapio  usr/libexec/systemtap/stapio
```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/systemtap

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#

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#files related to nfs-statd.service

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.statd      usr/sbin/rpc.statd
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sm-notify      usr/sbin/sm-notify
```

```
infra/systemd/nfs-statd.service      usr/lib/systemd/system/nfs-statd.service
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/nfsstat      usr/sbin/nfsstat
```

#files related to nfs-idmapd.service

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.idmapd      usr/sbin/rpc.idmapd
```

```
infra/systemd/var-lib-nfs-rpc_pipefs.mount      usr/lib/systemd/system/var-lib-nfs-rpc_pipefs.mount
```

plugin nsswitch for rpc.idmapd can not be figure out automatilly by dependency.

The dirctory for plugin is fix to usr/lib/libnfsidmap

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/${LIB}/libnfsidmap/nsswitch.so  usr/lib/libnfsidmap/nsswitch.so
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/idmapd.conf      etc/idmapd.conf
```

```
infra/systemd/nfs-idmapd.service      usr/lib/systemd/system/nfs-idmapd.service
```

```
contrib/initscripts/binos/etc/${NFS_VER}/nfs-utils.conf  etc/nfs-utils.conf
```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/nfsv4/nfs-common

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#

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(include all-common)

(include systemd)

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/all

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```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/dmesg      usr/bin/dmesg
```

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/kill usr/bin/kill
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/mount usr/bin/mount
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/umount usr/bin/umount
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/agetty usr/sbin/agetty
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/blockdev usr/sbin/blockdev
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/cfdisk usr/sbin/cfdisk
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/ctrlaltdel usr/sbin/ctrlaltdel
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/fdisk usr/sbin/fdisk
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/fsck usr/sbin/fsck
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/hwclock usr/sbin/hwclock
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/mkswap usr/sbin/mkswap
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/pivot_root usr/sbin/pivot_root
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/sfdisk usr/sbin/sfdisk
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/swapoff usr/sbin/swapoff
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/swapon usr/sbin/swapon
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/arch usr/bin/arch
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/cal usr/bin/cal
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/chrt usr/bin/chrt
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/col usr/bin/col
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/colcrt usr/bin/colcrt
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/colrm usr/bin/colrm
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/column usr/bin/column
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/flock usr/bin/flock
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/getopt usr/bin/getopt
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/hexdump usr/bin/hexdump
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ionice usr/bin/ionice
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ipcrm usr/bin/ipcrm
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ipcs usr/bin/ipcs
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/isosize usr/bin/isosize
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/last usr/bin/last
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/logger usr/bin/logger
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/look usr/bin/look
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/lslblk usr/bin/lslblk
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/mesg usr/bin/mesg
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/namei usr/bin/namei
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/newgrp usr/bin/newgrp
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/nsenter usr/bin/nsenter
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/rename usr/bin/rename
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/renice usr/bin/renice
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/rev usr/bin/rev
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/script usr/bin/script
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/setsid usr/bin/setsid
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/setterm usr/bin/setterm
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/taskset usr/bin/taskset
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ul usr/bin/ul
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/wall usr/bin/wall
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/whereis usr/bin/whereis
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/write usr/bin/write

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fdformat  usr/sbin/fdformat
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mkfs    usr/sbin/mkfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/raw     usr/sbin/raw
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/zramctl  usr/sbin/zramctl
```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/util-linux

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#

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#

This file contains all needed files related to nfs server daemon.

#

infra/systemd/nfs-mountd.service usr/lib/systemd/system/nfs-mountd.service

infra/systemd/nfs-server.service usr/lib/systemd/system/nfs-server.service

infra/systemd/proc-fs-nfsd.mount usr/lib/systemd/system/proc-fs-nfsd.mount

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/exportfs  usr/sbin/exportfs
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.mountd  usr/sbin/rpc.mountd
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.nfsd  usr/sbin/rpc.nfsd
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rpcinfo  usr/bin/rpcinfo
```

(include nfs-common)

The following kernel modules are needed when NFSV4 support is configured

in kernel.

nfsd.ko depend on auth_rpcgss.ko

auth_rpcgss.ko depend on oid_registry.ko

-\${PLATFORM_SYSROOT}/usr/lib/modules/\${KERNEL_VER}/kernel/lib/oid_registry.ko

usr/lib/modules/\${KERNEL_VER}/kernel/lib/oid_registry.ko

\${PLATFORM_SYSROOT}/usr/lib/modules/\${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko

usr/lib/modules/\${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/nfsv4/nfs-utils

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```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ipcalc  usr/bin/ipcalc
```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/ipcalc

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```
#  
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```

```
(include audit)  
(include bash)  
(include binutils)  
(include bridge-utils)  
(include busybox)  
(include bzip2)  
(include coreutils)  
(include cpio)  
(include dbus)  
(include diffutils)  
(include dosfstools)  
(include e2fsprogs)  
(include ethtool)  
(include file)  
(include filesystem)  
(include findutils)  
(include gawk)  
(include glibc)  
(include grep)  
(include gzip)  
(include initscripts)  
(include ipcalc)  
(include iproute2)  
(include iptables)  
(include iputils)  
(include kexec-tools)  
(include kmod)  
(include less)  
(include libcap)  
(include lsof)  
(include modules)  
(include ncurses)  
(include netbase)  
(include netcat)  
(include netkit-telnet)  
(include net-tools)  
(include ${NFS_VER}/nfs-utils-client)  
(include pciutils)  
(include procps)  
(include psmisc)  
(include rpcbind)  
(include sed)  
(include shadow)  
(include strace)
```



```
(include sysklogd)
(include systemtap)
(include sysvinit)
(include tar)
(include tcpdump)
(include tftp-hpa)
(include traceroute)
(include util-linux)
```

Found in path(s):

```
* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/all-common
```

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```
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```

```
(include systemd-common)
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system-preset/90-systemd.preset
usr/lib/systemd/system-preset/90-systemd.preset
/usr/lib/systemd/system/tmp.mount                usr/lib/systemd/system/local-
fs.target.requires/tmp.mount
infra/systemd/sysinit.target                    usr/lib/systemd/system/sysinit.target
infra/systemd/cpld-symlink.service              usr/lib/systemd/system/cpld-symlink.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-journald.service
usr/lib/systemd/system/systemd-journald.service
infra/systemd/systemd-journald.service.d/visible.conf    usr/lib/systemd/system/systemd-
journald.service.d/visible.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-timedated.service
usr/lib/systemd/system/systemd-timedated.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-udev.service
usr/lib/systemd/system/systemd-udev.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/tmp.mount
usr/lib/systemd/system/tmp.mount
```

Found in path(s):

```
* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/systemd
```

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```
#
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#
# This file contains all needed files related to nfs server daemon.
#
infra/systemd/nfs-mountd.service                usr/lib/systemd/system/nfs-mountd.service
infra/systemd/nfs-server.service                usr/lib/systemd/system/nfs-server.service
infra/systemd/proc-fs-nfsd.mount                usr/lib/systemd/system/proc-fs-nfsd.mount
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/exportfs  usr/sbin/exportfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.mountd  usr/sbin/rpc.mountd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.nfsd  usr/sbin/rpc.nfsd
```

```
(include nfs-common)
```

```
# The following optional kernel modules are put here to allow forwarding
# compatible when NFSV4 support is configured in kernel.
# When nfsv4 is enabled in kernel, it brings in extra dependency for
# nfsd.ko, which is needed for nfsv3 server.
# so treat extra modules needed by nfsd.ko as optional since it depend on kernel
# configure.
#
# nfsd.ko depend on auth_rpcgss.ko
# auth_rpcgss.ko depend on oid_registry.ko
```

```
-${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/lib/oid_registry.ko
usr/lib/modules/${KERNEL_VER}/kernel/lib/oid_registry.ko
-${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko
usr/lib/modules/${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko
```

```
Found in path(s):
```

```
* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/nfsv3/nfs-utils
No license file was found, but licenses were detected in source scan.
```

```
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```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.statd  usr/sbin/rpc.statd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sm-notify  usr/sbin/sm-notify
infra/systemd/nfs-statd.service  usr/lib/systemd/system/nfs-statd.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/nfsstat  usr/sbin/nfsstat
```

```
contrib/initscripts/binos/etc/${NFS_VER}/nfs-utils.conf  etc/nfs-utils.conf
```

```
Found in path(s):
```

```
* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/nfsv3/nfs-common
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```

```
#
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```

```
(include all-common)
```

```
(include systemd-swrt)
```

```
Found in path(s):
```

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/all-swrt
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#

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This file is to store extra files needed to support NFSV4 client.

#

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/mount.nfs usr/sbin/mount.nfs

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/umount.nfs usr/sbin/umount.nfs

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/mount.nfs4 usr/sbin/mount.nfs4

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/umount.nfs4 usr/sbin/umount.nfs4

contrib/initscripts/binos/etc/\${NFS_VER}/nfsmount.conf etc/nfsmount.conf

\${PLATFORM_SYSROOT}/usr/lib/modules/\${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko

usr/lib/modules/\${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko

(include nfs-common)

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/nfsv4/nfs-utils-client

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#

May 2018, Victor Kamensky

#

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#

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/auditd usr/sbin/auditd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/auditpd usr/sbin/auditpd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/autrace usr/sbin/autrace

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/aureport usr/sbin/aureport

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/auditctl usr/sbin/auditctl

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/auresearch usr/sbin/auresearch

contrib/initscripts/binos/etc/audit/auditd.conf etc/audit/auditd.conf

contrib/initscripts/binos/etc/audit/auditpd.conf etc/audit/auditpd.conf

contrib/initscripts/binos/etc/audit/audit.rules etc/audit/audit.rules

contrib/initscripts/binos/etc/audit/plugins.d/syslog.conf etc/audit/plugins.d/syslog.conf

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/default/auditd etc/default/auditd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/libaudit.conf etc/libaudit.conf

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/audit

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```
#  
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#  
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#  
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ping      usr/bin/ping  
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/tracepath  usr/bin/tracepath  
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/in.tftpd-hpa  usr/bin/tftpd
```

Found in path(s):

* /opt/cola/permits/1130449912_1615191941.58/0/iptables-tar/linux-system/iputils

1.62 erlang-otp 20.3.8.25

1.62.1 Available under license :

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed condimentum risus ac diam tincidunt convallis. Nulla facilisis laoreet est, a fermentum purus placerat et. Donec quis auctor enim. Aenean at sem id tellus vulputate semper quis vitae massa. Aenean leo odio, facilisis nec vehicula nec, auctor sit amet tellus. Morbi accumsan diam et sem rutrum, semper pharetra erat dictum. Aliquam convallis metus id ex laoreet, et finibus augue pretium. Mauris rutrum est mauris, eu mattis dui consequat et. Integer scelerisque rhoncus mauris a dictum. Suspendisse ex massa, aliquam id auctor eu, cursus sed eros. Aenean mattis velit non porta sodales. Etiam gravida, lectus eu lacinia ultrices, nibh magna euismod erat, ut accumsan orci lacus quis dui. Duis scelerisque quam felis, at hendrerit purus venenatis non. Vestibulum vulputate posuere molestie. Morbi non augue et mauris tempor tempus sed eget est.

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Curabitur libero nibh, molestie eu lacus a, posuere lacinia mi. Suspendisse lorem est, suscipit vel scelerisque a, cursus vitae ligula. Etiam finibus, ex vitae sollicitudin euismod, dui ex hendrerit nibh, eu varius nisl nibh ut enim. Aenean rhoncus quam quis consectetur laoreet. Nam dapibus pharetra rhoncus. Cras quis tempus dolor, eu condimentum urna. Proin non nulla lacinia est faucibus ultricies. Aenean varius nisi ut convallis malesuada. Aenean a elit sit amet justo semper consectetur. Etiam iaculis nibh sit amet malesuada convallis. Duis non dolor vel magna facilisis sagittis.

Suspendisse scelerisque, mi ut dignissim posuere, dui libero tristique metus, non sodales massa quam ac purus. Pellentesque congue feugiat metus molestie maximus. Nam augue tellus, convallis laoreet justo sit amet, laoreet

eleifend quam. Aenean semper vehicula diam, sed lobortis urna consectetur quis. Ut in leo ut libero fermentum tempor. Integer malesuada placerat elit sed feugiat. Vivamus dictum lorem est, sed volutpat mauris sollicitudin rutrum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Sed vel quam id sapien condimentum condimentum. Nunc varius ligula at libero bibendum, nec suscipit tortor dapibus. Phasellus malesuada mattis leo, luctus tempus orci euismod in. Nam semper hendrerit libero id gravida. Nulla sodales velit sed urna tempor, quis finibus quam blandit. In in felis volutpat, pretium eros sed, faucibus dolor.

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[PCRE]

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Written by: Philip Hazel
Email local part: ph10
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[Misc C library code]

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[zlib]

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.3, July 18th, 2005

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for
Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt>
(zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).
*/

[dialyzer]

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[edoc, syntax_tools]

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[eldap]

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Jean-loup Gailly

Mark Adler

jloup@gzip.org

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Ackeret, Matt

Adler, Mark

Allbery, Russ
Anderson, Jamie
Andrew, Nick
Andric, Dimitry
Barron, Danny
Bates, Tom
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Bellis, Ray
Benali, Elias
Beverly, Jamie
Boardman, Spider
Bostley, P.J.
Bowes, Keith
Boyce, Keith Garry
Brantley, Michael
Braun, Rob
Bezina, Pavel
Brooks, Piete
Brown, Jerry
Burr, Michael E
Burton, Ross
Bussjaeger, Andreas
Calvin, Gary
Campbell, Aaron
Chazelas, Stephane
Cheloha, Scott
ek, Vtzslav
Coleman, Chris
Corzine, Deven T.
Cusack, Frank
Dai, Wei
Dill, David
Earickson, Jeff
Eckhardt, Drew
Edgington, Ben
Esipovich, Marc
Espie, Marc
Faigon, Ariel
Farrell, Brian
Fobes, Steve
Frysinger, Mike
G., Daniel Richard
Gailly, Jean-loup
Gelman, Stephen
Gerraty, Simon J.
Graber, Stephane
Guillory, B.
Hayman, Randy M.

Henke, Joachim
Hideaki, Yoshifuji
Hieb, Dave
Holloway, Nick
Hoover, Adam
Hunter, Michael T.
Hutchings, Ben
Irrgang, Eric
Jackson, Brian
Jackson, John R.
Jackson, Richard L., Jr.
Janssen, Mark
Jepeway, Chris
Jorge, Joel Pele
Jover, Guillem
Juhani, Timo
Kikuchi, Ayamura
Kadow, Kevin
Kasal, Stepan
Kienenberger, Mike
King, Dale
King, Michael
Klyachkin, Andrey
Knoble, Jim
Knox, Tim
Komarnitsky, Alek O.
Kondrashov, Nikolai
Kopeek, Daniel
Kranenburg, Paul
Krause, David
Lakin, Eric
Larsen, Case
Levin, Dmitry V.
Libby, Kendall
Lobbess, Phillip E.
McIntyre, Jason
MacKenzie, David J.
McLaughlin, Tom
Makey, Jeff
Marchionna, Michael D.
Markham, Paul
Martinian, Emin
Meskes, Michael
Michael, David
Miller, Todd C.
Minier, Loc
Moffat, Darren
Moldung, Jan Thomas

Morris, Charles
Mueller, Andreas
Mller, Dworkin
Nieusma, Jeff
Nikitser, Peter A.
Nussel, Ludwig
Ouellet, Jean-Philippe
Paquet, Eric
Paradis, Chantal
Pasteleurs, Frederic
Percival, Ted
Perera, Andres
Peron, Christian S.J.
Peschel, Aaron
Peslyak, Alexander
Peterson, Toby
Petten, Diego Elio
Pickett, Joel
Plotnick, Alex
de Raadt, Theo
Rasch, Gudleik
Reid, Steve
Richards, Matt
Rossum, Guido van
Rouillard, John P.
Rowe, William A., Jr.
Roy, Alain
Ruusame, Elan
Ryabinkin, Eygene
Sato, Yuichi
Snchez, Wilfredo
Sanders, Miguel
Sasaki, Kan
Saucier, Jean-Francois
Schoenfeld, Patrick
Schuring, Arno
Schwarze, Ingo
Scott, Dougal
Sieger, Nick
Simon, Thor Lancelot
Slemko, Marc
Smith, Andy
Sobrado, Igor
Soulen, Steven
Spangler, Aaron
Spradling, Cloyce D.
Stier, Matthew
Stoeckmann, Tobias

Street, Russell
Stritzky, Tilo
Stroucken, Michael
Tarrall, Robert
Thomas, Matthew
Todd, Giles
Toft, Martin
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Tucker, Darren
Uhl, Robert
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Valery, Reznic
Van Dinter, Theo
Venckus, Martynas
de Vries, Maarten
Wagner, Klaus
Walsh, Dan
Warburton, John
Webb, Kirk
Wetzel, Timm
Wieringen, Marco van
Wilk, Jakub
Winiger, Gary
Wood, David
Zacarias, Gustavo
Zolnowsky, John

The following people have worked to translate sudo into other languages as part of the Translation Project, see <https://translationproject.org> for more details.

Albuquerque, Pedro
Blttermann, Mario
Bogusz, Jakub
Buo-ren, Lin
Casagrande, Milo
Castro, Felipe
Cho, Seong-ho
Chornoivan, Yuri
Diguez, Francisco
Fontenelle, Rafael
Garca-Fontes, Walter
Gezer, Volkan
Hamasaki, Takeshi
Hamming, Peter
Hansen, Joe
Hantrais, Frdric
Hein, Jochen

Hufthammer, Karl Ove
Jerovek, Damir
Karvonen, Jorma
Kazik, Duan
Kelemen, Gbor
Keeci, Mehmet
Koir, Klemen
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Kramer, Jakob
Krznar, Tomislav
Marchal, Frdric
Margeviius, Algimantas
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Nylander, Daniel
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Qun, Trn Ngc
Rasmussen, Sebastian
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Sarar, zgr
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1.66 openssh 8.0p1 r0

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* @version 3.0 (December 2000)

*

* Optimised ANSI C code for the Rijndael cipher (now AES)

*

* @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>

* @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>

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1.67 python3-pyudev 0.21.0 r0

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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1.68 tar 1.32 r0

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```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

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```
<program> Copyright (C) <year> <name of author>  
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

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1.69 python3-click 7.1.1 r0

1.69.1 Available under license :

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binary only, patch it back to the system, and then use a wrapper

Found in path(s):

* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/src/click/_compat.py

No license file was found, but licenses were detected in source scan.

Metadata-Version: 1.2

Name: click

Version: 7.1.1

Summary: Composable command line interface toolkit

Home-page: <https://palletsprojects.com/p/click/>

Maintainer: Pallets

Maintainer-email: contact@palletsprojects.com

License: BSD-3-Clause

Project-URL: Documentation, <https://click.palletsprojects.com/>

Project-URL: Code, <https://github.com/pallets/click>

Project-URL: Issue tracker, <https://github.com/pallets/click/issues>

Description: \ \$ click_

=====

Click is a Python package for creating beautiful command line interfaces in a composable way with as little code as necessary. It's the "Command Line Interface Creation Kit". It's highly configurable but comes with sensible defaults out of the box.

It aims to make the process of writing command line tools quick and fun while also preventing any frustration caused by the inability to implement an intended CLI API.

Click in three points:

- Arbitrary nesting of commands
- Automatic help page generation
- Supports lazy loading of subcommands at runtime

Installing

Install and update using `pip`:

```
.. code-block:: text
```

```
$ pip install -U click
```

```
.. _pip: https://pip.pypa.io/en/stable/quickstart/
```

A Simple Example

```
.. code-block:: python
```

```
import click

@click.command()
@click.option("--count", default=1, help="Number of greetings.")
@click.option("--name", prompt="Your name", help="The person to greet.")
def hello(count, name):
    """Simple program that greets NAME for a total of COUNT times."""
    for _ in range(count):
        click.echo(f"Hello, {name}!")

if __name__ == '__main__':
    hello()
```

```
.. code-block:: text
```

```
$ python hello.py --count=3
Your name: Click
Hello, Click!
Hello, Click!
Hello, Click!
```

Donate

The Pallets organization develops and supports Click and other popular packages. In order to grow the community of contributors and users, and allow the maintainers to devote more time to the projects, please donate today`_.

.. _please donate today: <https://palletsprojects.com/donate>

Links

- Website: <https://palletsprojects.com/p/click/>
- Documentation: <https://click.palletsprojects.com/>
- Releases: <https://pypi.org/project/click/>
- Code: <https://github.com/pallets/click>
- Issue tracker: <https://github.com/pallets/click/issues>
- Test status: https://dev.azure.com/pallets/click/_build
- Official chat: <https://discord.gg/t6rrQZH>

Platform: UNKNOWN

Classifier: Development Status :: 5 - Production/Stable

Classifier: Intended Audience :: Developers

Classifier: License :: OSI Approved :: BSD License

Classifier: Operating System :: OS Independent

Classifier: Programming Language :: Python

Classifier: Programming Language :: Python :: 2

Classifier: Programming Language :: Python :: 3

Requires-Python: >=2.7, !=3.0.*, !=3.1.*, !=3.2.*, !=3.3.*, !=3.4.*

Found in path(s):

* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/PKG-INFO

* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/src/click.egg-info/PKG-INFO

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Found in path(s):

* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/src/click/parser.py

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Found in path(s):

```
* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/LICENSE.rst
```

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```
import io
import re
```

```
from setuptools import find_packages
from setuptools import setup
```

```
with io.open("README.rst", "rt", encoding="utf8") as f:
    readme = f.read()
```

```
with io.open("src/click/__init__.py", "rt", encoding="utf8") as f:
    version = re.search(r'__version__ = "(.*?)"', f.read()).group(1)
```

```
setup(
    name="click",
    version=version,
    url="https://palletsprojects.com/p/click/",
    project_urls={
        "Documentation": "https://click.palletsprojects.com/",
        "Code": "https://github.com/pallets/click",
        "Issue tracker": "https://github.com/pallets/click/issues",
    },
    license="BSD-3-Clause",
    maintainer="Pallets",
    maintainer_email="contact@palletsprojects.com",
    description="Composable command line interface toolkit",
    long_description=readme,
    packages=find_packages("src"),
```

```

package_dir={"": "src"},
include_package_data=True,
python_requires=">=2.7, !=3.0.*, !=3.1.*, !=3.2.*, !=3.3.*, !=3.4.*",
classifiers=[
    "Development Status :: 5 - Production/Stable",
    "Intended Audience :: Developers",
    "License :: OSI Approved :: BSD License",
    "Operating System :: OS Independent",
    "Programming Language :: Python",
    "Programming Language :: Python :: 2",
    "Programming Language :: Python :: 3",
],
)

```

Found in path(s):

```
* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/setup.py
```

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Including attribution to #612

Found in path(s):

```
* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/tests/test_formatting.py
```

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.. _contrib:

```

=====
click-contrib
=====

```

As the userbase of Click grows, more and more major feature requests pop up in Click's bugtracker. As reasonable as it may be for those features to be bundled with Click instead of being a standalone project, many of those requested features are either highly experimental or have unproven practical use, while potentially being a burden to maintain.

This is why `click-contrib_` exists. The GitHub organization is a collection of possibly experimental third-party packages whose featureset does not belong into Click, but also a playground for major features that may be added to Click in the future. It is also meant to coordinate and concentrate effort on writing third-party extensions for Click, and to ease the effort of searching for such extensions. In that sense it could be described as a low-maintenance alternative to extension repositories of other frameworks.

Please note that the quality and stability of those packages may be different than what you expect from Click itself. While published under a common organization, they are still projects separate from Click.

.. _click-contrib: <https://github.com/click-contrib/>

Found in path(s):

* /opt/cola/permits/1123974516_1612299586.33/0/click-7-1-1-tar-gz/click-7.1.1/docs/contrib.rst

1.70 telnet 0.17-73.el8_1.1

1.70.1 Available under license :

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1.71 python-six 1.12.0 r0

1.71.1 Available under license :

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1.72 libsodium 1.0.18 r0

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*/

1.73 hd-parm 9.58 r0

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1.75 tcl-tk 8.3.4

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1.76 radix 4.4BSD

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*
*   @(#)radix.c   8.4 (Berkeley) 11/2/94
* $FreeBSD: src/sys/net/radix.c,v 1.20.2.3 2002/04/28 05:40:25 suz Exp $
*/
```

1.77 lz4 1.8.3 2.e18

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```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

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```
Gnomovision version 69, Copyright (C) year name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

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```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program  
'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice
```

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Format: <http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/>

Upstream-Name: liblz4

Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

Files: *

Copyright: (C) 2011+ Yann Collet

License: GPL-2+

The full text of license: <https://github.com/Cyan4973/lz4/blob/master/lib/LICENSE>

1.78 python-pycrypto 2.6.1 r0

1.78.1 Available under license :

A. HISTORY OF THE SOFTWARE

=====

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release from	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	no
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes

Footnotes:

(1) GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

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From dlitz@dlitz.net Wed Aug 27 20:54:38 EDT 2008

X-Maildir-Dup-Checked: Yes

Return-Path: <dlitz@dlitz.net>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id ECFDFC6641D

for <dwon@rivest.dlitz.net>; Wed, 27 Aug 2008 20:45:06 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 99A9D100AA

for <dwon@rivest.dlitz.net>; Wed, 27 Aug 2008 18:45:05 -0600 (CST)

Received: (vmmailmgr-postfix 3270 invoked by uid 1003); 27 Aug 2008 18:45:05 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: pass (goedel.dlitz.net: domain of dlitz@dlitz.net designates 193.201.42.13 as permitted sender)

Received: from m14.itconsult.net (m14.itconsult.net [193.201.42.13])

by goedel.dlitz.net (Postfix) with ESMTP id 1D3B510088

for <dlitz@dlitz.net>; Wed, 27 Aug 2008 18:45:04 -0600 (CST)

Received: from stamper.itconsult.co.uk (stamper.itconsult.co.uk

[193.201.42.31]) by m14.stamper.itconsult.co.uk (GMS

15.01.3664/NT8923.00.54dca388) with SMTP id jfxsjqaa for dlitz@dlitz.net;

Thu, 28 Aug 2008 01:45:02 +0100

To: crypt@bis.doc.gov,

enc@nsa.gov,

web_site@bis.doc.gov,

pycrypto@lists.dlitz.net,

PYTHON-CRYPTO@NIC.SURFNET.NL,

dlitz@dlitz.net

Received-SPF: Pass (m14.stamper.itconsult.co.uk: domain of dlitz@dlitz.net

designates 64.5.53.201 as permitted sender) identity=mailfrom;

client-ip=64.5.53.201; receiver=m14.stamper.itconsult.co.uk;

helo=goedel.dlitz.net; mechanism=-all; envelope-from=dlitz@dlitz.net;

Received: from goedel.dlitz.net (goedel.dlitz.net [64.5.53.201]) by

m14.stamper.itconsult.co.uk (GMS 15.01.3664/NT8923.00.54dca388) with ESMTP id

taxsjqaa for post@stamper.itconsult.co.uk; Thu, 28 Aug 2008 01:42:58 +0100

Received: from rivest.dlitz.net (rivest.dlitz.net [IPv6:2002:4c0a:9133:1104::1])

by goedel.dlitz.net (Postfix) with ESMTP id 667C7100B1

for <post@stamper.itconsult.co.uk>; Wed, 27 Aug 2008 18:42:56 -0600 (CST)

Received: by rivest.dlitz.net (Postfix, from userid 1000)

id B92F8C66420; Wed, 27 Aug 2008 20:42:55 -0400 (EDT)

Received: by rivest.dlitz.net (tm-da-sendmail, from uid 1000);

Wed, 27 Aug 2008 20:42:54 -0400
Date: Wed, 27 Aug 2008 20:42:54 -0400
Cc: post@stamper.itconsult.co.uk
Subject: PyCrypto TSU NOTIFICATION
Message-ID: <20080828004254.GA31214@rivest.dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Disposition: inline
X-Primary-Address: dlitz@dlitz.net
X-Homepage: http://www.dlitz.net/
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);
preference=unprotected
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);
preference=signencrypt
User-Agent: Mutt/1.5.16 (2007-06-11)
X-Delivery-Agent: TMDA/1.1.9 (Jura)
From: "Dwayne C. Litzenberger" <dlitz@dlitz.net>
X-DNSBL: 0
Status: O
Content-Length: 2182
Lines: 65

-----BEGIN PGP SIGNED MESSAGE-----

#####

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stamper.itconsult.co.uk certifying that a user
claiming to be:-
dlitz@dlitz.net
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enc@nsa.gov
web_site@bis.doc.gov
pycrypto@lists.dlitz.net
PYTHON-CRYPTO@NIC.SURFNET.NL
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This certificate was issued at 00:45 (GMT)
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#

#####

SUBMISSION TYPE: TSU

SUBMITTED BY: Dwayne C. Litzenger

SUBMITTED FOR: Dwayne C. Litzenger

POINT OF CONTACT: Dwayne C. Litzenger

PHONE and/or FAX: +1-613-693-1296

MANUFACTURER: n/a

PRODUCT NAME/MODEL #: The Python Cryptography Toolkit ("PyCrypto")

ECCN: 5D002

NOTIFICATION: http://www.pycrypto.org/

Note: I am a Canadian citizen posting software to my website located in Canada. I am not certain whether PyCrypto contains enough US-origin cryptography to be covered by U.S. export controls, but I am submitting this anyway.

(Sorry for spamming the lists, but I want there to be a record of this.)

- - -

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45

-----BEGIN PGP SIGNATURE-----

Version: 2.6.3i

Charset: noconv

Comment: Stamper Reference Id: 0520978

iQEVAgUBSLX1DYGVnbVwth+BAQEcuwf9EWnXLqSO5bPzR9K9QnTPcsKbTljKjPxr
d+q0E7eE8VtnvviUcTAR9o27yvzOPxdFT864MQA7OTSbPK39aGAgA4fgAgvYH9t
UNjJ/kv8QLz/aq2fi/HNjyrwnqFnUI0uqwpOrQGbz8Y+SGpVh1gKqy1Ju45L+doq
sxbzCOpjgRv2zDdNR/2SnFmDWQXv8dSeonwIHpQDft8/LVA/gHiTDmteQIOhJQ6o
XYhY+HbrjsD741/GSpOt9IIN5ln0UgshFoLIndnNSAvWf4aPyh5KCN7ho+/BC0v/
W/pqSSiPkwmbhlPHoOltTkNc0qKLAHXqMGJNhO8AkrYZOyJksb0HsA==
=3oIX

-----END PGP SIGNATURE-----

From dlitz@dlitz.net Sun Aug 2 21:48:25 2009

Date: Sun, 2 Aug 2009 21:48:25 -0400

From: "Dwayne C. Litzenger" <dlitz@dlitz.net>

To: Paul Swartz <paulswartz@gmail.com>

Subject: PyCrypto license clarification

Message-ID: <20090803014825.GA1326@rivest.dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Disposition: inline
User-Agent: Mutt/1.5.16 (2007-06-11)
Status: RO
Content-Length: 2631

Hi Paul,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

```
=====
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=====
```

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back (though that would be nice).

--amk (www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a clearer licensing regime. I am asking as many copyright holders as I can find if I can release PyCrypto under something clearer and more standard. Below, I have quoted a public domain dedication that was recommended in Intellectual Property and Open Source: A Practical Guide to Protecting Code, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, Barry Warsaw, Wim Lewis, Jeethu Rao, Joris Bontje, and Mark Moraes, and they have all approved the following dedication for their contributions.

I understand that you have made contributions to PyCrypto, under nickname "z3p" and/or other names. May I, on your behalf, dedicate to the public domain all your contributions to PyCrypto, with the following notice?

```
=====
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=====
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- Dwayne

--

Dwayne C. Litzenberger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From paulswartz@gmail.com Mon Aug 3 12:14:07 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <paulswartz@gmail.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 30B9D984FC4

for <dwon@rivest.dlitz.net>; Mon, 3 Aug 2009 12:14:07 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id AD9AE81068

for <dwon@rivest.dlitz.net>; Mon, 3 Aug 2009 10:14:06 -0600 (CST)

Received: (vmmailmgr-postfix 32055 invoked by uid 1003); 3 Aug 2009 10:14:06 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: pass (gmail.com ... _spf.google.com: 72.14.220.159 is authorized to use 'paulswartz@gmail.com' in 'mfrom' identity (mechanism 'ip4:72.14.192.0/18' matched)) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="paulswartz@gmail.com"; helo=fg-out-1718.google.com; client-ip=72.14.220.159

Received: from fg-out-1718.google.com (fg-out-1718.google.com [72.14.220.159])

by goedel.dlitz.net (Postfix) with ESMTP id 4E63881066

for <dlitz@dlitz.net>; Mon, 3 Aug 2009 10:14:05 -0600 (CST)

Received: by fg-out-1718.google.com with SMTP id d23so1076840fga.3

for <dlitz@dlitz.net>; Mon, 03 Aug 2009 09:14:04 -0700 (PDT)

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=gmail.com; s=gamma;

h=domainkey-signature:mime-version:received:in-reply-to:references

:from:date:message-id:subject:to:content-type

:content-transfer-encoding;

bh=A0RHBf0TnribKS5qOHJ3WYbkZ+b0cuPeuoKAvpApWcc=;

b=gyTqkRhKIHadFKIZCBWsRbnMNVdQ1PWlJbyC0EvxPskaoHr3HAR96MWQNBePu/40Ac

Vn55qllqTdom4e9zIUUE6MwZo9kqi/Qw0L/Slib0DIQeNqo/eHYqPmuVswltaYwNAyMJ

Y9++76rPGzqYdALsfvsmwv7Q3/bEmjVTr0tQE=

DomainKey-Signature: a=rsa-sha1; c=noFWS;

d=gmail.com; s=gamma;

h=mime-version:in-reply-to:references:from:date:message-id:subject:to

:content-type:content-transfer-encoding;

b=jze7KSMkUGilfVCXKXaaXMi5NAtGdMQOtVZZfRNyGSy68xOd2sxefjyyig3EfT6Nv6

Q3opUMsT96Q6zjZND55w446kTh2uBTNz4d3NwIeEWJnG3xcliRQu/mXPfp8AzPI3CefL

-P

--=20

Paul Swartz

paulswartz at gmail dot com

<http://paulswartz.net/>

AIM: z3penguin

From dlitz@dlitz.net Mon Aug 3 14:35:01 2009

Date: Mon, 3 Aug 2009 14:35:01 -0400

From: "Dwayne C. Litzenger" <dlitz@dlitz.net>

To: Paul Swartz <paulswartz@gmail.com>

Subject: Re: PyCrypto license clarification

Message-ID: <20090803183501.GA17472@rivest.dlitz.net>

References: <20090803014825.GA1326@rivest.dlitz.net>

<324cfb540908030913x71d331f0kb069052f74e5ae6b@mail.gmail.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=iso-8859-1; format=flowed

Content-Disposition: inline

Content-Transfer-Encoding: 8bit

In-Reply-To: <324cfb540908030913x71d331f0kb069052f74e5ae6b@mail.gmail.com>

X-Primary-Address: dlitz@dlitz.net

X-Homepage: <http://www.dlitz.net/>

X-OpenPGP: url=<http://www.dlitz.net/go/gpgkey/>;

id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);

preference=unprotected

X-OpenPGP: url=<http://www.dlitz.net/go/gpgkey/>;

id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);

preference=signencrypt

User-Agent: Mutt/1.5.16 (2007-06-11)

Status: RO

Content-Length: 1250

On Mon, Aug 03, 2009 at 12:13:43PM -0400, Paul Swartz wrote:

>On Sun, Aug 2, 2009 at 9:48 PM, Dwayne C. Litzenger<dlitz@dlitz.net> wrote:

>> Hi Paul,

>>

>> I am the new maintainer of the Python Cryptography Toolkit, and I am

>> working on a new release at <http://www.pycrypto.org/>.

>

>That's great!

>

>> I understand that you have made contributions to PyCrypto, under nickname

>> "z3p" and/or other names. May I, on your behalf, dedicate to the public

>> domain all your contributions to PyCrypto, with the following notice?

>>

>> =====

>> The contents of this file are dedicated to the public domain. To the
>> extent that dedication to the public domain is not available, everyone
>> is granted a worldwide, perpetual, royalty-free, non-exclusive license
>> to exercise all rights associated with the contents of this file for
>> any purpose whatsoever. No rights are reserved.

>> =====

>

>Yes, that's fine. Good luck with the new release!

Perfect! Thanks for the quick response!

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From dlitz@dlitz.net Sat Feb 28 21:45:09 2009

Date: Sat, 28 Feb 2009 21:45:09 -0500

From: "Dwayne C. Litzenger" <dlitz@dlitz.net>

To: Barry A Warsaw <barry@python.org>

Subject: PyCrypto license clarification

Message-ID: <20090301024509.GA13195@rivest.dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Disposition: inline

User-Agent: Mutt/1.5.16 (2007-06-11)

Status: RO

Content-Length: 2535

Hi Barry,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

=====

Distribute and use freely; there are no restrictions on further dissemination and usage except those imposed by the laws of your country of residence. This software is provided "as is" without warranty of fitness for use or suitability for any purpose, express or implied. Use at your own risk or not at all.

=====

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back

(though that would be nice).

--amk

(www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a clearer licensing regime. I am asking as many copyright holders as I can find if I can release PyCrypto under something clearer and more standard. Below, I have quoted a public domain dedication that was recommended in Intellectual Property and Open Source: A Practical Guide to Protecting Code, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, and Wim Lewis, and they have all approved the following dedication for their contributions.

I understand that you have made contributions to PyCrypto. May I, on your behalf, dedicate to the public domain all your contributions to PyCrypto, with the following notice?

```
=====
The contents of this file are dedicated to the public domain. To the
extent that dedication to the public domain is not available, everyone
is granted a worldwide, perpetual, royalty-free, non-exclusive license
to exercise all rights associated with the contents of this file for
any purpose whatsoever. No rights are reserved.
=====
```

Regards,
- Dwayne

--

Dwayne C. Litzengerger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From barry@python.org Mon Mar 2 11:29:39 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <barry@python.org>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 6E01AC6640B

for <dwon@rivest.dlitz.net>; Mon, 2 Mar 2009 11:29:39 -0500 (EST)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 0644E1007A

for <dwon@rivest.dlitz.net>; Mon, 2 Mar 2009 10:29:39 -0600 (CST)

Received: (vmmailmgr-postfix 8668 invoked by uid 1003); 2 Mar 2009 10:29:39 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (python.org: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="barry@python.org"; helo=mail.wooz.org; client-ip=216.15.33.230

Received: from mail.wooz.org (216-15-33-230.c3-0.slvr-ubr2.lnh-slvr.md.static.cable.rcn.com [216.15.33.230])

by goedel.dlitz.net (Postfix) with ESMTP id CCEA110073
for <dlitz@dlitz.net>; Mon, 2 Mar 2009 10:29:38 -0600 (CST)
Received: from snowdog.wooz.org (snowdog.wooz.org [192.168.11.202])
by mail.wooz.org (Postfix) with ESMTPSA id ACE30E3C9F
for <dlitz@dlitz.net>; Mon, 2 Mar 2009 11:29:35 -0500 (EST)
Message-Id: <09BF1A39-B015-4820-97A3-8642490C8254@python.org>
From: Barry Warsaw <barry@python.org>
To: Dwayne C. Litzenger <dlitz@dlitz.net>
In-Reply-To: <20090301024509.GA13195@rivest.dlitz.net>
Content-Type: text/plain; charset=US-ASCII; format=flowed; delp=yes
Content-Transfer-Encoding: quoted-printable
Mime-Version: 1.0 (Apple Message framework v930.3)
Subject: Re: PyCrypto license clarification
Date: Mon, 2 Mar 2009 11:29:34 -0500
References: <20090301024509.GA13195@rivest.dlitz.net>
X-Pgp-Agent: GPGMail d55 (v55, Leopard)
X-Mailer: Apple Mail (2.930.3)
Status: RO
Content-Length: 869

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On Feb 28, 2009, at 9:45 PM, Dwayne C. Litzenger wrote:

> I am the new maintainer of the Python Cryptography Toolkit, and I am =20=
> working on a new release at <http://www.pycrypto.org/>.

Great! I'm glad to see someone taking up the mantle of this important =20=

Python library.

> I understand that you have made contributions to PyCrypto. May I, =20=
> on your behalf, dedicate to the public domain all your contributions =20=

> to PyCrypto, with the following notice?

Absolutely yes.

Cheers,
Barry

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.9 (Darwin)

iQCVAwUBSawJbnEjvBPtnXfVAQLZjgP/ecG+JdZwNvPJRfsa6rhY6+MHLdHI6agk
evkInSJQAcVHIznVIVeR5IXgvDUMakZjU4SOV7MqkhsKA9IIet7PaD9VSYgn3ra5

gElwI2DQDoOy5GExXMm74gqrrb1PCCbCRmpaYNo+DZohwHkeFBjwDRA3wItOrH7
SK4w9VBJfY=3D
=3DQduY

-----END PGP SIGNATURE-----

Date: Sun, 23 Nov 2008 15:54:35 -0800
From: Wim Lewis <wiml@hnhh.org>
Subject: Re: PyCrypto license clarification
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>
Cc: Wim Lewis <wiml@hnhh.org>
Message-Id: <9D5C3135-7414-47D7-9D41-0AC6C3A84D97@hnhh.org>

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On November 23, 2008, you wrote:

>Hi Wim,

>

>I am the new maintainer of the Python Cryptography Toolkit, and I am
>working on a new release at <http://www.pycrypto.org/>.

>

>I understand that you have made contributions to PyCrypto. May I, on
>your behalf, dedicate to the public domain all your contributions to
>PyCrypto, with the following notice?

>

> =====
> The contents of this file are dedicated to the public domain. To the
> extent that dedication to the public domain is not available, everyone
> is granted a worldwide, perpetual, royalty-free, non-exclusive license
> to exercise all rights associated with the contents of this file for
> any purpose whatsoever. No rights are reserved.
> =====

Certainly! I think the only code of mine in PyCrypto is the CAST-5 / CAST-128
implementation, which already has a public-domain notice at the top of
the file. But I am happy to have that, any any other code of mine that
might have wandered in there under an unclear open sourcish license,
distributed under the public-domain dedication you quote.

Wim.

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.6 (Darwin)

iQCVAwUBSSnnA18UnN8n93LBAQLp/gQAhr7x8Av1mstc2kxEJDWTm26PTAZxMz4B
FektbDOzkxgc5580MGGeX/MVn8aw+1BHg0YD85gsntlDzkcQtb+BR/xAvJ5zKyA
J/Mn/I+I6ekJQ3juh8IPHLAduOXM9Rtguas/yR+Doaq0xOPKoBx+/5+t1lJtBcZ
wrPEa9Oui9s=
=zSY9

iEYEARECAAYFAkko52IACgkQHBG4d+eAS0XPPQCfcyQ2DdAXKg9N7Z+jeSFFD5EZ
yloAn33a3ZjkteyJaTbzEqImOEW8JGpf
=aBEW
-----END PGP SIGNATURE-----

--YiEDa0DAkWCtVeE4--

From amk@amk.ca Sun Nov 23 07:51:59 2008
X-Maildir-Dup-Checked: Yes
Return-Path: <amk@amk.ca>
X-Original-To: dwon@rivest.dlitz.net
Delivered-To: dwon@rivest.dlitz.net
Received: from goedel.dlitz.net (unknown [10.159.255.6])
by rivest.dlitz.net (Postfix) with ESMTP id 5C2C75047D
for <dwon@rivest.dlitz.net>; Sun, 23 Nov 2008 07:51:59 -0500 (EST)
Received: from localhost (localhost [127.0.0.1])
by goedel.dlitz.net (Postfix) with QMQP id D632D10111
for <dwon@rivest.dlitz.net>; Sun, 23 Nov 2008 06:51:58 -0600 (CST)
Received: (vmailmgr-postfix 12026 invoked by uid 1003); 23 Nov 2008 06:51:58 -0600
Delivered-To: m-dlitz-dlitz@dlitz.net
Received-SPF: none (goedel.dlitz.net: domain of amk@amk.ca does not designate permitted sender hosts)
Received: from mail5.sea5.speakeasy.net (mail5.sea5.speakeasy.net [69.17.117.7])
by goedel.dlitz.net (Postfix) with ESMTP id 97DC710105
for <dlitz@dlitz.net>; Sun, 23 Nov 2008 06:51:58 -0600 (CST)
Received: (qmail 3992 invoked from network); 23 Nov 2008 12:51:52 -0000
Received: from dsl092-163-165.wdc2.dsl.speakeasy.net (HELO localhost) (akuchling@[66.92.163.165])
(envelope-sender <amk@amk.ca>)
by mail5.sea5.speakeasy.net (qmail-ldap-1.03) with AES256-SHA encrypted SMTP
for <dlitz@dlitz.net>; 23 Nov 2008 12:51:52 -0000
Date: Sun, 23 Nov 2008 07:51:34 -0500
From: "A.M. Kuchling" <amk@amk.ca>
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>
Subject: Re: PyCrypto license clarification
Message-ID: <20081123125134.GA21239@amk.local>
Reply-To: amk@amk.ca
References: <20081123051722.GA29253@rivest.dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline
In-Reply-To: <20081123051722.GA29253@rivest.dlitz.net>
User-Agent: Mutt/1.5.13 (2006-08-11)
Status: RO
Content-Length: 537
Lines: 15

- > People often ask me what license PyCrypto is covered by, if it's
- > GPL-compatible, etc. Right now, I'm not really sure what to tell them.
- > The text in the current LICENSE file (quoted below) is not entirely clear

> on the point of whether distributing modified versions is allowed. (It
> says "distribute and use", but not "modify".)

The intention is that it be public domain.

> May I, on your behalf, dedicate to the public domain your considerable
> contributions to PyCrypto, with the following notice?

You may.

--amk

From dlitz@dlitz.net Sat Feb 28 23:24:14 2009

Date: Sat, 28 Feb 2009 23:24:14 -0500

From: "Dwayne C. Litzenger" <dlitz@dlitz.net>

To: Jeethu Rao <jeethurao@gmail.com>

Subject: PyCrypto license clarification

Message-ID: <20090301042414.GA15122@rivest.dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Disposition: inline

User-Agent: Mutt/1.5.16 (2007-06-11)

Status: RO

Content-Length: 2513

Hi Jeethu,

I am the new maintainer of the Python Cryptography Toolkit, and I am
working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's
GPL-compatible, etc. Right now, I'm not really sure what to tell them.
The text in the current LICENSE file (quoted below) is not entirely clear
on the point of whether distributing modified versions is allowed. (It
says "distribute and use", but not "modify".)

```
=====
Distribute and use freely; there are no restrictions on further
dissemination and usage except those imposed by the laws of your
country of residence. This software is provided "as is" without
warranty of fitness for use or suitability for any purpose, express
or implied. Use at your own risk or not at all.
=====
```

Incorporating the code into commercial products is permitted; you do
not have to make source available or contribute your changes back
(though that would be nice).

--amk

(www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a clearer licensing regime. I am asking as many copyright holders as I can find if I can release PyCrypto under something clearer and more standard. Below, I have quoted a public domain dedication that was recommended in *Intellectual Property and Open Source: A Practical Guide to Protecting Code*, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, and Wim Lewis, and they have all approved the following text for their contributions.

I understand that you have made contributions to PyCrypto. May I, on your behalf, dedicate to the public domain all your contributions to PyCrypto, with the following notice?

=====
The contents of this file are dedicated to the public domain. To the extent that dedication to the public domain is not available, everyone is granted a worldwide, perpetual, royalty-free, non-exclusive license to exercise all rights associated with the contents of this file for any purpose whatsoever. No rights are reserved.
=====

Regards,
- Dwayne

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From jeethurao@gmail.com Sun Mar 8 17:28:16 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <jeethurao@gmail.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 0CC83515D9

for <dwon@rivest.dlitz.net>; Sun, 8 Mar 2009 17:28:16 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 4E58F450CB

for <dwon@rivest.dlitz.net>; Sun, 8 Mar 2009 15:28:15 -0600 (CST)

Received: (vmmailmgr-postfix 5011 invoked by uid 1003); 8 Mar 2009 15:28:15 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: pass (gmail.com ... _spf.google.com: 209.85.198.249 is authorized to use 'jeethurao@gmail.com' in 'mfrom' identity (mechanism 'ip4:209.85.128.0/17' matched)) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="jeethurao@gmail.com"; helo=rv-out-0708.google.com; client-ip=209.85.198.249

Received: from rv-out-0708.google.com (unknown [209.85.198.249])

by goedel.dlitz.net (Postfix) with ESMTP id 3C097449E7

for <dlitz@dlitz.net>; Sun, 8 Mar 2009 15:28:12 -0600 (CST)

Received: by rv-out-0708.google.com with SMTP id k29so1252333rvb.26

for <dlitz@dlitz.net>; Sun, 08 Mar 2009 14:27:56 -0700 (PDT)

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=gmail.com; s=gamma;

h=domainkey-signature:mime-version:received:in-reply-to:references

:date:message-id:subject:from:to:content-type;

bh=YWy9U32WCU/ksRqukHwaOZyJQBUs4Yvt5mI20U6mI/g=;

b=oMjI22IIxYiJKge2zNJW3rRiUi9LqFXmey5Wp0pLItnNF+X3duyfhopTuBAKw7MwVY
B5E6VQuGVEyzBbNsctyVgq6DhQiQtouCLZymSViobmuDmKn5DtUKoxpDk0xCxQmHYaas
L9/A6D3/J66kKrNBgX9mc0GPcZTviVFYkPR0Q=

DomainKey-Signature: a=rsa-sha1; c=noaws;

d=gmail.com; s=gamma;

h=mime-version:in-reply-to:references:date:message-id:subject:from:to

:content-type;

b=Ym7CStuDEfJKay1AJyWZkZmJA1lnTcwCG6akBHAXLld8ht6PFcmIsffzZG8hJCIVJ8
vljqcT+G6cywVTBw1pyGX7ECYzr0+vhGvgdpACGrS24zikHfpSSd5GFogzXaLVvGVH8p
bqSHpfWKKtEP4gAQkiNeIq1GNtR2j8U3fnRyg=

MIME-Version: 1.0

Received: by 10.141.176.13 with SMTP id d13mr2656028rvp.231.1236547674677;

Sun, 08 Mar 2009 14:27:54 -0700 (PDT)

In-Reply-To: <20090301042414.GA15122@rivest.dlitz.net>

References: <20090301042414.GA15122@rivest.dlitz.net>

Date: Mon, 9 Mar 2009 02:57:54 +0530

Message-ID: <e3c0ddba0903081427p3a7b1058g417dd8624df68d6d@mail.gmail.com>

Subject: Re: PyCrypto license clarification

From: Jeethu Rao <jeethurao@gmail.com>

To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

Content-Type: multipart/alternative; boundary=000e0cd209d0e5a3d40464a23054

Status: RO

Content-Length: 7668

--000e0cd209d0e5a3d40464a23054

Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Hi Dwayne, My contribution to pycrypto are very very minimal (The sha256 module, IIRC).

I'd be fine with the public domain license for PyCrypto.

Jeethu Rao

PS: Apologies for the delay in my response.

I don't really check this email address all that often,

please direct any further correspondence to jeethu@jeethurao.com

On Sun, Mar 1, 2009 at 9:54 AM, Dwayne C. Litzenger <dlitz@dlitz.net> wrote:

> Hi Jeethu,

>

> I am the new maintainer of the Python Cryptography Toolkit, and I am
> working on a new release at <http://www.pycrypto.org/>.
>
> People often ask me what license PyCrypto is covered by, if it's
> GPL-compatible, etc. Right now, I'm not really sure what to tell them. The
> text in the current LICENSE file (quoted below) is not entirely clear on the
> point of whether distributing modified versions is allowed. (It says
> "distribute and use", but not "modify".)
>
> =====
> Distribute and use freely; there are no restrictions on further
> dissemination and usage except those imposed by the laws of your
> country of residence. This software is provided "as is" without
> warranty of fitness for use or suitability for any purpose, express
> or implied. Use at your own risk or not at all.
> =====
>
> Incorporating the code into commercial products is permitted; you do
> not have to make source available or contribute your changes back
> (though that would be nice).
>
> --amk (www.amk.ca)
>
> For the next PyCrypto release, I would like to take steps to move toward a
> clearer licensing regime. I am asking as many copyright holders as I can
> find if I can release PyCrypto under something clearer and more standard.
> Below, I have quoted a public domain dedication that was recommended in
> Intellectual Property and Open Source: A Practical Guide to Protecting
> Code, by Van Lindberg. I have already contacted A. M. Kuchling, Robey
> Pointer, and Wim Lewis, and they have all approved the following text for
> their contributions.
>
> I understand that you have made contributions to PyCrypto. May I, on your
> behalf, dedicate to the public domain all your contributions to PyCrypto,
> with the following notice?
>
> =====
> The contents of this file are dedicated to the public domain. To the
> extent that dedication to the public domain is not available, everyone
> is granted a worldwide, perpetual, royalty-free, non-exclusive license
> to exercise all rights associated with the contents of this file for
> any purpose whatsoever. No rights are reserved.
> =====
>
> Regards,
> - Dwayne
>
> --

=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D=3D

Incorporating the code into commercial products is permitted; you do

not have to make source available or contribute your changes back

(though that would be nice).

--amk =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =

=A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0 =A0(<a href=3D"http://www.amk.ca" target=3D=

"_blank">www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a =

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=3D=

=3D=

=3D

The contents of this file are dedicated to the public domain. =A0To the

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is granted a worldwide, perpetual, royalty-free, non-exclusive license

to exercise all rights associated with the contents of this file for

any purpose whatsoever. =A0No rights are reserved.

=3D=

=3D=

=3D

Regards,

- Dwayne

--

Dwayne C. Litzengerger <<a href=3D"mailto:dclitz@dclitz.net" target=3D"_bl=

ank">dclitz@dclitz.net>

=A0 =A0 =A0Key-signing key =A0 - 19E1 1FE8 B3CF F273 ED17 =A0A4A24 928C EC1=

3 39C2 5CF7

</blockquote></div>
<br clear=3D"all">
--
Jeethu Rao

</div></div>

--000e0cd209d0e5a3d40464a23054--

Last updated: 2009-02-28

In an effort to further clarify PyCrypto's licensing terms, anyone submitting code to PyCrypto must be able to certify the following (taken from the Linux kernel's SubmittingPatches file):

Developer's Certificate of Origin 1.1

By making a contribution to this project, I certify that:

- (a) The contribution was created in whole or in part by me and I have the right to submit it under the open source license indicated in the file; or
- (b) The contribution is based upon previous work that, to the best of my knowledge, is covered under an appropriate open source license and I have the right under that license to submit that work with modifications, whether created in whole or in part by me, under the same open source license (unless I am permitted to submit under a different license), as indicated in the file; or
- (c) The contribution was provided directly to me by some other person who certified (a), (b) or (c) and I have not modified it.
- (d) I understand and agree that this project and the contribution are public and that a record of the contribution (including all personal information I submit with it, including my sign-off) is maintained indefinitely and may be redistributed consistent with this project or the open source license(s) involved.

In addition, the code's author must not be a national, citizen, or resident of the United States of America.

In addition, the code must not be of U.S. origin.

In addition, all new code contributed to PyCrypto must be dedicated to the public domain as follows:

The contents of this file are dedicated to the public domain. To the extent that dedication to the public domain is not available, everyone is granted a worldwide, perpetual, royalty-free, non-exclusive license to exercise all rights associated with the contents of this file for any purpose whatsoever. No rights are reserved.

==== EOF ====

From dlitz@dlitz.net Mon May 4 22:49:14 2009
Date: Mon, 4 May 2009 22:49:14 -0400
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>
To: Joris Bontje <joris@bontje.nl>
Subject: PyCrypto license clarification
Message-ID: <20090505024914.GA9219@rivest.dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Disposition: inline
User-Agent: Mutt/1.5.16 (2007-06-11)
Status: RO
Content-Length: 2553

Hi Joris,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

=====
Distribute and use freely; there are no restrictions on further dissemination and usage except those imposed by the laws of your country of residence. This software is provided "as is" without warranty of fitness for use or suitability for any purpose, express or implied. Use at your own risk or not at all.
=====

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back (though that would be nice).

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=====

Regards,
- Dwayne

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From joris@bontje.nl Tue May 5 03:08:32 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <joris@bontje.nl>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 7AA4B9E5078

for <dwon@rivest.dlitz.net>; Tue, 5 May 2009 03:08:32 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 2315B40583

for <dwon@rivest.dlitz.net>; Tue, 5 May 2009 01:08:32 -0600 (CST)

Received: (vmmailmgr-postfix 16890 invoked by uid 1003); 5 May 2009 01:08:32 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (bontje.nl: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="joris@bontje.nl"; helo=smtp6.versatel.nl; client-ip=62.58.50.97

Received: from smtp6.versatel.nl (smtp6.versatel.nl [62.58.50.97])

by goedel.dlitz.net (Postfix) with ESMTP id 2D76A4052C

for <dlitz@dlitz.net>; Tue, 5 May 2009 01:08:30 -0600 (CST)

Received: (qmail 4224 invoked by uid 0); 5 May 2009 07:08:25 -0000

Received: from qmail06.zonnet.nl (HELO dell062.admin.zonnet.nl) ([10.170.1.123])

(envelope-sender <joris@bontje.nl>)

by 10.170.1.96 (qmail-ldap-1.03) with SMTP

for <>; 5 May 2009 07:08:25 -0000

Received: by dell062.admin.zonnet.nl (Postfix, from userid 33)

id 9BE9B15759B; Tue, 5 May 2009 09:08:25 +0200 (CEST)

Received: from firewall66.interaccess.nl (firewall66.interaccess.nl

[193.173.35.66]) by www.webmail.vuurwerk.nl (Horde MIME library) with HTTP;

Tue, 05 May 2009 09:08:25 +0200

Message-ID: <20090505090825.gsqlips7hg08wwwok@www.webmail.vuurwerk.nl>

Date: Tue, 05 May 2009 09:08:25 +0200
From: joris@bontje.nl
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>
Subject: Re: PyCrypto license clarification
References: <20090505024914.GA9219@rivest.dlitz.net>
In-Reply-To: <20090505024914.GA9219@rivest.dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset=ISO-8859-1;
format="flowed"
Content-Disposition: inline
Content-Transfer-Encoding: 7bit
User-Agent: Internet Messaging Program (IMP) H3 (4.1.3)
Status: RO
X-Status: A
Content-Length: 3488

Hi Dwayne,

Thanks for taking over the PyCrypto library and putting in the required effort to keep this going.

I was very excited to read that it is now one of the installed libraries for Google AppsEngine!

You have my full permission to dedicate all my contributions to PyCrypto to the public domain with your suggested notice:

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>
> --
> Dwayne C. Litzengerger <dlitz@dlitz.net>
> Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From dlitz@dlitz.net Tue May 5 17:53:47 2009

Date: Tue, 5 May 2009 17:53:47 -0400
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>
To: joris@bontje.nl
Subject: Re: PyCrypto license clarification
Message-ID: <20090505215347.GB9933@rivest.dlitz.net>
References: <20090505024914.GA9219@rivest.dlitz.net>
<20090505090825.gsq1ps7hg08wwwok@www.webmail.vuurwerk.nl>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Disposition: inline
In-Reply-To: <20090505090825.gsq1ps7hg08wwwok@www.webmail.vuurwerk.nl>
X-Primary-Address: dlitz@dlitz.net
X-Homepage: http://www.dlitz.net/
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/;
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);
preference=unprotected
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/;
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);
preference=signencrypt
User-Agent: Mutt/1.5.16 (2007-06-11)
Status: RO
Content-Length: 3863

Excellent! Thank you!

On Tue, May 05, 2009 at 09:08:25AM +0200, joris@bontje.nl wrote:

> Hi Dwayne,
>
> Thanks for taking over the PyCrypto library and putting in the required
> effort to keep this going.
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>> - Dwayne
>>
>> --
>> Dwayne C. Litzenger <dlitz@dlitz.net>
>> Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7
>
>

--
Dwayne C. Litzenger <dlitz@dlitz.net>
Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7
Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45
From dlitz@dlitz.net Sat Apr 18 09:14:20 2009
Date: Sat, 18 Apr 2009 09:14:20 -0400
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>
To: Mark Moraes <moraes@computer.org>
Subject: PyCrypto license clarification
Message-ID: <20090418131419.GA14494@rivest.dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Disposition: inline
User-Agent: Mutt/1.5.16 (2007-06-11)
Status: RO
Content-Length: 2635

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--amk

(www.amk.ca)

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```

Regards,
- Dwayne

--

Dwayne C. Litzberger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From markmoraes@yahoo.com Mon Apr 20 19:25:37 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <markmoraes@yahoo.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 5D9AE984FDD

for <dwon@rivest.dlitz.net>; Mon, 20 Apr 2009 19:25:37 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id DE41F4025F

for <dwon@rivest.dlitz.net>; Mon, 20 Apr 2009 17:25:36 -0600 (CST)

Received: (vmmailmgr-postfix 7604 invoked by uid 1003); 20 Apr 2009 17:25:36 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (yahoo.com: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="markmoraes@yahoo.com"; helo=web32405.mail.mud.yahoo.com; client-ip=68.142.207.198

Received: from web32405.mail.mud.yahoo.com (web32405.mail.mud.yahoo.com [68.142.207.198])

by goedel.dlitz.net (Postfix) with SMTP id B5EAF401EE

for <dlitz@dlitz.net>; Mon, 20 Apr 2009 17:25:36 -0600 (CST)

Received: (qmail 34697 invoked by uid 60001); 20 Apr 2009 23:25:33 -0000
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed; d=yahoo.com; s=s1024; t=1240269933;
bh=OvxqbYnCc7R6tUN3YmlgFURM3CuHh1JeHyXhDzkaThU=; h=Message-ID:X-YMail-OSG:Received:X-
Mailer:Date:From:Reply-To:Subject:To:MIME-Version:Content-Type;
b=F2h2bFzpQxyKFZ8BhenniyupGw4Zvlekb9BSk91qKU+51W/TkSGBij5YZIhkLQdkQk0qLz5f4g8dT6bOME3s
EY1j10hlx0K0u2UD0yoYTINBCmsdMQRoJ7ph9bmt+p/EJhRpe+FiV6aoLV0FONWiHfGDghPT1dulWXfVTqgB
2aU=
DomainKey-Signature:a=rsa-sha1; q=dns; c=noaws;
s=s1024; d=yahoo.com;
h=Message-ID:X-YMail-OSG:Received:X-Mailer:Date:From:Reply-To:Subject:To:MIME-Version:Content-Type;
b=r6RShFF5VzQLg+9tcn1xKuo4Rs4IVvXF6fdqOpQrMyRCxeFoebhuTE35grGqlomOJLwM0+mZwRb6rGkDj7
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eo=;
Message-ID: <551071.34569.qm@web32405.mail.mud.yahoo.com>
X-YMail-OSG:
FrK8aWMVM1mFJtLpMGbUbCLjbUQC.i.JkIAKUHSFsFn7t9PbtewAewXJ2uhZGCOIGCX6oVnG3u.CgqzAffY
4vZSnfTT8wnCkzZNZ_g6k.XUc3ipo_6e.92TXl4p8MxDGAf1tpNF5nXPwcQ7aREs7jGoWWVJYVyp50clsUFS
Hzf7Zbpa8P1Yoe_xSzf3OAgRSh5fCrbFCC8sHPCuwrL3YhasbtHmkWffteSS.x6gEcBaxf03oz4FeDb5mpJ54g11X
onq8h_TmzX9g84Bin9g_3fJ4WSXm6g6.tohLyfXcUxoz4j036wyWpTKPrWEzIUQaN83Sv_bj_Ghxw--
Received: from [69.124.140.74] by web32405.mail.mud.yahoo.com via HTTP; Mon, 20 Apr 2009 16:25:32 PDT
X-Mailer: YahooMailClassic/5.2.15 YahooMailWebService/0.7.289.1
Date: Mon, 20 Apr 2009 16:25:32 -0700 (PDT)
From: M Moraes <markmoraes@yahoo.com>
Reply-To: moraes@computer.org
Subject: Re: PyCrypto license clarification
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Status: RO
X-Status: A
Content-Length: 3222

Hi Dwayne.

Sure, the new license sounds fine for all my contributions to PyCrypto, and thanks for taking it on. My apologies for not responding to your previous e-mail.

Regards,
Mark.

--- On Sat, 4/18/09, Dwayne C. Litzenger <dlitz@dlitz.net> wrote:

> From: Dwayne C. Litzenger <dlitz@dlitz.net>
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Subject: Re: PyCrypto license clarification
Message-ID: <20090421000137.GA29012@rivest.dlitz.net>
References: <551071.34569.qm@web32405.mail.mud.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Disposition: inline
In-Reply-To: <551071.34569.qm@web32405.mail.mud.yahoo.com>
X-Primary-Address: dlitz@dlitz.net
X-Homepage: http://www.dlitz.net/
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);
preference=unprotected
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);
preference=signencrypt
User-Agent: Mutt/1.5.16 (2007-06-11)
Status: RO
Content-Length: 3677

Thanks a lot, and don't worry about not responding to previous emails. I do that too much myself. :)

On Mon, Apr 20, 2009 at 04:25:32PM -0700, M Moraes wrote:

>

>Hi Dwayne.

>

>Sure, the new license sounds fine for all my contributions to PyCrypto, and thanks for taking it on. My apologies for not responding to your previous e-mail.

>

>Regards,

>Mark.

>

>--- On Sat, 4/18/09, Dwayne C. Litzenger <dlitz@dlitz.net> wrote:

>

>> From: Dwayne C. Litzenger <dlitz@dlitz.net>

>> Subject: PyCrypto license clarification

>> To: "Mark Moraes" <moraes@computer.org>

>> Date: Saturday, April 18, 2009, 9:14 AM

>> Hi Mark,

>>

>> I am the new maintainer of the Python Cryptography Toolkit,

>> and I am

>> working on a new release at <http://www.pycrypto.org/>.

>>

>> People often ask me what license PyCrypto is covered by, if

>> it's

>> GPL-compatible, etc. Right now, I'm not really sure

>> what to tell them.

>> The text in the current LICENSE file (quoted below) is not

>> entirely clear

>> on the point of whether distributing modified versions is

>> allowed. (It

>> says "distribute and use", but not "modify".)

>>
>>
>> =====
>> Distribute and use freely; there are
>> no restrictions on further
>> dissemination and usage except those
>> imposed by the laws of your
>> country of residence. This
>> software is provided "as is" without
>> warranty of fitness for use or
>> suitability for any purpose, express
>> or implied. Use at your own risk or
>> not at all.
>>
>> =====
>>
>> Incorporating the code into commercial
>> products is permitted; you do
>> not have to make source available or
>> contribute your changes back
>> (though that would be nice).
>>
>> --amk
>>
>>
>> (www.amk.ca)
>>
>> For the next PyCrypto release, I would like to take steps
>> to move toward a
>> clearer licensing regime. I am asking as many
>> copyright holders as I can
>> find if I can release PyCrypto under something clearer and
>> more standard.
>> Below, I have quoted a public domain dedication that was
>> recommended in
>> Intellectual Property and Open Source: A Practical Guide
>> to Protecting
>> Code_, by Van Lindberg. I have already contacted A.
>> M. Kuchling, Robey
>> Pointer, Wim Lewis, Jeethu Rao, and Barry Warsaw, and they
>> have all
>> approved the following dedication for their contributions.
>>
>> I understand that you have made contributions to
>> PyCrypto. May I, on your
>> behalf, dedicate to the public domain all your
>> contributions to PyCrypto,
>> with the following notice?

>>
>>
>> =====
>> The contents of this file are
>> dedicated to the public domain. To the
>> extent that dedication to the public
>> domain is not available, everyone
>> is granted a worldwide, perpetual,
>> royalty-free, non-exclusive license
>> to exercise all rights associated with
>> the contents of this file for
>> any purpose whatsoever. No
>> rights are reserved.
>>
>> =====
>>
>> Regards,
>> - Dwayne
>>
>> -- Dwayne C. Litzberger <dlitz@dlitz.net>
>> Key-signing key - 19E1
>> 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7
>>
>

--
Dwayne C. Litzberger <dlitz@dlitz.net>
Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7
Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45
Date: Mon, 16 Feb 2009 12:58:00 -0800
From: Robey Pointer <robey@lag.net>
Subject: Re: PyCrypto license clarification
To: "Dwayne C. Litzberger" <dlitz@dlitz.net>
Received-SPF: pass (goedel.dlitz.net: domain of robey@lag.net designates 69.61.78.186 as permitted sender)
Message-Id: <F469A078-6305-4484-BEA8-F4EC38A4154F@lag.net>

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On 23 Nov 2008, at 07:42, Dwayne C. Litzberger wrote:

> For the next PyCrypto release, I would like to take steps to move
> toward a clearer licensing regime. I am asking as many copyright
> holders as I can find if I can release PyCrypto under something
> clearer and more standard. Below, I have quoted a public domain
> dedication that was recommended in Intellectual Property and Open
> Source: A Practical Guide to Protecting Code, by Van Lindberg. I
> have already contacted A. M. Kuchling, and he has approved the

> following dedication for his contributions.
>
> May I, on your behalf, dedicate to the public domain all your
> contributions to PyCrypto, with the following notice?
>
>
> =
> =====
> The contents of this file are dedicated to the public domain. To
> the
> extent that dedication to the public domain is not available,
> everyone
> is granted a worldwide, perpetual, royalty-free, non-exclusive
> license
> to exercise all rights associated with the contents of this file
> for
> any purpose whatsoever. No rights are reserved.
>
> =
> =====
>

In case I haven't replied to this yet: Yes, this is fine with me.

robey

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.8 (Darwin)

iEYEARECAAYFAkmZ01gACgkQQQDkKvyJ6cOLvQCfQmYYuVODvIlyLg0hgCI9LAbQ
SH8AoLJgaq1Ii7/ZYDc+/Cd8VO0xLbr
=Mv6g

-----END PGP SIGNATURE-----

00INDEX This file

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LICENSE.libtom LICENSE file from LibTomCrypt

stmts/ Statements by contributors

Copyright and licensing of the Python Cryptography Toolkit ("PyCrypto"):

~~~~~

Previously, the copyright and/or licensing status of the Python  
Cryptography Toolkit ("PyCrypto") had been somewhat ambiguous. The  
original intention of Andrew M. Kuchling and other contributors has  
been to dedicate PyCrypto to the public domain, but that intention was  
not necessarily made clear in the original disclaimer (see  
LEGAL/copy/LICENSE.orig).

Additionally, some files within PyCrypto had specified their own

licenses that differed from the PyCrypto license itself. For example, the original RIPEMD.c module simply had a copyright statement and warranty disclaimer, without clearly specifying any license terms. (An updated version on the author's website came with a license that contained a GPL-incompatible advertising clause.)

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4. Removing some modules altogether without replacing them.

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## 1.79 update-rc-d 0.8 r0

## 1.80 libev 4.27 r0

### 1.80.1 Available under license :

All files in libev are

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# 1.81 acpid 2.0.32 r0

## 1.81.1 Available under license :

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```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) 19yy <name of author>
```

```
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(at your option) any later version.
```

```
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```
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This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

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<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

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## 1.82 btrfs-tools 5.2.2 r0

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Version 3, 29 June 2007

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# 1.84 python-pyserial 3.4 r0

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## 1.85 sqlite 3.4.0.43

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## 1.86 python-ply 3.11 r0

## 1.87 openssl 1.0.2k 19.el7

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same



year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

| Release        | Derived from | Year      | Owner      | GPL-compatible? (1) |
|----------------|--------------|-----------|------------|---------------------|
| 0.9.0 thru 1.2 |              | 1991-1995 | CWI        | yes                 |
| 1.3 thru 1.5.2 | 1.2          | 1995-1999 | CNRI       | yes                 |
| 1.6            | 1.5.2        | 2000      | CNRI       | no                  |
| 2.0            | 1.6          | 2000      | BeOpen.com | no                  |
| 1.6.1          | 1.6          | 2001      | CNRI       | yes (2)             |
| 2.1            | 2.0+1.6.1    | 2001      | PSF        | no                  |
| 2.0.1          | 2.0+1.6.1    | 2001      | PSF        | yes                 |
| 2.1.1          | 2.1+2.0.1    | 2001      | PSF        | yes                 |
| 2.1.2          | 2.1.1        | 2002      | PSF        | yes                 |
| 2.1.3          | 2.1.2        | 2002      | PSF        | yes                 |
| 2.2 and above  | 2.1.1        | 2001-now  | PSF        | yes                 |

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## 1.92 vim 8.1.1518 r0

## 1.93 pango 1.44.6 r0

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## 1.94 vixie-cron 1.11-16.20150630git.el8

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# 311eab3 r0

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goproperties - properties file decoder for Go

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Gocheck - A rich testing framework for Go

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Go support for Protocol Buffers - Google's data interchange format

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procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem proc.

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## 1.99 lvm2 1.02.175-

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### 1ab8b00b6 r0

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Julian Seward, jseward@bzip.org  
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## 1.114 go-patricia

### 2.2.6+gitAUTOINC+666120de43 r0

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## 1.115 python3-pytest 5.1.3 r0

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```
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```

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```
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```

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<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice

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## 1.117 net-tools 1.60-26 r0

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*/
#include "config.h"

#if HAVE_AFNETROM || HAVE_HWNETROM
#include <sys/types.h>
#include <sys/ioctl.h>
#include <sys/socket.h>
#include <net/if_arp.h>
#if (__GLIBC__ > 2) || (__GLIBC__ == 2 && __GLIBC_MINOR__ >= 1)
#include <netax25/ax25.h>
#else
#include <linux/ax25.h>
#endif
#include <stdlib.h>
#include <stdio.h>
#include <ctype.h>
#include <errno.h>
#include <fcntl.h>
#include <string.h>
#include <termios.h>
#include <unistd.h>
#include "net-support.h"
#include "pathnames.h"
#include "intl.h"
#include "util.h"

static char netrom_errmsg[128];

extern struct aftype netrom_aftype;

static char *NETROM_print(unsigned char *ptr)
{

```

```

static char buff[8];
int i;

for (i = 0; i < 6; i++) {
buff[i] = ((ptr[i] & 0377) >> 1);
if (buff[i] == ' ')
    buff[i] = '\0';
}
buff[6] = '\0';
i = ((ptr[6] & 0x1E) >> 1);
if (i != 0)
sprintf(&buff[strlen(buff)], "-%d", i);
return (buff);
}

/* Display an AX.25 socket address. */
static char *NETROM_sprint(struct sockaddr *sap, int numeric)
{
    char buf[64];
    if (sap->sa_family == 0xFFFF || sap->sa_family == 0)
return safe_strerror(buf, _("[NONE SET]"), sizeof(buf));
    return (NETROM_print(((struct sockaddr_ax25 *) sap)->sax25_call.ax25_call));
}

static int NETROM_input(int type, char *bufp, struct sockaddr *sap)
{
    unsigned char *ptr;
    char *orig, c;
    unsigned int i;

    sap->sa_family = netrom_aftype.af;
    ptr = ((struct sockaddr_ax25 *) sap)->sax25_call.ax25_call;

    /* First, scan and convert the basic callsign. */
    orig = bufp;
    i = 0;
    while ((*bufp != '\0') && (*bufp != '-') && (i < 6)) {
c = *bufp++;
if (islower(c))
    c = toupper(c);
if (!(isupper(c) || isdigit(c))) {
    safe_strerror(netrom_errmsg, _("Invalid callsign"), sizeof(netrom_errmsg));
#ifdef DEBUG
    fprintf(stderr, "netrom_input(%s): %s !\n", netrom_errmsg, orig);
#endif
    errno = EINVAL;
}
}
}

```

```

    return (-1);
}
*ptr++ = (unsigned char)((c << 1) & 0xFE);
i++;
}

/* Callsign too long? */
if ((i == 6) && (*bufp != '-') && (*bufp != '\0')) {
safe_strncpy(netrom_errmsg, _("Callsign too long"), sizeof(netrom_errmsg));
#ifdef DEBUG
fprintf(stderr, "netrom_input(%s): %s !\n", netrom_errmsg, orig);
#endif
errno = E2BIG;
return (-1);
}

/* Nope, fill out the address bytes with blanks. */
while (i++ < sizeof(ax25_address) - 1) {
*ptr++ = (unsigned char)((' ' << 1) & 0xFE);
}

/* See if we need to add an SSID field. */
if (*bufp == '-') {
i = atoi(++bufp);
*ptr = (unsigned char)((i << 1) & 0xFE);
} else {
*ptr = (unsigned char) '\0';
}

/* All done. */
#ifdef DEBUG
fprintf(stderr, "netrom_input(%s): ", orig);
for (i = 0; i < sizeof(ax25_address); i++)
fprintf(stderr, "%02X ", sap->sa_data[i] & 0377);
fprintf(stderr, "\n");
#endif

return (0);
}

/* Display an error message. */
static void NETROM_herror(char *text)
{
if (text == NULL)
fprintf(stderr, "%s\n", netrom_errmsg);
else
fprintf(stderr, "%s: %s\n", text, netrom_errmsg);
}

```



```

static int NETROM_hinput(char *bufp, struct sockaddr *sap)
{
    if (NETROM_input(0, bufp, sap) < 0)
        return (-1);
    sap->sa_family = ARPHRD_NETROM;
    return (0);
}

#if 0
/* Set the line discipline of a terminal line. */
static int KISS_set_disc(int fd, int disc)
{
    if (ioctl(fd, TIOCSETD, &disc) < 0) {
        fprintf(stderr, "KISS_set_disc(%d): %s\n", disc, strerror(errno));
        return (-errno);
    }
    return (0);
}

/* Start the KISS encapsulation on the file descriptor. */
static int KISS_init(int fd)
{
    if (KISS_set_disc(fd, N_SLIP) < 0)
        return (-1);
    if (ioctl(fd, SIOCSIFENCAP, 4) < 0)
        return (-1);
    return (0);
}
#endif

struct hwtype netrom_hwtype =
{
    "netrom", NULL, /* "AMPR NET/ROM", */ ARPHRD_NETROM, 7,
    NETROM_print, NETROM_hinput, NULL, 0
};

struct aftype netrom_aftype =
{
    "netrom", NULL, /* "AMPR NET/ROM", */ AF_NETROM, 7,
    NETROM_print, NETROM_sprint, NETROM_input, NETROM_herror,
    NULL, NULL, NULL,
    -1,
    "/proc/net/nr"
};

```

```
#endif /* HAVE_AFNETROM */  
NOT PROVIDED
```

# 1.118 pcsc-lite 1.8.25 r0

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NR START END SECTORS SIZE NAME UUID

```
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2 7680 16383 8704 4.3M 8f8378c0-02
5 7936 12799 4864 2.4M
6 12544 16127 3584 1.8M
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## 1.122 pcre 8.42 4.e18

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## THE BASIC LIBRARY FUNCTIONS

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Written by: Philip Hazel  
Email local part: ph10  
Email domain: cam.ac.uk

University of Cambridge Computing Service,  
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## THE C++ WRAPPER FUNCTIONS

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## 1.123 go git r0

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## 1.124 chkconfig 1.13 2.el8

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```
* /opt/ws_local/PERMITS_SQL/1033344937_1590683254.87/0/locale-2-zip/locale-2.h
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- Chris McDonough, 2011/02/16

- Wichert Akkerman, 2012/02/02

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands

as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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| Release        | Derived from | Year      | Owner      | GPL-compatible? (1) |
|----------------|--------------|-----------|------------|---------------------|
| 0.9.0 thru 1.2 |              | 1991-1995 | CWI        | yes                 |
| 1.3 thru 1.5.2 | 1.2          | 1995-1999 | CNRI       | yes                 |
| 1.6            | 1.5.2        | 2000      | CNRI       | no                  |
| 2.0            | 1.6          | 2000      | BeOpen.com | no                  |
| 1.6.1          | 1.6          | 2001      | CNRI       | yes (2)             |
| 2.1            | 2.0+1.6.1    | 2001      | PSF        | no                  |
| 2.0.1          | 2.0+1.6.1    | 2001      | PSF        | yes                 |
| 2.1.1          | 2.1+2.0.1    | 2001      | PSF        | yes                 |
| 2.2            | 2.1.1        | 2001      | PSF        | yes                 |
| 2.1.2          | 2.1.1        | 2002      | PSF        | yes                 |
| 2.1.3          | 2.1.2        | 2002      | PSF        | yes                 |
| 2.2.1          | 2.2          | 2002      | PSF        | yes                 |
| 2.2.2          | 2.2.1        | 2002      | PSF        | yes                 |
| 2.2.3          | 2.2.2        | 2003      | PSF        | yes                 |
| 2.3            | 2.2.2        | 2002-2003 | PSF        | yes                 |
| 2.3.1          | 2.3          | 2002-2003 | PSF        | yes                 |
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| 2.3.4          | 2.3.3        | 2004      | PSF        | yes                 |
| 2.3.5          | 2.3.4        | 2005      | PSF        | yes                 |
| 2.4            | 2.3          | 2004      | PSF        | yes                 |
| 2.4.1          | 2.4          | 2005      | PSF        | yes                 |
| 2.4.2          | 2.4.1        | 2005      | PSF        | yes                 |

|       |       |      |     |     |
|-------|-------|------|-----|-----|
| 2.4.3 | 2.4.2 | 2006 | PSF | yes |
| 2.4.4 | 2.4.3 | 2006 | PSF | yes |
| 2.5   | 2.4   | 2006 | PSF | yes |
| 2.5.1 | 2.5   | 2007 | PSF | yes |
| 2.5.2 | 2.5.1 | 2008 | PSF | yes |
| 2.5.3 | 2.5.2 | 2008 | PSF | yes |
| 2.6   | 2.5   | 2008 | PSF | yes |
| 2.6.1 | 2.6   | 2008 | PSF | yes |
| 2.6.2 | 2.6.1 | 2009 | PSF | yes |
| 2.6.3 | 2.6.2 | 2009 | PSF | yes |
| 2.6.4 | 2.6.3 | 2009 | PSF | yes |
| 2.6.5 | 2.6.4 | 2010 | PSF | yes |
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# 1.136 python3-ncclient 0.6.9 r0

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## 1.141 dosfs-tools 4.1 r0

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## 1.142 go-cli

1.1.0+git27ecc97192df1bf053a22b04463f2b51  
b8b8373e r0

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## 1.143 libcap-ng 0.7.9 r0

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<signature of Ty Coon>, 1 April 1989
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Open-vm-tools v10.0.7

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```
>>> base64.c-none
>>> convertutf.c/h from unicode, inc.-none
>>> freebsd-1.72
>>> icu4c-4.4.1
>>> unicode-5.0
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```
base64.c -- routines to encode/decode base64 data
$OpenLDAP: pkg/ldap/libraries/liblutil/base64.c,v 1.15 2006/01/03 22:12:11 kurt Exp $ /
This work is part of OpenLDAP Software <http://www.openldap.org/>.
```

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>>> convertutf.c/h from unicode, inc.-none

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>>> freebsd-1.72

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>>> icu4c-4.4.1

ICU License - ICU 1.8.1 and later

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>>> unicode-5.0

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## 1.146 python3-pyyaml 5.3.1 r0

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```
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```
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```

```
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FIRST NOTE:

This file contains some details about the copyright history of contributions to the UnZip project.

Additionally, it summarises some exceptions to the general BSD-like copyright found in LICENSE that covers our generic code and most of the system specific ports.

Please read LICENSE first to find out what is allowed to do with Info-ZIP's UnZip code.

-----

There are currently two explicit copyrights on portions of UnZip code (at least, of which Info-ZIP is aware):

Jim Luther's Mac OS File Manager interface code; and Christopher Evans'

MacBinaryIII coding code (for the MacOS port).. These copyrights are discussed in more detail below.

All remaining code is now (starting with UnZip version 5.41) covered by the new Info-ZIP license. For details, please read the accompanying file LICENSE. The terms and conditions in this license supersede the copyright conditions of the contributions by Igor Mandrichenko (vms/vms.c), Greg Roelofs (zipinfo.c, new version of unshrink.c), Mike White (Windows DLL code in "windll/\*"), Steve P. Miller (Pocket UnZip GUI "wince/\*"), and Mark Adler (inflate/explode decompression core routines, previously put into the public domain). All these Info-ZIP contributors (or "primary" authors) have permitted us to replace their copyright notes by the Info-ZIP License.

Frequently Asked Questions regarding (re)distribution of Zip and UnZip are near the end of this file.

There are no known patents on any of the code in UnZip. Unisys claims a patent on LZW encoding and on LZW decoding in an apparatus that performs LZW encoding, but the patent appears to exempt a stand-alone decoder (as in UnZip's unshrink.c). Unisys has publicly claimed otherwise, but the issue has never been tested in court. Since this point is unclear, unshrinking is not enabled by default. It is the responsibility of the user to make his or her peace with Unisys and its licensing requirements. (unshrink.c may be removed from future releases altogether.)

---

The original unzip source code has been extensively modified and almost entirely rewritten (changes include random zipfile access rather than sequential; replacement of unimplode() with explode(); replacement of old unshrink() with new (unrelated) unshrink(); replacement of output routines; addition of inflate(), wildcards, filename-mapping, text translation, ...; etc.). As far as we can tell, only the core code of the unreduce method remained substantially similar to Mr. Smith's original source. As of UnZip 5.42, the complete core code is now covered by the Info-ZIP License. Therefore, support for the reduce method has been removed.

The drop of the reduce method should only affect some test archives, reducing was never used in any publically distributed Zip program. For pathologic cases where support for reduced archive entries is needed, the unreduce code copyrighted by Samuel H. Smith is available as a separate distribution (the restricted copyright of this code is cited below in the "historical" section).

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\* MoreFiles  
 \*  
 \* A collection of File Manager and related routines  
 \*  
 \* by Jim Luther (Apple Macintosh Developer Technical Support Emeritus)  
 \* with significant code contributions by Nitin Ganatra  
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 \*  
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 \*  
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 \* -----  
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-----

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Regarding the first stipulation, Mr. Smith was tracked down in southern California some years back [Samuel H. Smith, The Tool Shop; as of mid-May 1994, (213) 851-9969 (voice), (213) 887-2127(?) (subscription BBS), 71150.2731@compuserve.com]:

"He says that he thought that whoever contacted him understood that he has no objection to the Info-ZIP group's inclusion of his code. His primary concern is that it remain freely distributable, he said."

Despite the fact that our "normal" code has been entirely rewritten and by default no longer contains any of Mr. Smith's code, Info-ZIP remains indebted and grateful to him. We hope he finds our contributions as useful as we have his.

Note that the third and fourth stipulations still apply to any company that wishes to incorporate the unreduce code into its products; if you wish to do so, you must contact Mr. Smith directly regarding licensing.

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The remaining code was written by many people associated with the Info-ZIP group, with large contributions from (but not limited to): Greg Roelofs (overall program logic, ZipInfo, unshrink, filename mapping/portability, etc.), Mark Adler (inflate, explode, funzip), Kai Uwe Rommel (OS/2), John Bush and Paul Kienitz (Amiga), Antoine Verheijen (Macintosh), Hunter Goatley (more VMS), Mike White (Windows DLLs), Christian Spieler (overall logic, optimization, VMS, etc.) and others. See the file CONTRIBS in the source distribution for a much more complete list of contributors.

The decompression core code for the deflate method (inflate.[ch], explode.c) was originally written by Mark Adler who submitted it as public domain code.

---

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src/err.c

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include/bsd/sys/time.h  
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include/bsd/vis.h  
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man/errc.3bsd  
man/explicit\_bzero.3bsd  
man/fgetln.3bsd  
man/fgetwln.3bsd  
man/fpurge.3bsd  
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man/getbsize.3bsd  
man/heapsort.3bsd  
man/nlist.3bsd  
man/queue.3bsd  
man/radixsort.3bsd  
man/reallocarray.3bsd  
man/reallocf.3bsd  
man/setmode.3bsd  
man/strmode.3bsd  
man/strnstr.3bsd  
man/strtoi.3bsd  
man/strtou.3bsd  
man/unvis.3bsd  
man/vis.3bsd  
man/wcslcpy.3bsd  
src/getbsize.c  
src/heapsort.c  
src/merge.c  
src/nlist.c  
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man/fmtcheck.3bsd  
man/humanize\_number.3bsd  
man/stringlist.3bsd  
man/timeval.3bsd  
src/fmtcheck.c  
src/humanize\_number.c  
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man/byteorder.3bsd  
man/closefrom.3bsd  
man/expand\_number.3bsd  
man/flopen.3bsd  
man/getpeereid.3bsd  
man/pidfile.3bsd  
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man/readpassphrase.3bsd

man/strncpy.3bsd

man/strtonum.3bsd

src/arc4random.c

src/arc4random\_linux.h

src/arc4random\_openbsd.h

src/arc4random\_uniform.c

src/arc4random\_unix.h

src/arc4random\_win.h

src/closefrom.c

src/getentropy\_aix.c

src/getentropy\_bsd.c

src/getentropy\_hpux.c

src/getentropy\_hurd.c

src/getentropy\_linux.c

src/getentropy\_osx.c

src/getentropy\_solaris.c

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src/hash/md5.c

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## 1.164 findutils 4.6.0 r0

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```
<program> Copyright (C) <year> <name of author>  
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

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## 1.165 tipccconfig 2.0.6 r0

## 1.166 pam 1.3.1-14.el8



## 1.166.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
/* $Id$
 * $Source$
 *-----
 * pam_policy.h : includes for onep pam related
 *             routines
 * June 2011, c3pl-dev
 *
 * Copyright (c) 2011 by cisco Systems, Inc.
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 *-----
 */
```

Found in path(s):

```
*/opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_policy.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
 * pam_client_typedef.h
 *
 * Aug 2011, c3pl-dev
 *
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 *-----
 */
```

Found in path(s):

```
*/opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_client_typedef.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
 * $Source$
 *-----
 * pam_ppm_redirect_ut.h
 *   pam ppm redirect ut specific function definitions
 *
 * January 2011, c3pl-dev
 *
 * Copyright (c) 2011 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 * $Log$
 * Branch:
 *-----
 * $Endlog$
```

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/ut/internal\_inc/pam\_ppm\_redirect\_ut.h  
No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* pam\_target.c : pam target api implementation

\* routines

\* June 2011, c3pl-dev

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/src/pam\_target.c  
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/\*-----

\* pam\_app\_db\_typedef.h

\*

\* Aug 2011, c3pl-dev

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_app\_db\_typedef.h  
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##

## Sub-Component "c3pl/client/pam":

##

## C3PL Client Policy Abstraction Module

##

## Author: c3pl-dev

## Date: June 2011

##

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##

syntax: 1.0.0

group: generic

{

enum:

internal\_inc/enum/pam\_class.enum  
internal\_inc/enum/pam\_client.enum  
internal\_inc/enum/pam\_obj.enum  
internal\_inc/enum/pam\_policy.enum

}

group: top

{

includes: \$(COMPONENT\_ROOT)/posix/include

sub: c3pl\_pam

{

contains:

pam/src/pam\_app\_data\_db.c  
pam/src/pam\_app\_db.c  
pam/src/pam\_hdl.c  
pam/src/pam\_provision.c

}

}

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/content.lst

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id\$

\* \$Source\$

\*-----

\* pam\_app\_data\_db.c : pam app data db implementation routines

\*

\* Aug 2011, c3pl-dev

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/src/pam\_app\_data\_db.c

No license file was found, but licenses were detected in source scan.

#-----

# pam\_client.enum -- PAM client type enumerations

```
#
# Aug 2011, c3pl-dev
#
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#-----
```

```
BEGIN PAM_CLIENT_ENUM
```

```
ENUM pam_client_type
```

```
# String to dump for debug commands.
```

```
ATTRIBUTE pam_client_debug
```

```
TYPE char*
```

```
END ATTRIBUTE
```

```
# String to be reserved as name prefix.
```

```
ATTRIBUTE pam_client_prefix
```

```
TYPE char*
```

```
END ATTRIBUTE
```

```
ITEM PAM_CLIENT_ONEP
```

```
LONG "ONEP"
```

```
SHORT "ONEP "
```

```
ATTRIBUTE[pam_client_debug] "ONEP"
```

```
ATTRIBUTE[pam_client_prefix] "__ONEP_"
```

```
END ITEM
```

```
END ENUM
```

```
END
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/enum/pam_client.enum
```

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* pam_policy_typedef.h
```

```
*
```

```
* Aug 2011, c3pl-dev
```

```
*
```

```
* Copyright (c) 2011 by Cisco Systems, Inc.
```

```
* All rights reserved
```

```
*-----
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_policy_typedef.h
```

No license file was found, but licenses were detected in source scan.

```
/* $Id$
 * $Source$
 *-----
 * pam_ppm_shim.h
 *   pam ppm shim specific function definitions
 *
 * January 2011, c3pl-dev
 *
 * Copyright (c) 2011 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 * $Log$
 * Branch:
 *-----
 * $Endlog$
 */
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/ut/internal_inc/pam_ppm_shim.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
 * $Source$
 *-----
 * pam_debug.h : pam debug macros
 *
 * June 2011, c3pl-dev
 *
 * Copyright (c) 2011 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 */
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_debug.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
 * $Source$
 *-----
 * pam_class.h : includes for onep pam related
 *               routines
 *
 * June 2011, c3pl-dev
 *
 * Copyright (c) 2011 by cisco Systems, Inc.
 * All rights reserved.
```

```
*-----  
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_class.h  
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_exception_type.h
```

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* pam_app_data_db.h: Function delcarations for manipulating the PAM APP DATA DB
```

```
*
```

```
* Aug 2011, c3pl-dev
```

```
*
```

```
* Copyright (c) 2011 by Cisco Systems, Inc.
```

```
* All rights reserved
```

```
*-----
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_app_data_db.h
```

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* pam_app_db_types.h: Internally used data structures for PAM APP DB
```

```
*
```

```
* Aug 2011, c3pl-dev
```

```
*
```

```
* Copyright (c) 2011 by Cisco Systems, Inc.
```

```
* All rights reserved
```

```
*-----
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_app_db_types.h
```

No license file was found, but licenses were detected in source scan.

```
#-----
```

```
# pam_exception.enum -- PAM Exception type enumerations
```

```
#
```

```
# July 2011
```

```
#
```

```
# Copyright (c) 2011 by cisco Systems, Inc.
```

```
# All rights reserved.
```

```
#-----
```

```
BEGIN PAM_EXCEPTION_ENUM
```

```
ENUM pam_exception_type
```

```

# String to dump for debug commands.
ATTRIBUTE pam_exception_debug
  TYPE char*
END ATTRIBUTE

ITEM PAM_OK
  LONG          ""
  SHORT         "OK "
  ATTRIBUTE[pam_exception_debug]  "OK"
END ITEM

ITEM PAM_INVLD_HDL
  LONG          ""
  SHORT         "INVLD_HDL "
  ATTRIBUTE[pam_exception_debug]  "INVALID_HANDLE"
END ITEM

ITEM PAM_INVLD_ATTR
  LONG          ""
  SHORT         "INVLD_ATTR "
  ATTRIBUTE[pam_exception_debug]  "INVALID_ATTRIBUTE"
END ITEM

ITEM PAM_APPID_NO_MATCH
  LONG          ""
  SHORT         "APPID_NO_MATCH "
  ATTRIBUTE[pam_exception_debug]  "APPID_NO_MATCH"
END ITEM

ITEM PAM_SYS_NOMEM
  LONG          ""
  SHORT         "SYS_NOMEM "
  ATTRIBUTE[pam_exception_debug]  "SYSTEM_NO_MEMORY"
END ITEM

ITEM PAM_ADD_ACTION_FAIL
  LONG          ""
  SHORT         "ADD_ACTION_FAIL "
  ATTRIBUTE[pam_exception_debug]  "ADD_ACTION_FAILED"
END ITEM

ITEM PAM_RM_ACTION_FAIL
  LONG          ""
  SHORT         "RM_ACTION_FAIL "
  ATTRIBUTE[pam_exception_debug]  "REMOVE_ACTION_FAILED"
END ITEM

```

```
ITEM PAM_ATTACH_POL_FAIL
LONG          ""
SHORT         "ATTACH_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "ATTACH_POLICY_FAILED"
END ITEM
```

```
ITEM PAM_DETACH_POL_FAIL
LONG          ""
SHORT         "DETACH_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "DETACH_POL_FAILED"
END ITEM
```

```
ITEM PAM_STORE_POL_FAIL
LONG          ""
SHORT         "STORE_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "STORE_POLICY_FAILED"
END ITEM
```

```
ITEM PAM_DEL_POL_FAIL
LONG          ""
SHORT         "DEL_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "DELETE_POLICY_FAILED"
END ITEM
```

```
ITEM PAM_ADD_CLS_FAIL
LONG          ""
SHORT         "ADD_CLS_FAIL "
ATTRIBUTE[pam_exception_debug] "ADD_CLASS_FAILED"
END ITEM
```

```
ITEM PAM_DEL_CLS_FAIL
LONG          ""
SHORT         "DEL_CLS_FAIL "
ATTRIBUTE[pam_exception_debug] "DELETE_CLASS_FAILED"
END ITEM
```

```
ITEM PAM_ERR_CLASS_IN_USE
LONG          ""
SHORT         "ERR_CLASS_IN_USE "
ATTRIBUTE[pam_exception_debug] "ERR_CLASS_IN_USE"
END ITEM
```

```
ITEM PAM_STORE_CLS_FAIL
LONG          ""
SHORT         "STORE_CLS_FAIL "
ATTRIBUTE[pam_exception_debug] "STORE_CLASS_FAILED"
END ITEM
```



```
ITEM PAM_QUERY_CLS_FAIL
LONG          ""
SHORT         "QUERY_CLS_FAIL "
ATTRIBUTE[pam_exception_debug] "QUERY_CLASS_FAILED"
END ITEM
```

```
ITEM PAM_QUERY_POL_FAIL
LONG          ""
SHORT         "QUERY_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "QUERY_POLICY_FAILED"
END ITEM
```

```
ITEM PAM_POL_NOT_FOUND
LONG          ""
SHORT         "POL_NOT_FOUND "
ATTRIBUTE[pam_exception_debug] "POLICY_NOT_FOUND"
END ITEM
```

```
ITEM PAM_ADD_FILTER_FAIL
LONG          ""
SHORT         "ADD_FILTER_FAIL "
ATTRIBUTE[pam_exception_debug] "ADD_FILTER_FAIL"
END ITEM
```

```
ITEM PAM_RM_FILTER_FAIL
LONG          ""
SHORT         "RM_FILTER_FAIL "
ATTRIBUTE[pam_exception_debug] "REMOVE_FILTER_FAIL"
END ITEM
```

```
ITEM PAM_ADD_CLD_POL_FAIL
LONG          ""
SHORT         "ADD_CHILD_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "ADD_CHILD_POL_FAIL"
END ITEM
```

```
ITEM PAM_DTH_CLD_POL_FAIL
LONG          ""
SHORT         "DETACH_CHILD_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "DETACH_CHILD_POL_FAIL"
END ITEM
```

```
ITEM PAM_RETRV_CHLD_POL_FAIL
LONG          ""
SHORT         "RETRIEVE_CHILD_POL_FAIL "
ATTRIBUTE[pam_exception_debug] "RETRIEVE_CHILD_POL_FAIL"
END ITEM
```

```
ITEM PAM_DEL_PARTIAL
LONG          ""
SHORT        "DELETE_PARTIAL "
ATTRIBUTE[pam_exception_debug] "DELETE_PARTIAL"
END ITEM
```

END ENUM

END

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/include/enum/pam\_exception.enum

No license file was found, but licenses were detected in source scan.

```
/*-----
* pam_app_data_db_typedef.h
*
* Aug 2011, c3pl-dev
*
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*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_app\_data\_db\_typedef.h

No license file was found, but licenses were detected in source scan.

```
/*
* $Id$
* $Source$
*-----
* pam_hdl.c : pam hdl api implementation
*             routines
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011-2012 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/src/pam\_hdl.c

No license file was found, but licenses were detected in source scan.

```
/* $Id$
* $Source$
*-----
```

```
* pam_target.h : includes for onep pam related
*
* routines
* June 2011, c3pl-dev
*
* Copyright (c) 2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_target.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* pam_class_typedef.h
*
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011 by Cisco Systems, Inc.
* All rights reserved
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_class_typedef.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
* $Source$
*-----
* pam_types.h : includes for onep pam related
*
* routines
* June 2011, c3pl-dev
*
* Copyright (c) 2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_types.h
No license file was found, but licenses were detected in source scan.
```

```
/*
* $Id$
* $Source$
*-----
* pam_app_db.c : pam app db api implementation
```

```
*          routines
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/src/pam_app_db.c
```

No license file was found, but licenses were detected in source scan.

```
/*
* $Id$
* $Source$
*-----
* pam_provision.c : pam provision api implementation
*          routines
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011, 2018 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/src/pam_provision.c
```

No license file was found, but licenses were detected in source scan.

```
#-----
# pam_policy.enum -- PAM policy type enumerations
#
# Aug 2011, c3pl-dev
#
# Copyright (c) 2011 by cisco Systems, Inc.
# All rights reserved.
#-----
```

```
BEGIN PAM_POLICY_ENUM
```

```
ENUM pam_policy_type
```

```
# String to dump for debug commands.
```

```
ATTRIBUTE pam_policy_debug
```

```
TYPE char*
```

```
END ATTRIBUTE
```

```
ITEM PAM_POLICY_QOS
```

```
LONG          ""
SHORT         "QOS "
ATTRIBUTE[pam_policy_debug] "QOS"
END ITEM
```

```
ITEM PAM_POLICY_PSP
LONG          ""
SHORT         "PSP"
ATTRIBUTE[pam_policy_debug] "PSP"
END ITEM
```

```
END ENUM
```

```
END
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/enum/pam\_policy.enum

No license file was found, but licenses were detected in source scan.

```
/*-----
* pam_app_data_db_types.h: Internally used data structures for PAM APP DATA DB
*
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011 by Cisco Systems, Inc.
* All rights reserved
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_app\_data\_db\_types.h

No license file was found, but licenses were detected in source scan.

```
/*-----
* pam_hdl.h: Function declarations for manipulating handles
*
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011 by Cisco Systems, Inc.
* All rights reserved
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_hdl.h

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* pam_app_db.h: Function delcarations for manipulating the PAM APP DB
*
* Aug 2011, c3pl-dev
*
* Copyright (c) 2011 by Cisco Systems, Inc.
* All rights reserved
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/pam_app_db.h
No license file was found, but licenses were detected in source scan.
```

```
#-----
# pam_obj.enum -- PAM obj type enumerations
#
# Aug 2011, c3pl-dev
#
# Copyright (c) 2011 by cisco Systems, Inc.
# All rights reserved.
#-----
```

```
BEGIN PAM_OBJ_ENUM
```

```
ENUM pam_obj_type
```

```
# String to dump for debug commands.
ATTRIBUTE pam_obj_debug
    TYPE char*
END ATTRIBUTE
```

```
ITEM PAM_OBJ_TYPE_CLASS
    LONG          ""
    SHORT         "CLASS "
    ATTRIBUTE[pam_obj_debug] "CLASS"
END ITEM
```

```
ITEM PAM_OBJ_TYPE_POLICY
    LONG          ""
    SHORT         "POLICY "
    ATTRIBUTE[pam_obj_debug] "POLICY"
END ITEM
```

```
END ENUM
```

```
END
```

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/enum/pam\_obj.enum

No license file was found, but licenses were detected in source scan.

/\*-----

\* pam\_provision.h: Function declarations used during PAM provisioning

\*

\* Aug 2011, c3pl-dev

\*

\* Copyright (c) 2011 by Cisco Systems, Inc.

\* All rights reserved

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_provision.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* pam\_obj\_typedef.h

\*

\* Aug 2011, c3pl-dev

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/internal\_inc/pam\_obj\_typedef.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* pam\_action.c : pam action api implementation

\*

    routines

\* June 2011, c3pl-dev

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449949\_1615189670.63/0/pam-tar/pam/src/pam\_action.c

No license file was found, but licenses were detected in source scan.

#-----

```
# pam_class.enum -- PAM class type enumeration
#
# Aug 2011, c3pl-dev
#
# Copyright (c) 2011 by cisco Systems, Inc.
# All rights reserved.
#-----
```

```
BEGIN PAM_CLASS_ENUM
```

```
ENUM pam_class_type
```

```
# String to dump for debug commands.
```

```
ATTRIBUTE pam_class_debug
```

```
TYPE char*
```

```
END ATTRIBUTE
```

```
ITEM PAM_CLASS_QOS
```

```
LONG          ""
```

```
SHORT         "QOS "
```

```
ATTRIBUTE[pam_class_debug] "QOS"
```

```
END ITEM
```

```
END ENUM
```

```
END
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/internal_inc/enum/pam_class.enum
```

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* pam_hdl_types.h: Pertaining to PAM handles
```

```
*
```

```
* Aug 2011, c3pl-dev
```

```
*
```

```
* Copyright (c) 2011-2012 by Cisco Systems, Inc.
```

```
* All rights reserved
```

```
*-----
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_hdl_types.h
```

No license file was found, but licenses were detected in source scan.

```
/* $Id$
```

```
* $Source$
```

```
*-----
```



```
* pam_ppm_shim.c : This file has routines which will be called
*           to intercept the ppm invocation. These routines
*           call the PAM apis which in turn call the PPM apis
*
* June 2011, c3pl-dev
*
* Copyright (c) 2011 by cisco Systems, Inc.
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*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/ut/src/pam_ppm_shim.c
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
* $Source$
*-----
* pam_class.c : pam class api implementation
*           routines
* June 2011, c3pl-dev
*
* Copyright (c) 2011, 2014-2015 by cisco Systems, Inc.
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*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/src/pam_class.c
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
* $Source$
*-----
* pam_policy.c : pam policy api implementation
*           routines
* June 2011, c3pl-dev
*
* Copyright (c) 2011-2012, 2014-2015, 2018 by cisco Systems, Inc.
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*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/src/pam_policy.c
No license file was found, but licenses were detected in source scan.
```

```
/* $Id$
```

```

* $Source$
*-----
* pam_action.h : includes for onep pam related
*             routines
* June 2011, c3pl-dev
*
* Copyright (c) 2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

Found in path(s):
* /opt/cola/permits/1130449949_1615189670.63/0/pam-tar/pam/include/pam_action.h

```

# 1.167 checkpolicy 2.8 r0

## 1.167.1 Available under license :

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Ty Coon, President of Vice

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## 1.168 catalyst-2k-3k-ibm-ppc-library 1

### 1.168.1 Available under license :

```
/*
 * ioLib/ioLib.s, openbios_walnut, walnut_bios 6/17/99 12:54:45
 *-----+
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```

```

*-----
*-----
*
* File Name:  ioLib.s
*
* Function:   C-callable assembler functions for I/O.
*
* Author:    Bill DeStein.
*
* Change Activity-
*
* Date      Description of Change                BY
* -----  -----
* 13-Aug-92 Created                            WCD
* 27-May-94 Port to Oak                        MPT
* 24-Apr-95 Port to Metaware                  JWB
* 26-Apr-99 Port to Walnut (added in and out byte reversed routines)  JWB
*
*-----

```

# 1.169 gnupg 2.2.20 2.el8

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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```
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```

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```
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#+STARTUP: showall
```

\* DNS resolver (dirmngr/dns.c)

dns.c - Recursive, Reentrant DNS Resolver.

-----  
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For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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# 1.171 libseccomp 2.4.3 1.e18

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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## 1.172 libhugetlbfs 2.21 r0

# 1.173 python3-attrs 19.3.0 r0

## 1.173.1 Available under license :

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# 1.174 python3-pycrypto 2.6.1 r0

## 1.174.1 Available under license :

A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope

Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

| Release from   | Derived from | Year      | Owner      | GPL-compatible? (1) |
|----------------|--------------|-----------|------------|---------------------|
| 0.9.0 thru 1.2 |              | 1991-1995 | CWI        | yes                 |
| 1.3 thru 1.5.2 | 1.2          | 1995-1999 | CNRI       | yes                 |
| 1.6            | 1.5.2        | 2000      | CNRI       | no                  |
| 2.0            | 1.6          | 2000      | BeOpen.com | no                  |
| 1.6.1          | 1.6          | 2001      | CNRI       | no                  |
| 2.1            | 2.0+1.6.1    | 2001      | PSF        | no                  |
| 2.0.1          | 2.0+1.6.1    | 2001      | PSF        | yes                 |
| 2.1.1          | 2.1+2.0.1    | 2001      | PSF        | yes                 |
| 2.2            | 2.1.1        | 2001      | PSF        | yes                 |
| 2.1.2          | 2.1.1        | 2002      | PSF        | yes                 |
| 2.1.3          | 2.1.2        | 2002      | PSF        | yes                 |
| 2.2.1          | 2.2          | 2002      | PSF        | yes                 |
| 2.2.2          | 2.2.1        | 2002      | PSF        | yes                 |
| 2.2.3          | 2.2.2        | 2003      | PSF        | yes                 |

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From dlitz@dlitz.net Wed Aug 27 20:54:38 EDT 2008  
X-Maildir-Dup-Checked: Yes  
Return-Path: <dlitz@dlitz.net>  
X-Original-To: dwon@rivest.dlitz.net  
Delivered-To: dwon@rivest.dlitz.net  
Received: from goedel.dlitz.net (unknown [10.159.255.6])  
by rivest.dlitz.net (Postfix) with ESMTP id ECFDFC6641D  
for <dwon@rivest.dlitz.net>; Wed, 27 Aug 2008 20:45:06 -0400 (EDT)  
Received: from localhost (localhost [127.0.0.1])  
by goedel.dlitz.net (Postfix) with QMQP id 99A9D100AA  
for <dwon@rivest.dlitz.net>; Wed, 27 Aug 2008 18:45:05 -0600 (CST)  
Received: (vmmailmgr-postfix 3270 invoked by uid 1003); 27 Aug 2008 18:45:05 -0600  
Delivered-To: m-dlitz-dlitz@dlitz.net  
Received-SPF: pass (goedel.dlitz.net: domain of dlitz@dlitz.net designates 193.201.42.13 as permitted sender)  
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for <dlitz@dlitz.net>; Wed, 27 Aug 2008 18:45:04 -0600 (CST)  
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Thu, 28 Aug 2008 01:45:02 +0100  
To: crypt@bis.doc.gov,  
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web\_site@bis.doc.gov,  
pycrypto@lists.dlitz.net,  
PYTHON-CRYPTO@NIC.SURFNET.NL,  
dlitz@dlitz.net  
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client-ip=64.5.53.201; receiver=m14.stamper.itconsult.co.uk;  
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by goedel.dlitz.net (Postfix) with ESMTP id 667C7100B1  
for <post@stamper.itconsult.co.uk>; Wed, 27 Aug 2008 18:42:56 -0600 (CST)  
Received: by rivest.dlitz.net (Postfix, from userid 1000)  
id B92F8C66420; Wed, 27 Aug 2008 20:42:55 -0400 (EDT)  
Received: by rivest.dlitz.net (tmlda-sendmail, from uid 1000);  
Wed, 27 Aug 2008 20:42:54 -0400  
Date: Wed, 27 Aug 2008 20:42:54 -0400  
Cc: post@stamper.itconsult.co.uk  
Subject: PyCrypto TSU NOTIFICATION  
Message-ID: <20080828004254.GA31214@rivest.dlitz.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline

X-Primary-Address: dlitz@dlitz.net  
X-Homepage: http://www.dlitz.net/  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);  
preference=unprotected  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);  
preference=signencrypt  
User-Agent: Mutt/1.5.16 (2007-06-11)  
X-Delivery-Agent: TMDA/1.1.9 (Jura)  
From: "Dwayne C. Litzenberger" <dlitz@dlitz.net>  
X-DNSBL: 0  
Status: O  
Content-Length: 2182  
Lines: 65

-----BEGIN PGP SIGNED MESSAGE-----

#####

#

# This is a proof of posting certificate from  
# stamper.itconsult.co.uk certifying that a user  
# claiming to be:-

# dlitz@dlitz.net

# requested that this message be sent to:-

# crypt@bis.doc.gov

# enc@nsa.gov

# web\_site@bis.doc.gov

# pycrypto@lists.dlitz.net

# PYTHON-CRYPTO@NIC.SURFNET.NL

# dlitz@dlitz.net

#

# This certificate was issued at 00:45 (GMT)

# on Thursday 28 August 2008 with reference 0520978

#

# CAUTION: while the message may well be from the sender

# indicated in the "From:" header, the sender

# has NOT been authenticated by this service

#

# For information about the Stamper service see

# <http://www.itconsult.co.uk/stamper.htm>

#

#####

SUBMISSION TYPE: TSU

SUBMITTED BY: Dwayne C. Litzenberger

SUBMITTED FOR: Dwayne C. Litzenberger

POINT OF CONTACT: Dwayne C. Litzenberger

PHONE and/or FAX: +1-613-693-1296  
MANUFACTURER: n/a  
PRODUCT NAME/MODEL #: The Python Cryptography Toolkit ("PyCrypto")  
ECCN: 5D002

NOTIFICATION: <http://www.pycrypto.org/>

Note: I am a Canadian citizen posting software to my website located in Canada. I am not certain whether PyCrypto contains enough US-origin cryptography to be covered by U.S. export controls, but I am submitting this anyway.

(Sorry for spamming the lists, but I want there to be a record of this.)

--

Dwayne C. Litzberger <[dlitz@dlitz.net](mailto:dlitz@dlitz.net)>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45

-----BEGIN PGP SIGNATURE-----

Version: 2.6.3i

Charset: noconv

Comment: Stamper Reference Id: 0520978

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=3oIX

-----END PGP SIGNATURE-----

From [dlitz@dlitz.net](mailto:dlitz@dlitz.net) Sun Aug 2 21:48:25 2009

Date: Sun, 2 Aug 2009 21:48:25 -0400

From: "Dwayne C. Litzberger" <[dlitz@dlitz.net](mailto:dlitz@dlitz.net)>

To: Paul Swartz <[paulswartz@gmail.com](mailto:paulswartz@gmail.com)>

Subject: PyCrypto license clarification

Message-ID: <20090803014825.GA1326@rivest.dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Disposition: inline

User-Agent: Mutt/1.5.16 (2007-06-11)

Status: RO

Content-Length: 2631

Hi Paul,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

```
=====
Distribute and use freely; there are no restrictions on further
dissemination and usage except those imposed by the laws of your
country of residence. This software is provided "as is" without
warranty of fitness for use or suitability for any purpose, express
or implied. Use at your own risk or not at all.
=====
```

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back (though that would be nice).

--amk (www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a clearer licensing regime. I am asking as many copyright holders as I can find if I can release PyCrypto under something clearer and more standard. Below, I have quoted a public domain dedication that was recommended in Intellectual Property and Open Source: A Practical Guide to Protecting Code, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, Barry Warsaw, Wim Lewis, Jeethu Rao, Joris Bontje, and Mark Moraes, and they have all approved the following dedication for their contributions.

I understand that you have made contributions to PyCrypto, under nickname "z3p" and/or other names. May I, on your behalf, dedicate to the public domain all your contributions to PyCrypto, with the following notice?

```
=====
The contents of this file are dedicated to the public domain. To the
extent that dedication to the public domain is not available, everyone
is granted a worldwide, perpetual, royalty-free, non-exclusive license
to exercise all rights associated with the contents of this file for
any purpose whatsoever. No rights are reserved.
=====
```

Regards,  
- Dwayne



--

Dwayne C. Litzberger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From paulswartz@gmail.com Mon Aug 3 12:14:07 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <paulswartz@gmail.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 30B9D984FC4

for <dwon@rivest.dlitz.net>; Mon, 3 Aug 2009 12:14:07 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id AD9AE81068

for <dwon@rivest.dlitz.net>; Mon, 3 Aug 2009 10:14:06 -0600 (CST)

Received: (vmmailmgr-postfix 32055 invoked by uid 1003); 3 Aug 2009 10:14:06 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: pass (gmail.com ... \_spf.google.com: 72.14.220.159 is authorized to use 'paulswartz@gmail.com' in 'mfrom' identity (mechanism 'ip4:72.14.192.0/18' matched)) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="paulswartz@gmail.com"; helo=fg-out-1718.google.com; client-ip=72.14.220.159

Received: from fg-out-1718.google.com (fg-out-1718.google.com [72.14.220.159])

by goedel.dlitz.net (Postfix) with ESMTP id 4E63881066

for <dlitz@dlitz.net>; Mon, 3 Aug 2009 10:14:05 -0600 (CST)

Received: by fg-out-1718.google.com with SMTP id d23so1076840fga.3

for <dlitz@dlitz.net>; Mon, 03 Aug 2009 09:14:04 -0700 (PDT)

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=gmail.com; s=gamma;

h=domainkey-signature:mime-version:received:in-reply-to:references

:from:date:message-id:subject:to:content-type

:content-transfer-encoding;

bh=A0RHBf0TnribKS5qOHJ3WYbkZ+b0cuPeuoKAvpApWcc=;

b=gyTqkRhKIHadFKIZCBWsRbnMNVdQ1PWlJbyC0EvxPskaoHr3HAR96MWQNBePu/40Ac

Vn55qllqTdom4e9zIUUE6MwZo9kqi/Qw0L/SLib0DIQeNqo/eHYqPmuVswltaYwNAyMJ

Y9++76rPGzqYdALsfvsmwv7Q3/bEmjVTr0tQE=

DomainKey-Signature: a=rsa-sha1; c=noaws;

d=gmail.com; s=gamma;

h=mime-version:in-reply-to:references:from:date:message-id:subject:to

:content-type:content-transfer-encoding;

b=jze7KSMkUGilfVCXKXaaXMi5NAtGdMQOtVZZfRNyGSy68xOd2sxefjyyig3EfT6Nv6

Q3opUMsT96Q6zjZND55w446kTh2uBTNz4d3NwIeEWJnG3xcliRQu/mXPfP8AzPI3CefL

1ornJLM1eQ2XyuZA73jem+SJtfdHUcSD1UhgI=

MIME-Version: 1.0

Received: by 10.239.157.147 with SMTP id q19mr601802hbc.61.1249316043185; Mon,

03 Aug 2009 09:14:03 -0700 (PDT)

In-Reply-To: <20090803014825.GA1326@rivest.dlitz.net>

References: <20090803014825.GA1326@rivest.dlitz.net>

From: Paul Swartz <paulswartz@gmail.com>

Date: Mon, 3 Aug 2009 12:13:43 -0400



From dlitz@dlitz.net Mon Aug 3 14:35:01 2009  
Date: Mon, 3 Aug 2009 14:35:01 -0400  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: Paul Swartz <paulswartz@gmail.com>  
Subject: Re: PyCrypto license clarification  
Message-ID: <20090803183501.GA17472@rivest.dlitz.net>  
References: <20090803014825.GA1326@rivest.dlitz.net>  
<324cfb540908030913x71d331f0kb069052f74e5ae6b@mail.gmail.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1; format=flowed  
Content-Disposition: inline  
Content-Transfer-Encoding: 8bit  
In-Reply-To: <324cfb540908030913x71d331f0kb069052f74e5ae6b@mail.gmail.com>  
X-Primary-Address: dlitz@dlitz.net  
X-Homepage: http://www.dlitz.net/  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);  
preference=unprotected  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);  
preference=signencrypt  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 1250

On Mon, Aug 03, 2009 at 12:13:43PM -0400, Paul Swartz wrote:

>On Sun, Aug 2, 2009 at 9:48 PM, Dwayne C. Litzenger<dlitz@dlitz.net> wrote:

>> Hi Paul,

>>

>> I am the new maintainer of the Python Cryptography Toolkit, and I am

>> working on a new release at <http://www.pycrypto.org/>.

>

>That's great!

>

>> I understand that you have made contributions to PyCrypto, under nickname

>> "z3p" and/or other names. May I, on your behalf, dedicate to the public

>> domain all your contributions to PyCrypto, with the following notice?

>>

>> =====

>> The contents of this file are dedicated to the public domain. To the  
>> extent that dedication to the public domain is not available, everyone  
>> is granted a worldwide, perpetual, royalty-free, non-exclusive license  
>> to exercise all rights associated with the contents of this file for  
>> any purpose whatsoever. No rights are reserved.

>> =====

>

>Yes, that's fine. Good luck with the new release!

Perfect! Thanks for the quick response!

--

Dwayne C. Litzenger <dlitz@dlitz.net>  
Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7  
From dlitz@dlitz.net Sat Feb 28 21:45:09 2009  
Date: Sat, 28 Feb 2009 21:45:09 -0500  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: Barry A Warsaw <barry@python.org>  
Subject: PyCrypto license clarification  
Message-ID: <20090301024509.GA13195@rivest.dlitz.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 2535

Hi Barry,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

```
=====
Distribute and use freely; there are no restrictions on further
dissemination and usage except those imposed by the laws of your
country of residence. This software is provided "as is" without
warranty of fitness for use or suitability for any purpose, express
or implied. Use at your own risk or not at all.
=====
```

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back (though that would be nice).

--amk (www.amk.ca)

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\_Intellectual Property and Open Source: A Practical Guide to Protecting Code\_, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, and Wim Lewis, and they have all approved the following dedication for their contributions.

I understand that you have made contributions to PyCrypto. May I, on your behalf, dedicate to the public domain all your contributions to PyCrypto, with the following notice?

```
=====
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extent that dedication to the public domain is not available, everyone
is granted a worldwide, perpetual, royalty-free, non-exclusive license
to exercise all rights associated with the contents of this file for
any purpose whatsoever. No rights are reserved.
=====
```

Regards,  
- Dwayne

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From barry@python.org Mon Mar 2 11:29:39 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <barry@python.org>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 6E01AC6640B

for <dwon@rivest.dlitz.net>; Mon, 2 Mar 2009 11:29:39 -0500 (EST)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 0644E1007A

for <dwon@rivest.dlitz.net>; Mon, 2 Mar 2009 10:29:39 -0600 (CST)

Received: (vmmailgr-postfix 8668 invoked by uid 1003); 2 Mar 2009 10:29:39 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (python.org: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="barry@python.org"; helo=mail.wooz.org; client-ip=216.15.33.230

Received: from mail.wooz.org (216-15-33-230.c3-0.slv-ubr2.lnh-slv.md.static.cable.rcn.com [216.15.33.230])

by goedel.dlitz.net (Postfix) with ESMTP id CCEA110073

for <dlitz@dlitz.net>; Mon, 2 Mar 2009 10:29:38 -0600 (CST)

Received: from snowdog.wooz.org (snowdog.wooz.org [192.168.11.202])

by mail.wooz.org (Postfix) with ESMTPSA id ACE30E3C9F

for <dlitz@dlitz.net>; Mon, 2 Mar 2009 11:29:35 -0500 (EST)

Message-Id: <09BF1A39-B015-4820-97A3-8642490C8254@python.org>

From: Barry Warsaw <barry@python.org>

To: Dwayne C. Litzenger <dlitz@dlitz.net>

In-Reply-To: <20090301024509.GA13195@rivest.dlitz.net>  
Content-Type: text/plain; charset=US-ASCII; format=flowed; delpsp=yes  
Content-Transfer-Encoding: quoted-printable  
Mime-Version: 1.0 (Apple Message framework v930.3)  
Subject: Re: PyCrypto license clarification  
Date: Mon, 2 Mar 2009 11:29:34 -0500  
References: <20090301024509.GA13195@rivest.dlitz.net>  
X-Pgp-Agent: GPGMail d55 (v55, Leopard)  
X-Mailer: Apple Mail (2.930.3)  
Status: RO  
Content-Length: 869

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On Feb 28, 2009, at 9:45 PM, Dwayne C. Litzenger wrote:

> I am the new maintainer of the Python Cryptography Toolkit, and I am =20=  
> working on a new release at <http://www.pycrypto.org/>.

Great! I'm glad to see someone taking up the mantle of this important =20=

Python library.

> I understand that you have made contributions to PyCrypto. May I, =20  
> on your behalf, dedicate to the public domain all your contributions =20=  
> to PyCrypto, with the following notice?

Absolutely yes.

Cheers,  
Barry

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.9 (Darwin)

iQCVAwUBSawJbnEjvBPtnXfVAQLZjgP/ecG+JdZwNvPJRfsa6rhY6+MHLdHI6agk  
evkInSJQAcVHIznVIVeR5IXgvDUMakZjU4SOV7MqkhsKA9IIet7PaD9VSYgn3ra5  
gElwI2DQDoOy5GExXMm74gqrrb1PCCbCRmpaYNo+DZohwHkeFBjwDRA3wItOrH7  
SK4w9VBJtfY=3D  
=3DQduY

-----END PGP SIGNATURE-----

Date: Sun, 23 Nov 2008 15:54:35 -0800  
From: Wim Lewis <wiml@hnhh.org>  
Subject: Re: PyCrypto license clarification  
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

Cc: Wim Lewis <wiml@hxxx.org>  
Message-Id: <9D5C3135-7414-47D7-9D41-0AC6C3A84D97@hxxx.org>

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On November 23, 2008, you wrote:

>Hi Wim,

>

>I am the new maintainer of the Python Cryptography Toolkit, and I am  
>working on a new release at <http://www.pycrypto.org/>.

>

>I understand that you have made contributions to PyCrypto. May I, on  
>your behalf, dedicate to the public domain all your contributions to  
>PyCrypto, with the following notice?

>

> =====  
> The contents of this file are dedicated to the public domain. To the  
> extent that dedication to the public domain is not available, everyone  
> is granted a worldwide, perpetual, royalty-free, non-exclusive license  
> to exercise all rights associated with the contents of this file for  
> any purpose whatsoever. No rights are reserved.  
> =====

Certainly! I think the only code of mine in PyCrypto is the CAST-5 / CAST-128  
implementation, which already has a public-domain notice at the top of  
the file. But I am happy to have that, any any other code of mine that  
might have wandered in there under an unclear open sourcish license,  
distributed under the public-domain dedication you quote.

Wim.

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.6 (Darwin)

iQCVAwUBSSnnA18UnN8n93LBAQLp/gQAhr7x8Av1mstc2kxEJDWTm26PTAZxMz4B  
FektbDOzkxgc5580MGGeX/MVn8aw+1BHg0YD85gsntlDzkcQtb+BR/xAvJ5zKyA  
J/Mn/I+I6ekJQ3juh8IPHLAduOXM9Rtguas/yR+Doaq0xOPKoBx+/5+t1lJtBcZ  
wrPEa9Oui9s=  
=zSY9

-----END PGP SIGNATURE-----

From dlitz@dlitz.net Sun Nov 23 00:17:22 2008

Date: Sun, 23 Nov 2008 00:17:22 -0500

From: "Dwayne C. Litzenger" <dlitz@dlitz.net>

To: "A. M. Kuchling" <amk@amk.ca>

Subject: PyCrypto license clarification

Message-ID: <20081123051722.GA29253@rivest.dlitz.net>

MIME-Version: 1.0







X-Maildir-Dup-Checked: Yes  
Return-Path: <amk@amk.ca>  
X-Original-To: dwon@rivest.dlitz.net  
Delivered-To: dwon@rivest.dlitz.net  
Received: from goedel.dlitz.net (unknown [10.159.255.6])  
by rivest.dlitz.net (Postfix) with ESMTP id 5C2C75047D  
for <dwon@rivest.dlitz.net>; Sun, 23 Nov 2008 07:51:59 -0500 (EST)  
Received: from localhost (localhost [127.0.0.1])  
by goedel.dlitz.net (Postfix) with QMQP id D632D10111  
for <dwon@rivest.dlitz.net>; Sun, 23 Nov 2008 06:51:58 -0600 (CST)  
Received: (vmailmgr-postfix 12026 invoked by uid 1003); 23 Nov 2008 06:51:58 -0600  
Delivered-To: m-dlitz-dlitz@dlitz.net  
Received-SPF: none (goedel.dlitz.net: domain of amk@amk.ca does not designate permitted sender hosts)  
Received: from mail5.sea5.speakeasy.net (mail5.sea5.speakeasy.net [69.17.117.7])  
by goedel.dlitz.net (Postfix) with ESMTP id 97DC710105  
for <dlitz@dlitz.net>; Sun, 23 Nov 2008 06:51:58 -0600 (CST)  
Received: (qmail 3992 invoked from network); 23 Nov 2008 12:51:52 -0000  
Received: from dsl092-163-165.wdc2.dsl.speakeasy.net (HELO localhost) (akuchling@[66.92.163.165])  
(envelope-sender <amk@amk.ca>)  
by mail5.sea5.speakeasy.net (qmail-ldap-1.03) with AES256-SHA encrypted SMTP  
for <dlitz@dlitz.net>; 23 Nov 2008 12:51:52 -0000  
Date: Sun, 23 Nov 2008 07:51:34 -0500  
From: "A.M. Kuchling" <amk@amk.ca>  
To: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
Subject: Re: PyCrypto license clarification  
Message-ID: <20081123125134.GA21239@amk.local>  
Reply-To: amk@amk.ca  
References: <20081123051722.GA29253@rivest.dlitz.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline  
In-Reply-To: <20081123051722.GA29253@rivest.dlitz.net>  
User-Agent: Mutt/1.5.13 (2006-08-11)  
Status: RO  
Content-Length: 537  
Lines: 15

> People often ask me what license PyCrypto is covered by, if it's  
> GPL-compatible, etc. Right now, I'm not really sure what to tell them.  
> The text in the current LICENSE file (quoted below) is not entirely clear  
> on the point of whether distributing modified versions is allowed. (It  
> says "distribute and use", but not "modify".)

The intention is that it be public domain.

> May I, on your behalf, dedicate to the public domain your considerable  
> contributions to PyCrypto, with the following notice?

You may.

--amk

From dlitz@dlitz.net Sat Feb 28 23:24:14 2009  
Date: Sat, 28 Feb 2009 23:24:14 -0500  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: Jeethu Rao <jeethurao@gmail.com>  
Subject: PyCrypto license clarification  
Message-ID: <20090301042414.GA15122@rivest.dlitz.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 2513

Hi Jeethu,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

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=====  
Distribute and use freely; there are no restrictions on further dissemination and usage except those imposed by the laws of your country of residence. This software is provided "as is" without warranty of fitness for use or suitability for any purpose, express or implied. Use at your own risk or not at all.  
=====

Incorporating the code into commercial products is permitted; you do not have to make source available or contribute your changes back (though that would be nice).

--amk (www.amk.ca)

For the next PyCrypto release, I would like to take steps to move toward a clearer licensing regime. I am asking as many copyright holders as I can find if I can release PyCrypto under something clearer and more standard. Below, I have quoted a public domain dedication that was recommended in Intellectual Property and Open Source: A Practical Guide to Protecting Code, by Van Lindberg. I have already contacted A. M. Kuchling, Robey Pointer, and Wim Lewis, and they have all approved the following text for

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=====

Regards,  
- Dwayne

--

Dwayne C. Litzengerger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From jeethurao@gmail.com Sun Mar 8 17:28:16 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <jeethurao@gmail.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 0CC83515D9

for <dwon@rivest.dlitz.net>; Sun, 8 Mar 2009 17:28:16 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 4E58F450CB

for <dwon@rivest.dlitz.net>; Sun, 8 Mar 2009 15:28:15 -0600 (CST)

Received: (vmailmgr-postfix 5011 invoked by uid 1003); 8 Mar 2009 15:28:15 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: pass (gmail.com ... \_spf.google.com: 209.85.198.249 is authorized to use 'jeethurao@gmail.com' in 'mfrom' identity (mechanism 'ip4:209.85.128.0/17' matched)) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="jeethurao@gmail.com"; helo=rv-out-0708.google.com; client-ip=209.85.198.249

Received: from rv-out-0708.google.com (unknown [209.85.198.249])

by goedel.dlitz.net (Postfix) with ESMTP id 3C097449E7

for <dlitz@dlitz.net>; Sun, 8 Mar 2009 15:28:12 -0600 (CST)

Received: by rv-out-0708.google.com with SMTP id k29so1252333rvb.26

for <dlitz@dlitz.net>; Sun, 08 Mar 2009 14:27:56 -0700 (PDT)

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=gmail.com; s=gamma;

h=domainkey-signature:mime-version:received:in-reply-to:references

:date:message-id:subject:from:to:content-type;

bh=YWy9U32WCU/ksRqukHwaOZyJQBU4Yvt5mI20U6mI/g=;

b=oMjI22IIxYiJKge2zNjW3rRiUi9LqFXmey5Wp0pLItuNF+X3duyfhopTuBAKw7MwVY

B5E6VQuGVEyzBbNsctyVgq6DhQiQtouCLZymSViobmuDmKn5DtUKoxpDk0xCxQmHYaas  
L9/A6D3/J66kKrNBgX9mc0GPcZTviVFYkPR0Q=

DomainKey-Signature: a=rsa-sha1; c=noaws;

d=gmail.com; s=gamma;

h=mime-version:in-reply-to:references:date:message-id:subject:from:to

:content-type;

b=Ym7CStuDEfJKay1AJyWZkZmJA1lnTcwCG6akBHAXLld8ht6PFcmIsffzZG8hJCIVJ8

vljqcT+G6cywVTBw1pyGX7ECYzr0+vhGvgdpACGrS24zikHfpSSd5GFogzXaLVvGVH8p

bqSHpfWKKtEP4gAQkiNeIq1GNtR2j8U3fnRyg=

MIME-Version: 1.0

Received: by 10.141.176.13 with SMTP id d13mr2656028rvp.231.1236547674677;

Sun, 08 Mar 2009 14:27:54 -0700 (PDT)

In-Reply-To: <20090301042414.GA15122@rivest.dlitz.net>

References: <20090301042414.GA15122@rivest.dlitz.net>

Date: Mon, 9 Mar 2009 02:57:54 +0530

Message-ID: <e3c0ddba0903081427p3a7b1058g417dd8624df68d6d@mail.gmail.com>

Subject: Re: PyCrypto license clarification

From: Jeethu Rao <jeethurao@gmail.com>

To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

Content-Type: multipart/alternative; boundary=000e0cd209d0e5a3d40464a23054

Status: RO

Content-Length: 7668

--000e0cd209d0e5a3d40464a23054

Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Hi Dwayne, My contribution to pycrypto are very very minimal (The sha256 module, IIRC).

I'd be fine with the public domain license for PyCrypto.

Jeethu Rao

PS: Apologies for the delay in my response.

I don't really check this email address all that often,

please direct any further correspondence to jeethu@jeethurao.com

On Sun, Mar 1, 2009 at 9:54 AM, Dwayne C. Litzenger <dlitz@dlitz.net> wrote:

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>

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> =====  
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> =====  
>  
> Regards,  
> - Dwayne  
>  
> --  
> Dwayne C. Litzengerger <dlitz@dlitz.net>  
> Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7  
>

--  
Jeethu Rao

--000e0cd209d0e5a3d40464a23054  
Content-Type: text/html; charset=ISO-8859-1  
Content-Transfer-Encoding: quoted-printable

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<http://www.amk.ca>

"\_blank">www.amk.ca</a><br>

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<br>

Regards,<br>

- Dwayne<br><font color="#888888">

<br>

-- <br>

Dwayne C. Litzengerger <<a href="mailto:dlitz@dlitz.net" target="\_blank">dlitz@dlitz.net</a><br>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 A04A24 928C EC13 39C2 5CF7<br>

</font></blockquote></div><br><br clear="all"><br>-- <br>Jeethu Rao<br>

</div></div>

--000e0cd209d0e5a3d40464a23054--

PyCrypto Code Submission Requirements - Rev. C

Last updated: 2009-02-28

In an effort to further clarify PyCrypto's licensing terms, anyone submitting code to PyCrypto must be able to certify the following (taken from the Linux kernel's SubmittingPatches file):



## Developer's Certificate of Origin 1.1

By making a contribution to this project, I certify that:

- (a) The contribution was created in whole or in part by me and I have the right to submit it under the open source license indicated in the file; or
- (b) The contribution is based upon previous work that, to the best of my knowledge, is covered under an appropriate open source license and I have the right under that license to submit that work with modifications, whether created in whole or in part by me, under the same open source license (unless I am permitted to submit under a different license), as indicated in the file; or
- (c) The contribution was provided directly to me by some other person who certified (a), (b) or (c) and I have not modified it.
- (d) I understand and agree that this project and the contribution are public and that a record of the contribution (including all personal information I submit with it, including my sign-off) is maintained indefinitely and may be redistributed consistent with this project or the open source license(s) involved.

In addition, the code's author must not be a national, citizen, or resident of the United States of America.

In addition, the code must not be of U.S. origin.

In addition, all new code contributed to PyCrypto must be dedicated to the public domain as follows:

The contents of this file are dedicated to the public domain. To the extent that dedication to the public domain is not available, everyone is granted a worldwide, perpetual, royalty-free, non-exclusive license to exercise all rights associated with the contents of this file for any purpose whatsoever. No rights are reserved.

=== EOF ===

From dlitz@dlitz.net Mon May 4 22:49:14 2009  
Date: Mon, 4 May 2009 22:49:14 -0400  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: Joris Bontje <joris@bontje.nl>  
Subject: PyCrypto license clarification  
Message-ID: <20090505024914.GA9219@rivest.dlitz.net>  
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 2553

Hi Joris,

I am the new maintainer of the Python Cryptography Toolkit, and I am working on a new release at <http://www.pycrypto.org/>.

People often ask me what license PyCrypto is covered by, if it's GPL-compatible, etc. Right now, I'm not really sure what to tell them. The text in the current LICENSE file (quoted below) is not entirely clear on the point of whether distributing modified versions is allowed. (It says "distribute and use", but not "modify".)

```
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dissemination and usage except those imposed by the laws of your
country of residence. This software is provided "as is" without
warranty of fitness for use or suitability for any purpose, express
or implied. Use at your own risk or not at all.
=====
```

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--amk (www.amk.ca)

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```

to exercise all rights associated with the contents of this file for any purpose whatsoever. No rights are reserved.

---

Regards,  
- Dwayne

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From joris@bontje.nl Tue May 5 03:08:32 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <joris@bontje.nl>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 7AA4B9E5078

for <dwon@rivest.dlitz.net>; Tue, 5 May 2009 03:08:32 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id 2315B40583

for <dwon@rivest.dlitz.net>; Tue, 5 May 2009 01:08:32 -0600 (CST)

Received: (vmailmgr-postfix 16890 invoked by uid 1003); 5 May 2009 01:08:32 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (bontje.nl: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom; envelope-from="joris@bontje.nl"; helo=smtp6.versatel.nl; client-ip=62.58.50.97

Received: from smtp6.versatel.nl (smtp6.versatel.nl [62.58.50.97])

by goedel.dlitz.net (Postfix) with ESMTP id 2D76A4052C

for <dlitz@dlitz.net>; Tue, 5 May 2009 01:08:30 -0600 (CST)

Received: (qmail 4224 invoked by uid 0); 5 May 2009 07:08:25 -0000

Received: from qmail06.zonnet.nl (HELO dell062.admin.zonnet.nl) ([10.170.1.123])

(envelope-sender <joris@bontje.nl>)

by 10.170.1.96 (qmail-ldap-1.03) with SMTP

for <>; 5 May 2009 07:08:25 -0000

Received: by dell062.admin.zonnet.nl (Postfix, from userid 33)

id 9BE9B15759B; Tue, 5 May 2009 09:08:25 +0200 (CEST)

Received: from firewall66.interaccess.nl (firewall66.interaccess.nl

[193.173.35.66]) by www.webmail.vuurwerk.nl (Horde MIME library) with HTTP;

Tue, 05 May 2009 09:08:25 +0200

Message-ID: <20090505090825.gsq1ps7hg08wwwok@www.webmail.vuurwerk.nl>

Date: Tue, 05 May 2009 09:08:25 +0200

From: joris@bontje.nl

To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

Subject: Re: PyCrypto license clarification

References: <20090505024914.GA9219@rivest.dlitz.net>

In-Reply-To: <20090505024914.GA9219@rivest.dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain;

charset=ISO-8859-1;  
format="flowed"  
Content-Disposition: inline  
Content-Transfer-Encoding: 7bit  
User-Agent: Internet Messaging Program (IMP) H3 (4.1.3)  
Status: RO  
X-Status: A  
Content-Length: 3488

Hi Dwayne,

Thanks for taking over the PyCrypto library and putting in the required effort to keep this going.

I was very excited to read that it is now one of the installed libraries for Google AppsEngine!

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> Dwayne C. Litzengerger <dlitz@dlitz.net>  
> Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From dlitz@dlitz.net Tue May 5 17:53:47 2009  
Date: Tue, 5 May 2009 17:53:47 -0400  
From: "Dwayne C. Litzengerger" <dlitz@dlitz.net>  
To: joris@bontje.nl  
Subject: Re: PyCrypto license clarification  
Message-ID: <20090505215347.GB9933@rivest.dlitz.net>  
References: <20090505024914.GA9219@rivest.dlitz.net>  
<20090505090825.gsqlips7hg08wwwok@www.webmail.vuurwerk.nl>  
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
In-Reply-To: <20090505090825.gsq1ps7hg08wwwok@www.webmail.vuurwerk.nl>  
X-Primary-Address: dlitz@dlitz.net  
X-Homepage: http://www.dlitz.net/  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);  
preference=unprotected  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);  
preference=signencrypt  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 3863

Excellent! Thank you!

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>>  
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>>  
>> --  
>> Dwayne C. Litzberger <dlitz@dlitz.net>  
>> Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7  
>  
>

--

Dwayne C. Litzenger <dlitz@dlitz.net>  
Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7  
Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45  
From dlitz@dlitz.net Sat Apr 18 09:14:20 2009  
Date: Sat, 18 Apr 2009 09:14:20 -0400  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: Mark Moraes <moraes@computer.org>  
Subject: PyCrypto license clarification  
Message-ID: <20090418131419.GA14494@rivest.dlitz.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 2635

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```

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Regards,  
- Dwayne

--

Dwayne C. Litzberger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

From markmoraes@yahoo.com Mon Apr 20 19:25:37 2009

X-Maildir-Dup-Checked: Yes

Return-Path: <markmoraes@yahoo.com>

X-Original-To: dwon@rivest.dlitz.net

Delivered-To: dwon@rivest.dlitz.net

Received: from goedel.dlitz.net (unknown [10.159.255.6])

by rivest.dlitz.net (Postfix) with ESMTP id 5D9AE984FDD

for <dwon@rivest.dlitz.net>; Mon, 20 Apr 2009 19:25:37 -0400 (EDT)

Received: from localhost (localhost [127.0.0.1])

by goedel.dlitz.net (Postfix) with QMQP id DE41F4025F

for <dwon@rivest.dlitz.net>; Mon, 20 Apr 2009 17:25:36 -0600 (CST)

Received: (vmailmgr-postfix 7604 invoked by uid 1003); 20 Apr 2009 17:25:36 -0600

Delivered-To: m-dlitz-dlitz@dlitz.net

Received-SPF: none (yahoo.com: No applicable sender policy available) receiver=goedel.dlitz.net; identity=mfrom;

envelope-from="markmoraes@yahoo.com"; helo=web32405.mail.mud.yahoo.com; client-ip=68.142.207.198

Received: from web32405.mail.mud.yahoo.com (web32405.mail.mud.yahoo.com [68.142.207.198])

by goedel.dlitz.net (Postfix) with SMTP id B5EAF401EE

for <dlitz@dlitz.net>; Mon, 20 Apr 2009 17:25:36 -0600 (CST)

Received: (qmail 34697 invoked by uid 60001); 20 Apr 2009 23:25:33 -0000

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed; d=yahoo.com; s=s1024; t=1240269933;

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Mailer:Date:From:Reply-To:Subject:To:MIME-Version:Content-Type;

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EY1j10hIx0K0u2UD0yoYTINBCmsdMQRoJ7ph9bmt+p/EJhRpe+FiV6aoLV0FONWiHfGDghPT1dulWXfVTqgB

2aU=

DomainKey-Signature:a=rsa-sha1; q=dns; c=noaws;

s=s1024; d=yahoo.com;

h=Message-ID:X-YMail-OSG:Received:X-Mailer:Date:From:Reply-To:Subject:To:MIME-Version:Content-Type;  
b=r6RShFF5VzQLg+9tcn1xKuo4Rs4IVvXF6fdqOpQrMyRCxeFoebhuTE35grGqlomOJLwM0+mZwRb6rGkDj7  
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eo=;

Message-ID: <551071.34569.qm@web32405.mail.mud.yahoo.com>

X-YMail-OSG:

FrK8aWMVM1mFJtLpMGbUbCLjbUQC.i.JkIAKUHSFsFn7t9PbtewAewXJ2uhZGCOIGCX6oVnG3u.CgqzAffY  
4vZSnfTT8wnCkzZnZ\_g6k.XUc3ipo\_6e.92TXl4p8MxDGAf1tpNF5nXPwcQ7aREs7jGoWWVJYVYtp50clsUFS  
Hzf7Zbpa8P1Yoe\_xSzf3OAgRSh5fCrbFCC8sHPCuwrL3YhasbtHmkWffteSS.x6gEcBaxf03oz4FeDb5mpJ54g11X  
onq8h\_TmzX9g84Bin9g\_3fJ4WSXm6g6.tohLyfXcUxoz4j036wyWpTKPrWEzIUQaN83Sv\_bj\_Ghxw--

Received: from [69.124.140.74] by web32405.mail.mud.yahoo.com via HTTP; Mon, 20 Apr 2009 16:25:32 PDT

X-Mailer: YahooMailClassic/5.2.15 YahooMailWebService/0.7.289.1

Date: Mon, 20 Apr 2009 16:25:32 -0700 (PDT)

From: M Moraes <markmoraes@yahoo.com>

Reply-To: moraes@computer.org

Subject: Re: PyCrypto license clarification

To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Status: RO

X-Status: A

Content-Length: 3222

Hi Dwayne.

Sure, the new license sounds fine for all my contributions to PyCrypto, and thanks for taking it on. My apologies for not responding to your previous e-mail.

Regards,

Mark.

--- On Sat, 4/18/09, Dwayne C. Litzenger <dlitz@dlitz.net> wrote:

> From: Dwayne C. Litzenger <dlitz@dlitz.net>

> Subject: PyCrypto license clarification

> To: "Mark Moraes" <moraes@computer.org>

> Date: Saturday, April 18, 2009, 9:14 AM

> Hi Mark,

>

> I am the new maintainer of the Python Cryptography Toolkit,

> and I am

> working on a new release at <http://www.pycrypto.org/>.

>

> People often ask me what license PyCrypto is covered by, if

> it's

> GPL-compatible, etc. Right now, I'm not really sure

> what to tell them.  
> The text in the current LICENSE file (quoted below) is not  
> entirely clear  
> on the point of whether distributing modified versions is  
> allowed. (It  
> says "distribute and use", but not "modify".)

>  
>

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>     (though that would be nice).

>  
>

>     --amk

>  
>

>     ([www.amk.ca](http://www.amk.ca))

>

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> to move toward a  
> clearer licensing regime. I am asking as many  
> copyright holders as I can  
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> Below, I have quoted a public domain dedication that was  
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> Intellectual Property and Open Source: A Practical Guide  
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> M. Kuchling, Robey  
> Pointer, Wim Lewis, Jeethu Rao, and Barry Warsaw, and they  
> have all  
> approved the following dedication for their contributions.

>  
> I understand that you have made contributions to  
> PyCrypto. May I, on your  
> behalf, dedicate to the public domain all your  
> contributions to PyCrypto,  
> with the following notice?  
>  
>  
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>  
> =====  
>  
> Regards,  
> - Dwayne  
>  
> -- Dwayne C. Litzenger <dlitz@dlitz.net>  
> Key-signing key - 19E1  
> 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7  
>

From dlitz@dlitz.net Mon Apr 20 20:01:37 2009  
Date: Mon, 20 Apr 2009 20:01:37 -0400  
From: "Dwayne C. Litzenger" <dlitz@dlitz.net>  
To: moraes@computer.org  
Subject: Re: PyCrypto license clarification  
Message-ID: <20090421000137.GA29012@rivest.dlitz.net>  
References: <551071.34569.qm@web32405.mail.mud.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Disposition: inline  
In-Reply-To: <551071.34569.qm@web32405.mail.mud.yahoo.com>  
X-Primary-Address: dlitz@dlitz.net  
X-Homepage: http://www.dlitz.net/  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/  
id=19E11FE8B3CFF273ED174A24928CEC1339C25CF7 (only for key signing);  
preference=unprotected  
X-OpenPGP: url=http://www.dlitz.net/go/gpgkey/;

id=4B2AFD82FC7D9E3838D9179F1C11B877E7804B45 (2008);  
preference=signencrypt  
User-Agent: Mutt/1.5.16 (2007-06-11)  
Status: RO  
Content-Length: 3677

Thanks a lot, and don't worry about not responding to previous emails. I do that too much myself. :)

On Mon, Apr 20, 2009 at 04:25:32PM -0700, M Moraes wrote:

>

>Hi Dwayne.

>

>Sure, the new license sounds fine for all my contributions to PyCrypto, and thanks for taking it on. My apologies for not responding to your previous e-mail.

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>> From: Dwayne C. Litzenger <dlitz@dlitz.net>

>> Subject: PyCrypto license clarification

>> To: "Mark Moraes" <moraes@computer.org>

>> Date: Saturday, April 18, 2009, 9:14 AM

>> Hi Mark,

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>> and I am

>> working on a new release at <http://www.pycrypto.org/>.

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>> People often ask me what license PyCrypto is covered by, if

>> it's

>> GPL-compatible, etc. Right now, I'm not really sure

>> what to tell them.

>> The text in the current LICENSE file (quoted below) is not

>> entirely clear

>> on the point of whether distributing modified versions is

>> allowed. (It

>> says "distribute and use", but not "modify".)

>>

>>

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>> not have to make source available or  
>> contribute your changes back  
>> (though that would be nice).  
>>  
>> --amk  
>>  
>>  
>> (www.amk.ca)  
>>  
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>> Below, I have quoted a public domain dedication that was  
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>> Intellectual Property and Open Source: A Practical Guide  
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>> M. Kuchling, Robey  
>> Pointer, Wim Lewis, Jeethu Rao, and Barry Warsaw, and they  
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>>  
>> I understand that you have made contributions to  
>> PyCrypto. May I, on your  
>> behalf, dedicate to the public domain all your  
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>> with the following notice?  
>>  
>>  
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>> rights are reserved.

>>

>> =====

>>

>> Regards,

>> - Dwayne

>>

>> -- Dwayne C. Litzenger <dlitz@dlitz.net>

>> Key-signing key - 19E1

>> 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

>>

>

--

Dwayne C. Litzenger <dlitz@dlitz.net>

Key-signing key - 19E1 1FE8 B3CF F273 ED17 4A24 928C EC13 39C2 5CF7

Annual key (2008) - 4B2A FD82 FC7D 9E38 38D9 179F 1C11 B877 E780 4B45

Date: Mon, 16 Feb 2009 12:58:00 -0800

From: Robey Pointer <robey@lag.net>

Subject: Re: PyCrypto license clarification

To: "Dwayne C. Litzenger" <dlitz@dlitz.net>

Received-SPF: pass (goedel.dlitz.net: domain of robey@lag.net designates 69.61.78.186 as permitted sender)

Message-Id: <F469A078-6305-4484-BEA8-F4EC38A4154F@lag.net>

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

On 23 Nov 2008, at 07:42, Dwayne C. Litzenger wrote:

> For the next PyCrypto release, I would like to take steps to move  
> toward a clearer licensing regime. I am asking as many copyright  
> holders as I can find if I can release PyCrypto under something  
> clearer and more standard. Below, I have quoted a public domain  
> dedication that was recommended in Intellectual Property and Open  
> Source: A Practical Guide to Protecting Code, by Van Lindberg. I  
> have already contacted A. M. Kuchling, and he has approved the  
> following dedication for his contributions.

>

> May I, on your behalf, dedicate to the public domain all your

> contributions to PyCrypto, with the following notice?

>

>

> =

> =====

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>  
> =  
> =====  
>

In case I haven't replied to this yet: Yes, this is fine with me.

robey

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.8 (Darwin)

iEYEARECAAYFAkmZ01gACgkQQQDkKvyJ6cOLvQCfQmYYuVODvIlyLg0hgCI9LAbQ  
SH8AoLJgaq1Ili7/ZYDc+/Cd8VO0xLbr  
=Mv6g

-----END PGP SIGNATURE-----

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~~~~~

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3. Replacing some modules with code written from scratch (e.g. the RIPEMD and Blowfish modules were re-implemented from their respective algorithm specifications without reference to the old implementations).
4. Removing some modules altogether without replacing them.

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1.175 msntp 1.6

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October 1996

April 1997

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1.176 Ildpd 1.0.3 r0

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1.177 icu 64.2 r0

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#
#
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# listed below with further processing for compound word breaking. The
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```
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```
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```
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```

```
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## BSD-specific setup (FreeBSD, OpenBSD, NetBSD, *BSD)
```

```
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```
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```

```
## Commands to generate dependency files
```

```
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
```

```
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)
```

```
## Flags for position independent code
```

```
SHAREDLIBCFLAGS = -fPIC
```

```
SHAREDLIBCXXFLAGS = -fPIC
```

```
SHAREDLIBCPPFLAGS = -DPIC
```

```
## Additional flags when building libraries and with threads
```

```
THREADSCPPFLAGS = -D_REENTRANT
```

```
LIBCPPFLAGS =
```

```
## Compiler switch to embed a runtime search path
```

```
LD_RPATH=
```

```

LD_RPATH_PRE= -Wl,-rpath,

## Compiler switch to embed a library name
LD_SONAME = -Wl,-soname -Wl,$(notdir $(MIDDLE_SO_TARGET))

## Shared library options
LD_SOOPTIONS= -Wl,-Bsymbolic

## Shared object suffix
SO = so

## Non-shared intermediate object suffix
STATIC_O = ao

## Compilation rules
%.${STATIC_O}: $(srcdir)/%.c
$(COMPILE.c) $(STATICCPPFLAGS) $(STATICCFLAGS) -o $@ $<
%.o: $(srcdir)/%.c
$(COMPILE.c) $(DYNAMICCPPFLAGS) $(DYNAMICCFLAGS) -o $@ $<

%.${STATIC_O}: $(srcdir)/%.cpp
$(COMPILE.cc) $(STATICCPPFLAGS) $(STATICCXXFLAGS) -o $@ $<
%.o: $(srcdir)/%.cpp
$(COMPILE.cc) $(DYNAMICCPPFLAGS) $(DYNAMICCXXFLAGS) -o $@ $<

## Dependency rules
%.d: $(srcdir)/%.c
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.c) $< \
| sed "s^\($*\)\.o[ :]*^1.o $@ : /g\" > $@; \
[ -s $@ ] || rm -f $@'

%.d: $(srcdir)/%.cpp
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.cc) $< \
| sed "s^\($*\)\.o[ :]*^1.o $@ : /g\" > $@; \
[ -s $@ ] || rm -f $@'

## Versioned libraries rules

%.${SO}.${SO_TARGET_VERSION_MAJOR}: %.${SO}.${SO_TARGET_VERSION}
$(RM) $@ && ln -s ${<F} $@
%.${SO}: %.${SO}.${SO_TARGET_VERSION_MAJOR}
$(RM) $@ && ln -s ${*F}.${SO}.${SO_TARGET_VERSION} $@

## Bind internal references

# LDflags that pkgdata will use

```

```
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

## Remove shared library 's'
STATIC_PREFIX_WHEN_USED =
STATIC_PREFIX =

## End BSD-specific setup
```

1.178 libnss-nisplus

1.3+gitAUTOINC+c6934373c7 r0

1.178.1 Available under license :

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Version 2.1, February 1999

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You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

@enumerate a

@item

The modified work must itself be a software library.

@item

You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

@item

You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

@item

If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

@end enumerate

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of

this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

@item

You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

@item

A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or

linked with it, is called a ``work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a ``work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a ``work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a ``work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item

As an exception to the Sections above, you may also combine or link a ``work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

@enumerate a

@item

Accompany the work with the complete corresponding

machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable ``work that uses the Library'', as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

@item

Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

@item

Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

@item

If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

@item

Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

@end enumerate

For an executable, the required form of the ``work that uses the Library'' must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot

use both them and the Library together in an executable that you distribute.

@item

You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

@enumerate a

@item

Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

@item

Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

@end enumerate

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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page

@subheading How to Apply These Terms to Your New Libraries

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@smallexample

@var{one line to give the library's name and an idea of what it does.}

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@var{signature of Ty Coon}, 1 April 1990

Ty Coon, President of Vice

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Version 2.1, February 1999

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a

combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may

distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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1.185 python-greenlet 0.4.15 r0

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* @(#)tftp.h 8.1 (Berkeley) 6/2/93

* \$FreeBSD: /repoman/r/ncvs/src/include/arpa/tftp.h,v 1.3.6.1 2002/08/14 21:59:26 peter Exp \$

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1.187 libssh2 1.8.0-3.el7

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1.188 libgpg-error 1.31 1.e18

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1.189 coreutils 8.30 8.e18

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1.190 libcap 2.26 4.el8

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1.194 python36 3.6.8-

2.module_e18.3.0+389+6a62c88d

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A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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1.198 python3-bcrypt 3.1.4 r0

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1.201 python-packaging 19.2 r0

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1.202 lua 5.3.4 11.el8

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1.204 lua-cjson 2.1.0

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1.205 libcheck 0.12.0 r0

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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1.206 libmspack 0.5alpha r0

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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The End

1.208 libutempter 1.1.6 14.el8

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1.209 python3-atomicwrites 1.3.0 r0

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1.210 netkit-rsh 0.17 r0

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1.211 libyaml 0.1.7 5.el8

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1.212 iperf 3.7 r0

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 * @(#)queue.h 8.5 (Berkeley) 8/20/94
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*  
*-----  
*
```

```
* stdio.c
* by Mark Gates <mgates@nlanr.net>
* and Ajay Tirumalla <tirumala@ncsa.uiuc.edu>
* -----
* input and output numbers, converting with kilo, mega, giga
* ----- */
```

=====

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1.213 email 4.0.2 r0

1.214 libnewt 0.52.21 r0

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1.217 findutils 4.6.0 20.e18

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Version 3, 29 June 2007

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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That's all there is to it!

1.219 python-enum 1.1.6 r0

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1.220 rsync 3.1.3 r0

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1.221 python-atomicwrites 1.3.0 r0

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1.222 libtirpc 1.1.4 r0

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```
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```

```
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1.228 libgudev 233 r0

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1.229 pythonurllib 1.25.8 r0

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* erikcederstrand <<http://code.google.com/u/erikcederstrand/>>

* NTLM-authenticated HTTPSConnectionPool

* Basic-authenticated HTTPSConnectionPool (merged into make_headers)

* niphlod <niphlod@gmail.com>

* Client-verified SSL certificates for HTTPSConnectionPool

* Response gzip and deflate encoding support

* Better unicode support for filepost using StringIO buffers

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* Non-multipart encoding for POST requests

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- * Thomas Weischuh <thomas@t-8ch.de>
 - * Support for TLS SNI
 - * API unification of ssl_version/cert_reqs
 - * SSL fingerprint and alternative hostname verification
 - * Bugfixes in testsuite

- * Sune Kirkeby <mig@ibofobi.dk>
 - * Optional SNI-support for Python 2 via PyOpenSSL.

- * Marc Schlaich <marc.schlaich@gmail.com>
 - * Various bugfixes and test improvements.

- * Bryce Boe <bbzbryce@gmail.com>
 - * Correct six.moves conflict
 - * Fixed pickle support of some exceptions

- * Boris Figovsky <boris.figovsky@ravellosystems.com>
 - * Allowed to skip SSL hostname verification

- * Cory Benfield <<https://lukasa.co.uk/about/>>
 - * Stream method for Response objects.
 - * Return native strings in header values.
 - * Generate 'Host' header when using proxies.

- * Jason Robinson <jaywink@basshero.org>
 - * Add missing WrappedSocket.fileno method in PyOpenSSL

- * Audrius Butkevicius <audrius.butkevicius@elastichosts.com>
 - * Fixed a race condition

- * Stanislav Vitkovskiy <stas.vitkovsky@gmail.com>
 - * Added HTTPS (CONNECT) proxy support

- * Stephen Holsapple <sholsapp@gmail.com>
 - * Added abstraction for granular control of request fields

- * Martin von Gagern <Martin.vGagern@gmx.net>
 - * Support for non-ASCII header parameters

- * Kevin Burke <kev@inburke.com> and Pavel Kirichenko <juanych@yandex-team.ru>

- * Support for separate connect and request timeouts

- * Peter Waller <p@pwaller.net>
 - * HTTPResponse.tell() for determining amount received over the wire

- * Nipunn Koorapati <nipunn1313@gmail.com>
 - * Ignore default ports when comparing hosts for equality

- * Danilo @dbrgn <https://dbrgn.ch/>
 - * Disabled TLS compression by default on Python 3.2+
 - * Disabled TLS compression in pyopenssl contrib module
 - * Configurable cipher suites in pyopenssl contrib module

- * Roman Bogorodskiy <roman.bogorodskiy@ericsson.com>
 - * Account retries on proxy errors

- * Nicolas Delaby <nicolas.delaby@ezeep.com>
 - * Use the platform-specific CA certificate locations

- * Josh Schneier <https://github.com/jschneier>
 - * HTTPHeaderDict and associated tests and docs
 - * Bugfixes, docs, test coverage

- * Tahia Khan <http://tahia.tk/>
 - * Added Timeout examples in docs

- * Arthur Grunseid <https://grunseid.com>
 - * source_address support and tests (with https://github.com/bui)

- * Ian Cordasco <graffatcolmingov@gmail.com>
 - * PEP8 Compliance and Linting
 - * Add ability to pass socket options to an HTTP Connection

- * Erik Tollerud <erik.tollerud@gmail.com>
 - * Support for standard library io module.

- * Krishna Prasad <kprasad.iitd@gmail.com>
 - * Google App Engine documentation

- * Aaron Meurer <asmeurer@gmail.com>
 - * Added Url.url, which unparses a Url

- * Evgeny Kapun <abacabadabacaba@gmail.com>
 - * Bugfixes

- * Benjamin Meyer <bm_witness@yahoo.com>
 - * Security Warning Documentation update for proper capture

- * Shivan Sornarajah <github@sornars.com>
- * Support for using ConnectionPool and PoolManager as context managers.

- * Alex Gaynor <alex.gaynor@gmail.com>
- * Updates to the default SSL configuration

- * Tomas Tomecek <ttomecek@redhat.com>
- * Implemented generator for getting chunks from chunked responses.

- * tlynn <https://github.com/tlynn>
- * Respect the warning preferences at import.

- * David D. Riddle <ddriddle@illinois.edu>
- * IPv6 bugfixes in testsuite

- * Thea Flowers <magicalgirl@google.com>
- * App Engine environment tests.
- * Documentation re-write.

- * John Krauss <https://github.com/talos>
- * Clues to debugging problems with `cryptography` dependency in docs

- * Disassem <https://github.com/Disassem>
- * Fix pool-default headers not applying for url-encoded requests like GET.

- * James Atherfold <jlatherfold@hotmail.com>
- * Bugfixes relating to cleanup of connections during errors.

- * Christian Pedersen <https://github.com/chripede>
- * IPv6 HTTPS proxy bugfix

- * Jordan Moldow <https://github.com/jmoldow>
- * Fix low-level exceptions leaking from ``HTTPResponse.stream()``.
- * Bugfix for ``ConnectionPool.urlopen(release_conn=False)``.
- * Creation of ``HTTPConnectionPool.ResponseCls``.

- * Predrag Gruevski <https://github.com/obi1kenobi>
- * Made cert digest comparison use a constant-time algorithm.

- * Adam Talsma <https://github.com/a-tal>
- * Bugfix to ca_cert file paths.

- * Evan Meagher <https://evanmeagher.net>
- * Bugfix related to `memoryview` usage in PyOpenSSL adapter

- * John Vandenberg <jayvdb@gmail.com>
- * Python 2.6 fixes; pyflakes and pep8 compliance

- * Andy Caldwell <andy.m.caldwell@googlemail.com>
- * Bugfix related to reusing connections in indeterminate states.

- * Ville Skytt <ville.skytta@iki.fi>
- * Logging efficiency improvements, spelling fixes, Travis config.

- * Shige Takeda <smtakeda@gmail.com>
- * Started Recipes documentation and added a recipe about handling concatenated gzip data in HTTP response

- * Jess Shapiro <jesse@jesseshapiro.net>
- * Various character-encoding fixes/tweaks
- * Disabling IPv6 DNS when IPv6 connections not supported

- * David Foster <http://dafoster.net/>
- * Ensure order of request and response headers are preserved.

- * Jeremy Cline <jeremy@jcline.org>
- * Added connection pool keys by scheme

- * Aviv Palivoda <palaviv@gmail.com>
- * History list to Retry object.
- * HTTPResponse contains the last Retry object.

- * Nate Prewitt <nate.prewitt@gmail.com>
- * Ensure timeouts are not booleans and greater than zero.
- * Fixed infinite loop in ``stream`` when amt=None.
- * Added length_remaining to determine remaining data to be read.
- * Added enforce_content_length to raise exception when incorrect content-length received.

- * Seth Michael Larson <sethmichaellarson@protonmail.com>
- * Created selectors backport that supports PEP 475.

- * Alexandre Dias <alex.dias@smarkets.com>
- * Don't retry on timeout if method not in whitelist

- * Moinuddin Quadri <moin18@gmail.com>
- * Lazily load idna package

- * Tom White <s6yg1ez3@mail2tor.com>
- * Made SOCKS handler differentiate socks5h from socks5 and socks4a from socks4.

- * Tim Burke <tim.burke@gmail.com>
- * Stop buffering entire deflate-encoded responses.

- * Tuukka Mustonen <tuukka.mustonen@gmail.com>
- * Add counter for status_forcelist retries.

- * Erik Rose <erik@mozilla.com>

- * Bugfix to pyopenssl vendoring

- * Wolfgang Richter <wolfgang.richter@gmail.com>
- * Bugfix related to loading full certificate chains with PyOpenSSL backend.

- * Mike Miller <github@mikeage.net>
- * Logging improvements to include the HTTP(S) port when opening a new connection

- * Ioannis Tziakos <mail@itziakos.gr>
- * Fix ``util.selectors._fileobj_to_fd`` to accept ``long``.
- * Update appveyor tox setup to use the 64bit python.

- * Akamai (through Jess Shapiro) <jshapiro@akamai.com>
- * Ongoing maintenance; 2017-2018

- * Dominique Leuenberger <dimstar@opensuse.org>
- * Minor fixes in the test suite

- * Will Bond <will@wbond.net>
- * Add Python 2.6 support to ``contrib.securetransport``

- * Aleksei Alekseev <alekseev.yeskela@gmail.com>
- * using auth info for socks proxy

- * Chris Wilcox <git@crwilcox.com>
- * Improve contribution guide
- * Add ``HTTPResponse.geturl`` method to provide ``urllib2.urlopen().geturl()`` behavior

- * Bruce Merry <https://www.brucemerry.org.za>
- * Fix leaking exceptions when system calls are interrupted with zero timeout

- * Hugo van Kemenade <https://github.com/hugovk>
- * Drop support for EOL Python 2.6

- * Tim Bell <https://github.com/timb07>
- * Bugfix for responses with Content-Type: message/* logging warnings

- * Justin Bramley <https://github.com/jbramleycl>
- * Add ability to handle multiple Content-Encodings

- * Katsuhiko YOSHIDA <https://github.com/kyoshidajp>
- * Remove Authorization header regardless of case when redirecting to cross-site

- * James Meickle <https://permadeath.com/>
- * Improve handling of Retry-After header

- * Chris Jerdonek <chris.jerdonek@gmail.com>
- * Remove a spurious TypeError from the exception chain inside

HTTPConnectionPool._make_request(), also for BaseExceptions.

* [Your name or handle] <[email or website]>

* [Brief summary of your changes]

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1.230 libdevmapper 2.03.02 r0

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1.231 python-importlib-metadata 0.23 r0

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1.234 python3-packaging 19.2 r0

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1.235 libffi 3.3~rc0 r0

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1.236 pps-tools 1.0.2 r0

1.237 candc++beepcore 0.2.00

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1.238 semodule-utils 2.8 r0

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1.239 python3-iso8601 0.1.12 r0

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1.240 python3-ndg-httpsclient 0.5.1 r0

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1.241 libestr 0.1.10 1.el8

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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1.243 python3-flask-socketio 3.3.2 r0

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1.244 which 2.21 12.el8

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1.245 python-funcsigs 1.0.2 r0

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1.246 xinetd 2.3.15 r2

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1.247 libxml 2.9.9 r0

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1.248 tipc-utils

2.2.0+gitAUTOINC+7ab2211b87 r0

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```

```
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/*

* include/uapi/linux/tipc.h: Header for TIPC socket interface

*

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*/w

1.249 systemtap 4.1+gitAUTOINC+57c9aca9f1 r0

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1.252 json-c 0.13.1-0.3.el8

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1.253 go-capability

0.0+gitAUTOINC+2c00daeb6c r0

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1.254 libverto 0.3.0 5.el8

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1.255 libvirt 5.5.0 r0

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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1.256 libpwquality 1.4.4-1.el8

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```
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```

Found in path(s):

```
* /opt/cola/permits/1130450000_1615189192.83/0/pw-tar/pw/Makefile.binos
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
* pw_const.tph
```

```
*
```

```
* Copyright (c) 2019 by Cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*/
```

```
@DIRECTIVES{
```

```
    auto_import_stg = false;
```

```
    skip_auto_tdl_include = true;
```

```
}@
```

```
@IMPORT_STG{
```

```
    import "constant_gen.stg";
```

```
}@
```

```
@TDL{
```

```
    import "pw_const.tdl"
```

```
}@
```

```
@CODE{
```

```
#ifndef __TDLC_GEN_PW_CONST_H__
```

```
#define __TDLC_GEN_PW_CONST_H__
```

```
    $constant_generate()$
```

```
#endif /* __TDLC_GEN_PW_CONST_H__ */
```

}@

Found in path(s):

* /opt/cola/permits/1130450000_1615189192.83/0/pw-tar/pw/include/pw_const.tph

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/*

* pw_defs.h

*

* Password defines.

*

* July 2005, Craig MacFarlane

*

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*

*/

Found in path(s):

* /opt/cola/permits/1130450000_1615189192.83/0/pw-tar/pw/include/pw_defs.h

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/*

* pw.h

*

* Password routines, adopted from IOX

*

* May 2000 Mark Eklund

* July 2005, Craig MacFarlane

*

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*/

/*

* edt: * pw_type_t

* Possible formats of saving the password in SysDB.

*

* item: PW_TYPE_CLEAR

* The password in the clear, visible for anybody.

*

* item: PW_TYPE_1WAY

* The password encrypted to an MD5 digest. This is not reversible.

*

* item: PW_TYPE_1WAY_2

* The password encrypted to an sha256 digest. This is not reversible.

*

* item: PW_TYPE_2WAY

* The Cisco type 7 password encryption. This is reversible

* by both Cisco products and several public domain programs.

*/

Found in path(s):

* /opt/cola/permits/1130450000_1615189192.83/0/pw-tar/pw/include/pw.h

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/*

* pw.c

*

* AAA password routines, adopted from IOX

*

* January 2005, Naiming Shen

* July 2005, Craig MacFarlane

*

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*

*-----

* pw.c -- password encryption/decryption routines

*

* May 08 2000, Mark Eklund

*

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*-----

*/

Found in path(s):

* /opt/cola/permits/1130450000_1615189192.83/0/pw-tar/pw/src/pw.c

1.257 expect 5.45.4 r0

1.257.1 Available under license :

Expect

Written by: Don Libes, libes at nist.gov, NIST

Design and implementation of this program was paid for by U.S. tax dollars. Therefore it is public domain. However, the author and NIST would appreciate credit if this program or parts of it are used.

1.258 python3-certifi 2019.11.28 r0

1.258.1 Available under license :

This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#

This is a bundle of X.509 certificates of public Certificate Authorities (CA). These were automatically extracted from Mozilla's root certificates file (certdata.txt). This file can be found in the mozilla source tree:

<http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#>

It contains the certificates in PEM format and therefore can be directly used with curl / libcurl / php_curl, or with an Apache+mod_ssl webserver for SSL client authentication.

Just configure this file as the SSLCACertificateFile.#

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@(#) \$RCSfile: certdata.txt,v \$ \$Revision: 1.80 \$ \$Date: 2011/11/03 15:11:58 \$

1.259 Irzsz 0.12.20 r6

1.259.1 Available under license :

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Version 2, June 1991

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Support for streaming Protocol Buffer messages for the Go language (golang).

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procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem proc.

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package spec

// License information for the exposed API.

//

// For more information: <http://goo.gl/8us55a#licenseObject>

type License struct {

 Name string `json:"name,omitempty"`

 URL string `json:"url,omitempty"`

}

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Go support for Protocol Buffers - Google's data interchange format

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Gocheck - A rich testing framework for Go

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Go support for Protocol Buffers - Google's data interchange format

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1.266 python3-wcwidth 0.1.7 r0

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1.267 psmisc 23.2 r0

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1.268 cpp 8.4.1-1.el8

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1.269 netbase 5.6 r0

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1.270 tcl 8.6.9 r0

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1.271 base-passwd 3.5.29 r0

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Format-Specification: <http://svn.debian.org/wsvn/dep/web/deps/dep5.mdwn?op=file&rev=135>

Name: base-passwd

Maintainer: Colin Watson <cjwatson@debian.org>

Files: update-passwd.c, man/*

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X-Notes: Originally written by Ian Murdock <imurdock@debian.org> and

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1.272 libevent 2.1.11 r0

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1.273 libuser 0.62 23.e18

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1.275 python-setuptools 39.2.0 6.el8

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Version 3, 29 June 2007

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```
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```

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1.279 httping 2.5 r0

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1.280 make 4.2.1 r0

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/* Argument parsing and main program of GNU Make.

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```
#include "makeint.h"
#include "os.h"
#include "filedef.h"
#include "dep.h"
#include "variable.h"
#include "job.h"
#include "commands.h"
#include "rule.h"
#include "debug.h"
#include "getopt.h"

#include <assert.h>
#ifdef _AMIGA
# include <dos/dos.h>
```

```

#include <proto/dos.h>
#endif
#ifdef WINDOWS32
#include <windows.h>
#include <io.h>
#include "pathstuff.h"
#include "sub_proc.h"
#include "w32err.h"
#endif
#ifdef __EMX__
#include <sys/types.h>
#include <sys/wait.h>
#endif
#ifdef HAVE_FCNTL_H
#include <fcntl.h>
#endif

#ifdef _AMIGA
int __stack = 20000; /* Make sure we have 20K of stack space */
#endif
#ifdef VMS
int vms_use_mcr_command = 0;
int vms_always_use_cmd_file = 0;
int vms_gnv_shell = 0;
int vms_legacy_behavior = 0;
int vms_comma_separator = 0;
int vms_unix_simulation = 0;
int vms_report_unix_paths = 0;

/* Evaluates if a VMS environment option is set, only look at first character */
static int
get_vms_env_flag (const char *name, int default_value)
{
char * value;
char x;

value = getenv (name);
if (value == NULL)
return default_value;

x = toupper (value[0]);
switch (x)
{
case 'I':
case 'T':
case 'E':
return 1;
break;
}
}

```

```

    case '0':
    case 'F':
    case 'D':
        return 0;
    }
}
#endif

#if defined HAVE_WAITPID || defined HAVE_WAIT3
# define HAVE_WAIT_NOHANG
#endif

#ifndef HAVE_UNISTD_H
int chdir ();
#endif

#ifndef STDC_HEADERS
# ifndef sun          /* Sun has an incorrect decl in a header. */
void exit (int) __attribute__((noreturn));
# endif
double atof ();
#endif

static void clean_jobserver (int status);
static void print_data_base (void);
static void print_version (void);
static void decode_switches (int argc, const char **argv, int env);
static void decode_env_switches (const char *envar, unsigned int len);
static struct variable *define_makeflags (int all, int makefile);
static char *quote_for_env (char *out, const char *in);
static void initialize_global_hash_tables (void);

/* The structure that describes an accepted command switch. */

struct command_switch
{
    int c;          /* The switch character. */

    enum          /* Type of the value. */
    {
        flag,      /* Turn int flag on. */
        flag_off,  /* Turn int flag off. */
        string,     /* One string per invocation. */
        strlist,    /* One string per switch. */
        filename,   /* A string containing a file name. */
        positive_int, /* A positive integer. */
        floating,   /* A floating-point number (double). */
        ignore      /* Ignored. */
    }
};

```

```

} type;

void *value_ptr; /* Pointer to the value-holding variable. */

unsigned int env:1; /* Can come from MAKEFLAGS. */
unsigned int toenv:1; /* Should be put in MAKEFLAGS. */
unsigned int no_makefile:1; /* Don't propagate when remaking makefiles. */

const void *noarg_value; /* Pointer to value used if no arg given. */
const void *default_value; /* Pointer to default value. */

const char *long_name; /* Long option name. */
};

/* True if C is a switch value that corresponds to a short option. */

#define short_option(c) ((c) <= CHAR_MAX)

/* The structure used to hold the list of strings given
in command switches of a type that takes strlist arguments. */

struct stringlist
{
    const char **list; /* Nil-terminated list of strings. */
    unsigned int idx; /* Index into above. */
    unsigned int max; /* Number of pointers allocated. */
};

/* The recognized command switches. */

/* Nonzero means do extra verification (that may slow things down). */

int verify_flag;

/* Nonzero means do not print commands to be executed (-s). */

int silent_flag;

/* Nonzero means just touch the files
that would appear to need remaking (-t) */

int touch_flag;

/* Nonzero means just print what commands would need to be executed,
don't actually execute them (-n). */

int just_print_flag;

```

```

/* Print debugging info (--debug). */

static struct stringlist *db_flags = 0;
static int debug_flag = 0;

int db_level = 0;

/* Synchronize output (--output-sync). */

char *output_sync_option = 0;

#ifdef WINDOWS32
/* Suspend make in main for a short time to allow debugger to attach */

int suspend_flag = 0;
#endif

/* Environment variables override makefile definitions. */

int env_overrides = 0;

/* Nonzero means ignore status codes returned by commands
   executed to remake files. Just treat them all as successful (-i). */

int ignore_errors_flag = 0;

/* Nonzero means don't remake anything, just print the data base
   that results from reading the makefile (-p). */

int print_data_base_flag = 0;

/* Nonzero means don't remake anything; just return a nonzero status
   if the specified targets are not up to date (-q). */

int question_flag = 0;

/* Nonzero means do not use any of the builtin rules (-r) / variables (-R). */

int no_builtin_rules_flag = 0;
int no_builtin_variables_flag = 0;

/* Nonzero means keep going even if remaking some file fails (-k). */

int keep_going_flag;
int default_keep_going_flag = 0;

/* Nonzero means check symlink mtimes. */

```



```

int check_symlink_flag = 0;

/* Nonzero means print directory before starting and when done (-w). */

int print_directory_flag = 0;

/* Nonzero means ignore print_directory_flag and never print the directory.
   This is necessary because print_directory_flag is set implicitly. */

int inhibit_print_directory_flag = 0;

/* Nonzero means print version information. */

int print_version_flag = 0;

/* List of makefiles given with -f switches. */

static struct stringlist *makefiles = 0;

/* Size of the stack when we started. */

#ifdef SET_STACK_SIZE
struct rlimit stack_limit;
#endif

/* Number of job slots for parallelism. */

unsigned int job_slots;

#define INVALID_JOB_SLOTS (-1)
static unsigned int master_job_slots = 0;
static int arg_job_slots = INVALID_JOB_SLOTS;

static const int default_job_slots = INVALID_JOB_SLOTS;

/* Value of job_slots that means no limit. */

static const int inf_jobs = 0;

/* Authorization for the jobserver. */

static char *jobserver_auth = NULL;

/* Handle for the mutex used on Windows to synchronize output of our
   children under -O. */

```

```

char *sync_mutex = NULL;

/* Maximum load average at which multiple jobs will be run.
   Negative values mean unlimited, while zero means limit to
   zero load (which could be useful to start infinite jobs remotely
   but one at a time locally). */
#ifdef NO_FLOAT
double max_load_average = -1.0;
double default_load_average = -1.0;
#else
int max_load_average = -1;
int default_load_average = -1;
#endif

/* List of directories given with -C switches. */

static struct stringlist *directories = 0;

/* List of include directories given with -I switches. */

static struct stringlist *include_directories = 0;

/* List of files given with -o switches. */

static struct stringlist *old_files = 0;

/* List of files given with -W switches. */

static struct stringlist *new_files = 0;

/* List of strings to be eval'd. */
static struct stringlist *eval_strings = 0;

/* If nonzero, we should just print usage and exit. */

static int print_usage_flag = 0;

/* If nonzero, we should print a warning message
   for each reference to an undefined variable. */

int warn_undefined_variables_flag;

/* If nonzero, always build all targets, regardless of whether
   they appear out of date or not. */

static int always_make_set = 0;
int always_make_flag = 0;

```

```

/* If nonzero, we're in the "try to rebuild makefiles" phase. */

int rebuilding_makefiles = 0;

/* Remember the original value of the SHELL variable, from the environment. */

struct variable shell_var;

/* This character introduces a command: it's the first char on the line. */

char cmd_prefix = '\t';

/* The usage output. We write it this way to make life easier for the
   translators, especially those trying to translate to right-to-left
   languages like Hebrew. */

static const char *const usage[] =
{
  N_("Options:\n"),
  N_("\n"),
  "-b, -m          Ignored for compatibility.\n"),
  N_("\n"),
  "-B, --always-make      Unconditionally make all targets.\n"),
  N_("\n"),
  "-C DIRECTORY, --directory=DIRECTORY\n\
          Change to DIRECTORY before doing anything.\n"),
  N_("\n"),
  "-d          Print lots of debugging information.\n"),
  N_("\n"),
  "--debug[=FLAGS]      Print various types of debugging information.\n"),
  N_("\n"),
  "-e, --environment-overrides\n\
          Environment variables override makefiles.\n"),
  N_("\n"),
  "--eval=STRING      Evaluate STRING as a makefile statement.\n"),
  N_("\n"),
  "-f FILE, --file=FILE, --makefile=FILE\n\
          Read FILE as a makefile.\n"),
  N_("\n"),
  "-h, --help          Print this message and exit.\n"),
  N_("\n"),
  "-i, --ignore-errors      Ignore errors from recipes.\n"),
  N_("\n"),
  "-I DIRECTORY, --include-dir=DIRECTORY\n\
          Search DIRECTORY for included makefiles.\n"),
  N_("\n"),
  "-j [N], --jobs[=N]      Allow N jobs at once; infinite jobs with no arg.\n"),

```

```

N_("\
-k, --keep-going      Keep going when some targets can't be made.\n"),
N_("\
-l [N], --load-average[=N], --max-load[=N]\n\
      Don't start multiple jobs unless load is below N.\n"),
N_("\
-L, --check-symlink-times  Use the latest mtime between symlinks and target.\n"),
N_("\
-n, --just-print, --dry-run, --recon\n\
      Don't actually run any recipe; just print them.\n"),
N_("\
-o FILE, --old-file=FILE, --assume-old=FILE\n\
      Consider FILE to be very old and don't remake it.\n"),
N_("\
-O[TYPE], --output-sync[=TYPE]\n\
      Synchronize output of parallel jobs by TYPE.\n"),
N_("\
-p, --print-data-base    Print make's internal database.\n"),
N_("\
-q, --question          Run no recipe; exit status says if up to date.\n"),
N_("\
-r, --no-builtin-rules  Disable the built-in implicit rules.\n"),
N_("\
-R, --no-builtin-variables  Disable the built-in variable settings.\n"),
N_("\
-s, --silent, --quiet   Don't echo recipes.\n"),
N_("\
-S, --no-keep-going, --stop\n\
      Turns off -k.\n"),
N_("\
-t, --touch             Touch targets instead of remaking them.\n"),
N_("\
--trace                Print tracing information.\n"),
N_("\
-v, --version           Print the version number of make and exit.\n"),
N_("\
-w, --print-directory  Print the current directory.\n"),
N_("\
--no-print-directory   Turn off -w, even if it was turned on implicitly.\n"),
N_("\
-W FILE, --what-if=FILE, --new-file=FILE, --assume-new=FILE\n\
      Consider FILE to be infinitely new.\n"),
N_("\
--warn-undefined-variables  Warn when an undefined variable is referenced.\n"),
NULL
};

```

/* The table of command switches.

Order matters here: this is the order MAKEFLAGS will be constructed.

So be sure all simple flags (single char, no argument) come first. */

```
static const struct command_switch switches[] =
{
    { 'b', ignore, 0, 0, 0, 0, 0, 0 },
    { 'B', flag, &always_make_set, 1, 1, 0, 0, 0, "always-make" },
    { 'd', flag, &debug_flag, 1, 1, 0, 0, 0 },
#ifdef WINDOWS32
    { 'D', flag, &suspend_flag, 1, 1, 0, 0, 0, "suspend-for-debug" },
#endif
    { 'e', flag, &env_overrides, 1, 1, 0, 0, 0, "environment-overrides", },
    { 'h', flag, &print_usage_flag, 0, 0, 0, 0, 0, "help" },
    { 'i', flag, &ignore_errors_flag, 1, 1, 0, 0, 0, "ignore-errors" },
    { 'k', flag, &keep_going_flag, 1, 1, 0, 0, &default_keep_going_flag,
      "keep-going" },
    { 'L', flag, &check_symlink_flag, 1, 1, 0, 0, 0, "check-symlink-times" },
    { 'm', ignore, 0, 0, 0, 0, 0, 0 },
    { 'n', flag, &just_print_flag, 1, 1, 1, 0, 0, "just-print" },
    { 'p', flag, &print_data_base_flag, 1, 1, 0, 0, 0, "print-data-base" },
    { 'q', flag, &question_flag, 1, 1, 1, 0, 0, "question" },
    { 'r', flag, &no_builtin_rules_flag, 1, 1, 0, 0, 0, "no-builtin-rules" },
    { 'R', flag, &no_builtin_variables_flag, 1, 1, 0, 0, 0,
      "no-builtin-variables" },
    { 's', flag, &silent_flag, 1, 1, 0, 0, 0, "silent" },
    { 'S', flag_off, &keep_going_flag, 1, 1, 0, 0, &default_keep_going_flag,
      "no-keep-going" },
    { 't', flag, &touch_flag, 1, 1, 1, 0, 0, "touch" },
    { 'v', flag, &print_version_flag, 1, 1, 0, 0, 0, "version" },
    { 'w', flag, &print_directory_flag, 1, 1, 0, 0, 0, "print-directory" },

    /* These options take arguments. */
    { 'C', filename, &directories, 0, 0, 0, 0, 0, "directory" },
    { 'F', filename, &makefiles, 0, 0, 0, 0, 0, "file" },
    { 'I', filename, &include_directories, 1, 1, 0, 0, 0,
      "include-dir" },
    { 'j', positive_int, &arg_job_slots, 1, 1, 0, &inf_jobs, &default_job_slots,
      "jobs" },
#ifdef NO_FLOAT
    { 'l', floating, &max_load_average, 1, 1, 0, &default_load_average,
      &default_load_average, "load-average" },
#else
    { 'l', positive_int, &max_load_average, 1, 1, 0, &default_load_average,
      &default_load_average, "load-average" },
#endif
    { 'o', filename, &old_files, 0, 0, 0, 0, 0, "old-file" },
    { 'O', string, &output_sync_option, 1, 1, 0, "target", 0, "output-sync" },
    { 'W', filename, &new_files, 0, 0, 0, 0, 0, "what-if" },
}
```

```

/* These are long-style options. */
{ CHAR_MAX+1, strlist, &db_flags, 1, 1, 0, "basic", 0, "debug" },
{ CHAR_MAX+2, string, &jobserver_auth, 1, 1, 0, 0, 0, "jobserver-auth" },
{ CHAR_MAX+3, flag, &trace_flag, 1, 1, 0, 0, 0, "trace" },
{ CHAR_MAX+4, flag, &inhibit_print_directory_flag, 1, 1, 0, 0, 0,
  "no-print-directory" },
{ CHAR_MAX+5, flag, &warn_undefined_variables_flag, 1, 1, 0, 0, 0,
  "warn-undefined-variables" },
{ CHAR_MAX+6, strlist, &eval_strings, 1, 0, 0, 0, 0, "eval" },
{ CHAR_MAX+7, string, &sync_mutex, 1, 1, 0, 0, 0, "sync-mutex" },
{ 0, 0, 0, 0, 0, 0, 0, 0, 0 }
};

```

```

/* Secondary long names for options. */

```

```

static struct option long_option_aliases[] =
{
  { "quiet",      no_argument,      0, 's' },
  { "stop",      no_argument,      0, 'S' },
  { "new-file",  required_argument, 0, 'W' },
  { "assume-new", required_argument, 0, 'W' },
  { "assume-old", required_argument, 0, 'o' },
  { "max-load",  optional_argument, 0, 'l' },
  { "dry-run",  no_argument,      0, 'n' },
  { "recon",    no_argument,      0, 'n' },
  { "makefile", required_argument, 0, 'f' },
};

```

```

/* List of goal targets. */

```

```

static struct goaldep *goals, *lastgoal;

```

```

/* List of variables which were defined on the command line
(or, equivalently, in MAKEFLAGS). */

```

```

struct command_variable
{
  struct command_variable *next;
  struct variable *variable;
};
static struct command_variable *command_variables;

```

```

/* The name we were invoked with. */

```

```

#ifdef WINDOWS32
/* On MS-Windows, we chop off the .exe suffix in 'main', so this
cannot be 'const'. */

```

```

char *program;
#else
const char *program;
#endif

/* Our current directory before processing any -C options. */

char *directory_before_chdir;

/* Our current directory after processing all -C options. */

char *starting_directory;

/* Value of the MAKELEVEL variable at startup (or 0). */

unsigned int makelevel;

/* Pointer to the value of the .DEFAULT_GOAL special variable.
The value will be the name of the goal to remake if the command line
does not override it. It can be set by the makefile, or else it's
the first target defined in the makefile whose name does not start
with '!. */

struct variable * default_goal_var;

/* Pointer to structure for the file .DEFAULT
whose commands are used for any file that has none of its own.
This is zero if the makefiles do not define .DEFAULT. */

struct file *default_file;

/* Nonzero if we have seen the magic '.POSIX' target.
This turns on pedantic compliance with POSIX.2. */

int posix_pedantic;

/* Nonzero if we have seen the '.SECONDEXPANSION' target.
This turns on secondary expansion of prerequisites. */

int second_expansion;

/* Nonzero if we have seen the '.ONESHELL' target.
This causes the entire recipe to be handed to SHELL
as a single string, potentially containing newlines. */

int one_shell;

/* One of OUTPUT_SYNC_* if the "--output-sync" option was given. This

```

```

attempts to synchronize the output of parallel jobs such that the results
of each job stay together. */

int output_sync = OUTPUT_SYNC_NONE;

/* Nonzero if the "--trace" option was given. */

int trace_flag = 0;

/* Nonzero if we have seen the 'NOTPARALLEL' target.
   This turns off parallel builds for this invocation of make. */

int not_parallel;

/* Nonzero if some rule detected clock skew; we keep track so (a) we only
   print one warning about it during the run, and (b) we can print a final
   warning at the end of the run. */

int clock_skew_detected;

/* Map of possible stop characters for searching strings. */
#ifdef UCHAR_MAX
# define UCHAR_MAX 255
#endif
unsigned short stopchar_map[UCHAR_MAX + 1] = {0};

/* If output-sync is enabled we'll collect all the output generated due to
   options, while reading makefiles, etc. */

struct output make_sync;

/* Mask of signals that are being caught with fatal_error_signal. */

#ifdef POSIX
sigset_t fatal_signal_set;
#else
# ifdef HAVE_SIGSETMASK
int fatal_signal_mask;
# endif
#endif

# if !HAVE_DECL_BSD_SIGNAL && !defined bsd_signal
# if !defined HAVE_SIGACTION
# define bsd_signal signal
# else
typedef RETSIGTYPE (*bsd_signal_ret_t) (int);

```



```

static bsd_signal_ret_t
bsd_signal (int sig, bsd_signal_ret_t func)
{
    struct sigaction act, oact;
    act.sa_handler = func;
    act.sa_flags = SA_RESTART;
    sigemptyset (&act.sa_mask);
    sigaddset (&act.sa_mask, sig);
    if (sigaction (sig, &act, &oact) != 0)
        return SIG_ERR;
    return oact.sa_handler;
}
# endif
#endif

static void
initialize_global_hash_tables (void)
{
    init_hash_global_variable_set ();
    strcache_init ();
    init_hash_files ();
    hash_init_directories ();
    hash_init_function_table ();
}

/* This character map locate stop chars when parsing GNU makefiles.
   Each element is true if we should stop parsing on that character. */

static void
initialize_stopchar_map (void)
{
    int i;

    stopchar_map[(int)'0'] = MAP_NUL;
    stopchar_map[(int) '#'] = MAP_COMMENT;
    stopchar_map[(int) ';'] = MAP_SEMI;
    stopchar_map[(int) '='] = MAP_EQUALS;
    stopchar_map[(int) ':'] = MAP_COLON;
    stopchar_map[(int) '%'] = MAP_PERCENT;
    stopchar_map[(int) '|'] = MAP_PIPE;
    stopchar_map[(int) '.'] = MAP_DOT | MAP_USERFUNC;
    stopchar_map[(int) ','] = MAP_COMMA;
    stopchar_map[(int) '$'] = MAP_VARIABLE;

    stopchar_map[(int) '-'] = MAP_USERFUNC;
    stopchar_map[(int) '_'] = MAP_USERFUNC;

    stopchar_map[(int) ' '] = MAP_BLANK;

```

```

stopchar_map[(int)'\t'] = MAP_BLANK;

stopchar_map[(int)'/'] = MAP_DIRSEP;
#if defined(VMS)
stopchar_map[(int)'] |= MAP_DIRSEP;
stopchar_map[(int)'] |= MAP_DIRSEP;
stopchar_map[(int)'] |= MAP_DIRSEP;
#elif defined(HAVE_DOS_PATHS)
stopchar_map[(int)'\'] |= MAP_DIRSEP;
#endif

for (i = 1; i <= UCHAR_MAX; ++i)
{
    if (isspace (i) && NONE_SET (stopchar_map[i], MAP_BLANK))
        /* Don't mark blank characters as newline characters. */
        stopchar_map[i] |= MAP_NEWLINE;
    else if (isalnum (i))
        stopchar_map[i] |= MAP_USERFUNC;
}
}

static const char *
expand_command_line_file (const char *name)
{
    const char *cp;
    char *expanded = 0;

    if (name[0] == '\0')
        O (fatal, NILF, _("empty string invalid as file name"));

    if (name[0] == '~')
    {
        expanded = tilde_expand (name);
        if (expanded && expanded[0] != '\0')
            name = expanded;
    }

    /* This is also done in parse_file_seq, so this is redundant
       for names read from makefiles. It is here for names passed
       on the command line. */
    while (name[0] == '.' && name[1] == '/')
    {
        name += 2;
        while (name[0] == '/')
            /* Skip following slashes: "./foo" is "foo", not "/foo". */
            ++name;
    }
}

```

```

if (name[0] == '\0')
{
    /* Nothing else but one or more "./", maybe plus slashes! */
    name = ".";
}

cp = strcache_add (name);

free (expanded);

return cp;
}

/* Toggle -d on receipt of SIGUSR1. */

#ifdef SIGUSR1
static RETSIGTYPE
debug_signal_handler (int sig UNUSED)
{
    db_level = db_level ? DB_NONE : DB_BASIC;
}
#endif

static void
decode_debug_flags (void)
{
    const char **pp;

    if (debug_flag)
        db_level = DB_ALL;

    if (db_flags)
        for (pp=db_flags->list; *pp; ++pp)
        {
            const char *p = *pp;

            while (1)
            {
                switch (tolower (p[0]))
                {
                    {
                    case 'a':
                        db_level |= DB_ALL;
                        break;
                    case 'b':
                        db_level |= DB_BASIC;
                        break;
                    case 'i':
                        db_level |= DB_BASIC | DB_IMPLICIT;

```

```

        break;
    case 'j':
        db_level |= DB_JOBS;
        break;
    case 'm':
        db_level |= DB_BASIC | DB_MAKEFILES;
        break;
    case 'n':
        db_level = 0;
        break;
    case 'v':
        db_level |= DB_BASIC | DB_VERBOSE;
        break;
    default:
        OS (fatal, NILF,
            _("unknown debug level specification '%s'"), p);
    }

while (*(++p) != '\0')
    if (*p == ',' || *p == ' ')
        {
            ++p;
            break;
        }

    if (*p == '\0')
        break;
}

if (db_level)
    verify_flag = 1;

if (! db_level)
    debug_flag = 0;
}

static void
decode_output_sync_flags (void)
{
#ifdef NO_OUTPUT_SYNC
    output_sync = OUTPUT_SYNC_NONE;
#else
    if (output_sync_option)
        {
            if (streq (output_sync_option, "none"))
                output_sync = OUTPUT_SYNC_NONE;
            else if (streq (output_sync_option, "line"))

```

```

    output_sync = OUTPUT_SYNC_LINE;
else if (streq (output_sync_option, "target"))
    output_sync = OUTPUT_SYNC_TARGET;
else if (streq (output_sync_option, "recurse"))
    output_sync = OUTPUT_SYNC_RECURSE;
else
    OS (fatal, NILF,
        _("unknown output-sync type '%s'"), output_sync_option);
}

if (sync_mutex)
    RECORD_SYNC_MUTEX (sync_mutex);
#endif
}

#ifdef WINDOWS32

#ifndef NO_OUTPUT_SYNC

/* This is called from start_job_command when it detects that
output_sync option is in effect. The handle to the synchronization
mutex is passed, as a string, to sub-makes via the --sync-mutex
command-line argument. */
void
prepare_mutex_handle_string (sync_handle_t handle)
{
    if (!sync_mutex)
    {
        /* Prepare the mutex handle string for our children. */
        /* 2 hex digits per byte + 2 characters for "0x" + null. */
        sync_mutex = xmalloc ((2 * sizeof (sync_handle_t) + 2 + 1);
        sprintf (sync_mutex, "0x%Ix", handle);
        define_makeflags (1, 0);
    }
}

#endif /* NO_OUTPUT_SYNC */

/*
* HANDLE runtime exceptions by avoiding a requestor on the GUI. Capture
* exception and print it to stderr instead.
*
* If ! DB_VERBOSE, just print a simple message and exit.
* If DB_VERBOSE, print a more verbose message.
* If compiled for DEBUG, let exception pass through to GUI so that
* debuggers can attach.
*/
LONG WINAPI

```

```

handle_runtime_exceptions (struct _EXCEPTION_POINTERS *exinfo)
{
    PEXCEPTION_RECORD exrec = exinfo->ExceptionRecord;
    LPSTR cmdline = GetCommandLine ();
    LPSTR prg = strtok (cmdline, " ");
    CHAR errmsg[1024];
#ifdef USE_EVENT_LOG
    HANDLE hEventSource;
    LPTSTR lpszStrings[1];
#endif

    if (! ISDB (DB_VERBOSE))
    {
        sprintf (errmsg,
            _("%s: Interrupt/Exception caught (code = 0x%lx, addr = 0x%p)\n"),
            prg, exrec->ExceptionCode, exrec->ExceptionAddress);
        fprintf (stderr, errmsg);
        exit (255);
    }

    sprintf (errmsg,
        _("\nUnhandled exception filter called from program %s\nExceptionCode = %lx\nExceptionFlags =
        %lx\nExceptionAddress = 0x%p\n"),
        prg, exrec->ExceptionCode, exrec->ExceptionFlags,
        exrec->ExceptionAddress);

    if (exrec->ExceptionCode == EXCEPTION_ACCESS_VIOLATION
        && exrec->NumberParameters >= 2)
        sprintf (&errmsg[strlen(errmsg)],
            (exrec->ExceptionInformation[0]
            ? _("Access violation: write operation at address 0x%p\n")
            : _("Access violation: read operation at address 0x%p\n")),
            (PVOID)exrec->ExceptionInformation[1]);

    /* turn this on if we want to put stuff in the event log too */
#ifdef USE_EVENT_LOG
    hEventSource = RegisterEventSource (NULL, "GNU Make");
    lpszStrings[0] = errmsg;

    if (hEventSource != NULL)
    {
        ReportEvent (hEventSource, /* handle of event source */
            EVENTLOG_ERROR_TYPE, /* event type */
            0, /* event category */
            0, /* event ID */
            NULL, /* current user's SID */
            1, /* strings in lpszStrings */
            0, /* no bytes of raw data */

```

```

        lpzStrings,    /* array of error strings */
        NULL);        /* no raw data */

    (VOID) DeregisterEventSource (hEventSource);
}
#endif

/* Write the error to stderr too */
fprintf (stderr, errmsg);

#ifdef DEBUG
return EXCEPTION_CONTINUE_SEARCH;
#else
exit (255);
return (255); /* not reached */
#endif
}

/*
 * On WIN32 systems we don't have the luxury of a /bin directory that
 * is mapped globally to every drive mounted to the system. Since make could
 * be invoked from any drive, and we don't want to propagate /bin/sh
 * to every single drive. Allow ourselves a chance to search for
 * a value for default shell here (if the default path does not exist).
 */

int
find_and_set_default_shell (const char *token)
{
    int sh_found = 0;
    char *atoken = 0;
    const char *search_token;
    const char *tokend;
    PATH_VAR(sh_path);
    extern const char *default_shell;

    if (!token)
        search_token = default_shell;
    else
        search_token = atoken = xstrdup (token);

    /* If the user explicitly requests the DOS cmd shell, obey that request.
       However, make sure that's what they really want by requiring the value
       of SHELL either equal, or have a final path element of, "cmd" or
       "cmd.exe" case-insensitive. */
    tokend = search_token + strlen (search_token) - 3;
    if (((tokend == search_token
         || (tokend > search_token

```

```

    && (tokend[-1] == '/' || tokend[-1] == '\\'))
    && !strcasecmp (tokend, "cmd"))
|| ((tokend - 4 == search_token
    || (tokend - 4 > search_token
        && (tokend[-5] == '/' || tokend[-5] == '\\'))
        && !strcasecmp (tokend - 4, "cmd.exe")))
{
batch_mode_shell = 1;
unixy_shell = 0;
sprintf (sh_path, "%s", search_token);
default_shell = xstrdup (w32ify (sh_path, 0));
DB (DB_VERBOSE, (_("find_and_set_shell() setting default_shell = %s\n"),
    default_shell));
sh_found = 1;
}
else if (!no_default_sh_exe
    && (token == NULL || !strcmp (search_token, default_shell)))
{
/* no new information, path already set or known */
sh_found = 1;
}
else if (_access (search_token, 0) == 0)
{
/* search token path was found */
sprintf (sh_path, "%s", search_token);
default_shell = xstrdup (w32ify (sh_path, 0));
DB (DB_VERBOSE, (_("find_and_set_shell() setting default_shell = %s\n"),
    default_shell));
sh_found = 1;
}
else
{
char *p;
struct variable *v = lookup_variable (STRING_SIZE_TUPLE ("PATH"));

/* Search Path for shell */
if (v && v->value)
{
char *ep;

p = v->value;
ep = strchr (p, PATH_SEPARATOR_CHAR);

while (ep && *ep)
{
*ep = '\0';

sprintf (sh_path, "%s/%s", p, search_token);

```



```

if (_access (sh_path, 0) == 0)
{
    default_shell = xstrdup (w32ify (sh_path, 0));
    sh_found = 1;
    *ep = PATH_SEPARATOR_CHAR;

    /* terminate loop */
    p += strlen (p);
}
else
{
    *ep = PATH_SEPARATOR_CHAR;
    p = ++ep;
}

ep = strchr (p, PATH_SEPARATOR_CHAR);
}

/* be sure to check last element of Path */
if (p && *p)
{
    sprintf (sh_path, "%s/%s", p, search_token);
    if (_access (sh_path, 0) == 0)
    {
        default_shell = xstrdup (w32ify (sh_path, 0));
        sh_found = 1;
    }
}

if (sh_found)
    DB (DB_VERBOSE,
        (_("find_and_set_shell() path search set default_shell = %s\n"),
        default_shell));
}
}

/* naive test */
if (!unixy_shell && sh_found
    && (strstr (default_shell, "sh") || strstr (default_shell, "SH")))
{
    unixy_shell = 1;
    batch_mode_shell = 0;
}

#ifdef BATCH_MODE_ONLY_SHELL
    batch_mode_shell = 1;
#endif

```

```

free (atoken);

return (sh_found);
}
#endif /* WINDOWS32 */

#ifdef __MSDOS__
static void
msdos_return_to_initial_directory (void)
{
    if (directory_before_chdir)
        chdir (directory_before_chdir);
}
#endif /* __MSDOS__ */

static void
reset_jobserver (void)
{
    jobserver_clear ();
    free (jobserver_auth);
    jobserver_auth = NULL;
}

#ifdef _AMIGA
int
main (int argc, char **argv)
#else
int
main (int argc, char **argv, char **envp)
#endif
{
    static char *stdin_nm = 0;
    int makefile_status = MAKE_SUCCESS;
    struct goaldep *read_files;
    PATH_VAR (current_directory);
    unsigned int restarts = 0;
    unsigned int syncing = 0;
    int argv_slots;
#ifdef WINDOWS32
    const char *unix_path = NULL;
    const char *windows32_path = NULL;

    SetUnhandledExceptionFilter (handle_runtime_exceptions);

    /* start off assuming we have no shell */
    unixy_shell = 0;
    no_default_sh_exe = 1;
#endif
}

```

```

output_init (&make_sync);

initialize_stopchar_map();

#ifdef SET_STACK_SIZE
/* Get rid of any avoidable limit on stack size. */
{
    struct rlimit rlim;

    /* Set the stack limit huge so that alloca does not fail. */
    if (getrlimit (RLIMIT_STACK, &rlim) == 0
        && rlim.rlim_cur > 0 && rlim.rlim_cur < rlim.rlim_max)
    {
        stack_limit = rlim;
        rlim.rlim_cur = rlim.rlim_max;
        setrlimit (RLIMIT_STACK, &rlim);
    }
    else
        stack_limit.rlim_cur = 0;
}
#endif

/* Needed for OS/2 */
initialize_main (&argc, &argv);

#ifdef MAKE_MAINTAINER_MODE
/* In maintainer mode we always enable verification. */
verify_flag = 1;
#endif

#if defined (__MSDOS__) && !defined (__POSIX_SOURCE)
/* Request the most powerful version of 'system', to
   make up for the dumb default shell. */
__system_flags = (__system_redirect
    | __system_use_shell
    | __system_allow_multiple_cmds
    | __system_allow_long_cmds
    | __system_handle_null_commands
    | __system_emulate_chdir);

#endif

/* Set up gettext/internationalization support. */
setlocale (LC_ALL, "");
/* The cast to void shuts up compiler warnings on systems that
   disable NLS. */
(void)bindtextdomain (PACKAGE, LOCALEDIR);

```

```

(void)textdomain (PACKAGE);

#ifdef POSIX
sigemptyset (&fatal_signal_set);
#define ADD_SIG(sig) sigaddset (&fatal_signal_set, sig)
#else
#ifdef HAVE_SIGSETMASK
fatal_signal_mask = 0;
#define ADD_SIG(sig) fatal_signal_mask |= sigmask (sig)
#else
#define ADD_SIG(sig) (void)sig
#endif
#endif

#define FATAL_SIG(sig) \
if (bsd_signal (sig, fatal_error_signal) == SIG_IGN) \
    bsd_signal (sig, SIG_IGN); \
else \
    ADD_SIG (sig);

#ifdef SIGHUP
FATAL_SIG (SIGHUP);
#endif
#ifdef SIGQUIT
FATAL_SIG (SIGQUIT);
#endif
FATAL_SIG (SIGINT);
FATAL_SIG (SIGTERM);

#ifdef __MSDOS__
/* Windows 9X delivers FP exceptions in child programs to their
   parent! We don't want Make to die when a child divides by zero,
   so we work around that lossage by catching SIGFPE. */
FATAL_SIG (SIGFPE);
#endif

#ifdef SIGDANGER
FATAL_SIG (SIGDANGER);
#endif
#ifdef SIGXCPU
FATAL_SIG (SIGXCPU);
#endif
#ifdef SIGXFSZ
FATAL_SIG (SIGXFSZ);
#endif

#undef FATAL_SIG

```

```

/* Do not ignore the child-death signal. This must be done before
any children could possibly be created; otherwise, the wait
functions won't work on systems with the SVR4 ECHILD brain
damage, if our invoker is ignoring this signal. */

#ifdef HAVE_WAIT_NOHANG
# if defined SIGCHLD
(void) bsd_signal (SIGCHLD, SIG_DFL);
# endif
# if defined SIGCLD && SIGCLD != SIGCHLD
(void) bsd_signal (SIGCLD, SIG_DFL);
# endif
#endif

output_init (NULL);

/* Figure out where this program lives. */

if (argv[0] == 0)
    argv[0] = (char *)"";
if (argv[0][0] == '\0')
    program = "make";
else
    {
    program = strrchr (argv[0], '/');
#ifdef __MSDOS__ || defined(__EMX__)
    if (program == 0)
        program = strrchr (argv[0], '\\');
    else
        {
        /* Some weird environments might pass us argv[0] with
        both kinds of slashes; we must find the rightmost. */
        char *p = strrchr (argv[0], '\\');
        if (p && p > program)
            program = p;
        }
    if (program == 0 && argv[0][1] == ':')
        program = argv[0] + 1;
#endif
    }
#ifdef WINDOWS32
    if (program == 0)
        {
        /* Extract program from full path */
        program = strrchr (argv[0], '\\');
        if (program)
            {
            int argv0_len = strlen (program);
            if (argv0_len > 4 && streq (&program[argv0_len - 4], ".exe"))

```

```

        /* Remove .exe extension */
        program[argv0_len - 4] = '\0';
    }
}
#endif
#ifdef VMS
set_program_name (argv[0]);
program = program_name;
{
    const char *shell;
    char pwdbuf[256];
    char *pwd;
    shell = getenv ("SHELL");
    if (shell != NULL)
        vms_gnv_shell = 1;

    /* Need to know if CRTL set to report UNIX paths. Use getcwd as
       it works on all versions of VMS. */
    pwd = getcwd(pwdbuf, 256);
    if (pwd[0] == '/')
        vms_report_unix_paths = 1;

    vms_use_mcr_command = get_vms_env_flag ("GNV$MAKE_USE_MCR", 0);

    vms_always_use_cmd_file = get_vms_env_flag ("GNV$MAKE_USE_CMD_FILE", 0);

    /* Legacy behavior is on VMS is older behavior that needed to be
       changed to be compatible with standard make behavior.
       For now only completely disable when running under a Bash shell.
       TODO: Update VMS built in recipes and macros to not need this
       behavior, at which time the default may change. */
    vms_legacy_behavior = get_vms_env_flag ("GNV$MAKE_OLD_VMS",
        !vms_gnv_shell);

    /* VMS was changed to use a comma separator in the past, but that is
       incompatible with built in functions that expect space separated
       lists. Allow this to be selectively turned off. */
    vms_comma_separator = get_vms_env_flag ("GNV$MAKE_COMMA",
        vms_legacy_behavior);

    /* Some Posix shell syntax options are incompatible with VMS syntax.
       VMS requires double quotes for strings and escapes quotes
       differently. When this option is active, VMS will try
       to simulate Posix shell simulations instead of using
       VMS DCL behavior. */
    vms_unix_simulation = get_vms_env_flag ("GNV$MAKE_SHELL_SIM",
        !vms_legacy_behavior);
}

```

```

    }
    if (need_vms_symbol () && !vms_use_mcr_command)
        create_foreign_command (program_name, argv[0]);
#else
    if (program == 0)
        program = argv[0];
    else
        ++program;
#endif
}

/* Set up to access user data (files). */
user_access ();

initialize_global_hash_tables ();

/* Figure out where we are. */

#ifdef WINDOWS32
if (getcwd_fs (current_directory, GET_PATH_MAX) == 0)
#else
if (getcwd (current_directory, GET_PATH_MAX) == 0)
#endif
{
#ifdef HAVE_GETCWD
    perror_with_name ("getcwd", "");
#else
    OS (error, NILF, "getwd: %s", current_directory);
#endif
    current_directory[0] = '\0';
    directory_before_chdir = 0;
}
else
    directory_before_chdir = xstrdup (current_directory);

#ifdef __MSDOS__
/* Make sure we will return to the initial directory, come what may. */
atexit (msdos_return_to_initial_directory);
#endif

/* Initialize the special variables. */
define_variable_cname (".VARIABLES", "", o_default, 0)->special = 1;
/* define_variable_cname (".TARGETS", "", o_default, 0)->special = 1; */
define_variable_cname (".RECIPEPREFIX", "", o_default, 0)->special = 1;
define_variable_cname (".SHELLFLAGS", "-c", o_default, 0);
define_variable_cname (".LOADED", "", o_default, 0);

/* Set up .FEATURES

```

```

Use a separate variable because define_variable_cname() is a macro and
some compilers (MSVC) don't like conditionals in macros. */
{
    const char *features = "target-specific order-only second-expansion"
        " else-if shortest-stem undefine oneshell"
#ifdef NO_ARCHIVES
        " archives"
#endif
#ifdef MAKE_JOBSEVER
        " jobserver"
#endif
#ifdef NO_OUTPUT_SYNC
        " output-sync"
#endif
#ifdef MAKE_SYMLINKS
        " check-symlink"
#endif
#ifdef HAVE_GUILLE
        " guile"
#endif
#ifdef MAKE_LOAD
        " load"
#endif
        ;

    define_variable_cname (".FEATURES", features, o_default, 0);
}

/* Configure GNU Guile support */
guile_gmake_setup (NILF);

/* Read in variables from the environment. It is important that this be
done before $(MAKE) is figured out so its definitions will not be
from the environment. */

#ifdef _AMIGA
{
    unsigned int i;

    for (i = 0; envp[i] != 0; ++i)
    {
        struct variable *v;
        const char *ep = envp[i];
        /* By default, export all variables culled from the environment. */
        enum variable_export export = v_export;
        unsigned int len;

        while (! STOP_SET (*ep, MAP_EQUALS))

```



```

++ep;

/* If there's no equals sign it's a malformed environment. Ignore. */
if (*ep == '\0')
    continue;

#ifdef WINDOWS32
    if (!unix_path && strneq (envp[i], "PATH=", 5))
        unix_path = ep+1;
    else if (!strnicmp (envp[i], "Path=", 5))
    {
        if (!windows32_path)
            windows32_path = ep+1;
        /* PATH gets defined after the loop exits. */
        continue;
    }
#endif

/* Length of the variable name, and skip the '='. */
len = ep++ - envp[i];

/* If this is MAKE_RESTARTS, check to see if the "already printed
the enter statement" flag is set. */
if (len == 13 && strneq (envp[i], "MAKE_RESTARTS", 13))
{
    if (*ep == '-')
    {
        OUTPUT_TRACED ();
        ++ep;
    }
    restarts = (unsigned int) atoi (ep);
    export = v_noexport;
}

v = define_variable (envp[i], len, ep, o_env, 1);

/* POSIX says the value of SHELL set in the makefile won't change the
value of SHELL given to subprocesses. */
if (streq (v->name, "SHELL"))
{
#ifdef __MSDOS__
    export = v_noexport;
#endif
    shell_var.name = xstrdup ("SHELL");
    shell_var.length = 5;
    shell_var.value = xstrdup (ep);
}

```

```

    v->export = export;
}
}
#endif WINDOWS32
/* If we didn't find a correctly spelled PATH we define PATH as
 * either the first misspelled value or an empty string
 */
if (!unix_path)
    define_variable_cname ("PATH", windows32_path ? windows32_path : "",
        o_env, 1)->export = v_export;
#endif
#else /* For Amiga, read the ENV: device, ignoring all dirs */
{
    BPTR env, file, old;
    char buffer[1024];
    int len;
    __aligned_struct FileInfoBlock fib;

    env = Lock ("ENV:", ACCESS_READ);
    if (env)
    {
        old = CurrentDir (DupLock (env));
        Examine (env, &fib);

        while (ExNext (env, &fib))
        {
            if (fib.fib_DirEntryType < 0) /* File */
            {
                /* Define an empty variable. It will be filled in
                 variable_lookup(). Makes startup quite a bit faster. */
                define_variable (fib.fib_FileName,
                    strlen (fib.fib_FileName),
                    "", o_env, 1)->export = v_export;
            }
        }
        UnLock (env);
        UnLock (CurrentDir (old));
    }
}
#endif

/* Decode the switches. */
decode_env_switches (STRING_SIZE_TUPLE ("GNUMAKEFLAGS"));

/* Clear GNUMAKEFLAGS to avoid duplication. */
define_variable_cname ("GNUMAKEFLAGS", "", o_env, 0);

decode_env_switches (STRING_SIZE_TUPLE ("MAKEFLAGS"));

```

```

#if 0
/* People write things like:
   MFLAGS="CC=gcc -pipe" "CFLAGS=-g"
   and we set the -p, -i and -e switches. Doesn't seem quite right. */
decode_env_switches (STRING_SIZE_TUPLE ("MFLAGS"));
#endif

/* In output sync mode we need to sync any output generated by reading the
   makefiles, such as in $(info ...) or stderr from $(shell ...) etc. */

syncing = make_sync.syncout = (output_sync == OUTPUT_SYNC_LINE
                               || output_sync == OUTPUT_SYNC_TARGET);
OUTPUT_SET (&make_sync);

/* Remember the job slots set through the environment vs. command line. */
{
  int env_slots = arg_job_slots;
  arg_job_slots = INVALID_JOB_SLOTS;

  decode_switches (argc, (const char **)argv, 0);
  argv_slots = arg_job_slots;

  if (arg_job_slots == INVALID_JOB_SLOTS)
    arg_job_slots = env_slots;
}

/* Set a variable specifying whether stdout/stdin is hooked to a TTY. */
#ifdef HAVE_ISATTY
if (isatty (fileno (stdout)))
  if (! lookup_variable (STRING_SIZE_TUPLE ("MAKE_TERMOUT")))
    {
      const char *tty = TTYNAME (fileno (stdout));
      define_variable_cname ("MAKE_TERMOUT", tty ? tty : DEFAULT_TTYNAME,
                            o_default, 0)->export = v_export;
    }
if (isatty (fileno (stderr)))
  if (! lookup_variable (STRING_SIZE_TUPLE ("MAKE_TERMERR")))
    {
      const char *tty = TTYNAME (fileno (stderr));
      define_variable_cname ("MAKE_TERMERR", tty ? tty : DEFAULT_TTYNAME,
                            o_default, 0)->export = v_export;
    }
#endif

/* Reset in case the switches changed our minds. */
syncing = (output_sync == OUTPUT_SYNC_LINE
           || output_sync == OUTPUT_SYNC_TARGET);

```

```

if (make_sync.syncout && ! syncing)
    output_close (&make_sync);

make_sync.syncout = syncing;
OUTPUT_SET (&make_sync);

/* Figure out the level of recursion. */
{
    struct variable *v = lookup_variable (STRING_SIZE_TUPLE (MAKELEVEL_NAME));
    if (v && v->value[0] != '\0' && v->value[0] != '-')
        makelevel = (unsigned int) atoi (v->value);
    else
        makelevel = 0;
}

#ifdef WINDOWS32
if (suspend_flag)
{
    fprintf (stderr, "%s (pid = %ld)\n", argv[0], GetCurrentProcessId ());
    fprintf (stderr, _("%s is suspending for 30 seconds..."), argv[0]);
    Sleep (30 * 1000);
    fprintf (stderr, _("done sleep(30). Continuing.\n"));
}
#endif

/* Set always_make_flag if -B was given and we've not restarted already. */
always_make_flag = always_make_set && (restarts == 0);

/* Print version information, and exit. */
if (print_version_flag)
{
    print_version ();
    die (MAKE_SUCCESS);
}

if (ISDB (DB_BASIC))
    print_version ();

#ifdef VMS
/* Set the "MAKE_COMMAND" variable to the name we were invoked with.
   (If it is a relative pathname with a slash, prepend our directory name
   so the result will run the same program regardless of the current dir.
   If it is a name with no slash, we can only hope that PATH did not
   find it in the current directory.) */
#endif
#ifdef WINDOWS32
/*
   * Convert from backslashes to forward slashes for

```

```

* programs like sh which don't like them. Shouldn't
* matter if the path is one way or the other for
* CreateProcess().
*/
if (strpbrk (argv[0], ":\\")) || strstr (argv[0], "..")
    || strneq (argv[0], "/", 2))
    argv[0] = xstrdup (w32ify (argv[0], 1));
#else /* WINDOWS32 */
#if defined (__MSDOS__) || defined (__EMX__)
if (strchr (argv[0], '\\'))
{
    char *p;

    argv[0] = xstrdup (argv[0]);
    for (p = argv[0]; *p; p++)
        if (*p == '\\')
            *p = '/';
}
/* If argv[0] is not in absolute form, prepend the current
directory. This can happen when Make is invoked by another DJGPP
program that uses a non-absolute name. */
if (current_directory[0] != '\0'
    && argv[0] != 0
    && (argv[0][0] != '/' && (argv[0][0] == '\0' || argv[0][1] != ':'))
# ifdef __EMX__
    /* do not prepend cwd if argv[0] contains no '/', e.g. "make" */
    && (strchr (argv[0], '/') != 0 || strchr (argv[0], '\\') != 0)
# endif
)
    argv[0] = xstrdup (concat (3, current_directory, "/", argv[0]));
#else /* !__MSDOS__ */
if (current_directory[0] != '\0'
    && argv[0] != 0 && argv[0][0] != '/' && strchr (argv[0], '/') != 0
#ifdef HAVE_DOS_PATHS
    && (argv[0][0] != '\\' && (!argv[0][0] || argv[0][1] != ':'))
    && strchr (argv[0], '\\') != 0
#endif
)
    argv[0] = xstrdup (concat (3, current_directory, "/", argv[0]));
#endif /* !__MSDOS__ */
#endif /* WINDOWS32 */
#endif

/* We may move, but until we do, here we are. */
starting_directory = current_directory;

/* Set up the job_slots value and the jobserver. This can't be usefully set
in the makefile, and we want to verify the authorization is valid before

```

```

make has a chance to start using it for something else. */

if (jobserver_auth)
{
  if (argv_slots == INVALID_JOB_SLOTS)
  {
    if (jobserver_parse_auth (jobserver_auth))
    {
      /* Success! Use the jobserver. */
      job_slots = 0;
      goto job_setup_complete;
    }

    O (error, NILF, _("warning: jobserver unavailable: using -j1. Add '+' to parent make rule."));
    arg_job_slots = 1;
  }

  /* The user provided a -j setting on the command line: use it. */
  else if (!restarts)
  /* If restarts is >0 we already printed this message. */
  O (error, NILF,
    _("warning: -jN forced in submake: disabling jobserver mode."));

  /* We failed to use our parent's jobserver. */
  reset_jobserver ();
  job_slots = (unsigned int)arg_job_slots;
}
else if (arg_job_slots == INVALID_JOB_SLOTS)
  /* The default is one job at a time. */
  job_slots = 1;
else
  /* Use whatever was provided. */
  job_slots = (unsigned int)arg_job_slots;

job_setup_complete:

/* The extra indirection through $(MAKE_COMMAND) is done
  for hysterical raisins. */

#ifdef VMS
if (vms_use_mcr_command)
  define_variable_cname ("MAKE_COMMAND", vms_command (argv[0], o_default, 0));
else
  define_variable_cname ("MAKE_COMMAND", program, o_default, 0);
#else
define_variable_cname ("MAKE_COMMAND", argv[0], o_default, 0);
#endif
define_variable_cname ("MAKE", "$(MAKE_COMMAND)", o_default, 1);

```

```

if (command_variables != 0)
{
    struct command_variable *cv;
    struct variable *v;
    unsigned int len = 0;
    char *value, *p;

    /* Figure out how much space will be taken up by the command-line
       variable definitions. */
    for (cv = command_variables; cv != 0; cv = cv->next)
    {
        v = cv->variable;
        len += 2 * strlen (v->name);
        if (! v->recursive)
            ++len;
        ++len;
        len += 2 * strlen (v->value);
        ++len;
    }

    /* Now allocate a buffer big enough and fill it. */
    p = value = alloca (len);
    for (cv = command_variables; cv != 0; cv = cv->next)
    {
        v = cv->variable;
        p = quote_for_env (p, v->name);
        if (! v->recursive)
            *p++ = ':';
        *p++ = '=';
        p = quote_for_env (p, v->value);
        *p++ = ' ';
    }
    p[-1] = '\0';      /* Kill the final space and terminate. */

    /* Define an unchangeable variable with a name that no POSIX.2
       makefile could validly use for its own variable. */
    define_variable_cname ("-*-command-variables-*-", value, o_automatic, 0);

    /* Define the variable; this will not override any user definition.
       Normally a reference to this variable is written into the value of
       MAKEFLAGS, allowing the user to override this value to affect the
       exported value of MAKEFLAGS. In POSIX-pedantic mode, we cannot
       allow the user's setting of MAKEOVERRIDES to affect MAKEFLAGS, so
       a reference to this hidden variable is written instead. */
    define_variable_cname ("MAKEOVERRIDES", "${*-*-command-variables-*-}",
                          o_env, 1);
}
#endif VMS

```

```

    vms_export_dcl_symbol ("MAKEOVERRIDES", "${-*command-variables-*}");
#endif
}

/* If there were -C flags, move ourselves about. */
if (directories != 0)
{
    unsigned int i;
    for (i = 0; directories->list[i] != 0; ++i)
    {
        const char *dir = directories->list[i];
#ifdef WINDOWS32
        /* WINDOWS32 chdir() doesn't work if the directory has a trailing '/'
        But allow -C/ just in case someone wants that. */
        {
            char *p = (char *)dir + strlen (dir) - 1;
            while (p > dir && (p[0] == '/' || p[0] == '\\'))
                --p;
            p[1] = '\0';
        }
#endif
        if (chdir (dir) < 0)
            pfatal_with_name (dir);
    }
}

#ifdef WINDOWS32
/*
 * THIS BLOCK OF CODE MUST COME AFTER chdir() CALL ABOVE IN ORDER
 * TO NOT CONFUSE THE DEPENDENCY CHECKING CODE IN implicit.c.
 *
 * The functions in dir.c can incorrectly cache information for "."
 * before we have changed directory and this can cause file
 * lookups to fail because the current directory (.) was pointing
 * at the wrong place when it was first evaluated.
 */
no_default_sh_exe = !find_and_set_default_shell (NULL);
#endif /* WINDOWS32 */

/* Except under -s, always do -w in sub-makes and under -C. */
if (!silent_flag && (directories != 0 || makelevel > 0))
    print_directory_flag = 1;

/* Let the user disable that with --no-print-directory. */
if (inhibit_print_directory_flag)
    print_directory_flag = 0;

/* If -R was given, set -r too (doesn't make sense otherwise!) */

```



```

if (no_builtin_variables_flag)
    no_builtin_rules_flag = 1;

/* Construct the list of include directories to search. */

construct_include_path (include_directories == 0
                       ? 0 : include_directories->list);

/* If we chdir'ed, figure out where we are now. */
if (directories)
    {
#ifdef WINDOWS32
        if (getcwd_fs (current_directory, GET_PATH_MAX) == 0)
#else
        if (getcwd (current_directory, GET_PATH_MAX) == 0)
#endif
        {
#ifdef HAVE_GETCWD
            perror_with_name ("getcwd", "");
#else
            OS (error, NILF, "getwd: %s", current_directory);
#endif
        }
        starting_directory = 0;
    }
    else
        starting_directory = current_directory;
}

define_variable_cname ("CURDIR", current_directory, o_file, 0);

/* Read any stdin makefiles into temporary files. */

if (makefiles != 0)
    {
    unsigned int i;
    for (i = 0; i < makefiles->idx; ++i)
        if (makefiles->list[i][0] == '-' && makefiles->list[i][1] == '\0')
            {
            /* This makefile is standard input. Since we may re-exec
               and thus re-read the makefiles, we read standard input
               into a temporary file and read from that. */
            FILE *outfile;
            char *template;
            const char *tmpdir;

            if (stdin_nm)
                O (fatal, NILF,
                  _("Makefile from standard input specified twice.));
            }
    }

```

```

#ifdef VMS
# define DEFAULT_TMPDIR  "/sys$scratch/"
#else
# ifdef P_tmpdir
# define DEFAULT_TMPDIR  P_tmpdir
# else
# define DEFAULT_TMPDIR  "/tmp"
# endif
#endif
#define DEFAULT_TMPFILE  "GmXXXXXX"

    if (((tmpdir = getenv ("TMPDIR")) == NULL || *tmpdir == '\0')
#ifdef __MSDOS__ || defined (WINDOWS32) || defined (__EMX__)
    /* These are also used commonly on these platforms. */
    && ((tmpdir = getenv ("TEMP")) == NULL || *tmpdir == '\0')
    && ((tmpdir = getenv ("TMP")) == NULL || *tmpdir == '\0')
#endif
    )
    tmpdir = DEFAULT_TMPDIR;

    template = alloca (strlen (tmpdir) + CSTRLEN (DEFAULT_TMPFILE) + 2);
    strcpy (template, tmpdir);

#ifdef HAVE_DOS_PATHS
    if (strchr ("\\", template[strlen (template) - 1]) == NULL)
        strcat (template, "/");
#else
# ifndef VMS
    if (template[strlen (template) - 1] != '/')
        strcat (template, "/");
# endif /* !VMS */
#endif /* !HAVE_DOS_PATHS */

    strcat (template, DEFAULT_TMPFILE);
    outfile = output_tmpfile (&stdin_nm, template);
    if (outfile == 0)
        pfatal_with_name (_("fopen (temporary file)"));
    while (!feof (stdin) && ! ferror (stdin))
    {
        char buf[2048];
        unsigned int n = fread (buf, 1, sizeof (buf), stdin);
        if (n > 0 && fwrite (buf, 1, n, outfile) != n)
            pfatal_with_name (_("fwrite (temporary file)"));
    }
    fclose (outfile);

    /* Replace the name that read_all_makefiles will

```

```
    see with the name of the temporary file. */
    makefiles->list[i] = strcache_add (stdin_nm);
```

```
/* Make sure the temporary file will not be remade. */
{
    struct file *f = enter_file (strcache_add (stdin_nm));
    f->updated = 1;
    f->update_status = us_success;
    f->command_state = cs_finished;
    /* Can't be intermediate, or it'll be removed too early for
       make re-exec. */
    f->intermediate = 0;
    f->dontcare = 0;
}
}
```

```
#ifndef __EMX__ /* Don't use a SIGCHLD handler for OS/2 */
#if !defined(HAVE_WAIT_NOHANG) || defined(MAKE_JOBSEVER)
/* Set up to handle children dying. This must be done before
   reading in the makefiles so that 'shell' function calls will work.
```

If we don't have a hanging wait we have to fall back to old, broken functionality here and rely on the signal handler and counting children.

If we're using the jobs pipe we need a signal handler so that SIGCHLD is not ignored; we need it to interrupt the read(2) of the jobserver pipe if we're waiting for a token.

```
    If none of these are true, we don't need a signal handler at all. */
    {
# if defined SIGCHLD
        bsd_signal (SIGCHLD, child_handler);
# endif
# if defined SIGCLD && SIGCLD != SIGCHLD
        bsd_signal (SIGCLD, child_handler);
# endif
    }
```

```
#ifdef HAVE_PSELECT
/* If we have pselect() then we need to block SIGCHLD so it's deferred. */
{
    sigset_t block;
    sigemptyset (&block);
    sigaddset (&block, SIGCHLD);
    if (sigprocmask (SIG_SETMASK, &block, NULL) < 0)
        pfatal_with_name ("sigprocmask(SIG_SETMASK, SIGCHLD)");
}
```

```

}
#endif

#endif
#endif

/* Let the user send us SIGUSR1 to toggle the -d flag during the run. */
#ifdef SIGUSR1
bsd_signal (SIGUSR1, debug_signal_handler);
#endif

/* Define the initial list of suffixes for old-style rules. */
set_default_suffixes ();

/* Define the file rules for the built-in suffix rules. These will later
   be converted into pattern rules. We used to do this in
   install_default_implicit_rules, but since that happens after reading
   makefiles, it results in the built-in pattern rules taking precedence
   over makefile-specified suffix rules, which is wrong. */
install_default_suffix_rules ();

/* Define some internal and special variables. */
define_automatic_variables ();

/* Set up the MAKEFLAGS and MFLAGS variables for makefiles to see.
   Initialize it to be exported but allow the makefile to reset it. */
define_makeflags (0, 0)->export = v_export;

/* Define the default variables. */
define_default_variables ();

default_file = enter_file (strcache_add (".DEFAULT"));

default_goal_var = define_variable_cname (".DEFAULT_GOAL", "", o_file, 0);

/* Evaluate all strings provided with --eval.
   Also set up the $(-*-eval-flags-*) variable. */

if (eval_strings)
{
char *p, *value;
unsigned int i;
unsigned int len = (CSTRLEN ("--eval=") + 1) * eval_strings->idx;

for (i = 0; i < eval_strings->idx; ++i)
{
p = xstrdup (eval_strings->list[i]);
len += 2 * strlen (p);
}
}

```

```

    eval_buffer (p, NULL);
    free (p);
}

p = value = alloca (len);
for (i = 0; i < eval_strings->idx; ++i)
{
    strcpy (p, "--eval=");
    p += CSTRLEN ("--eval=");
    p = quote_for_env (p, eval_strings->list[i]);
    *(p++) = ' ';
}
p[-1] = '\0';

define_variable_cname ("*-eval-flags*-", value, o_automatic, 0);
}

/* Read all the makefiles. */

read_files = read_all_makefiles (makefiles == 0 ? 0 : makefiles->list);

#ifdef WINDOWS32
/* look one last time after reading all Makefiles */
if (no_default_sh_exe)
    no_default_sh_exe = !find_and_set_default_shell (NULL);
#endif /* WINDOWS32 */

#if defined (__MSDOS__) || defined (__EMX__) || defined (VMS)
/* We need to know what kind of shell we will be using. */
{
    extern int _is_unixy_shell (const char *_path);
    struct variable *shv = lookup_variable (STRING_SIZE_TUPLE ("SHELL"));
    extern int unixy_shell;
    extern const char *default_shell;

    if (shv && *shv->value)
    {
        char *shell_path = recursively_expand (shv);

        if (shell_path && _is_unixy_shell (shell_path))
            unixy_shell = 1;
        else
            unixy_shell = 0;
        if (shell_path)
            default_shell = shell_path;
    }
}
#endif /* __MSDOS__ || __EMX__ */

```

```

{
  int old_builtin_rules_flag = no_builtin_rules_flag;
  int old_builtin_variables_flag = no_builtin_variables_flag;

  /* Decode switches again, for variables set by the makefile. */
  decode_env_switches (STRING_SIZE_TUPLE ("GNUMAKEFLAGS"));

  /* Clear GNUMAKEFLAGS to avoid duplication. */
  define_variable_cname ("GNUMAKEFLAGS", "", o_override, 0);

  decode_env_switches (STRING_SIZE_TUPLE ("MAKEFLAGS"));
#if 0
  decode_env_switches (STRING_SIZE_TUPLE ("MFLAGS"));
#endif

  /* Reset in case the switches changed our mind. */
  syncing = (output_sync == OUTPUT_SYNC_LINE
            || output_sync == OUTPUT_SYNC_TARGET);

  if (make_sync.syncout && ! syncing)
    output_close (&make_sync);

  make_sync.syncout = syncing;
  OUTPUT_SET (&make_sync);

  /* If we've disabled builtin rules, get rid of them. */
  if (no_builtin_rules_flag && ! old_builtin_rules_flag)
  {
    if (suffix_file->builtin)
    {
      {
        free_dep_chain (suffix_file->deps);
        suffix_file->deps = 0;
      }
      define_variable_cname ("SUFFIXES", "", o_default, 0);
    }
  }

  /* If we've disabled builtin variables, get rid of them. */
  if (no_builtin_variables_flag && ! old_builtin_variables_flag)
    undefine_default_variables ();
}

#if defined (__MSDOS__) || defined (__EMX__) || defined (VMS)
  if (arg_job_slots != 1
      # ifdef __EMX__
        && _osmode != OS2_MODE /* turn off -j if we are in DOS mode */
      # endif
  )

```

```

{
O (error, NILF,
_ ("Parallel jobs (-j) are not supported on this platform."));
O (error, NILF, _ ("Resetting to single job (-j1) mode."));
arg_job_slots = job_slots = 1;
}
#endif

/* If we have >1 slot at this point, then we're a top-level make.
Set up the jobserver.

Every make assumes that it always has one job it can run. For the
submakes it's the token they were given by their parent. For the top
make, we just subtract one from the number the user wants. */

if (job_slots > 1 && jobserver_setup (job_slots - 1))
{
/* Fill in the jobserver_auth for our children. */
jobserver_auth = jobserver_get_auth ();

if (jobserver_auth)
{
/* We're using the jobserver so set job_slots to 0. */
master_job_slots = job_slots;
job_slots = 0;
}
}

/* If we're not using parallel jobs, then we don't need output sync.
This is so people can enable output sync in GNUMAKEFLAGS or similar, but
not have it take effect unless parallel builds are enabled. */
if (syncing && job_slots == 1)
{
OUTPUT_UNSET ();
output_close (&make_sync);
syncing = 0;
output_sync = OUTPUT_SYNC_NONE;
}

#ifndef MAKE_SYMLINKS
if (check_symlink_flag)
{
O (error, NILF, _ ("Symbolic links not supported: disabling -L."));
check_symlink_flag = 0;
}
#endif

/* Set up MAKEFLAGS and MFLAGS again, so they will be right. */

```

```

define_makeflags (1, 0);

/* Make each 'struct goaldep' point at the 'struct file' for the file
   depended on. Also do magic for special targets. */

snap_deps ();

/* Convert old-style suffix rules to pattern rules. It is important to
   do this before installing the built-in pattern rules below, so that
   makefile-specified suffix rules take precedence over built-in pattern
   rules. */

convert_to_pattern ();

/* Install the default implicit pattern rules.
   This used to be done before reading the makefiles.
   But in that case, built-in pattern rules were in the chain
   before user-defined ones, so they matched first. */

install_default_implicit_rules ();

/* Compute implicit rule limits. */

count_implicit_rule_limits ();

/* Construct the listings of directories in VPATH lists. */

build_vpath_lists ();

/* Mark files given with -o flags as very old and as having been updated
   already, and files given with -W flags as brand new (time-stamp as far
   as possible into the future). If restarts is set we'll do -W later. */

if (old_files != 0)
{
  const char **p;
  for (p = old_files->list; *p != 0; ++p)
  {
    struct file *f = enter_file (*p);
    f->last_mtime = f->mtime_before_update = OLD_MTIME;
    f->updated = 1;
    f->update_status = us_success;
    f->command_state = cs_finished;
  }
}

if (!restarts && new_files != 0)

```



```

{
const char **p;
for (p = new_files->list; *p != 0; ++p)
{
struct file *f = enter_file (*p);
f->last_mtime = f->mtime_before_update = NEW_MTIME;
}
}

/* Initialize the remote job module. */
remote_setup ();

/* Dump any output we've collected. */

OUTPUT_UNSET ();
output_close (&make_sync);

if (read_files != 0)
{
/* Update any makefiles if necessary. */

FILE_TIMESTAMP *makefile_mtimes = 0;
unsigned int mm_idx = 0;
char **argv = NULL;
const char **nargv;
int nargc;
enum update_status status;

DB (DB_BASIC, (_("Updating makefiles....\n")));

/* Remove any makefiles we don't want to try to update.
Also record the current modtimes so we can compare them later. */
{
register struct goaldep *d, *last;
last = 0;
d = read_files;
while (d != 0)
{
struct file *f = d->file;
if (f->double_colon)
for (f = f->double_colon; f != NULL; f = f->prev)
{
if (f->deps == 0 && f->cmds != 0)
{
/* This makefile is a :: target with commands, but
no dependencies. So, it will always be remade.
This might well cause an infinite loop, so don't
try to remake it. (This will only happen if

```

your makefiles are written exceptionally
stupidly; but if you work for Athena, that's how
you write your makefiles.) */

```
DB (DB_VERBOSE,
    _("Makefile '%s' might loop; not remaking it.\n"),
    f->name));

if (last == 0)
    read_files = d->next;
else
    last->next = d->next;

/* Free the storage. */
free_goaldep (d);

d = last == 0 ? read_files : last->next;

break;
}
}

if (f == NULL || !f->double_colon)
{
    makefile_mtimes = xrealloc (makefile_mtimes,
                               (mm_idx+1)
                               * sizeof (FILE_TIMESTAMP));
    makefile_mtimes[mm_idx++] = file_mtime_no_search (d->file);
    last = d;
    d = d->next;
}
}

/* Set up 'MAKEFLAGS' specially while remaking makefiles. */
define_makeflags (1, 1);

{
    int orig_db_level = db_level;

    if (!ISDB (DB_MAKEFILES))
        db_level = DB_NONE;

    rebuilding_makefiles = 1;
    status = update_goal_chain (read_files);
    rebuilding_makefiles = 0;

    db_level = orig_db_level;
```

```

}

switch (status)
{
case us_question:
    /* The only way this can happen is if the user specified -q and asked
       for one of the makefiles to be remade as a target on the command
       line. Since we're not actually updating anything with -q we can
       treat this as "did nothing". */

case us_none:
    /* Did nothing. */
    break;

case us_failed:
    /* Failed to update. Figure out if we care. */
    {
        /* Nonzero if any makefile was successfully remade. */
        int any_remade = 0;
        /* Nonzero if any makefile we care about failed
           in updating or could not be found at all. */
        int any_failed = 0;
        unsigned int i;
        struct goaldep *d;

        for (i = 0, d = read_files; d != 0; ++i, d = d->next)
        {
            if (d->file->updated)
            {
                /* This makefile was updated. */
                if (d->file->update_status == us_success)
                {
                    /* It was successfully updated. */
                    any_remade |= (file_mtime_no_search (d->file)
                                   != makefile_mtimes[i]);
                }
            }
            else if (!(d->flags & RM_DONTCARE))
            {
                FILE_TIMESTAMP mtime;
                /* The update failed and this makefile was not
                   from the MAKEFILES variable, so we care. */
                OS (error, NILF, _("Failed to remake makefile '%s'."),
                    d->file->name);
                mtime = file_mtime_no_search (d->file);
                any_remade |= (mtime != NONEXISTENT_MTIME
                               && mtime != makefile_mtimes[i]);
                makefile_status = MAKE_FAILURE;
            }
        }
    }
}

```

```

    }
else
    /* This makefile was not found at all. */
    if (!(d->flags & RM_DONTCARE))
    {
        const char *dnm = dep_name (d);
        size_t l = strlen (dnm);

        /* This is a makefile we care about. See how much. */
        if (d->flags & RM_INCLUDED)
            /* An included makefile. We don't need to die, but we
            do want to complain. */
            error (NILF, l,
                _("Included makefile '%s' was not found."), dnm);
        else
        {
            /* A normal makefile. We must die later. */
            error (NILF, l,
                _("Makefile '%s' was not found"), dnm);
            any_failed = 1;
        }
    }
}

/* Reset this to empty so we get the right error message below. */
read_files = 0;

if (any_remade)
    goto re_exec;
if (any_failed)
    die (MAKE_FAILURE);
break;
}

case us_success:
re_exec:
    /* Updated successfully. Re-exec ourselves. */

    remove_intermediates (0);

    if (print_data_base_flag)
        print_data_base ();

    clean_jobserver (0);

    if (makefiles != 0)
    {
        /* These names might have changed. */
        int i, j = 0;

```

```

for (i = 1; i < argc; ++i)
if (strneq (argv[i], "-f", 2)) /* XXX */
{
if (argv[i][2] == '\0')
/* This cast is OK since we never modify argv. */
argv[++i] = (char *) makefiles->list[j];
else
argv[i] = xstrdup (concat (2, "-f", makefiles->list[j]));
++j;
}
}

/* Add -o option for the stdin temporary file, if necessary. */
nargc = argc;
if (stdin_nm)
{
void *m = xmalloc ((nargc + 2) * sizeof (char *));
aargv = m;
memcpy (aargv, argv, argc * sizeof (char *));
aargv[nargc++] = xstrdup (concat (2, "-o", stdin_nm));
aargv[nargc] = 0;
nargv = m;
}
else
nargv = (const char**)argv;

if (directories != 0 && directories->idx > 0)
{
int bad = 1;
if (directory_before_chdir != 0)
{
if (chdir (directory_before_chdir) < 0)
perror_with_name ("chdir", "");
else
bad = 0;
}
if (bad)
O (fatal, NILF,
_("Couldn't change back to original directory."));
}

++restarts;

if (ISDB (DB_BASIC))
{
const char **p;
printf (_("Re-executing[%u]:"), restarts);
for (p = nargv; *p != 0; ++p)

```

```

        printf (" %s", *p);
        putchar ('\n');
        fflush (stdout);
    }

#ifndef _AMIGA
    {
        char **p;
        for (p = environ; *p != 0; ++p)
        {
            if (strneq (*p, MAKELEVEL_NAME "=", MAKELEVEL_LENGTH+1))
            {
                *p = alloca (40);
                sprintf (*p, "%s=%u", MAKELEVEL_NAME, makelevel);
#ifdef VMS
                vms_putenv_symbol (*p);
#endif
            }
            else if (strneq (*p, "MAKE_RESTARTS=", CSTRLEN ("MAKE_RESTARTS=")))
            {
                *p = alloca (40);
                sprintf (*p, "MAKE_RESTARTS=%s%u",
                    OUTPUT_IS_TRACED () ? "-" : "", restarts);
                restarts = 0;
            }
        }
    }
#else /* AMIGA */
    {
        char buffer[256];

        sprintf (buffer, "%u", makelevel);
        SetVar (MAKELEVEL_NAME, buffer, -1, GVF_GLOBAL_ONLY);

        sprintf (buffer, "%s%u", OUTPUT_IS_TRACED () ? "-" : "", restarts);
        SetVar ("MAKE_RESTARTS", buffer, -1, GVF_GLOBAL_ONLY);
        restarts = 0;
    }
#endif

/* If we didn't set the restarts variable yet, add it. */
if (restarts)
    {
        char *b = alloca (40);
        sprintf (b, "MAKE_RESTARTS=%s%u",
            OUTPUT_IS_TRACED () ? "-" : "", restarts);
        putenv (b);
    }

```

```

fflush (stdout);
fflush (stderr);

#ifdef _AMIGA
    exec_command (nargv);
    exit (0);
#elif defined (__EMX__)
    {
        /* It is not possible to use execve() here because this
           would cause the parent process to be terminated with
           exit code 0 before the child process has been terminated.
           Therefore it may be the best solution simply to spawn the
           child process including all file handles and to wait for its
           termination. */
        int pid;
        int r;
        pid = child_execute_job (NULL, 1, nargv, environ);

        /* is this loop really necessary? */
        do {
            pid = wait (&r);
        } while (pid <= 0);
        /* use the exit code of the child process */
        exit (WIFEXITED(r) ? WEXITSTATUS(r) : EXIT_FAILURE);
    }
#else
#ifdef SET_STACK_SIZE
    /* Reset limits, if necessary. */
    if (stack_limit.rlim_cur)
        setrlimit (RLIMIT_STACK, &stack_limit);
#endif
    exec_command ((char **)nargv, environ);
#endif
    free (argv);
    break;
}

/* Free the makefile mtimes. */
free (makefile_mtimes);
}

/* Set up 'MAKEFLAGS' again for the normal targets. */
define_makeflags (1, 0);

/* Set always_make_flag if -B was given. */
always_make_flag = always_make_set;

```

```

/* If restarts is set we haven't set up -W files yet, so do that now. */
if (restarts && new_files != 0)
{
    const char **p;
    for (p = new_files->list; *p != 0; ++p)
    {
        struct file *f = enter_file (*p);
        f->last_mtime = f->mtime_before_update = NEW_MTIME;
    }
}

/* If there is a temp file from reading a makefile from stdin, get rid of
it now. */
if (stdin_nm && unlink (stdin_nm) < 0 && errno != ENOENT)
    perror_with_name (_("unlink (temporary file): "), stdin_nm);

/* If there were no command-line goals, use the default. */
if (goals == 0)
{
    char *p;

    if (default_goal_var->recursive)
        p = variable_expand (default_goal_var->value);
    else
    {
        p = variable_buffer_output (variable_buffer, default_goal_var->value,
                                   strlen (default_goal_var->value));
        *p = '\0';
        p = variable_buffer;
    }

    if (*p != '\0')
    {
        struct file *f = lookup_file (p);

        /* If .DEFAULT_GOAL is a non-existent target, enter it into the
table and let the standard logic sort it out. */
        if (f == 0)
        {
            struct nameseq *ns;

            ns = PARSE_SIMPLE_SEQ (&p, struct nameseq);
            if (ns)
            {
                /* .DEFAULT_GOAL should contain one target. */
                if (ns->next != 0)
                    O (fatal, NILF,
                      _(".DEFAULT_GOAL contains more than one target"));
            }
        }
    }
}

```



```

        f = enter_file (strcache_add (ns->name));

        ns->name = 0; /* It was reused by enter_file(). */
        free_ns_chain (ns);
    }
}

if (f)
{
    goals = alloc_goaldep ();
    goals->file = f;
}
}
}
else
    lastgoal->next = 0;

if (!goals)
{
    if (read_files == 0)
        O (fatal, NILF, _("No targets specified and no makefile found"));

    O (fatal, NILF, _("No targets"));
}

/* Update the goals. */

DB (DB_BASIC, _("Updating goal targets....\n"));

{
    switch (update_goal_chain (goals))
    {
        case us_none:
            /* Nothing happened. */
            /* FALLTHROUGH */
        case us_success:
            /* Keep the previous result. */
            break;
        case us_question:
            /* We are under -q and would run some commands. */
            makefile_status = MAKE_TROUBLE;
            break;
        case us_failed:
            /* Updating failed. POSIX.2 specifies exit status >1 for this; */
            makefile_status = MAKE_FAILURE;
            break;
    }
}

```

```

}

/* If we detected some clock skew, generate one last warning */
if (clock_skew_detected)
    O (error, NILF,
        _("warning: Clock skew detected. Your build may be incomplete.));

/* Exit. */
die (makefile_status);
}

/* NOTREACHED */
exit (MAKE_SUCCESS);
}

/* Parsing of arguments, decoding of switches. */

static char options[1 + sizeof (switches) / sizeof (switches[0]) * 3];
static struct option long_options[(sizeof (switches) / sizeof (switches[0])) +
    (sizeof (long_option_aliases) /
        sizeof (long_option_aliases[0]))];

/* Fill in the string and vector for getopt. */
static void
init_switches (void)
{
    char *p;
    unsigned int c;
    unsigned int i;

    if (options[0] != '\0')
        /* Already done. */
        return;

    p = options;

    /* Return switch and non-switch args in order, regardless of
       POSIXLY_CORRECT. Non-switch args are returned as option 1. */
    *p++ = '-';

    for (i = 0; switches[i].c != '\0'; ++i)
    {
        long_options[i].name = (switches[i].long_name == 0 ? "" :
            switches[i].long_name);
        long_options[i].flag = 0;
        long_options[i].val = switches[i].c;
        if (short_option (switches[i].c))
            *p++ = switches[i].c;
    }
}

```

```

switch (switches[i].type)
{
case flag:
case flag_off:
case ignore:
    long_options[i].has_arg = no_argument;
    break;

case string:
case strlist:
case filename:
case positive_int:
case floating:
    if (short_option (switches[i].c))
        *p++ = ':';
    if (switches[i].noarg_value != 0)
    {
        if (short_option (switches[i].c))
            *p++ = ':';
        long_options[i].has_arg = optional_argument;
    }
    else
        long_options[i].has_arg = required_argument;
    break;
}
}
*p = '\0';
for (c = 0; c < (sizeof (long_option_aliases) /
    sizeof (long_option_aliases[0]));
    ++c)
    long_options[i++] = long_option_aliases[c];
long_options[i].name = 0;
}

/* Non-option argument. It might be a variable definition. */
static void
handle_non_switch_argument (const char *arg, int env)
{
    struct variable *v;

    if (arg[0] == '-' && arg[1] == '\0')
        /* Ignore plain '-' for compatibility. */
        return;

#ifdef VMS
    {
        /* VMS DCL quoting can result in foo="bar baz" showing up here.

```

```

    Need to remove the double quotes from the value. */
char * eq_ptr;
char * new_arg;
eq_ptr = strchr (arg, '=');
if ((eq_ptr != NULL) && (eq_ptr[1] == '"'))
{
    int len;
    int seg1;
    int seg2;
    len = strlen(arg);
    new_arg = alloca(len);
    seg1 = eq_ptr - arg + 1;
    strncpy(new_arg, arg, (seg1));
    seg2 = len - seg1 - 1;
    strncpy(&new_arg[seg1], &eq_ptr[2], seg2);
    new_arg[seg1 + seg2] = 0;
    if (new_arg[seg1 + seg2 - 1] == '"')
        new_arg[seg1 + seg2 - 1] = 0;
    arg = new_arg;
}
}
#endif
v = try_variable_definition (0, arg, o_command, 0);
if (v != 0)
{
    /* It is indeed a variable definition. If we don't already have this
       one, record a pointer to the variable for later use in
       define_makeflags. */
    struct command_variable *cv;

    for (cv = command_variables; cv != 0; cv = cv->next)
        if (cv->variable == v)
            break;

    if (! cv)
    {
        cv = xmalloc (sizeof (*cv));
        cv->variable = v;
        cv->next = command_variables;
        command_variables = cv;
    }
}
else if (! env)
{
    /* Not an option or variable definition; it must be a goal
       target! Enter it as a file and add it to the dep chain of
       goals. */
    struct file *f = enter_file (strcache_add (expand_command_line_file (arg)));

```

```

f->cmd_target = 1;

if (goals == 0)
{
    goals = alloc_goaldep ();
    lastgoal = goals;
}
else
{
    lastgoal->next = alloc_goaldep ();
    lastgoal = lastgoal->next;
}

lastgoal->file = f;

{
    /* Add this target name to the MAKECMDGOALS variable. */
    struct variable *gv;
    const char *value;

    gv = lookup_variable (STRING_SIZE_TUPLE ("MAKECMDGOALS"));
    if (gv == 0)
        value = f->name;
    else
    {
        /* Paste the old and new values together */
        unsigned int oldlen, newlen;
        char *vp;

        oldlen = strlen (gv->value);
        newlen = strlen (f->name);
        vp = alloca (oldlen + 1 + newlen + 1);
        memcpy (vp, gv->value, oldlen);
        vp[oldlen] = ' ';
        memcpy (&vp[oldlen + 1], f->name, newlen + 1);
        value = vp;
    }
    define_variable_cname ("MAKECMDGOALS", value, o_default, 0);
}
}

/* Print a nice usage method. */

static void
print_usage (int bad)
{
    const char *const *cpp;

```

```

FILE *usageto;

if (print_version_flag)
    print_version ();

usageto = bad ? stderr : stdout;

fprintf (usageto, _("Usage: %s [options] [target] ...\n"), program);

for (cpp = usage; *cpp; ++cpp)
    fputs (_(*cpp), usageto);

if (!remote_description || *remote_description == '\0')
    fprintf (usageto, _("\nThis program built for %s\n"), make_host);
else
    fprintf (usageto, _("\nThis program built for %s (%s)\n"),
            make_host, remote_description);

fprintf (usageto, _("Report bugs to <bug-make@gnu.org>\n"));
}

/* Decode switches from ARGV and ARGV.
   They came from the environment if ENV is nonzero. */

static void
decode_switches (int argc, const char **argv, int env)
{
    int bad = 0;
    register const struct command_switch *cs;
    register struct stringlist *sl;
    register int c;

    /* getopt does most of the parsing for us.
       First, get its vectors set up. */

    init_switches ();

    /* Let getopt produce error messages for the command line,
       but not for options from the environment. */
    opterr = !env;
    /* Reset getopt's state. */
    optind = 0;

    while (optind < argc)
    {
        const char *coptarg;

        /* Parse the next argument. */

```

```

c = getopt_long (argc, (char*const*)argv, options, long_options, NULL);
coptarg = optarg;
if (c == EOF)
    /* End of arguments, or "--" marker seen. */
    break;
else if (c == 1)
    /* An argument not starting with a dash. */
    handle_non_switch_argument (coptarg, env);
else if (c == '?')
    /* Bad option. We will print a usage message and die later.
       But continue to parse the other options so the user can
       see all he did wrong. */
    bad = 1;
else
    for (cs = switches; cs->c != '\0'; ++cs)
        if (cs->c == c)
            {
                /* Whether or not we will actually do anything with
                   this switch. We test this individually inside the
                   switch below rather than just once outside it, so that
                   options which are to be ignored still consume args. */
                int doit = !env || cs->env;

                switch (cs->type)
                    {
                        default:
                            abort ();

                        case ignore:
                            break;

                        case flag:
                        case flag_off:
                            if (doit)
                                *(int *) cs->value_ptr = cs->type == flag;
                            break;

                        case string:
                        case strlist:
                        case filename:
                            if (!doit)
                                break;

                        if (! coptarg)
                            coptarg = xstrdup (cs->noarg_value);
                        else if (*coptarg == '\0')
                            {
                                char opt[2] = "c";

```

```

const char *op = opt;

if (short_option (cs->c))
    opt[0] = cs->c;
else
    op = cs->long_name;

error (NILF, strlen (op),
       _("the '%s%s' option requires a non-empty string argument"),
       short_option (cs->c) ? "-" : "--", op);
bad = 1;
break;
}

if (cs->type == string)
{
    char **val = (char **)cs->value_ptr;
    free (*val);
    *val = xstrdup (coptarg);
    break;
}

sl = *(struct stringlist **) cs->value_ptr;
if (sl == 0)
{
    sl = xmalloc (sizeof (struct stringlist));
    sl->max = 5;
    sl->idx = 0;
    sl->list = xmalloc (5 * sizeof (char *));
    *(struct stringlist **) cs->value_ptr = sl;
}
else if (sl->idx == sl->max - 1)
{
    sl->max += 5;
    /* MSVC erroneously warns without a cast here. */
    sl->list = xrealloc ((void *)sl->list,
                       sl->max * sizeof (char *));
}

if (cs->type == filename)
    sl->list[sl->idx++] = expand_command_line_file (coptarg);
else
    sl->list[sl->idx++] = xstrdup (coptarg);
sl->list[sl->idx] = 0;
break;

case positive_int:
    /* See if we have an option argument; if we do require that
       it's all digits, not something like "10foo". */

```



```

if (coptarg == 0 && argc > optind)
{
    const char *cp;
    for (cp=argv[optind]; ISDIGIT (cp[0]); ++cp)
        ;
    if (cp[0] == '\0')
        coptarg = argv[optind++];
}

if (!doit)
    break;

if (coptarg)
{
    int i = atoi (coptarg);
    const char *cp;

    /* Yes, I realize we're repeating this in some cases. */
    for (cp = coptarg; ISDIGIT (cp[0]); ++cp)
        ;

    if (i < 1 || cp[0] != '\0')
    {
        error (NILF, 0,
            _("the '-%c' option requires a positive integer argument"),
            cs->c);
        bad = 1;
    }
    else
        *(unsigned int *) cs->value_ptr = i;
}
else
    *(unsigned int *) cs->value_ptr
    = *(unsigned int *) cs->noarg_value;
break;

```

```

#ifdef NO_FLOAT
case floating:
if (coptarg == 0 && optind < argc
    && (ISDIGIT (argv[optind][0]) || argv[optind][0] == '.'))
    coptarg = argv[optind++];

```

```

if (doit)
    *(double *) cs->value_ptr
    = (coptarg != 0 ? atof (coptarg)
        : *(double *) cs->noarg_value);

```

```

break;

```

```

#endif
    }

    /* We've found the switch. Stop looking. */
    break;
}
}

/* There are no more options according to getting getopt, but there may
   be some arguments left. Since we have asked for non-option arguments
   to be returned in order, this only happens when there is a "--"
   argument to prevent later arguments from being options. */
while (optind < argc)
    handle_non_switch_argument (argv[optind++], env);

if (!env && (bad || print_usage_flag))
{
    print_usage (bad);
    die (bad ? MAKE_FAILURE : MAKE_SUCCESS);
}

/* If there are any options that need to be decoded do it now. */
decode_debug_flags ();
decode_output_sync_flags ();
}

/* Decode switches from environment variable ENVAR (which is LEN chars long).
   We do this by chopping the value into a vector of words, prepending a
   dash to the first word if it lacks one, and passing the vector to
   decode_switches. */

static void
decode_env_switches (const char *envar, unsigned int len)
{
    char *varref = alloca (2 + len + 2);
    char *value, *p, *buf;
    int argc;
    const char **argv;

    /* Get the variable's value. */
    varref[0] = '$';
    varref[1] = '(';
    memcpy (&varref[2], envar, len);
    varref[2 + len] = ')';
    varref[2 + len + 1] = '\0';
    value = variable_expand (varref);

    /* Skip whitespace, and check for an empty value. */

```

```

NEXT_TOKEN (value);
len = strlen (value);
if (len == 0)
    return;

/* Allocate a vector that is definitely big enough. */
argv = alloca ((1 + len + 1) * sizeof (char *));

/* getopt will look at the arguments starting at ARGV[1].
   Prepend a spacer word. */
argv[0] = 0;
argc = 1;

/* We need a buffer to copy the value into while we split it into words
   and unquote it. Set up in case we need to prepend a dash later. */
buf = alloca (1 + len + 1);
buf[0] = '-';
p = buf+1;
argv[argc] = p;
while (*value != '\0')
{
    if (*value == '\\' && value[1] != '\0')
        ++value;          /* Skip the backslash. */
    else if (ISBLANK (*value))
    {
        /* End of the word. */
        *p++ = '\0';
        argv[++argc] = p;
        do
            ++value;
        while (ISBLANK (*value));
        continue;
    }
    *p++ = *value++;
}
*p = '\0';
argv[++argc] = 0;
assert (p < buf + len + 2);

if (argv[1][0] != '-' && strchr (argv[1], '=') == 0)
    /* The first word doesn't start with a dash and isn't a variable
       definition, so add a dash. */
    argv[1] = buf;

/* Parse those words. */
decode_switches (argc, argv, 1);
}

```

```
/* Quote the string IN so that it will be interpreted as a single word with
no magic by decode_env_switches; also double dollar signs to avoid
variable expansion in make itself. Write the result into OUT, returning
the address of the next character to be written.
Allocating space for OUT twice the length of IN is always sufficient. */
```

```
static char *
quote_for_env (char *out, const char *in)
{
    while (*in != '\0')
    {
        if (*in == '$')
            *out++ = '$';
        else if (ISBLANK (*in) || *in == '\\')
            *out++ = '\\';
        *out++ = *in++;
    }

    return out;
}
```

```
/* Define the MAKEFLAGS and MFLAGS variables to reflect the settings of the
command switches. Include options with args if ALL is nonzero.
Don't include options with the 'no_makefile' flag set if MAKEFILE. */
```

```
static struct variable *
define_makeflags (int all, int makefile)
{
    const char ref[] = "$(MAKEOVERRIDES)";
    const char posixref[] = "$(-*-command-variables-*-)";
    const char evalref[] = "$(-*-eval-flags-*-)";
    const struct command_switch *cs;
    char *flagstring;
    char *p;
```

```
/* We will construct a linked list of 'struct flag's describing
all the flags which need to go in MAKEFLAGS. Then, once we
know how many there are and their lengths, we can put them all
together in a string. */
```

```
struct flag
{
    struct flag *next;
    const struct command_switch *cs;
    const char *arg;
};
struct flag *flags = 0;
struct flag *last = 0;
```

```

unsigned int flagslen = 0;
#define ADD_FLAG(ARG, LEN) \
do { \
    struct flag *new = alloca (sizeof (struct flag)); \
    new->cs = cs; \
    new->arg = (ARG); \
    new->next = 0; \
    if (! flags) \
        flags = new; \
    else \
        last->next = new; \
    last = new; \
    if (new->arg == 0) \
        /* Just a single flag letter: "-x" */ \
        flagslen += 3; \
    else \
        /* "-xfoo", plus space to escape "foo". */ \
        flagslen += 1 + 1 + 1 + (3 * (LEN)); \
    if (!short_option (cs->c)) \
        /* This switch has no single-letter version, so we use the long. */ \
        flagslen += 2 + strlen (cs->long_name); \
} while (0)

for (cs = switches; cs->c != '\0'; ++cs)
if (cs->toenv && (!makefile || !cs->no_makefile))
switch (cs->type)
{
case ignore:
    break;

case flag:
case flag_off:
    if (((int *) cs->value_ptr) == (cs->type == flag_off)
        && (cs->default_value == 0
            || *(int *) cs->value_ptr != *(int *) cs->default_value))
        ADD_FLAG (0, 0);
    break;

case positive_int:
    if (all)
    {
        if ((cs->default_value != 0
            && (*(unsigned int *) cs->value_ptr
                == *(unsigned int *) cs->default_value)))
            break;
        else if (cs->noarg_value != 0
            && (*(unsigned int *) cs->value_ptr ==
                *(unsigned int *) cs->noarg_value))

```

```

        ADD_FLAG ("", 0); /* Optional value omitted; see below. */
    else
    {
        char *buf = alloca (30);
        sprintf (buf, "%u", *(unsigned int *) cs->value_ptr);
        ADD_FLAG (buf, strlen (buf));
    }
}
break;

#ifdef NO_FLOAT
case floating:
    if (all)
    {
        if (cs->default_value != 0
            && *(double *) cs->value_ptr
            == *(double *) cs->default_value)
            break;
        else if (cs->noarg_value != 0
            && *(double *) cs->value_ptr
            == *(double *) cs->noarg_value)
            ADD_FLAG ("", 0); /* Optional value omitted; see below. */
        else
        {
            char *buf = alloca (100);
            sprintf (buf, "%g", *(double *) cs->value_ptr);
            ADD_FLAG (buf, strlen (buf));
        }
    }
    break;
#endif

case string:
    if (all)
    {
        p = *((char **)cs->value_ptr);
        if (p)
            ADD_FLAG (p, strlen (p));
    }
    break;

case filename:
case strlist:
    if (all)
    {
        struct stringlist *sl = *(struct stringlist **) cs->value_ptr;
        if (sl != 0)
        {

```

```

        unsigned int i;
        for (i = 0; i < sl->idx; ++i)
            ADD_FLAG (sl->list[i], strlen (sl->list[i]));
    }
}
break;

default:
    abort ();
}

#undef ADD_FLAG

/* Four more for the possible "--", plus variable references. */
flagslen += 4 + CSTRLEN (posixref) + 1 + CSTRLEN (evalref) + 1;

/* Construct the value in FLAGSTRING.
   We allocate enough space for a preceding dash and trailing null. */
flagstring = alloca (1 + flagslen + 1);
memset (flagstring, '\0', 1 + flagslen + 1);
p = flagstring;

/* Start with a dash, for MFLAGS. */
*p++ = '-';

/* Add simple options as a group. */
while (flags != 0 && !flags->arg && short_option (flags->cs->c))
{
    *p++ = flags->cs->c;
    flags = flags->next;
}

/* Now add more complex flags: ones with options and/or long names. */
while (flags)
{
    *p++ = '-';
    *p++ = '-';

    /* Add the flag letter or name to the string. */
    if (short_option (flags->cs->c))
        *p++ = flags->cs->c;
    else
    {
        /* Long options require a double-dash. */
        *p++ = '-';
        strcpy (p, flags->cs->long_name);
        p += strlen (p);
    }
}

```

```

/* An omitted optional argument has an ARG of "". */
if (flags->arg && flags->arg[0] != '\0')
{
    if (!short_option (flags->cs->c))
        /* Long options require '='. */
        *p++ = '=';
    p = quote_for_env (p, flags->arg);
}
flags = flags->next;
}

/* If no flags at all, get rid of the initial dash. */
if (p == &flagstring[1])
{
    flagstring[0] = '\0';
    p = flagstring;
}

/* Define MFLAGS before appending variable definitions. Omit an initial
empty dash. Since MFLAGS is not parsed for flags, there is no reason to
override any makefile redefinition. */
define_variable_cname ("MFLAGS",
    flagstring + (flagstring[0] == '-' && flagstring[1] == '?' ? 2 : 0),
    o_env, 1);

/* Write a reference to -*eval-flags-*, which contains all the --eval
flag options. */
if (eval_strings)
{
    *p++ = ' ';
    memcpy (p, evalref, CSTRLEN (evalref));
    p += CSTRLEN (evalref);
}

if (all && command_variables)
{
    /* Write a reference to $(MAKEOVERRIDES), which contains all the
command-line variable definitions. Separate the variables from the
switches with a "--" arg. */

    strcpy (p, "-- ");
    p += 4;

    /* Copy in the string. */
    if (posix_pedantic)
    {
        memcpy (p, posixref, CSTRLEN (posixref));
        p += CSTRLEN (posixref);
    }
}

```



```

    }
else
    {
        memcpy (p, ref, CSTRLEN (ref));
        p += CSTRLEN (ref);
    }
}

/* If there is a leading dash, omit it. */
if (flagstring[0] == '-')
    ++flagstring;

/* This used to use o_env, but that lost when a makefile defined MAKEFLAGS.
   Makefiles set MAKEFLAGS to add switches, but we still want to redefine
   its value with the full set of switches. Then we used o_file, but that
   lost when users added -e, causing a previous MAKEFLAGS env. var. to take
   precedence over the new one. Of course, an override or command
   definition will still take precedence. */
return define_variable_cname ("MAKEFLAGS", flagstring,
                             env_overrides ? o_env_override : o_file, 1);
}

/* Print version information. */

static void
print_version (void)
{
    static int printed_version = 0;

    const char *precede = print_data_base_flag ? "# " : "";

    if (printed_version)
        /* Do it only once. */
        return;

    printf ("%sGNU Make %s\n", precede, version_string);

    if (!remote_description || *remote_description == '\0')
        printf (_("%sBuilt for %s\n"), precede, make_host);
    else
        printf (_("%sBuilt for %s (%s)\n"),
                precede, make_host, remote_description);

    /* Print this untranslated. The coding standards recommend translating the
       (C) to the copyright symbol, but this string is going to change every
       year, and none of the rest of it should be translated (including the
       word "Copyright"), so it hardly seems worth it. */

```

```

printf ("%sCopyright (C) 1988-2016 Free Software Foundation, Inc.\n",
        precede);

printf (_("%sLicense GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>\n\
%sThis is free software: you are free to change and redistribute it.\n\
%sThere is NO WARRANTY, to the extent permitted by law.\n"),
        precede, precede, precede);

printed_version = 1;

/* Flush stdout so the user doesn't have to wait to see the
   version information while make thinks about things. */
fflush (stdout);
}

/* Print a bunch of information about this and that. */

static void
print_data_base (void)
{
    time_t when = time ((time_t *) 0);

    print_version ();

    printf (_("\n# Make data base, printed on %s"), ctime (&when));

    print_variable_data_base ();
    print_dir_data_base ();
    print_rule_data_base ();
    print_file_data_base ();
    print_vpath_data_base ();
    strcache_print_stats ("#");

    when = time ((time_t *) 0);
    printf (_("\n# Finished Make data base on %s\n"), ctime (&when));
}

static void
clean_jobserver (int status)
{
    /* Sanity: have we written all our jobserver tokens back? If our
       exit status is 2 that means some kind of syntax error; we might not
       have written all our tokens so do that now. If tokens are left
       after any other error code, that's bad. */

    if (jobserver_enabled() && jobserver_tokens)
    {
        if (status != 2)

```

```

    ON (error, NILF,
        "INTERNAL: Exiting with %u jobserver tokens (should be 0)",
        jobserver_tokens);
else
    /* Don't write back the "free" token */
    while (--jobserver_tokens)
        jobserver_release (0);
}

/* Sanity: If we're the master, were all the tokens written back? */

if (master_job_slots)
{
    /* We didn't write one for ourself, so start at 1. */
    unsigned int tokens = 1 + jobserver_acquire_all ();

    if (tokens != master_job_slots)
        ONN (error, NILF,
            "INTERNAL: Exiting with %u jobserver tokens available; should be %u!",
            tokens, master_job_slots);

    reset_jobserver ();
}
}

/* Exit with STATUS, cleaning up as necessary. */

void
die (int status)
{
    static char dying = 0;

    if (!dying)
    {
        int err;

        dying = 1;

        if (print_version_flag)
            print_version ();

        /* Wait for children to die. */
        err = (status != 0);
        while (job_slots_used > 0)
            reap_children (1, err);

        /* Let the remote job module clean up its state. */

```

```

remote_cleanup ();

/* Remove the intermediate files. */
remove_intermediates (0);

if (print_data_base_flag)
    print_data_base ();

if (verify_flag)
    verify_file_data_base ();

clean_jobserver (status);

if (output_context)
{
    /* die() might be called in a recipe output context due to an
       $(error ...) function. */
    output_close (output_context);

    if (output_context != &make_sync)
        output_close (&make_sync);

    OUTPUT_UNSET ();
}

output_close (NULL);

/* Try to move back to the original directory. This is essential on
   MS-DOS (where there is really only one process), and on Unix it
   puts core files in the original directory instead of the -C
   directory. Must wait until after remove_intermediates(), or unlinks
   of relative pathnames fail. */
if (directory_before_chdir != 0)
{
    /* If it fails we don't care: shut up GCC. */
    int _x UNUSED;
    _x = chdir (directory_before_chdir);
}
}

exit (status);
}

```

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Version 3, 29 June 2007

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1.281 tpm2-tools 5.0 r0

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1.282 python3-cryptography-vectors 2.9 r0

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1.283 procps 3.3.15

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1.284 bzip2 1.0.8 r0

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Julian Seward, jseward@acm.org
bzip2/libbzip2 version 1.0.8 of 13 July 2019

1.285 parted 3.2 r1

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@c Local Variables:
@c ispell-local-pdict: "ispell-dict"
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1.287 net-tools 2.0-0.52.20160912git.el8

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1.288 tcp-dump 4.9.3 r0

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1.289 rpcbind 36560.0

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1.290 python-zipp 0.6.0 r0

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1.291 libxml 2.9.7-9.el8

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1.292 python-pip 9.0.1-6.ph2

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1.293 libgrypt 1.8.4 r0

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1.295 iptables 1.8.3 r0

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1.297 python-pycparser 2.19 r0

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1.298 nginx 1.4.4

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1.299 Im-sensors 3.5.0 r0

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Here is a list of the main contributors to lm-sensors version 3.

* Frodo Looijaard

Original author of libsensors, sensors-detect, sensors and isadump.

* Merlin Hughes

Original author of sensord.

* Bob Schlaermann

Dynamic chip feature detection (a.k.a. generic chip support) in libsensors and sensors.

* Mark M. Hoffman

Many improvements to the libsensors configuration file scanner.

* Jean Delvare

New libsensors API, and migration of sensors and sensord thereto.

Many optimizations in libsensors and sensors.

Configuration file converter.

Rewrite of sensors-detect.

Support for multiple configuration files in libsensors.

1.300 gmp 6.1.2 r0

1.300.1 Available under license :

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1.301 tcp-wrappers 7.6 r10

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```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

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```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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numbered 2 because it goes with version 2 of the ordinary GPL.]

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<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

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1.303 libtirpc 1.0.1

1.303.1 Available under license :

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1.304 libedit 20190324-3.1 r0

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1.305 tirpc 2.3

1.305.1 Available under license :

Date: Wed, 18 Aug 2010 11:25:39 -0700

From: Wim Coekaerts <wim.coekaerts@oracle.com>

To: Peter Brown <peterb@fsf.org>, drepper@redhat.com, tcallawa@redhat.com

CC: Elena Zannoni <elena.zannoni@oracle.com>

Subject: sun rpc license

Hi -

I was thinking of doing patches for this but it's probably easier to just provide you with an email with permission to relicense then it can catch the files and projects. Please let me know if any files are missing I will be happy to review that as well. just send me a note with files and which project

On behalf of Oracle America, I authorize the following list of files to be re-licensed under the license below, (3-clause BSD) and changing the old Sun Microsystems license to the one attached. :

(1) rusers (netkit)

rstat_proc.c

(2) krb5

authunix_prot.c

bindresvport.c

clnt_generic.c

clnt_perror.c

clnt_simple.c

get_myaddress.c

getrpcent.c

pmap_getmaps.c

pmap_getport.c

rpc_callmsg.c

rpc_commondata.c

rpc_dtablesize.c

svc_auth_unix.c

types.hin

xdr_alloc.c

xdr_reference.c

possibly also the following :

include/gssrpc/auth.h

include/gssrpc/auth_unix.h

include/gssrpc/clnt.h
include/gssrpc/netdb.h

include/gssrpc/pmap_clnt.h
include/gssrpc/pmap_prot.h

include/gssrpc/pmap_rmt.h
include/gssrpc/rpc.h

include/gssrpc/rpc_msg.h
include/gssrpc/svc_auth.h

include/gssrpc/svc.h
include/gssrpc/types.hin

include/gssrpc/xdr.h
kadmin/server/ovsec_kadmd.c

lib/rpc/auth_none.c
lib/rpc/auth_unix.c

lib/rpc/authunix_prot.c
lib/rpc/bindresvport.c

lib/rpc/clnt_generic.c
lib/rpc/clnt_perror.c

lib/rpc/clnt_raw.c
lib/rpc/clnt_simple.c
lib/rpc/clnt_tcp.c

lib/rpc/clnt_udp.c
lib/rpc/get_myaddress.c

lib/rpc/getrpcent.c
lib/rpc/getrpcport.c
lib/rpc/pmap_clnt.c

lib/rpc/pmap_getmaps.c
lib/rpc/pmap_getport.c

lib/rpc/pmap_prot2.c
lib/rpc/pmap_prot.c
lib/rpc/pmap_rmt.c

lib/rpc/rpc_callmsg.c
lib/rpc/rpc_commdata.c

lib/rpc/rpc_dtablesize.c

lib/rpc/rpc_prot.c

lib/rpc/svc_auth.c

lib/rpc/svc_auth_unix.c

lib/rpc/svc.c

lib/rpc/svc_raw.c

lib/rpc/svc_run.c

lib/rpc/svc_simple.c

lib/rpc/svc_tcp.c

lib/rpc/svc_udp.c

lib/rpc/unit-test/server.c

lib/rpc/xdr_alloc.c

lib/rpc/xdr_array.c

lib/rpc/xdr.c

lib/rpc/xdr_float.c

lib/rpc/xdr_mem.c

lib/rpc/xdr_rec.c

lib/rpc/xdr_reference.c

lib/rpc/xdr_sizeof.c

lib/rpc/xdr_stdio.c

(3) glibc

auth_des.c

authdes_prot.c

auth.h

auth_none.c

auth_unix.c

auth_unix.h

authxprot.c

bindsvprt.c

bootparam_prot.x

clnt_gen.c

clnt.h

clnt_perr.c

clnt_raw.c

clnt_simp.c

clnt_tcp.c

clnt_udp.c

clnt_unix.c
des_crypt.c
des_crypt.h
des_soft.c
get_myaddr.c
getrpcport.c
key_call.c
key_prot.c
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svc_raw.c
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svc_tcp.c
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1.306 libunistring 0.9.9 3.e18

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@c ispell-local-pdict: "ispell-dict"  
@c End:
```

1.307 python3-cffi 1.14.0 r0

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1.308 pyasn1 0.4.7 r0

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ASN.1 library for Python

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This is a free and open source implementation of ASN.1 types and codecs as a Python package. It has been first written to support particular protocol (SNMP) but then generalized to be suitable for a wide range of protocols based on

[ASN.1 specification](https://www.itu.int/rec/dologin_pub.asp?lang=e&id=T-REC-X.208-198811-W!!PDF-E&type=items).

Features

- * Generic implementation of ASN.1 types (X.208)
- * Standards compliant BER/CER/DER codecs
- * Dumps/loads ASN.1 structures from Python types
- * 100% Python, works with Python 2.4 up to Python 3.7
- * MT-safe
- * Contributed ASN.1 compiler [Asn1ate](https://github.com/kimgr/asn1ate)

Why using pyasn1

ASN.1 solves the data serialisation problem. This solution was designed long ago by the wise Ancients. Back then, they did not have the luxury of wasting bits. That is why ASN.1 is designed to serialise data structures of unbounded complexity into something compact and efficient when it comes to processing the data.

That probably explains why many network protocols and file formats still rely on the 30+ years old technology. Including a number of high-profile Internet protocols and file formats.

Quite a number of books cover the topic of ASN.1.

[Communication between heterogeneous systems](http://www.oss.com/asn1/dubuisson.html) by Olivier Dubuisson is one of those high quality books freely available on the Internet.

The pyasn1 package is designed to help Python programmers tackling network protocols and file formats at the comfort of their Python prompt. The tool struggles to capture all aspects of a rather complicated ASN.1 system and to represent it on the Python terms.

How to use pyasn1

With pyasn1 you can build Python objects from ASN.1 data structures.

For example, the following ASN.1 data structure:

```
```bash
Record ::= SEQUENCE {
 id INTEGER,
 room [0] INTEGER OPTIONAL,
 house [1] INTEGER DEFAULT 0
}
```
```

Could be expressed in pyasn1 like this:

```
```python
class Record(Sequence):
 componentType = NamedTypes(
 NamedType('id', Integer()),
 OptionalNamedType(
 'room', Integer().subtype(
 implicitTag=Tag(tagClassContext, tagFormatSimple, 0)
)
),
 DefaultedNamedType(
 'house', Integer(0).subtype(
 implicitTag=Tag(tagClassContext, tagFormatSimple, 1)
)
)
)
```
```

It is in the spirit of ASN.1 to take abstract data description and turn it into a programming language specific form.

Once you have your ASN.1 data structure expressed in Python, you

can use it along the lines of similar Python type (e.g. ASN.1

`SET` is similar to Python `dict`, `SET OF` to `list`):

```
```python
>>> record = Record()
>>> record['id'] = 123
>>> record['room'] = 321
>>> str(record)
Record:
id=123
room=321
```
```

```
>>>
...

```

Part of the power of ASN.1 comes from its serialisation features. You can serialise your data structure and send it over the network.

```
```python
>>> from pyasn1.codec.der.encoder import encode
>>> substrate = encode(record)
>>> hexdump(substrate)
00000: 30 07 02 01 7B 80 02 01 41
...

```

Conversely, you can turn serialised ASN.1 content, as received from network or read from a file, into a Python object which you can introspect, modify, encode and send back.

```
```python
>>> from pyasn1.codec.der.decoder import decode
>>> received_record, rest_of_substrate = decode(substrate, asn1Spec=Record())
>>>
>>> for field in received_record:
>>>     print('{ } is {}'.format(field, received_record[field]))
id is 123
room is 321
house is 0
>>>
>>> record == received_record
True
>>> received_record.update(room=123)
>>> substrate = encode(received_record)
>>> hexdump(substrate)
00000: 30 06 02 01 7B 80 01 7B
...

```

The pyasn1 classes struggle to emulate their Python prototypes (e.g. int, list, dict etc.). But ASN.1 types exhibit more complicated behaviour. To make life easier for a Pythonista, they can turn their pyasn1 classes into Python built-ins:

```
```python
>>> from pyasn1.codec.native.encoder import encode
>>> encode(record)
{'id': 123, 'room': 321, 'house': 0}
...

```

Or vice-versa -- you can initialize an ASN.1 structure from a tree of Python objects:

```

```python
>>> from pyasn1.codec.native.decoder import decode
>>> record = decode({'id': 123, 'room': 321, 'house': 0}, asn1Spec=Record())
>>> str(record)
Record:
id=123
room=321
>>>
```

```

With ASN.1 design, serialisation codecs are decoupled from data objects, so you could turn every single ASN.1 object into many different serialised forms. As of this moment, pyasn1 supports BER, DER, CER and Python built-ins codecs. The extremely compact PER encoding is expected to be introduced in the upcoming pyasn1 release.

More information on pyasn1 APIs can be found in the [documentation](<http://snmplabs.com/pyasn1/>), compiled ASN.1 modules for different protocols and file formats could be found in the pyasn1-modules [repo](<https://github.com/etingof/pyasn1-modules>).

How to get pyasn1

-----

The pyasn1 package is distributed under terms and conditions of 2-clause BSD [license](<http://snmplabs.com/pyasn1/license.html>). Source code is freely available as a GitHub [repo](<https://github.com/etingof/pyasn1>).

You could `pip install pyasn1` or download it from [PyPI](<https://pypi.org/project/pyasn1>).

If something does not work as expected, [open an issue](<https://github.com/etingof/pyasn1/issues>) at GitHub or post your question [on Stack Overflow](<https://stackoverflow.com/questions/ask>) or try browsing pyasn1 [mailing list archives](<https://sourceforge.net/p/pyasn1/mailman/pyasn1-users/>).

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Found in path(s):

```
* /opt/cola/permits/1155340545_1618954533.65/0/etingof-pyasn1-v0-4-7-0-g771aa24-1-tar-gz/etingof-pyasn1-771aa24/README.md
```

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```
.. _license:
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.. include:: ../../LICENSE.rst

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\* /opt/cola/permits/1155340545\_1618954533.65/0/etingof-pyasn1-v0-4-7-0-g771aa24-1-tar-gz/etingof-pyasn1-771aa24/docs/source/license.rst

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771aa24/pyasn1/type/useful.py
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ASN.1 library for Python

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```

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```

Abstract Syntax Notation One (ASN.1

<[http://en.wikipedia.org/wiki/Abstract\\_Syntax\\_Notation\\_1x](http://en.wikipedia.org/wiki/Abstract_Syntax_Notation_1x)>\_) is a technology for exchanging structured data in a universally understood, hardware agnostic way. Many industrial, security and telephony applications heavily rely on ASN.1.

The pyasn1 <<https://pypi.org/project/pyasn1/>>\_ library implements

ASN.1 support in pure-Python.

What is ASN.1

-----

ASN.1 is a large, arguably over-engineered and extremely old data modelling and serialisation tool. It is probably among the first serialisation protocols in the history of computer science and technology.

ASN.1 started its life over 30 years ago as a serialisation mechanism for the first electronic mail (known as X.400). Later on it was split off the e-mail application and became a stand-alone tech still being actively supported by its designers and widely used in industry and technology.

Since then ASN.1 is sort of haunted by its relations with the OSI model -- the first, unsuccessful, version of the Internet. You can read many interesting discussions <<https://news.ycombinator.com/item?id=8871453>> on that topic.

In the following years, generations of software engineers tackled the serialisation problem many times. We can see that in Google's `ProtoBuffers` <<https://developers.google.com/protocol-buffers/>> or `FlatBuffers` <<https://google.github.io/flatbuffers/>>, for example. Interestingly, many new takes on binary protocol design do not depart far from ASN.1 from technical perspective. It's more of a matter of striking a balance between processing overhead, wire format overhead and human readability.

Looking at what ASN.1 has to offer, it has three loosely coupled parts:

- \* Data types: the standard introduces a collection of basic data types (integers, bits, strings, arrays and records) that can be used for describing arbitrarily complex, nested data structures.
- \* Serialisation protocols: the above data structures could be converted into a series of octets for storage or transmission over the wire as well as recovered back into their structured form. The system is fully agnostic to hardware architectures differences.
- \* Schema language: ASN.1 data structures could be described in terms of a schema language for ASN.1 compiler to turn it into platform-specific implementation.

ASN.1 applications

-----

Being an old and generally successful standard, ASN.1 is widely adopted for many uses. To give you an example, these technologies use ASN.1 for their data exchange needs:



- \* Signaling standards for the public switched telephone network (SS7 family)
- \* Network management standards (SNMP, CMIP)
- \* Directory standards (X.500 family, LDAP)
- \* Public Key Infrastructure standards (X.509, etc.)
- \* PBX control (CSTA)
- \* IP-based Videoconferencing (H.323 family)
- \* Biometrics (BIP, CBEFF, ACBio)
- \* Intelligent transportation (SAE J2735)
- \* Cellular telephony (GSM, GPRS/EDGE, UMTS, LTE)

#### ASN.1 gotchas

-----

Apparently, ASN.1 is hard to implement properly. Quality open-source ASN.1 tools are rare, but ad-hoc implementations are numerous. Judging from the `statistics <http://cve.mitre.org/cgi-bin/cvekey.cgi?keyword=ASN.1>` on discovered security vulnerabilities, many people have implemented ASN.1 parsers and oftentimes fell victim to its edge cases.

On the bright side, ASN.1 has been around for a long time, it is well understood and security reviewed.

#### Documentation

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```
.. toctree::
 :maxdepth: 2

 /pyasn1/contents
```

#### Use case

-----

```
.. toctree::
 :maxdepth: 2

 /example-use-case
```

#### Download & Install

-----

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 /download
```

#### Changes

-----

All changes and release history is maintained in changelog. There you could also download the latest unreleased pyasn1 tarball containing the latest fixes and improvements.

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```

/changelog

License

-----

The PyASN1 software is distributed under 2-clause BSD License.

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.. toctree::
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```

/license

Getting help

-----

Please, file your `issues` <<https://github.com/etingof/pyasn1/issues>>` \_ and `PRs` <<https://github.com/etingof/pyasn1/pulls>>` \_ at GitHub. Alternatively, you could ask for help at `Stack Overflow` <<http://stackoverflow.com/questions/tagged/pyasn1>>` \_ or search `pyasn1-users` <<https://lists.sourceforge.net/lists/listinfo/pyasn1-users>>` \_ mailing list archive.

Books on ASN.1

-----

The pyasn1 implementation is largely based on reading up the following awesome books:

- \* `ASN.1 - Communication between heterogeneous systems` <<http://www.oss.com/asn1/dubuisson.html>>` \_ by Olivier Dubuisson
- \* `ASN.1 Complete` <<http://www.oss.com/asn1/resources/books-whitepapers-pubs/larmouth-asn1-book.pdf>>` \_ by Prof John Larmouth

Here you can get the official standards which is hard to read:

- \* `ITU standards` <<http://www.itu.int/ITU-T/studygroups/com17/languages/X.680-X.693-0207w.zip>>` \_

On the other end of the readability spectrum, here is a quick and sweet write up:

\* `A Layman's Guide to a Subset of ASN.1, BER, and DER <ftp://ftp.rsasecurity.com/pub/pkcs/ascii/layman.asc>`  
by Burton S. Kaliski

If you are working with ASN.1, we'd highly recommend reading a proper book on the subject.

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## 1.309 bridgeutils 1.6 r0

# 1.310 fuse 2.9.9 r0

## 1.310.1 Available under license :

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

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## 1.311 libopflex beryllium-sr1 r0

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## 1.312 python3-pytz 2019.2 r0

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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# 1.315 python3-werkzeug 0.14.1 r0

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## 1.316 libusb-compat 0.1.5 r0

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Version 2.1, February 1999

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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## 1.317 python3-pathlib 2.3.4 r0

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\* /opt/ws\_local/PERMITS\_SQL/1087863791\_1599606592.98/0/pathlib2-2-3-4-1-tar-gz/pathlib2-2.3.4/PKG-INFO

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\* /opt/ws\_local/PERMITS\_SQL/1087863791\_1599606592.98/0/pathlib2-2-3-4-1-tar-gz/pathlib2-2.3.4/tests/test\_pathlib2.py

# 1.318 sun-rpc Dec. 2006

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Date: Wed, 18 Aug 2010 11:25:39 -0700

From: Wim Coekaerts <wim.coekaerts@oracle.com>

To: Peter Brown <peterb@fsf.org>, drepper@redhat.com, tcallawa@redhat.com

CC: Elena Zannoni <elena.zannoni@oracle.com>

Subject: sun rpc license

Hi -

I was thinking of doing patches for this but it's probably easier to just provide you with an email with permission to relicense then it can catch the files and projects. Please let me know if any files are missing I will be happy to review that as well. just send me a note with files and which project

On behalf of Oracle America, I authorize the following list of files to be re-licensed under the license below, (3-clause BSD) and changing the old Sun Microsystems license to the one attached. :

(1) rusers (netkit)

rstat\_proc.c

(2) krb5

authunix\_prot.c

bindresvport.c

clnt\_generic.c

clnt\_perror.c

clnt\_simple.c

get\_myaddress.c

getrpcent.c

pmap\_getmaps.c

pmap\_getport.c

rpc\_callmsg.c

rpc\_commondata.c

rpc\_dtablesize.c

svc\_auth\_unix.c

types.hin

xdr\_alloc.c

xdr\_reference.c

possibly also the following :

include/gssrpc/auth.h

include/gssrpc/auth\_unix.h

include/gssrpc/clnt.h

include/gssrpc/netdb.h

include/gssrpc/pmap\_clnt.h

include/gssrpc/pmap\_prot.h

include/gssrpc/pmap\_rmt.h

include/gssrpc/rpc.h

include/gssrpc/rpc\_msg.h

include/gssrpc/svc\_auth.h

include/gssrpc/svc.h

include/gssrpc/types.hin

include/gssrpc/xdr.h

kadmin/server/ovsec\_kadmd.c

lib/rpc/auth\_none.c

lib/rpc/auth\_unix.c

lib/rpc/authunix\_prot.c

lib/rpc/bindresvport.c

lib/rpc/clnt\_generic.c

lib/rpc/clnt\_perror.c

lib/rpc/clnt\_raw.c

lib/rpc/clnt\_simple.c

lib/rpc/clnt\_tcp.c

lib/rpc/clnt\_udp.c

lib/rpc/get\_myaddress.c

lib/rpc/getrpcent.c

lib/rpc/getrpcport.c

lib/rpc/pmap\_clnt.c

lib/rpc/pmap\_getmaps.c

lib/rpc/pmap\_getport.c

lib/rpc/pmap\_prot2.c

lib/rpc/pmap\_prot.c

lib/rpc/pmap\_rmt.c

lib/rpc/rpc\_callmsg.c

lib/rpc/rpc\_commdata.c

lib/rpc/rpc\_dtablesize.c

lib/rpc/rpc\_prot.c

lib/rpc/svc\_auth.c

lib/rpc/svc\_auth\_unix.c

lib/rpc/svc.c

lib/rpc/svc\_raw.c

lib/rpc/svc\_run.c

lib/rpc/svc\_simple.c

lib/rpc/svc\_tcp.c

lib/rpc/svc\_udp.c

lib/rpc/unit-test/server.c

lib/rpc/xdr\_alloc.c

lib/rpc/xdr\_array.c

lib/rpc/xdr.c

lib/rpc/xdr\_float.c

lib/rpc/xdr\_mem.c

lib/rpc/xdr\_rec.c

lib/rpc/xdr\_reference.c

lib/rpc/xdr\_sizeof.c

lib/rpc/xdr\_stdio.c

### (3) glibc

auth\_des.c

authdes\_prot.c

auth.h

auth\_none.c

auth\_unix.c

auth\_unix.h

authuxprot.c

bindsvprt.c

bootparam\_prot.x

clnt\_gen.c

clnt.h

clnt\_perr.c

clnt\_raw.c

clnt\_simp.c

clnt\_tcp.c

clnt\_udp.c

clnt\_unix.c

des\_crypt.c

des\_crypt.h

des\_soft.c

get\_myaddr.c  
getrpcport.c  
key\_call.c  
key\_prot.c  
key\_prot.h  
key\_prot.x  
klm\_prot.x  
mount.x  
netdb.h  
nfs\_prot.x  
nlm\_prot.x  
openchild.c  
pmap\_clnt.c  
pmap\_clnt.h  
pmap\_prot2.c  
pmap\_prot.c  
pmap\_prot.h  
pmap\_rmt.c  
pmap\_rmt.h  
pm\_getmaps.c  
pm\_getport.c  
rex.x  
rpc\_clntout.c  
rpc\_cmsg.c  
rpc\_common.c  
rpc\_cout.c  
rpc\_des.h  
rpc\_dtable.c  
rpc.h  
rpc\_hout.c  
rpcinfo.c  
rpc\_main.c  
rpc\_msg.h  
rpc\_parse.c  
rpc\_parse.h  
rpc\_prot.c  
rpc\_sample.c  
rpc\_scan.c  
rpc\_scan.h  
rpc\_svcout.c  
rpc\_tblout.c  
rpc\_util.c  
rpc\_util.h  
rstat.x  
rtime.c  
rusers.x  
sm\_inter.x  
spray.x

svc\_auth.c  
svcauth\_des.c  
svc\_auth.h  
svc\_authux.c  
svc.c  
svc.h  
svc\_raw.c  
svc\_run.c  
svc\_simple.c  
svc\_tcp.c  
svc\_udp.c  
svc\_unix.c  
types.h  
xcrypt.c  
xdr\_array.c  
xdr.c  
xdr\_float.c  
xdr.h  
xdr\_mem.c  
xdr\_rec.c  
xdr\_ref.c  
xdr\_sizeof.c  
xdr\_stdio.c  
yppasswd.x

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thanks

Wim Coekaerts  
Senior Vice President  
Linux and Virtualization Engineering  
Oracle Corporation

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StartChar: copyright

Encoding: 169 169 102

GlifName: copyright

Width: 862

Flags: HMW

LayerCount: 2

Back

SplineSet

441 156 m 0

335 156 273 218 273 327 c 0

273 382 287 427 315 462 c 0

344 498 390 515 452 515 c 0

480 515 510 508 541 494 c 1

526 452 l 1

499 462 473 466 450 466 c 0

371 466 330 420 330 339 c 0

330 253 372 203 458 203 c 0

478 203 499 207 522 215 c 1

537 175 l 1

504 162 472 156 441 156 c 0

430 609 m 0

347 609 276 572 231 529 c 0

186 485 148 416 148 333 c 0

148 251 186 181 231 138 c 0  
276 94 347 58 430 58 c 0  
513 58 583 95 628 138 c 0  
673 181 711 251 711 333 c 0  
711 416 673 485 628 529 c 0  
583 573 513 609 430 609 c 0  
428 674 m 0  
530 674 618 630 673 576 c 0  
729 522 776 436 776 333 c 0  
776 231 730 146 674 92 c 0  
618 38 532 -7 430 -7 c 0  
327 -7 242 38 186 92 c 0  
130 146 83 230 83 333 c 0  
83 435 129 521 185 575 c 0  
240 629 327 674 428 674 c 0

EndSplineSet

Fore

SplineSet

70 344 m 3  
70 561 215 706 432 706 c 3  
648 706 792 560 792 344 c 3  
792 134 645 -10 432 -10 c 3  
216 -10 70 131 70 344 c 3  
156 348 m 3  
156 183 264 76 432 76 c 3  
602 76 709 182 709 348 c 3  
709 514 597 624 432 624 c 3  
266 624 156 514 156 348 c 3  
337 347 m 3  
337 274 376 228 450 228 c 3  
493 228 515 238 552 252 c 1  
580 189 l 1  
539 165 497 152 432 152 c 3  
314 152 241 229 241 347 c 3  
241 468 313 544 432 544 c 3  
499 544 534 530 580 508 c 1  
552 446 l 1  
544 449 546 448 528 453 c 0  
506 461 479 470 450 470 c 3  
374 470 337 423 337 347 c 3

EndSplineSet

Validated: 1

EndChar

StartChar: copyright

Encoding: 169 169 102

GlifName: copyright

Width: 869

Flags: HMW

LayerCount: 2

Back

SplineSet

548 524 m 2

564 517 l 1

537 439 l 1

518 446 l 1

495 454 473 458 449 458 c 0

371 458 351 408 351 353 c 0

351 294 372 238 455 238 c 0

475 238 495 242 515 249 c 2

533 255 l 1

561 179 l 1

543 172 l 2

509 159 474 152 437 152 c 0

355 152 255 195 255 343 c 0

255 496 355 547 442 547 c 0

479 547 515 539 548 524 c 2

430 602 m 0

284 602 171 484 171 347 c 0

171 210 284 93 430 93 c 0

576 93 688 210 688 347 c 0

688 484 576 602 430 602 c 0

792 347 m 3

792 155 634 -10 430 -10 c 3

226 -10 67 154 67 347 c 3

67 536 223 706 430 706 c 3

634 706 792 539 792 347 c 3

EndSplineSet

Fore

SplineSet

784 334 m 259

784 129 638 -10 432 -10 c 3

229 -10 85 130 85 334 c 259

85 537 228 678 432 678 c 3

638 678 784 540 784 334 c 259

719 334 m 259

719 498 600 614 436 614 c 3

270 614 151 499 151 334 c 259

151 170 271 57 436 57 c 3

599 57 719 171 719 334 c 259

281 329 m 3

281 454 339 517 456 517 c 3

486 517 517 511 550 497 c 1

531 443 l 1

506 451 482 456 458 456 c 3

385 456 349 418 349 341 c 3

349 260 384 216 466 216 c 3

484 216 504 221 527 229 c 1

546 175 1 1

513 161 480 155 448 155 c 3

342 155 281 222 281 329 c 3

EndSplineSet

Validated: 1

EndChar

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# 1.320 cracklib 2.9.6 15.el8

## 1.320.1 Available under license :

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Version 2.1, February 1999

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!  
This package was debianized by Jean Pierre LeJacq  
<jplejacq@quoininc.com> on Wed, 25 Feb 1998. Martin Pitt  
<martin@piware.de> was the package's maintainer up to version  
2.7.19-1. The current maintainer is Jan Dittberner  
<jandd@debian.org>.

It was downloaded from <http://sourceforge.net/projects/cracklib>

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Copyright (c) 2008-2009 Jan Dittberner <jan@dittberner.info>

Modifications: Added cronjob, configuration file, and man pages.

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Copyright information:

CrackLib was originally licensed with a variant of the Artistic license. In the interests of wider acceptance and more modern licensing, it was switched with the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed as of 2007-10-01 with the following email from Alec Muffett. Cracklib's license was changed from the GPL to the LGPL after consensus of all previous developers in October 2008, effective with release 2.8.15 released on 2009-11-19. See the email discussion below for both license changes.

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EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected in released code until Nov 2009 - slow release cycle...)

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Discussion thread from mailing list archive, with approval from everyone actively involved or holding original licensing rights included.

[Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML

looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=  
r=20

GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists  
=2Dmike

Re: [Cracklib-devel] cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18

I understand that, and you're welcome to bring it up with Alec directly and see if he wants to relicense his code as LGPL... but at this point, it was enough to just get it consistent and documented as to what it was released under. This wasn't actually a license change, just a clarification of the licensing that was already in place.=20

-- Nathan

=20

-----

Nathan Neulinger EMail: nneul@um...



University of Missouri - Rolla Phone: (573) 341-6679  
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...  
> [mailto:cracklib-devel-bounces@li...] On Behalf Of  
> Mike Frysinger  
> Sent: Monday, October 01, 2007 8:15 PM  
> To: cracklib-devel@li...  
> Subject: [Cracklib-devel] cracklib license  
=>20  
> looks like 2.8.11 is out and marked as "GPL-2" ... releasing  
> libraries under  
> GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists  
> -mike

Re: [Cracklib-devel] cracklib license  
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML

On Monday 01 October 2007, Neulinger, Nathan wrote:

> I understand that, and you're welcome to bring it up with Alec directly  
> and see if he wants to relicense his code as LGPL... but at this point,  
> it was enough to just get it consistent and documented as to what it was  
> released under. This wasn't actually a license change, just a  
> clarification of the licensing that was already in place.

the original license (before moving to sourceforge -- aka, 2.7) was not=20  
GPL-2 ... it was a modified artistic license ... i didnt notice the license=  
=20  
change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=  
eir=20  
applications are also GPL-2 which imo is just wrong. it isnt the place of =  
a=20  
library to dictact to application writes what license they should be using.=  
=20  
thus LGPL-2.1 enters to fill this void.  
=2Dmike

Re: [Cracklib-devel] cracklib license  
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46  
Seems like the ideal thing here would be for you and the other distro  
maintainers to get together with Alec in a conversation and come to a  
decision as to what licensing scheme y'all want. I haven't really done

much other than cleaning up the packaging and patches and a small bit of additional code, so whatever licensing y'all come up with is fine by me.

-- Nathan

=20

-----  
Nathan Neulinger EMail: nneul@um...

University of Missouri - Rolla Phone: (573) 341-6679

UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...

> [mailto:cracklib-devel-bounces@li...] On Behalf Of

> Mike Frysinger

> Sent: Monday, October 01, 2007 8:33 PM

> To: Neulinger, Nathan

> Cc: cracklib-devel@li...; Alec Muffett

> Subject: Re: [Cracklib-devel] cracklib license

>=20

> On Monday 01 October 2007, Neulinger, Nathan wrote:

> > I understand that, and you're welcome to bring it up with Alec

> > directly

> > and see if he wants to relicense his code as LGPL... but at this

> > point,

> > it was enough to just get it consistent and documented as to what

> > it was

> > released under. This wasn't actually a license change, just a

> > clarification of the licensing that was already in place.

>=20

> the original license (before moving to sourceforge -- aka, 2.7) was

> not

> GPL-2 ... it was a modified artistic license ... i didnt notice the

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> change until it was mentioned in the latest notes.

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> unlike the old license, GPL-2 prevents people from using cracklib

> unless their

> applications are also GPL-2 which imo is just wrong. it isnt the

> place of a

> library to dictact to application writes what license they should

> be using.

> thus LGPL-2.1 enters to fill this void.

> -mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57

> Seems like the ideal thing here would be for you and the other distro

> maintainers to get together with Alec in a conversation and come to a  
> decision as to what licensing scheme y'all want. I haven't really done  
> much other than cleaning up the packaging and patches and a small  
> bit of  
> additional code, so whatever licensing y'all come up with is fine  
> by me.

I am sympathetic. Guys, what do you reckon?

What I am hearing so far is that LGPL makes sense, since it can be  
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license

From: Devin Reade <gdr@gn...> - 2007-10-02 15:04

I would like to see it under LGPL as well. I think it is in everyone's  
best interests to have as secure systems as possible, and I think tainting  
it via GPL will just make it less likely that the library gets used, and  
will not usually cause companies/developers to GPL the dependent code  
(where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct  
license in this situation.

Devin

--

If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license

From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

>> Seems like the ideal thing here would be for you and the other distro  
>> maintainers to get together with Alec in a conversation and come to a  
>> decision as to what licensing scheme y'all want. I haven't really done  
>> much other than cleaning up the packaging and patches and a small  
>> bit of  
>> additional code, so whatever licensing y'all come up with is fine  
>> by me.

>

> I am sympathetic. Guys, what do you reckon?

>

> What I am hearing so far is that LGPL makes sense, since it can be  
> linked with any code, not just GPL...

My apologies for not chiming in in anything resembling a reasonable

timeframe.

I'd also suggest the LGPL, for the reason you noted above. Alternately, GPLv2 with the option of using the library under a later version of the GPL would permit applications which were released under version 3 of the GPL to use the library, too, which would be sufficient for the packages which are included in Fedora. FWIW, I'd personally lean toward LGPL.

In any case, I thank you both for working on sorting this out.

Cheers,

Nalin

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-05 21:27

Attachments: Message as HTML

On Monday 28 January 2008, Nalin Dahyabhai wrote:

> On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

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looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make the change now ?

-mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2008-10-05 23:18

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> the change now ?

yes. go for it. thanks++

-a

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-25 22:34

Attachments: Message as HTML

On Sunday 05 October 2008, Alec Muffett wrote:

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Nathan Neulinger is the only one who can actually make said change ...

-mike

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BELOW IS ORIGINAL LICENSING DISCUSSION RE CHANGING TO GPL from Artistic.  
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CrackLib was originally licensed with a variant of the Artistic license. In the interests of wider acceptance and more modern licensing, it was switched with the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed as of 2007-10-01 with the following email from Alec Muffett.

The below email references nneul@umr.edu address, as that is the address that was used at the time. For any future emails regarding this, please use nneul@neulinger.org.

-----

From alecm@crypticide.com Mon Oct 1 12:26:03 2007  
Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);  
Mon, 1 Oct 2007 12:26:03 -0500  
Received: from scansrv2.srv.mst.edu ([131.151.1.114]) by umr-exproto2.cc.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);  
Mon, 1 Oct 2007 12:26:02 -0500  
Received: (gmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000  
Received: from smtp1.srv.mst.edu (131.151.1.43)  
by scanin-ipvs.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000  
Received: from spunkymail-mx8.g.dreamhost.com (mx1.spunky.mail.dreamhost.com [208.97.132.47])  
by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id 191Gxtpr020623  
for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500  
Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])  
by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTP id 2C7734D311  
for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)  
Received: from [82.68.43.14] (helo=[192.168.1.3])  
by rutherford.zen.co.uk with esmtp (Exim 4.50)  
id 1IcOcX-0004Qt-6L  
for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000  
Mime-Version: 1.0 (Apple Message framework v752.2)  
In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>  
References: <1190922867.3457.147.camel@localhost.localdomain>  
<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>  
<1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>  
Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed  
Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFE6E9F@crypticide.com>  
Content-Transfer-Encoding: 7bit  
From: Alec Muffett <alecm@crypticide.com>  
Subject: Re: cracklib license  
Date: Mon, 1 Oct 2007 17:59:46 +0100  
To: Nathan Neulinger <nneul@neulinger.org>  
X-Mailer: Apple Mail (2.752.2)  
X-Originating-Rutherford-IP: [82.68.43.14]  
Return-Path: alecm@crypticide.com  
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]  
Status: RO  
Content-Length: 585  
Lines: 21

>  
> ----- Forwarded message -----  
> From: Neulinger, Nathan <nneul@umr.edu>  
> Date: Sep 27, 2007 2:58 PM  
> Subject: RE: cracklib license  
> To: alecm@crypto.dircon.co.uk

- >
- > Any chance you could write me a self-contained email stating clearly
- > that the license is being changed to GPL, so I could include that
- > email
- > in the repository and clean up the repository/tarballs? I have all the
- > original discussion, but something succinct and self contained
- > would be
- > ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

-----  
EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected  
in released code until Nov 2009 - slow release cycle...)  
-----

Discussion thread from mailing list archive, with approval from everyone actively  
involved or holding original licensing rights included.

[Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML

looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=  
r=20

GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists  
=2Dmike

Re: [Cracklib-devel] cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18

I understand that, and you're welcome to bring it up with Alec directly  
and see if he wants to relicense his code as LGPL... but at this point,  
it was enough to just get it consistent and documented as to what it was  
released under. This wasn't actually a license change, just a  
clarification of the licensing that was already in place.=20

-- Nathan

=20

-----  
Nathan Neulinger EMail: nneul@um...

University of Missouri - Rolla Phone: (573) 341-6679

UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----  
> From: cracklib-devel-bounces@li...  
> [mailto:cracklib-devel-bounces@li...] On Behalf Of  
> Mike Frysinger  
> Sent: Monday, October 01, 2007 8:15 PM  
> To: cracklib-devel@li...  
> Subject: [Cracklib-devel] cracklib license  
>=20  
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Re: [Cracklib-devel] cracklib license  
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML

On Monday 01 October 2007, Neulinger, Nathan wrote:

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> and see if he wants to relicense his code as LGPL... but at this point,  
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the original license (before moving to sourceforge -- aka, 2.7) was not=20  
GPL-2 ... it was a modified artistic license ... i didnt notice the license=  
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change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=  
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applications are also GPL-2 which imo is just wrong. it isnt the place of =  
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library to dictact to application writes what license they should be using.=  
=20  
thus LGPL-2.1 enters to fill this void.  
=20  
=20mike

Re: [Cracklib-devel] cracklib license  
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46  
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> Sent: Monday, October 01, 2007 8:33 PM  
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Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57

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What I am hearing so far is that LGPL makes sense, since it can be  
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license

From: Devin Reade <gdr@gn...> - 2007-10-02 15:04

I would like to see it under LGPL as well. I think it is in everyone's  
best interests to have as secure systems as possible, and I think tainting  
it via GPL will just make it less likely that the library gets used, and  
will not usually cause companies/developers to GPL the dependent code  
(where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct  
license in this situation.

Devin

--

If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license

From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

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In any case, I thank you both for working on sorting this out.

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From alecm@crypticide.com Mon Oct 1 12:26:03 2007  
Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);  
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Mon, 1 Oct 2007 12:26:02 -0500  
Received: (qmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000  
Received: from smtp1.srv.mst.edu (131.151.1.43)  
by scanin-ipvs.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000  
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by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id 191Gxtpr020623  
for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500  
Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])  
by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTP id 2C7734D311  
for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)  
Received: from [82.68.43.14] (helo=[192.168.1.3])  
by rutherford.zen.co.uk with esmtp (Exim 4.50)  
id 1IcOcX-0004Qt-6L  
for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000  
Mime-Version: 1.0 (Apple Message framework v752.2)  
In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>  
References: <1190922867.3457.147.camel@localhost.localdomain>  
<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>  
<1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>  
Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed  
Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFE6E9F@crypticide.com>  
Content-Transfer-Encoding: 7bit  
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Subject: Re: cracklib license  
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To: Nathan Neulinger <nneul@neulinger.org>  
X-Mailer: Apple Mail (2.752.2)  
X-Originating-Rutherford-IP: [82.68.43.14]  
Return-Path: alecm@crypticide.com  
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]  
Status: RO  
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> would be  
> ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

## 1.321 subbi 2.6.1

### 1.321.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
/*
2: * Copyright 1984, 1985 by the Regents of the University of
3: * California and by Gregory Glenn Minshall.
4: *
5: * Permission to use, copy, modify, and distribute these
6: * programs and their documentation for any purpose and
7: * without fee is hereby granted, provided that this
8: * copyright and permission appear on all copies and
9: * supporting documentation, the name of the Regents of
10: * the University of California not be used in advertising
11: * or publicity pertaining to distribution of the programs
12: * without specific prior permission, and notice be given in
13: * supporting documentation that copying and distribution is
14: * by permission of the Regents of the University of California
15: * and by Gregory Glenn Minshall. Neither the Regents of the
16: * University of California nor Gregory Glenn Minshall make
17: * representations about the suitability of this software
18: * for any purpose. It is provided "as is" without
19: * express or implied warranty.
20: */
```

Found in path(s):

```
* /opt/ws_local/PERMITS_SQL/1033413672_1590684257.93/0/map3270-1-tar-gz/subbi
```

## 1.322 selinux-gui 2.8 r0

## 1.322.1 Available under license :

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

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- a) You must cause the modified files to carry prominent notices



stating that you changed the files and the date of any change.

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c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

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In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run

that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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# 1.326 libksba 1.3.5 7.el8

## 1.326.1 Available under license :

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The precise terms and conditions for copying, distribution and modification follow.

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#### 1. Source Code.

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A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the

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67c388 r0

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Version 3, 29 June 2007

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## 1.332 python-cryptography-vectors 2.7 r0

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# 3.0+gitAUTOINC+a3e58764f5 r0

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## 1.335 util-macros 1.19.2 r0

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## 1.336 crypto-policies 20200713

### 1.git51d1222.el8

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```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/any_255/tsig_250.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdataslab.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/ncache.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/master.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/dispatch.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/db.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/random.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/resolver.c
```

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/interfaceiter.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/net.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/types.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/ifiter\_sysctl.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/net.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rbt.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/xfrin.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/adb.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/cert\_37.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/sig\_24.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/getipnode.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/tests/t\_api.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/message.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/loc\_29.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/net.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/key\_25.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/cache.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/sockaddr.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/tkey\_249.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/zone.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/message.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/ifiter\_ioctl.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/adb.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/app.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/masterdump.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/a6\_38.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/view.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rdataset.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/view.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/zone.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/log.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/nxt\_30.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/net.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/dispatch.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/dnssec.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdataset.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/resolv/res\_comp.c

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.\n  
.\n \$Id: lwres\_getrrsetbyname.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$\n  
.\n

Found in path(s):

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.\"
```

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```
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```

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<!--
```

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<!-- $Id: lwres_context.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->
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<refentry>
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<refentryinfo>
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<date>Jun 30, 2000</date>
```

```
</refentryinfo>
```

```
<refmeta>
```

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<refmiscinfo>BIND9</refmiscinfo>
</refmeta>
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<refname>lwres_context_create</refname>
<refname>lwres_context_destroy</refname>
<refname>lwres_context_nextserial</refname>
<refname>lwres_context_initserial</refname>
<refname>lwres_context_freemem</refname>
<refname>lwres_context_allocmem</refname>
<refname>lwres_context_sendrecv</refname>
<refpurpose>lightweight resolver context management</refpurpose>
</refnamediv>
<refsynopsisdiv>
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<funcsynopsisinfo>#include <lwres/lwres.h></funcsynopsisinfo>
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lwres_result_t
<function>lwres_context_create</function></funcdef>
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<paramdef>void *arg</paramdef>
<paramdef>lwres_malloc_t malloc_function</paramdef>
<paramdef>lwres_free_t free_function</paramdef>
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</funcprototype>
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<funcdef>
void
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<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_uint32_t serial</paramdef>
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<funcprototype>
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lwres_uint32_t
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<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void

```

```

<function>lwres_context_freemem</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>void *mem</paramdef>
<paramdef>size_t len</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_context_allocmem</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>size_t len</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void *
<function>lwres_context_sendrecv</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>void *sendbase</paramdef>
<paramdef>int sendlen</paramdef>
<paramdef>void *recvbase</paramdef>
<paramdef>int recvlen</paramdef>
<paramdef>int *recvd_len</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>
<refsect1>
<title>DESCRIPTION</title>
<para>
<function>lwres_context_create()</function>
creates a
<type>lwres_context_t</type>
structure for use in lightweight resolver operations.
It holds a socket and other data needed for communicating
with a resolver daemon.
The new
<type>lwres_context_t</type>
is returned through
<parameter>contextp</parameter>,

a pointer to a
<type>lwres_context_t</type>
pointer. This
<type>lwres_context_t</type>
pointer must initially be NULL, and is modified
to point to the newly created
<type>lwres_context_t</type>.

</para>

```



<para>

When the lightweight resolver needs to perform dynamic memory allocation, it will call

<parameter>malloc\_function</parameter>

to allocate memory and

<parameter>free\_function</parameter>

to free it. If

<parameter>malloc\_function</parameter>

and

<parameter>free\_function</parameter>

are NULL, memory is allocated using

.Xr malloc 3

and

<citrefentry>

<refentrytitle>free</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>.

It is not permitted to have a NULL

<parameter>malloc\_function</parameter>

and a non-NULL

<parameter>free\_function</parameter>

or vice versa.

<parameter>arg</parameter>

is passed as the first parameter to the memory allocation functions.

If

<parameter>malloc\_function</parameter>

and

<parameter>free\_function</parameter>

are NULL,

<parameter>arg</parameter>

is unused and should be passed as NULL.

</para>

<para>

Once memory for the structure has been allocated,

it is initialized using

<citrefentry>

<refentrytitle>lwres\_conf\_init</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>

and returned via

<parameter>\*contextp</parameter>.

</para>

<para>

<function>lwres\_context\_destroy()</function>

destroys a

<type>lwres\_context\_t</type>,

closing its socket.

<parameter>contextp</parameter>

is a pointer to a pointer to the context that is to be destroyed.

The pointer will be set to NULL when the context has been destroyed.

</para>

<para>

The context holds a serial number that is used to identify resolver request packets and associate responses with the corresponding requests.

This serial number is controlled using

<function>lwres\_context\_initserial()</function>

and

<function>lwres\_context\_nextserial()</function>.

<function>lwres\_context\_initserial()</function>

sets the serial number for context

<parameter>\*ctx</parameter>

to

<parameter>serial</parameter>.

<function>lwres\_context\_nextserial()</function>

increments the serial number and returns the previous value.

</para>

<para>

Memory for a lightweight resolver context is allocated and freed using

<function>lwres\_context\_allocmem()</function>

and

<function>lwres\_context\_freemem()</function>.

These use whatever allocations were defined when the context was created with

<function>lwres\_context\_create()</function>.

<function>lwres\_context\_allocmem()</function>

allocates

<parameter>len</parameter>

bytes of memory and if successful returns a pointer to the allocated storage.

<function>lwres\_context\_freemem()</function>

frees

<parameter>len</parameter>

bytes of space starting at location

<parameter>mem</parameter>.

</para>

<para>

<function>lwres\_context\_sendrecv()</function>

performs I/O for the context

<parameter>ctx</parameter>.

Data are read and written from the context's socket.

It writes data from

<parameter>sendbase</parameter>

&mdash; typically a lightweight resolver query packet &mdash;

and waits for a reply which is copied to the receive buffer at

<parameter>recvbase</parameter>.

The number of bytes that were written to this receive buffer is

returned in

<parameter>\*recvd\_len</parameter>.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

<function>lwres\_context\_create(</function>

returns

<errorcode>LWRES\_R\_NOMEMORY</errorcode>

if memory for the

<type>struct lwres\_context</type>

could not be allocated,

<errorcode>LWRES\_R\_SUCCESS</errorcode>

otherwise.

</para>

<para>

Successful calls to the memory allocator

<function>lwres\_context\_allocmem(</function>

return a pointer to the start of the allocated space.

It returns NULL if memory could not be allocated.

</para>

<para>

<errorcode>LWRES\_R\_SUCCESS</errorcode>

is returned when

<function>lwres\_context\_sendrecv(</function>

completes successfully.

<errorcode>LWRES\_R\_IOERROR</errorcode>

is returned if an I/O error occurs and

<errorcode>LWRES\_R\_TIMEOUT</errorcode>

is returned if

<function>lwres\_context\_sendrecv(</function>

times out waiting for a response.

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>  
<citerefentry>  
<refentrytitle>lwres\_conf\_init</refentrytitle><manvolnum>3</manvolnum>  
</citerefentry>,&br/></para>

<citerefentry>  
<refentrytitle>malloc</refentrytitle><manvolnum>3</manvolnum>  
</citerefentry>,&br/></para>

<citerefentry>  
<refentrytitle>free</refentrytitle><manvolnum>3  
</manvolnum>  
</citerefentry>.  
</para>

</refsect1>  
</refentry>

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_context.docbook

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/region.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/socket.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/soa\_6.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/netaddr.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/txt\_16.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/buffer.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/event.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/hinfo\_13.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/pthreads/include/isc/mutex.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/timer.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/timer.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/null\_10.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/lex.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/proforma.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/buffer.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/opt\_41.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/a\_1.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/netscope.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/win32os.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/apl\_42.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/opcode.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/region.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/apl\_42.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/dst\_openssl.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/order.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/netscope.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/win32os.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/ds\_43.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/win32/lwconfig.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/ds.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/ds\_43.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/order.h

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Found in path(s):

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* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/include/lwres/list.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/heap.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/assertions.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/mem.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/heap.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/assertions.c

```

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.\"
.\" Os OPERATING_SYSTEM [version/release]
.\" The following requests should be uncommented and
.\" used where appropriate. This next request is
.\" for sections 2 and 3 function return values only.
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh EXAMPLES

```

.\n This next request is for sections 1, 6, 7 & 8 only  
.\n (command return values (to shell) and  
.\n fprintf/stderr type diagnostics)  
.\n The next request is for sections 2 and 3 error  
.\n and signal handling only.  
.\n .Sh STANDARDS  
.\n .Sh HISTORY  
.\n .Sh BUGS

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/heap.mdoc

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/tsig.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/hs\_4/a\_1.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/callbacks.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/ipv6.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/gpos\_27.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/ncache.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/events.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/dnssec.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/ratelimiter.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/isdn\_20.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rdataslab.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/compress.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/lfsr.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/unspec\_103.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/ratelimiter.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rootns.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/log.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/acl.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/journal.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/wks\_11.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/zt.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rbt.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/netaddr.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/x25\_19.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/nsap\_22.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/masterdump.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/acl.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/master.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/aaaa\_28.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/tsig.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/nxt\_30.h

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_network.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_makeaddr.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_lnaof.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_netof.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_getnameinfo.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_hstrerror.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_inetntop.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gai\_strerror.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gnba.docbook  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_buffer.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gai\_strerror.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_noop.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_getnameinfo.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_resutil.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_buffer.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_getaddrinfo.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gethostent.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_context.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gnba.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_config.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_hstrerror.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_packet.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gabn.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_getipnode.html  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_noop.docbook  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gettrsetbyname.html

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\* By Steve Reid <steve@edmweb.com>

\* 100% Public Domain

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\* The algorithm is due to Ron Rivest. This code was

\* written by Colin Plumb in 1993, no copyright is claimed.

\* This code is in the public domain; do with it what you wish.

\*  
\* Equivalent code is available from RSA Data Security, Inc.  
\* This code has been tested against that, and is equivalent,  
\* except that you don't need to include two pages of legalese  
\* with every copy.  
\*  
\* To compute the message digest of a chunk of bytes, declare an  
\* MD5Context structure, pass it to MD5Init, call MD5Update as  
\* needed on buffers full of bytes, and then call MD5Final, which  
\* will fill a supplied 16-byte array with the digest.  
\*  
\* Changed so as no longer to depend on Colin Plumb's `usual.h'  
\* header definitions; now uses stuff from dpkg's config.h  
\* - Ian Jackson <ijackson@nyx.cs.du.edu>.  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/lcl\_gr.c

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<!-- \$Id: lwres\_getrrsetbyname.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->



<refentry>  
<refentryinfo>

<date>Oct 18, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_getrrsetbyname</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_getrrsetbyname</refname>

<refname>lwres\_freerrset</refname>

<refpurpose>retrieve DNS records</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>

<funcprototype>

<funcdef>

int

<function>lwres\_getrrsetbyname</function></funcdef>

<paramdef>const char \*hostname</paramdef>

<paramdef>unsigned int rdclass</paramdef>

<paramdef>unsigned int rdtype</paramdef>

<paramdef>unsigned int flags</paramdef>

<paramdef>struct rrsetinfo \*\*res</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

void

<function>lwres\_freerrset</function></funcdef>

<paramdef>struct rrsetinfo \*rrset</paramdef>

</funcprototype>

</funcsynopsis>

<para>

The following structures are used:

<programlisting>

```
struct rdatainfo {
```

```
 unsigned int rdi_length; /* length of data */
```

```
 unsigned char *rdi_data; /* record data */
```

```
};
```

```
struct rrsetinfo {
```

```
 unsigned int rri_flags; /* RRSET_VALIDATED... */
```

```

 unsigned int rri_rdclass; /* class number */
 unsigned int rri_rdtype; /* RR type number */
 unsigned int rri_ttl; /* time to live */
 unsigned int rri_nrdatas; /* size of rdatas array */
 unsigned int rri_nsig; /* size of sigs array */
 char *rri_name; /* canonical name */
 struct rdatainfo *rri_rdatas; /* individual records */
 struct rdatainfo *rri_sigs; /* individual signatures */
};

```

</programlisting>

</para>

</refsynopsisdiv>

<refsect1>

<title>DESCRIPTION</title>

<para>

<function>lwres\_getrrsetbyname()</function>

gets a set of resource records associated with a

<parameter>hostname</parameter>,

<parameter>class</parameter>,

and

<parameter>type</parameter>.

<parameter>hostname</parameter>

is

a pointer to a null-terminated string. The

<parameter>flags</parameter>

field is currently unused and must be zero.

</para>

<para>

After a successful call to

<function>lwres\_getrrsetbyname()</function>,

<parameter>\*res</parameter>

is a pointer to an

<type>rrsetinfo</type>

structure, containing a list of one or more

<type>rdatainfo</type>

structures containing resource records and potentially another list of

<type>rdatainfo</type>

structures containing SIG resource records

associated with those records.

The members

<constant>rri\_rdclass</constant>

and

<constant>rri\_rdtype</constant>

are copied from the parameters.

<constant>rrl\_ttl</constant>

and

<constant>rrl\_name</constant>

are properties of the obtained rrsset.

The resource records contained in

<constant>rrl\_rdatas</constant>

and

<constant>rrl\_sigs</constant>

are in uncompressed DNS wire format.

Properties of the rdataset are represented in the

<constant>rrl\_flags</constant>

bitfield. If the RRSET\_VALIDATED bit is set, the data has been DNSSEC validated and the signatures verified.

</para>

<para>

All of the information returned by

<function>lwres\_getrrsetbyname()</function>

is dynamically allocated: the

<constant>rrsetinfo</constant>

and

<constant>rdatainfo</constant>

structures,

and the canonical host name strings pointed to by the

<constant>rrsetinfo</constant> structure.

Memory allocated for the dynamically allocated structures created by a successful call to

<function>lwres\_getrrsetbyname()</function>

is released by

<function>lwres\_freerrset()</function>.

<parameter>rrset</parameter>

is a pointer to a

<type>struct rrset</type>

created by a call to

<function>lwres\_getrrsetbyname()</function>.

</para>

<para>

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

<function>lwres\_getrrsetbyname()</function>

returns zero on success, and one of the following error codes if an error occurred:

<variablelist>

<varlistentry><term><constant>ERRSET\_NONAME</constant></term>

<listitem><para>

the name does not exist

</para></listitem></varlistentry>

<varlistentry><term><constant>ERRSET\_NODATA</constant></term>

<listitem><para>

the name exists, but does not have data of the desired type

</para></listitem></varlistentry>

<varlistentry><term><constant>ERRSET\_NOMEMORY</constant></term>

<listitem><para>

memory could not be allocated

</para></listitem></varlistentry>

<varlistentry><term><constant>ERRSET\_INVALID</constant></term>

<listitem><para>

a parameter is invalid

</para></listitem></varlistentry>

<varlistentry><term><constant>ERRSET\_FAIL</constant></term>

<listitem><para>

other failure

</para></listitem></varlistentry>

<varlistentry><term><constant></constant></term>

<listitem><para>

</para></listitem></varlistentry>

</variablelist>

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>

<citerefentry>

<refentrytitle>lwres</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>.

</para>

</refsect1>

</refentry>

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```

```
*/
```

```
/*
```

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.\" \$Id: lwres\_getaddrinfo.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/eventlib.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/eventlib.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ev\_timers.c



\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/eventlib\_p.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/misc.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ev\_files.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ev\_connects.c  
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Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/iscconf/namedconf.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/iscconf/include/iscconf/grammar.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/ds.c  
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Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/inet\_pton.c

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Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/streerror.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/parseint.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/syslog.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/getaddresses.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/hmac\_link.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/dst\_api.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/support.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/dst\_internal.h

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*/
```

Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/include/isc/assertions.h
```

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```
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-->

<!-- $Id: lwres_gethostent.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->

<refentry>

<refentryinfo>
<date>Jun 30, 2000</date>
</refentryinfo>
```

```

<refmeta>
<refentrytitle>lwres_gethostent</refentrytitle>
<manvolnum>3</manvolnum>
<refmiscinfo>BIND9</refmiscinfo>
</refmeta>

<refnamediv>
<refname>lwres_gethostbyname</refname>
<refname>lwres_gethostbyname2</refname>
<refname>lwres_gethostbyaddr</refname>
<refname>lwres_gethostent</refname>
<refname>lwres_sethostent</refname>
<refname>lwres_endhostent</refname>
<refname>lwres_gethostbyname_r</refname>
<refname>lwres_gethostbyaddr_r</refname>
<refname>lwres_gethostent_r</refname>
<refname>lwres_sethostent_r</refname>
<refname>lwres_endhostent_r</refname>
<refpurpose>lightweight resolver get network host entry</refpurpose>
</refnamediv>
<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyname</function></funcdef>
<paramdef>const char *name</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyname2</function></funcdef>
<paramdef>const char *name</paramdef>
<paramdef>int af</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyaddr</function></funcdef>
<paramdef>const char *addr</paramdef>
<paramdef>int len</paramdef>
<paramdef>int type</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *

```

```

<function>lwres_gethostent</function></funcdef>
<paramdef>void</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_sethostent</function></funcdef>
<paramdef>int stayopen</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_endhostent</function></funcdef>
<paramdef>void</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyname_r</function></funcdef>
<paramdef>const char *name</paramdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyaddr_r</function></funcdef>
<paramdef>const char *addr</paramdef>
<paramdef>int len</paramdef>
<paramdef>int type</paramdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostent_r</function></funcdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>

```

```

void
<function>lwres_sethostent_r</function></funcdef>
<paramdef>int stayopen</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_endhostent_r</function></funcdef>
<paramdef>void</paramdef>
</funcprototype>
</functsynopsis>
</refsynopsisdiv>

```

<refsect1>

<title>DESCRIPTION</title>

<para>

These functions provide hostname-to-address and address-to-hostname lookups by means of the lightweight resolver.

They are similar to the standard

<citerefentry>

<refentrytitle>gethostent</refentrytitle><manvolnum>3

</manvolnum>

</citerefentry>

functions provided by most operating systems.

They use a

<type>struct hostent</type>

which is usually defined in

<filename>&lt;namedb.h&gt;</filename>.

<programlisting>

```

struct hostent {
 char *h_name; /* official name of host */
 char **h_aliases; /* alias list */
 int h_addrtype; /* host address type */
 int h_length; /* length of address */
 char **h_addr_list; /* list of addresses from name server */
};
#define h_addr h_addr_list[0] /* address, for backward compatibility */

```

</programlisting>

</para>

<para>

The members of this structure are:

<variablelist>

<varlistentry><term><constant>h\_name</constant></term>

<listitem>

<para>

The official (canonical) name of the host.

</para>

```

</listitem></varlistentry>
<varlistentry><term><constant>h_aliases</constant></term>
<listitem>
<para>
A NULL-terminated array of alternate names (nicknames) for the host.
</para>
</listitem></varlistentry>
<varlistentry><term><constant>h_addrtype</constant></term>
<listitem>
<para>
The type of address being returned —
<type>PF_INET</type>
or
<type>PF_INET6</type>.
</para>
</listitem></varlistentry>
<varlistentry><term><constant>h_length</constant></term>
<listitem>
<para>
The length of the address in bytes.
</para>
</listitem></varlistentry>
<varlistentry><term><constant>h_addr_list</constant></term>
<listitem>
<para>
A <type>NULL</type>
terminated array of network addresses for the host.
Host addresses are returned in network byte order.
</para>
</listitem></varlistentry>
</variablelist>
</para>
<para>
For backward compatibility with very old software,
<constant>h_addr</constant>
is the first address in
<constant>h_addr_list.</constant>
</para>
<para>
<function>lwres_ghostent()</function>,
<function>lwres_sethostent()</function>,
<function>lwres_endhostent()</function>,
<function>lwres_ghostent_r()</function>,
<function>lwres_sethostent_r()</function>
and
<function>lwres_endhostent_r()</function>
provide iteration over the known host entries on systems that
provide such functionality through facilities like

```

<filename>/etc/hosts</filename>

or NIS. The lightweight resolver does not currently implement these functions; it only provides them as stub functions that always return failure.

</para>

<para>

<function>lwres\_gethostbyname()</function> and

<function>lwres\_gethostbyname2()</function> look up the hostname

<parameter>name</parameter>.

<function>lwres\_gethostbyname()</function> always looks for an IPv4 address while <function>lwres\_gethostbyname2()</function> looks for an address of protocol family <parameter>af</parameter>: either

<type>PF\_INET</type> or <type>PF\_INET6</type> &mdash; IPv4 or IPV6 addresses respectively. Successful calls of the functions return a

<type>struct hostent</type> for the name that was looked up.

<type>NULL</type> is returned if the lookups by

<function>lwres\_gethostbyname()</function> or

<function>lwres\_gethostbyname2()</function> fail.

</para>

<para>

Reverse lookups of addresses are performed by

<function>lwres\_gethostbyaddr()</function>.

<parameter>addr</parameter> is an address of length

<parameter>len</parameter> bytes and protocol family

<parameter>type</parameter> &mdash; <type>PF\_INET</type> or

<type>PF\_INET6</type>.

<function>lwres\_gethostbyname\_r()</function> is a thread-safe function for forward lookups. If an error occurs, an error code is returned in

<parameter>\*error</parameter>.

<parameter>resbuf</parameter> is a pointer to a <type>struct hostent</type> which is initialised by a successful call to

<function>lwres\_gethostbyname\_r()</function> .

<parameter>buf</parameter> is a buffer of length

<parameter>len</parameter> bytes which is used to store the

<constant>h\_name</constant>, <constant>h\_aliases</constant>, and

<constant>h\_addr\_list</constant> elements of the <type>struct

hostent</type> returned in <parameter>resbuf</parameter>.

Successful calls to <function>lwres\_gethostbyname\_r()</function>

return <parameter>resbuf</parameter>,

which is a pointer to the <type>struct hostent</type> it created.

</para>

<para>

<function>lwres\_gethostbyaddr\_r()</function> is a thread-safe function that performs a reverse lookup of address <parameter>addr</parameter>

which is <parameter>len</parameter> bytes long and is of protocol



family <parameter>type</parameter> &mdash; <type>PF\_INET</type> or <type>PF\_INET6</type>. If an error occurs, the error code is returned in <parameter>\*error</parameter>. The other function parameters are identical to those in <function>lwres\_gethostbyname\_r()</function>. <parameter>resbuf</parameter> is a pointer to a <type>struct hostent</type> which is initialised by a successful call to <function>lwres\_gethostbyaddr\_r()</function>. <parameter>buf</parameter> is a buffer of length <parameter>len</parameter> bytes which is used to store the <constant>h\_name</constant>, <constant>h\_aliases</constant>, and <constant>h\_addr\_list</constant> elements of the <type>struct hostent</type> returned in <parameter>resbuf</parameter>. Successful calls to <function>lwres\_gethostbyaddr\_r()</function> return <parameter>resbuf</parameter>, which is a pointer to the <function>struct hostent()</function> it created.

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

The functions

<function>lwres\_gethostbyname()</function>,&br/><function>lwres\_gethostbyname2()</function>,&br/><function>lwres\_gethostbyaddr()</function>,&br/>and

<function>lwres\_gethostent()</function>

return NULL to indicate an error. In this case the global variable

<type>lwres\_h\_errno</type>

will contain one of the following error codes defined in

<filename>&lt;lwres/netdb.h&gt;</filename>:

<variablelist>

<varlistentry><term><constant>HOST\_NOT\_FOUND</constant></term>

<listitem>

<para>

The host or address was not found.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>TRY\_AGAIN</constant></term>

<listitem>

<para>

A recoverable error occurred, e.g., a timeout.

Retrying the lookup may succeed.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>NO\_RECOVERY</constant></term>

<listitem>  
<para>  
A non-recoverable error occurred.  
</para>  
</listitem></varlistentry>  
<varlistentry><term><constant>NO\_DATA</constant></term>  
<listitem>  
<para>  
The name exists, but has no address information associated with it (or vice versa in the case of a reverse lookup). The code NO\_ADDRESS is accepted as a synonym for NO\_DATA for backwards compatibility.  
</para>  
</listitem></varlistentry>  
</variablelist>  
</para>

<para>  
<citerefentry>  
<refentrytitle>lwres\_hsterror</refentrytitle><manvolnum>3  
</manvolnum>  
</citerefentry>  
translates these error codes to suitable error messages.  
</para>

<para>  
<function>lwres\_gethostent()</function>  
and  
<function>lwres\_gethostent\_r()</function>  
always return  
<type>NULL</type>.  
</para>

<para>  
Successful calls to <function>lwres\_gethostbyname\_r()</function> and  
<function>lwres\_gethostbyaddr\_r()</function> return  
<parameter>resbuf</parameter>, a pointer to the <type>struct  
hostent</type> that was initialised by these functions. They return  
<type>NULL</type> if the lookups fail or if <parameter>buf</parameter>  
was too small to hold the list of addresses and names referenced by  
the <constant>h\_name</constant>, <constant>h\_aliases</constant>, and  
<constant>h\_addr\_list</constant> elements of the <type>struct  
hostent</type>. If <parameter>buf</parameter> was too small, both  
<function>lwres\_gethostbyname\_r()</function> and  
<function>lwres\_gethostbyaddr\_r()</function> set the global variable  
<type>errno</type> to <errorcode>ERANGE</errorcode>.  
</para>

```

</refsect1>
<refsect1>
<title>SEE ALSO</title>
<para>
<citerefentry>
<refentrytitle>gethostent</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_getipnode</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_hsterror</refentrytitle><manvolnum>3
</manvolnum>
</citerefentry>
</para>
</refsect1>

<refsect1>
<title>BUGS</title>
<para>
<function>lwres_gethostbyname()</function>,
<function>lwres_gethostbyname2()</function>,
<function>lwres_gethostbyaddr()</function>
and
<function>lwres_endhostent()</function>
are not thread safe; they return pointers to static data and
provide error codes through a global variable.
Thread-safe versions for name and address lookup are provided by
<function>lwres_gethostbyname_r()</function>,
and
<function>lwres_gethostbyaddr_r()</function>
respectively.
</para>
<para>
The resolver daemon does not currently support any non-DNS
name services such as
<filename>/etc/hosts</filename>
or
<type>NIS</type>,
consequently the above functions don't, either.
</para>
</refsect1>
</refentry>

```

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ctl\_srvr.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_cidr\_ntop.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ctl\_p.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/ctl.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_cidr\_pton.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/resolv/res\_mkupdate.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/ctl\_clnt.c

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```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/dns.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/lcl.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/isc/logging.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/resolv/res_update.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/dns_nw.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/lcl_ng.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/isc/logging_p.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/inet/nsap_addr.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/include/isc/logging.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/getgrent.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/dns_p.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/dns_gr.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/gen.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/gen_gr.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/resolv/res_mkupdate.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/nis.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/inet/inet_ntop.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/nameser/ns_print.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/irs/gethostent.c
```

No license file was found, but licenses were detected in source scan.

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```

Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/make/mkdep.in
```

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```
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```

```
AC_REVISION($Revision: 1.1 $)
```

```
AC_INIT(resolv/herror.c)
```

```
AC_PREREQ(2.13)
```

```
AC_CONFIG_HEADER(config.h)
```

```
AC_CANONICAL_HOST
```

```
AC_PROG_MAKE_SET
```

```
AC_PROG_RANLIB
```

```
AC_PROG_INSTALL
```

```
AC_SUBST(STD_CINCLUDES)
```

```
AC_SUBST(STD_CDEFINES)
```

```
AC_SUBST(STD_CWARNINGS)
```

```
AC_SUBST(CCOPT)
```

```
AC_PATH_PROG(AR, ar)
```

```
ARFLAGS="cruv"
```

```
AC_SUBST(AR)
```

```
AC_SUBST(ARFLAGS)
```

```
The POSIX ln(1) program. Non-POSIX systems may substitute
```

```
"copy" or something.
```

```
LN=ln
```

```
AC_SUBST(LN)
```

```
case "$AR" in
```

```
 "")
```

```
 AC_MSG_ERROR([
```

```
ar program not found. Please fix your PATH to include the directory in
which ar resides, or set AR in the environment with the full path to ar.
```

```
])
```

```
;;
```

```
esac
```

```
#
```

```

Etags.
#
AC_PATH_PROGS(ETAGS, etags emacs-etags)

#
Some systems, e.g. RH7, have the Exuberant Ctags etags instead of
GNU emacs etags, and it requires the -L flag.
#
if test "X$ETAGS" != "X"; then
 AC_MSG_CHECKING(for Exuberant Ctags etags)
 if $ETAGS --version 2>&1 | grep 'Exuberant Ctags' >/dev/null 2>&1; then
 AC_MSG_RESULT(yes)
 ETAGS="$ETAGS -L"
 else
 AC_MSG_RESULT(no)
 fi
fi
AC_SUBST(ETAGS)

#
Perl is optional; it is used only by some of the system test scripts.
#
AC_PATH_PROGS(PERL, perl5 perl)
AC_SUBST(PERL)

#
isc/list.h and others clash with the rest of BIND 9
#
case "$includedir" in
 '${prefix}/include')
 includedir='${prefix}/bind/include'
 ;;
esac
case "$libdir" in
 '${prefix}/lib')
 libdir='${prefix}/bind/lib'
 ;;
esac

#
Make sure INSTALL uses an absolute path, else it will be wrong in all
Makefiles, since they use make/rules.in and INSTALL will be adjusted by
configure based on the location of the file where it is substituted.
Since in BIND9 INSTALL is only substituted into make/rules.in, an immediate
subdirectory of install-sh, This relative path will be wrong for all
directories more than one level down from install-sh.
#
case "$INSTALL" in

```

```

/*)
;;
*)
#
Not all systems have dirname.
#
changequote({, })
ac_dir="`echo $INSTALL | sed 's%/[^/]*$%%`"
changequote([,])

ac_prog="`echo $INSTALL | sed 's%.*/%%`"
test "$ac_dir" = "$ac_prog" && ac_dir=.
test -d "$ac_dir" && ac_dir="`cd \"$ac_dir\" && pwd`"
INSTALL="$ac_dir/$ac_prog"
;;
esac

#
On these hosts, we really want to use cc, not gcc, even if it is
found. The gcc that these systems have will not correctly handle
pthreads.
#
However, if the user sets $CC to be something, let that override
our change.
#
if test "X$CC" = "X" ; then
case "$host" in
-dec-osf)
CC="cc"
;;
-solaris)
Use Sun's cc if it is available, but watch
out for /usr/ucb/cc; it will never be the right
compiler to use.
#
If setting CC here fails, the AC_PROG_CC done
below might still find gcc.
IFS="{IFS= }"; ac_save_ifs="$IFS"; IFS=":"
for ac_dir in $PATH; do
test -z "$ac_dir" && ac_dir=.
case "$ac_dir" in
/usr/ucb)
exclude
;;
*)
if test -f "$ac_dir/cc"; then
CC="$ac_dir/cc"
break

```



```

fi
;;
esac
done
IFS="$ac_save_ifs"
;;
-hp-hpux)
CC="cc"
;;
mips-sgi-irix*)
CC="cc"
;;
esac
fi

```

AC\_PROG\_CC

AC\_HEADER\_STDC

AC\_CHECK\_HEADERS(fcntl.h db.h paths.h sys/time.h unistd.h sys/sockio.h sys/select.h sys/timers.h)

```

AC_C_CONST
AC_C_INLINE
AC_TYPE_SIZE_T
AC_HEADER_TIME
#
check if we need to #include sys/select.h explicitly
#
case $ac_cv_header_unistd_h in
yes)
AC_MSG_CHECKING(if unistd.h defines fd_set)
AC_TRY_COMPILE([
#include <unistd.h>],
[fd_set read_set; return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDSYSSELECTH="#undef ISC_PLATFORM_NEEDSYSSELECTH"
],
[AC_MSG_RESULT(no)
case ac_cv_header_sys_select_h in
yes)
ISC_PLATFORM_NEEDSYSSELECTH="#define ISC_PLATFORM_NEEDSYSSELECTH 1"
;;
no)
AC_MSG_ERROR([need either working unistd.h or sys/select.h])
;;

```

```

esac
])
;;
no)
case ac_cv_header_sys_select_h in
yes)
 ISC_PLATFORM_NEEDSYSSELECTH="#define ISC_PLATFORM_NEEDSYSSELECTH 1"
 ;;
no)
 AC_MSG_ERROR([need either unistd.h or sys/select.h])
 ;;
esac
;;
esac
AC_SUBST(ISC_PLATFORM_NEEDSYSSELECTH)

#
Find the machine's endian flavor.
#
AC_C_BIGENDIAN

AC_ARG_WITH(irs-gr,[--with-irs-gr Build],
want_irs_gr="$withval", want_irs_gr="no")
case "$want_irs_gr" in
yes) WANT_IRS_GR="#define WANT_IRS_GR 1"
 WANT_IRS_GR_OBJS="\${WANT_IRS_GR_OBJS}"
 ;;
*) WANT_IRS_GR="#undef WANT_IRS_GR" WANT_IRS_GR_OBJS="";;
esac
AC_SUBST(WANT_IRS_GR)
AC_SUBST(WANT_IRS_GR_OBJS)

AC_ARG_WITH(irs-pw,[--with-irs-pw Build],
want_irs_pw="$withval", want_irs_pw="no")
case "$want_irs_pw" in
yes) WANT_IRS_PW="#define WANT_IRS_PW 1"
 WANT_IRS_PW_OBJS="\${WANT_IRS_PW_OBJS}";;
*) WANT_IRS_PW="#undef WANT_IRS_PW" WANT_IRS_PW_OBJS="";;
esac
AC_SUBST(WANT_IRS_PW)
AC_SUBST(WANT_IRS_PW_OBJS)

AC_ARG_WITH(irs-nis,[--with-irs-nis Build],
want_irs_nis="$withval", want_irs_nis="no")
case "$want_irs_nis" in
yes)
 WANT_IRS_NIS="#define WANT_IRS_NIS 1"
 WANT_IRS_NIS_OBJS="\${WANT_IRS_NIS_OBJS}"

```

```

case "$want_irs_gr" in
yes)
WANT_IRS_NISGR_OBJS="\${WANT_IRS_NISGR_OBJS}";;
*)
WANT_IRS_NISGR_OBJS="";;
esac
case "$want_irs_pw" in
yes)
WANT_IRS_NISPW_OBJS="\${WANT_IRS_NISPW_OBJS}";;
*)
WANT_IRS_NISPW_OBJS="";;
esac
;;
*)
WANT_IRS_NIS="#undef WANT_IRS_NIS"
WANT_IRS_NIS_OBJS=""
WANT_IRS_NISGR_OBJS=""
WANT_IRS_NISPW_OBJS="";;
esac
AC_SUBST(WANT_IRS_NIS)
AC_SUBST(WANT_IRS_NIS_OBJS)
AC_SUBST(WANT_IRS_NISGR_OBJS)
AC_SUBST(WANT_IRS_NISPW_OBJS)
AC_TRY_RUN([
#ifdef HAVE_DB_H
int have_db_h = 1;
#else
int have_db_h = 0;
#endif
main() { return(!have_db_h); }
],
WANT_IRS_DBPW_OBJS="\${WANT_IRS_DBPW_OBJS}"
,
WANT_IRS_DBPW_OBJS=""
,
WANT_IRS_DBPW_OBJS=""
)
AC_SUBST(WANT_IRS_DBPW_OBJS)

#
was --with-randomdev specified?
#
AC_MSG_CHECKING(for random device)
AC_ARG_WITH(randomdev,
[--with-randomdev=PATH Specify path for random device],
use_randomdev="$withval", use_randomdev="unspec")

case "$use_randomdev" in

```

```

unspec)
case "$host" in
-openbsd)
devrandom=/dev/srandom
;;
*)
devrandom=/dev/random
;;
esac
AC_MSG_RESULT($devrandom)
AC_CHECK_FILE($devrandom,
AC_DEFINE_UNQUOTED(PATH_RANDOMDEV,
"$devrandom"),)
;;
yes)
AC_MSG_ERROR([--with-randomdev must specify a path])
;;
*)
AC_DEFINE_UNQUOTED(PATH_RANDOMDEV, "$use_randomdev")
AC_MSG_RESULT(using "$use_randomdev")
;;
esac

#
Begin pthreads checking.
#
First, decide whether to use multithreading or not.
#
AC_MSG_CHECKING(whether to look for thread support)
AC_ARG_ENABLE(threads,
[--disable-threads disable multithreading])
case "$enable_threads" in
yes|")
AC_MSG_RESULT(yes)
use_threads=true
;;
no)
AC_MSG_RESULT(no)
use_threads=false
;;
*)
AC_MSG_ERROR([--enable-threads takes yes or no])
;;
esac

if $use_threads
then
#

```

```

Search for / configure pthreads in a system-dependent fashion.
#
case "$host" in
 -netbsd)
 # NetBSD has multiple pthreads implementations. The
 # recommended one to use is "unproven-pthreads". The
 # older "mit-pthreads" may also work on some NetBSD
 # versions. The PTL2 thread library does not
 # currently work with bind9, but can be chosen with
 # the --with-ptl2 option for those who wish to
 # experiment with it.
 CC="gcc"
 AC_MSG_CHECKING(which NetBSD thread library to use)

 AC_ARG_WITH(ptl2,
[--with-ptl2 on NetBSD, use the ptl2 thread library (experimental)],
 use_ptl2="$withval", use_ptl2="no")

 : ${LOCALBASE:=/usr/pkg}

 if test "X$use_ptl2" = "Xyes"
 then
 AC_MSG_RESULT(PTL2)
 AC_MSG_WARN(
[linking with PTL2 is highly experimental and not expected to work])
 CC=ptlgcc
 else
 if test ! -d $LOCALBASE/pthreads
 then
 AC_MSG_RESULT(none)
 use_threads=false
 fi

 if $use_threads
 then
 AC_MSG_RESULT(mit-pthreads/unproven-pthreads)
 pkg="$LOCALBASE/pthreads"
 lib1="-L$pkg/lib -Wl,-R$pkg/lib"
 lib2="-lpthread -lm -lgcc -lpthread"
 LIBS="$lib1 $lib2 $LIBS"
 CPPFLAGS="$CPPFLAGS -I$pkg/include"
 STD_CINCLUDES="$STD_CINCLUDES -I$pkg/include"
 fi
 fi
 ;;
 *)
 AC_CHECK_LIB(pthread, pthread_create,,
 AC_CHECK_LIB(pthread, __pthread_create,,

```

```

AC_CHECK_LIB(pthread, __pthread_create_system,,
AC_CHECK_LIB(c_r, pthread_create,,
AC_CHECK_LIB(c, pthread_create,,
use_threads=false))))
;;
esac
fi

if $use_threads
then
#
We'd like to use sigwait() too
#
AC_CHECK_LIB(c, sigwait,
AC_DEFINE(HAVE_SIGWAIT),
AC_CHECK_LIB(pthread, sigwait,
AC_DEFINE(HAVE_SIGWAIT),
AC_CHECK_LIB(pthread, _Psigwait,
AC_DEFINE(HAVE_SIGWAIT),))
)

AC_CHECK_FUNC(pthread_attr_getstacksize,
AC_DEFINE(HAVE_PTHREAD_ATTR_GETSTACKSIZE),)

#
Additional OS-specific issues related to pthreads and sigwait.
#
case "$host" in
#
One more place to look for sigwait.
#
-freebsd)
AC_CHECK_LIB(c_r, sigwait, AC_DEFINE(HAVE_SIGWAIT),)
;;
#
BSDI 3.0 through 4.0.1 needs pthread_init() to be
called before certain pthreads calls. This is deprecated
in BSD/OS 4.1.
#
-bsd3.|-bsd4.0*)
AC_DEFINE(NEED_PTHREAD_INIT)
;;
#
LinuxThreads requires some changes to the way we
deal with signals.
#
-linux)
AC_DEFINE(HAVE_LINUXTHREADS)

```

```

;;
#
Ensure the right sigwait() semantics on Solaris and make
sure we call pthread_setconcurrency.
#
-solaris)
AC_DEFINE(_POSIX_PTHREAD_SEMANTICS)
AC_CHECK_FUNC(pthread_setconcurrency,
 AC_DEFINE(CALL_PTHREAD_SETCONCURRENCY))
AC_DEFINE(POSIX_GETPWUID_R)
AC_DEFINE(POSIX_GETPWNAM_R)
AC_DEFINE(POSIX_GETGRGID_R)
AC_DEFINE(POSIX_GETGRNAM_R)
;;
hpux11)
AC_DEFINE(_PTHREADS_DRAFT4)
;;
#
UnixWare does things its own way.
#
-UnixWare)
AC_DEFINE(HAVE_UNIXWARE_SIGWAIT)
;;
esac

#
Look for sysconf to allow detection of the number of processors.
#
AC_CHECK_FUNC(sysconf, AC_DEFINE(HAVE_SYSCONF),)

if test "X$GCC" = "Xyes"; then
case "$host" in
-freebsd)
CC="$CC -pthread"
CCOPT="$CCOPT -pthread"
STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
;;
-openbsd)
CC="$CC -pthread"
CCOPT="$CCOPT -pthread"
;;
-solaris)
LIBS="$LIBS -lthread"
;;
-ibm-aix)
STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
;;
esac

```

```

else
case $host in
-dec-osf)
CC="$CC -pthread"
CCOPT="$CCOPT -pthread"
;;
-solaris)
CC="$CC -mt"
CCOPT="$CCOPT -mt"
;;
-ibm-aix)
STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
;;
-UnixWare)
CC="$CC -Kthread"
CCOPT="$CCOPT -Kthread"
;;
esac
fi
ALWAYS_DEFINES="-D_REENTRANT"
DO_PTHREADS="#define DO_PTHREADS 1"
WANT_IRS_THREADSGR_OBJS="\${WANT_IRS_THREADSGR_OBJS}"
WANT_IRS_THREADSPW_OBJS="\${WANT_IRS_THREADSPW_OBJS}"
WANT_IRS_THREADS_OBJS="\${WANT_IRS_THREADS_OBJS}"
thread_dir=pthreads
else
ALWAYS_DEFINES=""
DO_PTHREADS="#undef DO_PTHREADS"
WANT_IRS_THREADSGR_OBJS=""
WANT_IRS_THREADSPW_OBJS=""
WANT_IRS_THREADS_OBJS=""
thread_dir=nothreads
fi

AC_CHECK_FUNC(strlcat, AC_DEFINE(HAVE_STRLCAT))

AC_SUBST(ALWAYS_DEFINES)
AC_SUBST(DO_PTHREADS)
AC_SUBST(WANT_IRS_THREADSGR_OBJS)
AC_SUBST(WANT_IRS_THREADSPW_OBJS)
AC_SUBST(WANT_IRS_THREADS_OBJS)

AC_CHECK_FUNC(if_nametoindex,
[USE_IFNAMESLINKID="#define USE_IFNAMESLINKID 1"],
[USE_IFNAMESLINKID="#undef USE_IFNAMESLINKID"])
AC_SUBST(USE_IFNAMESLINKID)

ISC_THREAD_DIR=$thread_dir

```



```

AC_SUBST(ISC_THREAD_DIR)

AC_CHECK_FUNC(daemon,
[DAEMON_OBJS="" NEED_DAEMON="#undef NEED_DAEMON"]
,
[DAEMON_OBJS="\${DAEMON_OBJS}" NEED_DAEMON="#define NEED_DAEMON 1"]
)
AC_SUBST(DAEMON_OBJS)
AC_SUBST(NEED_DAEMON)

AC_CHECK_FUNC(strsep,
[STRSEP_OBJS="" NEED_STRSEP="#undef NEED_STRSEP"]
,
[STRSEP_OBJS="\${STRSEP_OBJS}" NEED_STRSEP="#define NEED_STRSEP 1"]
)
AC_SUBST(STRSEP_OBJS)
AC_SUBST(NEED_STRSEP)

AC_CHECK_FUNC(strerror, [NEED_STRERROR="#undef NEED_STRERROR"],
[NEED_STRERROR="#define NEED_STRERROR 1"])
AC_SUBST(NEED_STRERROR)

#
flockfile is usually provided by pthreads, but we may want to use it
even if compiled with --disable-threads.
#
AC_CHECK_FUNC(flockfile, AC_DEFINE(HAVE_FLOCKFILE),)

#
Indicate what the final decision was regarding threads.
#
AC_MSG_CHECKING(whether to build with threads)
if $use_threads; then
 AC_MSG_RESULT(yes)
else
 AC_MSG_RESULT(no)
fi

#
End of pthreads stuff.
#

#
Additional compiler settings.
#
MKDEPCC="$CC"
MKDEPCFLAGS="-M"
IRIX_DNSSEC_WARNINGS_HACK=""

```

```

if test "X$GCC" = "Xyes"; then
 STD_CWARNINGS="$STD_CWARNINGS -W -Wall -Wmissing-prototypes -Wcast-qual -Wwrite-strings"
else
 case $host in
 -dec-osf)
 CC="$CC -std"
 CCOPT="$CCOPT -std"
 MKDEPCC="$CC"
 ;;
 -hp-hpux)
 CC="$CC -Ae -z"
 # The version of the C compiler that constantly warns about
 # 'const' as well as alignment issues is unfortunately not
 # able to be discerned via the version of the operating
 # system, nor does cc have a version flag.
 case "$CC +W 123 2>&1`" in
 Unknown?option)
 STD_CWARNINGS="+w1"
 ;;
 *)
 # Turn off the pointlessly noisy warnings.
 STD_CWARNINGS="+w1 +W 474,530"
 ;;
 esac
 CCOPT="$CCOPT -Ae -z"
 LIBS="-Wl,+vnocompatwarnings $LIBS"
 MKDEPPROG='cc -Ae -E -Wp,-M >/dev/null 2>&1 | awk """"BEGIN { colon=0; rec="" }; { for (i = 0 ; i < NF; i++)
{ if (colon && a[$i]) continue; if ($i == "\\") continue; if (!colon) { rec = $i continue; } if ($i == ":") { rec = rec " : "
colon = 1 continue; } if (length(rec $i) > 76) { print rec " \\"; rec = "\t" $i; a[$i] = 1; } else { rec = rec " " $i a[$i] = 1;
} } } END {print rec}"""" >>$TMP'
 MKDEPPROG='cc -Ae -E -Wp,-M >/dev/null 2>>$TMP'
 ;;
 -sgi-irix)
 STD_CWARNINGS="-fullwarn -woff 1209"
 #
 # Silence more than 250 instances of
 # "prototyped function redeclared without prototype"
 # and 11 instances of
 # "variable ... was set but never used"
 # from lib/dns/sec/openssl.
 #
 IRIX_DNSSEC_WARNINGS_HACK="-woff 1692,1552"
 ;;
 -solaris)
 MKDEPCFLAGS="-xM"
 ;;
 -UnixWare)

```

```

CC="$CC -w"
;;
esac
fi

#
_GNU_SOURCE is needed to access the fd_bits field of struct fd_set, which
is supposed to be opaque.
#
case $host in
linux)
STD_CDEFINES="$STD_CDEFINES -D_GNU_SOURCE"
;;
esac

AC_SUBST(MKDEPCC)
AC_SUBST(MKDEPCFLAGS)
AC_SUBST(MKDEPPROG)
AC_SUBST(IRIX_DNSSEC_WARNINGS_HACK)

#
NLS
#
AC_CHECK_FUNC(catgets, AC_DEFINE(HAVE_CATGETS),)

#
-lxnet buys us one big porting headache... standards, gotta love 'em.
#
AC_CHECK_LIB(xnet, socket, ,
AC_CHECK_LIB(socket, socket)
AC_CHECK_LIB(nsl, inet_ntoa)
)
#
Use this for now, instead:
#
case "$host" in
mips-sgi-irix*)
;;
*)
AC_CHECK_LIB(d4r, gethostbyname_r)
AC_CHECK_LIB(socket, socket)
AC_CHECK_LIB(nsl, inet_ntoa)
;;
esac

#
Purify support
#

```

```
AC_MSG_CHECKING(whether to use purify)
AC_ARG_WITH(purify,
[--with-purify[=PATH] use Rational purify],
use_purify="$withval", use_purify="no")
```

```
case "$use_purify" in
no)
;;
yes)
AC_PATH_PROG(purify_path, purify, purify)
;;
*)
purify_path="$use_purify"
;;
esac
```

```
case "$use_purify" in
no)
AC_MSG_RESULT(no)
PURIFY=""
;;
*)
if test -f $purify_path || test $purify_path = purify; then
AC_MSG_RESULT($purify_path)
PURIFYFLAGS="`echo $PURIFYOPTIONS`"
PURIFY="$purify_path $PURIFYFLAGS"
else
AC_MSG_ERROR([$purify_path not found.
```

Please choose the proper path with the following command:

```
configure --with-purify=PATH
])
fi
;;
esac
```

```
AC_SUBST(PURIFY)
```

```
#
GNU libtool support
#
AC_ARG_WITH(libtool,
[--with-libtool use GNU libtool (following indented options supported)],
use_libtool="$withval", use_libtool="no")
```

```
case $use_libtool in
yes)
```

```

AM_PROG_LIBTOOL
O=lo
A=la
LIBTOOL_MKDEP_SED='s;\.o;\.lo;'
LIBTOOL_MODE_COMPILE='--mode=compile'
LIBTOOL_MODE_INSTALL='--mode=install'
LIBTOOL_MODE_LINK='--mode=link'
;;
*)
O=o
A=a
LIBTOOL=
AC_SUBST(LIBTOOL)
LIBTOOL_MKDEP_SED=
LIBTOOL_MODE_COMPILE=
LIBTOOL_MODE_INSTALL=
LIBTOOL_MODE_LINK=
;;
esac

#
File name extension for static archive files, for those few places
where they are treated differently from dynamic ones.
#
SA=a

AC_SUBST(O)
AC_SUBST(A)
AC_SUBST(SA)
AC_SUBST(LIBTOOL_MKDEP_SED)
AC_SUBST(LIBTOOL_MODE_COMPILE)
AC_SUBST(LIBTOOL_MODE_INSTALL)
AC_SUBST(LIBTOOL_MODE_LINK)

#
Here begins a very long section to determine the system's networking
capabilities. The order of the tests is significant.
#

#
IPv6
#
AC_ARG_ENABLE(ipv6,
[--enable-ipv6 use IPv6 [default=autodetect]])

case "$enable_ipv6" in
yes|"autodetect")
AC_DEFINE(WANT_IPV6)

```

```

;;
no)
;;
esac

#
We do the IPv6 compilation checking after libtool so that we can put
the right suffix on the files.
#
AC_MSG_CHECKING(for IPv6 structures)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>],
[struct sockaddr_in6 sin6; return (0);],
[AC_MSG_RESULT(yes)
found_ipv6=yes],
[AC_MSG_RESULT(no)
found_ipv6=no])

#
See whether IPv6 support is provided via a Kame add-on.
This is done before other IPv6 linking tests to LIBS is properly set.
#
AC_MSG_CHECKING(for Kame IPv6 support)
AC_ARG_WITH(kame,
[--with-kame[=PATH] use Kame IPv6 [default path /usr/local/v6]],
use_kame="$withval", use_kame="no")

case "$use_kame" in
no)
;;
yes)
kame_path=/usr/local/v6
;;
*)
kame_path="$use_kame"
;;
esac

case "$use_kame" in
no)
AC_MSG_RESULT(no)
;;
*)
if test -f $kame_path/lib/libinet6.a; then
AC_MSG_RESULT($kame_path/lib/libinet6.a)
LIBS="-L$kame_path/lib -linet6 $LIBS"

```

```
else
AC_MSG_ERROR([$kame_path/lib/libinet6.a not found.
```

Please choose the proper path with the following command:

```
configure --with-kame=PATH
)
fi
;;
esac

#
Whether netinet6/in6.h is needed has to be defined in isc/platform.h.
Including it on Kame-using platforms is very bad, though, because
Kame uses #error against direct inclusion. So include it on only
the platform that is otherwise broken without it -- BSD/OS 4.0 through 4.1.
This is done before the in6_pktinfo check because that's what
netinet6/in6.h is needed for.
#
changequote({, })
case "$host" in
-bsdi4.[01])
ISC_PLATFORM_NEEDNETINET6IN6H="#define ISC_PLATFORM_NEEDNETINET6IN6H 1"
isc_netinet6in6_hack="#include <netinet6/in6.h>"
;;
*)
ISC_PLATFORM_NEEDNETINET6IN6H="#undef ISC_PLATFORM_NEEDNETINET6IN6H"
isc_netinet6in6_hack=""
;;
esac
changequote([,])

#
This is similar to the netinet6/in6.h issue.
#
case "$host" in
-UnixWare)
ISC_PLATFORM_NEEDNETINETIN6H="#define ISC_PLATFORM_NEEDNETINETIN6H 1"
ISC_PLATFORM_FIXIN6ISADDR="#define ISC_PLATFORM_FIXIN6ISADDR 1"
isc_netinetin6_hack="#include <netinet/in6.h>"
;;
*)
ISC_PLATFORM_NEEDNETINETIN6H="#undef ISC_PLATFORM_NEEDNETINETIN6H"
ISC_PLATFORM_FIXIN6ISADDR="#undef ISC_PLATFORM_FIXIN6ISADDR"
isc_netinetin6_hack=""
;;
esac
```

```

#
Now delve deeper into the suitability of the IPv6 support.
#
case "$found_ipv6" in
yes)
HAS_INET6_STRUCTS="#define HAS_INET6_STRUCTS 1"

AC_MSG_CHECKING(for in6_addr)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct in6_addr in6; return (0);],
[AC_MSG_RESULT(yes)
HAS_IN_ADDR6="#undef HAS_IN_ADDR6"
isc_in_addr6_hack=""],
[AC_MSG_RESULT(no)
HAS_IN_ADDR6="#define HAS_IN_ADDR6 1"
isc_in_addr6_hack="#define in6_addr in_addr6"])

AC_MSG_CHECKING(for in6addr_any)
AC_TRY_LINK([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
$isc_in_addr6_hack
],
[struct in6_addr in6; in6 = in6addr_any; return (0);],
[AC_MSG_RESULT(yes)
NEED_IN6ADDR_ANY="#undef NEED_IN6ADDR_ANY"],
[AC_MSG_RESULT(no)
NEED_IN6ADDR_ANY="#define NEED_IN6ADDR_ANY 1"])

AC_MSG_CHECKING(for sin6_scope_id in struct sockaddr_in6)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct sockaddr_in6 xyzy; xyzy.sin6_scope_id = 0; return (0);],
[AC_MSG_RESULT(yes)

```



```

 result="#define HAVE_SIN6_SCOPE_ID 1"],
 [AC_MSG_RESULT(no)
 result="#undef HAVE_SIN6_SCOPE_ID")
 HAVE_SIN6_SCOPE_ID="$result"

 AC_MSG_CHECKING(for in6_pktinfo)
 AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct in6_pktinfo xyzy; return (0);],
[AC_MSG_RESULT(yes)
 ISC_PLATFORM_HAVEIN6PKTINFO="#define ISC_PLATFORM_HAVEIN6PKTINFO 1"],
[AC_MSG_RESULT(no -- disabling runtime ipv6 support)
 ISC_PLATFORM_HAVEIN6PKTINFO="#undef ISC_PLATFORM_HAVEIN6PKTINFO"])

 AC_MSG_CHECKING(for sockaddr_storage)
 AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct sockaddr_storage xyzy; return (0);],
[AC_MSG_RESULT(yes)
 HAVE_SOCKADDR_STORAGE="#define HAVE_SOCKADDR_STORAGE 1"],
[AC_MSG_RESULT(no)
 HAVE_SOCKADDR_STORAGE="#undef HAVE_SOCKADDR_STORAGE"])
 ;;
no)
 HAS_INET6_STRUCTS="#undef HAS_INET6_STRUCTS"
 NEED_INET6ADDR_ANY="#undef NEED_INET6ADDR_ANY"
 ISC_PLATFORM_HAVEIN6PKTINFO="#undef ISC_PLATFORM_HAVEIN6PKTINFO"
 HAVE_SIN6_SCOPE_ID="#define HAVE_SIN6_SCOPE_ID 1"
 HAVE_SOCKADDR_STORAGE="#undef HAVE_SOCKADDR_STORAGE"
 ISC_IPV6_H="ipv6.h"
 ISC_IPV6_O="ipv6.$O"
 ISC_ISCIPV6_O="unix/ipv6.$O"
 ISC_IPV6_C="ipv6.c"
 ;;
esac

 AC_SUBST(HAS_INET6_STRUCTS)
 AC_SUBST(ISC_PLATFORM_NEEDNETINETIN6H)

```

```

AC_SUBST(ISC_PLATFORM_NEEDNETINET6IN6H)
AC_SUBST(HAS_IN_ADDR6)
AC_SUBST(NEED_IN6ADDR_ANY)
AC_SUBST(ISC_PLATFORM_HAVEIN6PKTINFO)
AC_SUBST(ISC_PLATFORM_FIXIN6ISADDR)
AC_SUBST(ISC_IPV6_H)
AC_SUBST(ISC_IPV6_O)
AC_SUBST(ISC_ISCIPV6_O)
AC_SUBST(ISC_IPV6_C)
AC_SUBST(HAVE_SIN6_SCOPE_ID)
AC_SUBST(HAVE_SOCKADDR_STORAGE)

#
Check for network functions that are often missing. We do this
after the libtool checking, so we can put the right suffix on
the files. It also needs to come after checking for a Kame add-on,
which provides some (all?) of the desired functions.
#
AC_MSG_CHECKING([for inet_ntop])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>
#include <arpa/inet.h>],
[inet_ntop(0, 0, 0, 0); return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDNTOP="#undef ISC_PLATFORM_NEEDNTOP"],

[AC_MSG_RESULT(no)
ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_ntop.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_ntop.c"
ISC_PLATFORM_NEEDNTOP="#define ISC_PLATFORM_NEEDNTOP 1"])
AC_MSG_CHECKING([for inet_pton])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>
#include <arpa/inet.h>],
[inet_pton(0, 0, 0); return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDPTON="#undef ISC_PLATFORM_NEEDPTON"],

[AC_MSG_RESULT(no)
ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_pton.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_pton.c"
ISC_PLATFORM_NEEDPTON="#define ISC_PLATFORM_NEEDPTON 1"])
AC_MSG_CHECKING([for inet_aton])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>

```

```

#include <arpa/inet.h>],
 [struct in_addr in; inet_aton(0, &in); return (0);],
 [AC_MSG_RESULT(yes)
 ISC_PLATFORM_NEEDATON="#undef ISC_PLATFORM_NEEDATON"],

 [AC_MSG_RESULT(no)
 ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_aton.$O"
 ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_aton.c"
 ISC_PLATFORM_NEEDATON="#define ISC_PLATFORM_NEEDATON 1"])

AC_SUBST(ISC_PLATFORM_NEEDNTOP)
AC_SUBST(ISC_PLATFORM_NEEDPTON)
AC_SUBST(ISC_PLATFORM_NEEDATON)

#
Look for a 4.4BSD-style sa_len member in struct sockaddr.
#
case "$host" in
-dec-osf)
 # Turn on 4.4BSD style sa_len support.
 AC_DEFINE(_SOCKADDR_LEN)
 ;;
esac

AC_MSG_CHECKING(for sa_len in struct sockaddr)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>],
[struct sockaddr sa; sa.sa_len = 0; return (0);],
[AC_MSG_RESULT(yes)
HAVE_SA_LEN="#define HAVE_SA_LEN 1"],
[AC_MSG_RESULT(no)
HAVE_SA_LEN="#undef HAVE_SA_LEN"])
AC_SUBST(HAVE_SA_LEN)

HAVE_MINIMUM_IFREQ

case "$host" in
-bsdi[2345]) have_minimum_ifreq=yes;;
-darwin) have_minimum_ifreq=yes;;
-freebsd) have_minimum_ifreq=yes;;
-lynxos) have_minimum_ifreq=yes;;
-netbsd) have_minimum_ifreq=yes;;
-next) have_minimum_ifreq=yes;;
-openbsd) have_minimum_ifreq=yes;;
-rhapsody) have_minimum_ifreq=yes;;
esac

```

```

case "$have_minimum_ifreq" in
yes)
HAVE_MINIMUM_IFREQ="#define HAVE_MINIMUM_IFREQ 1";;
no)
HAVE_MINIMUM_IFREQ="#undef HAVE_MINIMUM_IFREQ";;
*)
HAVE_MINIMUM_IFREQ="#undef HAVE_MINIMUM_IFREQ";;
esac
AC_SUBST(HAVE_MINIMUM_IFREQ)

PORT_DIR
PORT_DIR=port/unknown
SOLARIS_BITTYPES="#undef NEED_SOLARIS_BITTYPES"
BSD_COMP="#undef BSD_COMP"
USE_FIONBIO_IOCTL="#undef USE_FIONBIO_IOCTL"
case "$host" in
aix3.2) PORT_DIR="port/aix32";;
aix4) PORT_DIR="port/aix4";;
aux3) PORT_DIR="port/aux3";;
-bsd12) PORT_DIR="port/bsdos2";;
-bsd1) PORT_DIR="port/bsdos";;
-cygwin) PORT_DIR="port/cygwin";;
-darwin) PORT_DIR="port/darwin";;
-osf) PORT_DIR="port/decunix";;
-freebsd) PORT_DIR="port/freebsd";;
-hpux9) PORT_DIR="port/hpux9";;
-hpux10) PORT_DIR="port/hpux10";;
-hpux11) PORT_DIR="port/hpux";;
-irix) PORT_DIR="port/irix";;
-linux) PORT_DIR="port/linux";;
-lynxos) PORT_DIR="port/lynxos";;
-mpe) PORT_DIR="port/mpe";;
-netbsd) PORT_DIR="port/netbsd";;
-next) PORT_DIR="port/next";;
-openbsd) PORT_DIR="port/openbsd";;
-qnx) PORT_DIR="port/qnx";;
-rhapsody) PORT_DIR="port/rhapsody";;
-solaris2.[[01234]])
BSD_COMP="#define BSD_COMP 1"
SOLARIS_BITTYPES="#define NEED_SOLARIS_BITTYPES 1"
USE_FIONBIO_IOCTL="#define USE_FIONBIO_IOCTL 1"
PORT_DIR="port/solaris";;
-solaris2.5)
BSD_COMP="#define BSD_COMP 1"
SOLARIS_BITTYPES="#define NEED_SOLARIS_BITTYPES 1"
PORT_DIR="port/solaris";;
-solaris2) BSD_COMP="#define BSD_COMP 1"
PORT_DIR="port/solaris";;

```

```

-ultrix) PORT_DIR="port/ultrix";;
*-sco-sysv*uw2.0*) PORT_DIR="port/unixware20";;
*-sco-sysv*uw2.1.2*) PORT_DIR="port/unixware212";;
*-sco-sysv*uw7*) PORT_DIR="port/unixware7";;
esac
AC_SUBST(BSD_COMP)
AC_SUBST(SOLARIS_BITTYPES)
AC_SUBST(USE_FIONBIO_IOCTL)
AC_SUBST(PORT_DIR)
PORT_INCLUDE=${PORT_DIR}/include
AC_SUBST(PORT_INCLUDE)

#
Look for a 4.4BSD or 4.3BSD struct msghdr
#
AC_MSG_CHECKING(for struct msghdr flavor)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>],
[struct msghdr msg; msg.msg_flags = 0; return (0);],
[AC_MSG_RESULT(4.4BSD)
ISC_PLATFORM_MSGHDRFLAVOR="#define ISC_NET_BSD44MSGHDR 1"],
[AC_MSG_RESULT(4.3BSD)
ISC_PLATFORM_MSGHDRFLAVOR="#define ISC_NET_BSD43MSGHDR 1"])
AC_SUBST(ISC_PLATFORM_MSGHDRFLAVOR)

#
Look for in_port_t.
#
AC_MSG_CHECKING(for type in_port_t)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <netinet/in.h>],
[in_port_t port = 25; return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDPORTT="#undef ISC_PLATFORM_NEEDPORTT"],
[AC_MSG_RESULT(no)
ISC_PLATFORM_NEEDPORTT="#define ISC_PLATFORM_NEEDPORTT 1"])
AC_SUBST(ISC_PLATFORM_NEEDPORTT)

#
Check for addrinfo
#
AC_MSG_CHECKING(for struct addrinfo)
AC_TRY_COMPILE([
#include <netdb.h>],
[struct addrinfo a; return (0);],

```

```
[AC_MSG_RESULT(yes)
AC_DEFINE(HAVE_ADDRINFO),
[AC_MSG_RESULT(no)]]
```

```
AC_MSG_CHECKING(for int sethostent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = sethostent(0); return(0);],
[AC_MSG_RESULT(yes)],
[AC_MSG_RESULT(no)])
```

```
AC_MSG_CHECKING(for int endhostent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = endhostent(); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_ENDHOSTENTINT="#define ISC_LWRES_ENDHOSTENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_ENDHOSTENTINT="#undef ISC_LWRES_ENDHOSTENTINT"])
AC_SUBST(ISC_LWRES_ENDHOSTENTINT)
```

```
AC_MSG_CHECKING(for int setnetent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = setnetent(0); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_SETNETENTINT="#define ISC_LWRES_SETNETENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_SETNETENTINT="#undef ISC_LWRES_SETNETENTINT"])
AC_SUBST(ISC_LWRES_SETNETENTINT)
```

```
AC_MSG_CHECKING(for int endnetent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = endnetent(); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_ENDNETENTINT="#define ISC_LWRES_ENDNETENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_ENDNETENTINT="#undef ISC_LWRES_ENDNETENTINT"])
AC_SUBST(ISC_LWRES_ENDNETENTINT)
```

```
AC_MSG_CHECKING(for gethostbyaddr(const void *, size_t, ...))
AC_TRY_COMPILE([
#include <netdb.h>
struct hostent *gethostbyaddr(const void *, size_t, int);],
[return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_GETHOSTBYADDRVOID="#define ISC_LWRES_GETHOSTBYADDRVOID 1"],
```

```

[AC_MSG_RESULT(no)
ISC_LWRES_GETHOSTBYADDRVOID="#undef ISC_LWRES_GETHOSTBYADDRVOID"])
AC_SUBST(ISC_LWRES_GETHOSTBYADDRVOID)

AC_MSG_CHECKING(for h_errno in netdb.h)
AC_TRY_COMPILE([
#include <netdb.h>],
[h_errno = 1; return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_NEEDHERRNO="#undef ISC_LWRES_NEEDHERRNO"],
[AC_MSG_RESULT(no)
ISC_LWRES_NEEDHERRNO="#define ISC_LWRES_NEEDHERRNO 1"])
AC_SUBST(ISC_LWRES_NEEDHERRNO)

AC_CHECK_FUNC(getipnodebyname,
[ISC_LWRES_GETIPNODEPROTO="#undef ISC_LWRES_GETIPNODEPROTO"],
[ISC_LWRES_GETIPNODEPROTO="#define ISC_LWRES_GETIPNODEPROTO 1"])
AC_CHECK_FUNC(getnameinfo,
[ISC_LWRES_GETNAMEINFOPROTO="#undef ISC_LWRES_GETNAMEINFOPROTO"],
[ISC_LWRES_GETNAMEINFOPROTO="#define ISC_LWRES_GETNAMEINFOPROTO 1"])
AC_CHECK_FUNC(getaddrinfo,
[ISC_LWRES_GETADDRINFOPROTO="#undef ISC_LWRES_GETADDRINFOPROTO"]
AC_DEFINE(HAVE_GETADDRINFO)],
[ISC_LWRES_GETADDRINFOPROTO="#define ISC_LWRES_GETADDRINFOPROTO 1"])
AC_CHECK_FUNC(gai_strerror, AC_DEFINE(HAVE_GAISTRERROR))
AC_SUBST(ISC_LWRES_GETIPNODEPROTO)
AC_SUBST(ISC_LWRES_GETADDRINFOPROTO)
AC_SUBST(ISC_LWRES_GETNAMEINFOPROTO)
AC_CHECK_FUNC(pselect,
[NEED_PSELECT="#undef NEED_PSELECT"],
[NEED_PSELECT="#define NEED_PSELECT"])
AC_SUBST(NEED_PSELECT)
AC_CHECK_FUNC(gettimeofday,
[NEED_GETTIMEOFDAY="#undef NEED_GETTIMEOFDAY"],
[NEED_GETTIMEOFDAY="#define NEED_GETTIMEOFDAY 1"])
AC_SUBST(NEED_GETTIMEOFDAY)
AC_CHECK_FUNC(strndup,
[HAVE_STRNDUP="#define HAVE_STRNDUP 1"],
[HAVE_STRNDUP="#undef HAVE_STRNDUP"])
AC_SUBST(HAVE_STRNDUP)

#
Look for a sysctl call to get the list of network interfaces.
#
AC_MSG_CHECKING(for interface list sysctl)
AC_EGREP_CPP(found_rt_iflist, [
#include <sys/param.h>
#include <sys/sysctl.h>

```

```

#include <sys/socket.h>
#ifdef NET_RT_IFLIST
found_rt_iflist
#endif
],
[AC_MSG_RESULT(yes)
 AC_DEFINE(HAVE_IFLIST_SYCTL)],
[AC_MSG_RESULT(no))]

#
Check for some other useful functions that are not ever-present.
#
AC_CHECK_FUNC(strsep,
[ISC_PLATFORM_NEEDSTRSEP="#undef ISC_PLATFORM_NEEDSTRSEP"],
[ISC_PLATFORM_NEEDSTRSEP="#define ISC_PLATFORM_NEEDSTRSEP 1"]),
AC_CHECK_FUNC(vsnprintf,
[ISC_PLATFORM_NEEDVSNPRINTF="#undef ISC_PLATFORM_NEEDVSNPRINTF"],
[ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS print.$O"
 ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS print.c"
 ISC_PLATFORM_NEEDVSNPRINTF="#define ISC_PLATFORM_NEEDVSNPRINTF 1"])
AC_SUBST(ISC_PLATFORM_NEEDSTRSEP)
AC_SUBST(ISC_PLATFORM_NEEDVSNPRINTF)

AC_SUBST(ISC_EXTRA_OBJS)
AC_SUBST(ISC_EXTRA_SRCS)
AC_CHECK_FUNC(strerror,
[USE_SYSEERROR_LIST="#undef USE_SYSEERROR_LIST"],
[USE_SYSEERROR_LIST="#define USE_SYSEERROR_LIST 1"])
AC_SUBST(USE_SYSEERROR_LIST)

#
Determine the printf format characters to use when printing
values of type isc_int64_t. We make the assumption that platforms
where a "long long" is the same size as a "long" (e.g., Alpha/OSF1)
want "%ld" and everyone else can use "%lld". Win32 uses "%I64d",
but that's defined elsewhere since we don't use configure on Win32.
#
AC_MSG_CHECKING(printf format modifier for 64-bit integers)
AC_TRY_RUN([main() { exit(!(sizeof(long long int) == sizeof(long int))); }],
[AC_MSG_RESULT(I)
 ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "I"'],
[AC_MSG_RESULT(II)
 ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "II"'],
[AC_MSG_RESULT(default II)
 ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "II"'])
AC_SUBST(ISC_PLATFORM_QUADFORMAT)

#

```



```

Security Stuff
#
AC_CHECK_FUNC(chroot, AC_DEFINE(HAVE_CHROOT))

#
for accept, recvfrom, getpeername etc.
#
AC_MSG_CHECKING(for socket length type)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, socklen_t *);
],[],
[ISC_SOCKETLEN_T="#define ISC_SOCKETLEN_T socklen_t"
AC_MSG_RESULT(socklen_t)]
,
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, unsigned int *);
],[],
[ISC_SOCKETLEN_T="#define ISC_SOCKETLEN_T unsigned int"
AC_MSG_RESULT(unsigned int)]
,
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, unsigned long *);
],[],
[ISC_SOCKETLEN_T="#define ISC_SOCKETLEN_T unsigned long"
AC_MSG_RESULT(unsigned long)]
,
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, long *);
],[],
[ISC_SOCKETLEN_T="#define ISC_SOCKETLEN_T long"
AC_MSG_RESULT(long)]
,
ISC_SOCKETLEN_T="#define ISC_SOCKETLEN_T int"
AC_MSG_RESULT(int)
))))
AC_SUBST(ISC_SOCKETLEN_T)

AC_CHECK_FUNC(getgrouplist,
AC_TRY_COMPILE(
[#include <unistd.h>

```

```

int
getgrouplist(const char *name, int basegid, int *groups, int *ngroups) {
}
],
[return (0)];
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, int basegid, int *groups, int
*ngroups"
,
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, gid_t basegid, gid_t *groups, int
*ngroups"
),
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, gid_t basegid, gid_t *groups, int
*ngroups"
AC_DEFINE(NEED_GETGROUPLIST)
)
AC_SUBST(GETGROUPLIST_ARGS)

AC_CHECK_FUNC(setgroupent,,AC_DEFINE(NEED_SETGROUPEMENT))

AC_CHECK_FUNC(getnetbyaddr_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#define _OSF_SOURCE
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct netent *
getnetbyaddr_r(long net, int type, struct netent *result, char *buffer,
int buflen) { }
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS char *buf, int buflen"
NET_R_BAD="#define NET_R_BAD NULL"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS NET_R_ARGS"
NET_R_OK="#define NET_R_OK nptr"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN struct netent *"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"
NETENT_DATA="#undef NETENT_DATA"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT

```

```

#define _OSF_SOURCE
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetbyaddr_r (unsigned long int, int, struct netent *,
 char *, size_t, struct netent **, int *);
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS char *buf, size_t buflen, struct netent **answer, int *h_errnop"
NET_R_BAD="#define NET_R_BAD ERANGE"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS char *buf, size_t buflen"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#define NET_R_SETANSWER 1"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T unsigned long int"
NETENT_DATA="#undef NETENT_DATA"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#define _OSF_SOURCE
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int getnetbyaddr_r(int, int, struct netent *, struct netent_data *);
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS struct netent_data *ndptr"
NET_R_BAD="#define NET_R_BAD (-1)"
NET_R_COPY="#define NET_R_COPY ndptr"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS struct netent_data *ndptr"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T int"
NETENT_DATA="#define NETENT_DATA 1"
],
AC_TRY_COMPILE(
#undef __USE_MISC
#define __USE_MISC
[#include <netdb.h>
int getnetbyaddr_r (long, int, struct netent *, struct netent_data *);
],
[return (0)],

```

```

[
NET_R_ARGS="#define NET_R_ARGS struct netent_data *ndptr"
NET_R_BAD="#define NET_R_BAD (-1)"
NET_R_COPY="#define NET_R_COPY ndptr"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS struct netent_data *ndptr"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"
NETENT_DATA="#define NETENT_DATA 1"
],
)
)
)
)
,
NET_R_ARGS="#define NET_R_ARGS char *buf, int buflen"
NET_R_BAD="#define NET_R_BAD NULL"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS NET_R_ARGS"
NET_R_OK="#define NET_R_OK nptr"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN struct netent *"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"
NETENT_DATA="#undef NETENT_DATA"
)
case "$host" in
dec-osf) GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T int" ;;
esac
AC_SUBST(NET_R_ARGS)
AC_SUBST(NET_R_BAD)
AC_SUBST(NET_R_COPY)
AC_SUBST(NET_R_COPY_ARGS)
AC_SUBST(NET_R_OK)
AC_SUBST(NET_R_SETANSWER)
AC_SUBST(NET_R_RETURN)
AC_SUBST(GETNETBYADDR_ADDR_T)
AC_SUBST(NETENT_DATA)

AC_CHECK_FUNC(setnetent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setnetent_r (int);
],[return (0);],[
NET_R_ENT_ARGS="#undef NET_R_ENT_ARGS /*empty*/"

```

```

NET_R_SET_RESULT="#undef NET_R_SET_RESULT /*empty*/"
NET_R_SET_RETURN="#define NET_R_SET_RETURN void"
],
AC_TRY_COMPILE(
[
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int setnetent_r(int, struct netent_data *);
],[return (0);],[
NET_R_ENT_ARGS="#define NET_R_ENT_ARGS struct netent_data *ndptr"
NET_R_SET_RESULT="#define NET_R_SET_RESULT NET_R_OK"
NET_R_SET_RETURN="#define NET_R_SET_RETURN int"
],
)
)
,
NET_R_ENT_ARGS="#undef NET_R_ENT_ARGS /*empty*/"
NET_R_SET_RESULT="#undef NET_R_SET_RESULT /*empty*/"
NET_R_SET_RETURN="#define NET_R_SET_RETURN void"
)
AC_SUBST(NET_R_ENT_ARGS)
AC_SUBST(NET_R_SET_RESULT)
AC_SUBST(NET_R_SET_RETURN)

AC_CHECK_FUNC(endnetent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void endnetent_r (void);
],[return (0);],[
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int endnetent_r(struct netent_data *);
],[return (0);],[

```

```

NET_R_END_RESULT="#define NET_R_END_RESULT(x) return (x)"
NET_R_END_RETURN="#define NET_R_END_RETURN int"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endnetent_r(struct netent_data *);
],[return (0);],[
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
],
)
)
)
,
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
)
AC_SUBST(NET_R_END_RESULT)
AC_SUBST(NET_R_END_RETURN)

AC_CHECK_FUNC(getgrnam_r,,AC_DEFINE(NEED_GETGRNAM_R))
AC_CHECK_FUNC(getgrgid_r,,AC_DEFINE(NEED_GETGRGID_R))

AC_CHECK_FUNC(getgrent_r,
AC_TRY_COMPILE(
[
#include <grp.h>
struct group *getgrent_r(struct group *grp, char *buffer,
int buflen) { }
],[return (0);],[
GROUP_R_ARGS="#define GROUP_R_ARGS char *buf, int buflen"
GROUP_R_BAD="#define GROUP_R_BAD NULL"
GROUP_R_OK="#define GROUP_R_OK gptr"
GROUP_R_RETURN="#define GROUP_R_RETURN struct group *"
],
)
)
,
GROUP_R_ARGS="#define GROUP_R_ARGS char *buf, int buflen"
GROUP_R_BAD="#define GROUP_R_BAD NULL"
GROUP_R_OK="#define GROUP_R_OK gptr"
GROUP_R_RETURN="#define GROUP_R_RETURN struct group *"
AC_DEFINE(NEED_GETGMENT_R)
)

```

```

AC_SUBST(GROUP_R_ARGS)
AC_SUBST(GROUP_R_BAD)
AC_SUBST(GROUP_R_OK)
AC_SUBST(GROUP_R_RETURN)

AC_CHECK_FUNC(endgrent_r,
,
GROUP_R_END_RESULT="#define GROUP_R_END_RESULT(x) /*empty*/"
GROUP_R_END_RETURN="#define GROUP_R_END_RETURN void"
GROUP_R_ENT_ARGS="#define GROUP_R_ENT_ARGS void"
AC_DEFINE(NEED_ENDGRENT_R)
)
AC_SUBST(GROUP_R_END_RESULT)
AC_SUBST(GROUP_R_END_RETURN)
AC_SUBST(GROUP_R_ENT_ARGS)

AC_CHECK_FUNC(setgrent_r,
,
GROUP_R_SET_RESULT="#undef GROUP_R_SET_RESULT /*empty*/"
GROUP_R_SET_RETURN="#define GROUP_R_SET_RETURN void"
AC_DEFINE(NEED_SETGRENT_R)
)
AC_SUBST(GROUP_R_SET_RESULT)
AC_SUBST(GROUP_R_SET_RETURN)

AC_CHECK_FUNC(gethostbyname_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct hostent *gethostbyname_r
(const char *name, struct hostent *hp, char *buf, int len, int *h_errnop) {}
],
[return (0);],
[
HOST_R_ARGS="#define HOST_R_ARGS char *buf, int buflen, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD NULL"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK hptr"
HOST_R_RETURN="#define HOST_R_RETURN struct hostent *"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"
HOSTENT_DATA="#undef HOSTENT_DATA"
]
,

```

```

AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int gethostbyname_r(const char *name,
 struct hostent *result,
 struct hostent_data *hdptr);
], [
HOST_R_ARGS="#define HOST_R_ARGS struct hostent_data *hdptr"
HOST_R_BAD="#define HOST_R_BAD (-1)"
HOST_R_COPY="#define HOST_R_COPY hdptr"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS HOST_R_ARGS"
HOST_R_ERRNO="#define HOST_R_ERRNO NULL"
HOST_R_OK="#define HOST_R_OK 0"
HOST_R_RETURN="#define HOST_R_RETURN int"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"
HOSTENT_DATA="#define HOSTENT_DATA 1"
],
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int gethostbyname_r (const char *,
 struct hostent *,
 char *, size_t,
 struct hostent **,
 int *);
], [
HOST_R_ARGS="#define HOST_R_ARGS char *buf, size_t buflen, struct hostent **answerp, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD ERANGE"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK 0"
HOST_R_RETURN="#define HOST_R_RETURN int"
HOST_R_SETANSWER="#define HOST_R_SETANSWER 1"
HOSTENT_DATA="#undef HOSTENT_DATA"
],
)))
,
HOST_R_ARGS="#define HOST_R_ARGS char *buf, int buflen, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD NULL"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK hptr"
HOST_R_RETURN="#define HOST_R_RETURN struct hostent *"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"

```



```

HOSTENT_DATA="#undef HOSTENT_DATA"
)
AC_SUBST(HOST_R_ARGS)
AC_SUBST(HOST_R_BAD)
AC_SUBST(HOST_R_COPY)
AC_SUBST(HOST_R_COPY_ARGS)
AC_SUBST(HOST_R_ERRNO)
AC_SUBST(HOST_R_OK)
AC_SUBST(HOST_R_RETURN)
AC_SUBST(HOST_R_SETANSWER)
AC_SUBST(HOSTENT_DATA)

AC_CHECK_FUNC(endhostent_r,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int endhostent_r(struct hostent_data *buffer);
], ,
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) return (x)"
HOST_R_END_RETURN="#define HOST_R_END_RETURN int"
HOST_R_ENT_ARGS="#define HOST_R_ENT_ARGS struct hostent_data *hdptr"
,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endhostent_r(struct hostent_data *ht_data);
],[
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x)"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#define HOST_R_ENT_ARGS struct hostent_data *hdptr"
],
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endhostent_r(void);
],[
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) /*empty*/"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#undef HOST_R_ENT_ARGS /*empty*/"

```

```

],
)
)
)
,
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) /*empty*/"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#undef HOST_R_ENT_ARGS /*empty*/"
)
AC_SUBST(HOST_R_END_RESULT)
AC_SUBST(HOST_R_END_RETURN)
AC_SUBST(HOST_R_ENT_ARGS)

AC_CHECK_FUNC(sethostent_r,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void sethostent_r(int flag, struct hostent_data *ht_data);],[,
[HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT /*empty*/"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"],
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int sethostent_r(int flag, struct hostent_data *ht_data);],[,
[HOST_R_SET_RESULT="#define HOST_R_SET_RESULT 0"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN int"],
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void sethostent_r (int);],[,
[HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"],
)
)
)
,
HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"
)

```

```
AC_SUBST(HOST_R_SET_RESULT)
AC_SUBST(HOST_R_SET_RETURN)
```

```
AC_MSG_CHECKING(struct passwd element pw_class)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <pwd.h>
],[struct passwd *pw; pw->pw_class = "";],
AC_MSG_RESULT(yes)
AC_DEFINE(HAS_PW_CLASS)
,
AC_MSG_RESULT(no)
)
```

```
AC_TRY_COMPILE([
#include <sys/types.h>
#include <pwd.h>
void
setpwent(void) {}
],
[return (0);],
SETPWENT_VOID="#define SETPWENT_VOID 1"
,
SETPWENT_VOID="#undef SETPWENT_VOID"
)
AC_SUBST(SETPWENT_VOID)
```

```
AC_TRY_COMPILE([
#include <sys/types.h>
#include <grp.h>
void
setgrent(void) {}
],
[return (0);],
SETGRENT_VOID="#define SETGRENT_VOID 1"
,
SETGRENT_VOID="#undef SETGRENT_VOID"
)
AC_SUBST(SETGRENT_VOID)
```

```
AC_CHECK_FUNC(getnetgrent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetgrent_r(char **m, char **u, char **d, char *b, int l) {}
```

```

]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS char *buf, int buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetgrent_r(char **m, char **u, char **d, char *b, size_t l) {}
]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS char *buf, size_t buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int getnetgrent_r(char **, char **, char **, void **);
]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS void **buf"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
NGR_R_PRIVATE="#define NGR_R_PRIVATE 1"
]

```

```

,
)
)
)
,
NGR_R_ARGS="#define NGR_R_ARGS char *buf, int buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
)
AC_SUBST(NGR_R_ARGS)
AC_SUBST(NGR_R_BAD)
AC_SUBST(NGR_R_COPY)
AC_SUBST(NGR_R_COPY_ARGS)
AC_SUBST(NGR_R_OK)
AC_SUBST(NGR_R_RETURN)
AC_SUBST(NGR_R_PRIVATE)

AC_CHECK_FUNC(endnetgrent_r,
NGR_R_END_RESULT="#define NGR_R_END_RESULT(x) return (x)"
NGR_R_END_RETURN="#define NGR_R_END_RETURN int"
NGR_R_ENT_ARGS="#define NGR_R_ENT_ARGS NGR_R_ARGS"
,
NGR_R_END_RESULT="#define NGR_R_END_RESULT(x) /*empty*/"
NGR_R_END_RETURN="#define NGR_R_END_RETURN void"
NGR_R_ENT_ARGS="#undef NGR_R_ENT_ARGS /*empty*/"
AC_DEFINE(NEED_ENDNETGRENT_R)
)
AC_SUBST(NGR_R_END_RESULT)
AC_SUBST(NGR_R_END_RETURN)
AC_SUBST(NGR_R_ENT_ARGS)

AC_CHECK_FUNC(setnetgrent_r,
[
case "$host" in
bsdi)
NGR_R_SET_RESULT="#undef NGR_R_SET_RESULT /*empty*/"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN void"
;;
*)
NGR_R_SET_RESULT="#define NGR_R_SET_RESULT NGR_R_OK"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN int"
;;
esac
]
,

```

```

NGR_R_SET_RESULT="#undef NGR_R_SET_RESULT /*empty*/"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN void"
)
AC_SUBST(NGR_R_SET_RESULT)
AC_SUBST(NGR_R_SET_RETURN)

AC_CHECK_FUNC(innetgr_r,,AC_DEFINE(NEED_INNETGR_R))

AC_CHECK_FUNC(getprotoent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct protoent *getprotoent_r(struct protoent *result,
 char *buffer, int buflen) { }
]
,
[return (0);]
,
[
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, int buflen"
PROTO_R_BAD="#define PROTO_R_BAD NULL"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"
PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS PROTO_R_ARGS"
PROTO_R_OK="#define PROTO_R_OK pptr"
PROTO_R_SETANSWER="#undef PROTO_R_SETANSWER"
PROTO_R_RETURN="#define PROTO_R_RETURN struct protoent *"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getprotoent_r (struct protoent *, char *, size_t, struct protoent **);
]
,
[return (0);]
,
[
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, size_t buflen, struct protoent **answerp"
PROTO_R_BAD="#define PROTO_R_BAD ERANGE"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"
PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS char *buf, size_t buflen"
PROTO_R_OK="#define PROTO_R_OK 0"
PROTO_R_SETANSWER="#define PROTO_R_SETANSWER 1"

```

```

PROTO_R_RETURN="#define PROTO_R_RETURN int"
]
,
)
)
,
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, int buflen"
PROTO_R_BAD="#define PROTO_R_BAD NULL"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"
PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS PROTO_R_ARGS"
PROTO_R_OK="#define PROTO_R_OK pptr"
PROTO_R_SETANSWER="#undef PROTO_R_SETANSWER"
PROTO_R_RETURN="#define PROTO_R_RETURN struct protoent *"
)
AC_SUBST(PROTO_R_ARGS)
AC_SUBST(PROTO_R_BAD)
AC_SUBST(PROTO_R_COPY)
AC_SUBST(PROTO_R_COPY_ARGS)
AC_SUBST(PROTO_R_OK)
AC_SUBST(PROTO_R_SETANSWER)
AC_SUBST(PROTO_R_RETURN)

AC_CHECK_FUNC(endprotoent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void endprotoent_r(void);
]
"
[
PROTO_R_END_RESULT="#define PROTO_R_END_RESULT(x) /*empty*/"
PROTO_R_END_RETURN="#define PROTO_R_END_RETURN void"
PROTO_R_ENT_ARGS="#undef PROTO_R_ENT_ARGS"
]
,
)
,
PROTO_R_END_RESULT="#define PROTO_R_END_RESULT(x) /*empty*/"
PROTO_R_END_RETURN="#define PROTO_R_END_RETURN void"
PROTO_R_ENT_ARGS="#undef PROTO_R_ENT_ARGS /*empty*/"
)
AC_SUBST(PROTO_R_END_RESULT)
AC_SUBST(PROTO_R_END_RETURN)
AC_SUBST(PROTO_R_ENT_ARGS)

```

```

AC_CHECK_FUNC(setprotoent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setprotoent_r __P((int));
],[],
PROTO_R_SET_RESULT="#undef PROTO_R_SET_RESULT"
PROTO_R_SET_RETURN="#define PROTO_R_SET_RETURN void"
,
)
,
PROTO_R_SET_RESULT="#undef PROTO_R_SET_RESULT"
PROTO_R_SET_RETURN="#define PROTO_R_SET_RETURN void"
)
AC_SUBST(PROTO_R_SET_RESULT)
AC_SUBST(PROTO_R_SET_RETURN)

```

```

AC_CHECK_FUNC(getpwent_r,
AC_TRY_COMPILE(
[
#include <sys/types.h>
#include <pwd.h>
struct passwd *
getpwent_r(struct passwd *pwptr, char *buf, int buflen) { }
]
,
[]
,
PASS_R_ARGS="#define PASS_R_ARGS char *buf, int buflen"
PASS_R_BAD="#define PASS_R_BAD NULL"
PASS_R_COPY="#define PASS_R_COPY buf, buflen"
PASS_R_COPY_ARGS="#define PASS_R_COPY_ARGS PASS_R_ARGS"
PASS_R_OK="#define PASS_R_OK pwptr"
PASS_R_RETURN="#define PASS_R_RETURN struct passwd *"
,
)
,
PASS_R_ARGS="#define PASS_R_ARGS char *buf, int buflen"
PASS_R_BAD="#define PASS_R_BAD NULL"
PASS_R_COPY="#define PASS_R_COPY buf, buflen"
PASS_R_COPY_ARGS="#define PASS_R_COPY_ARGS PASS_R_ARGS"
PASS_R_OK="#define PASS_R_OK pwptr"
PASS_R_RETURN="#define PASS_R_RETURN struct passwd *"

```



```

AC_DEFINE(NEED_GETPWENT_R)
)
AC_SUBST(PASS_R_ARGS)
AC_SUBST(PASS_R_BAD)
AC_SUBST(PASS_R_COPY)
AC_SUBST(PASS_R_COPY_ARGS)
AC_SUBST(PASS_R_OK)
AC_SUBST(PASS_R_RETURN)

AC_CHECK_FUNC(endpwent_r,
AC_TRY_COMPILE(
[
#include <pwd.h>
void endpwent_r(FILE **pwfp);
], ,
PASS_R_END_RESULT="#define PASS_R_END_RESULT(x) /*empty*/"
PASS_R_END_RETURN="#define PASS_R_END_RETURN void"
PASS_R_ENT_ARGS="#define PASS_R_ENT_ARGS FILE **pwptr"
,
)
,
PASS_R_END_RESULT="#define PASS_R_END_RESULT(x) /*empty*/"
PASS_R_END_RETURN="#define PASS_R_END_RETURN void"
PASS_R_ENT_ARGS="#undef PASS_R_ENT_ARGS"
AC_DEFINE(NEED_ENDPWENT_R)
)
AC_SUBST(PASS_R_END_RESULT)
AC_SUBST(PASS_R_END_RETURN)
AC_SUBST(PASS_R_ENT_ARGS)
AC_CHECK_FUNC(setpassent_r,,AC_DEFINE(NEED_SETPASSENT_R))
AC_CHECK_FUNC(setpassent,,AC_DEFINE(NEED_SETPASSENT))

AC_CHECK_FUNC(setpwent_r,
AC_TRY_COMPILE([
#include <pwd.h>
void setpwent_r(FILE **pwfp);
], ,
PASS_R_SET_RESULT="#undef PASS_R_SET_RESULT /* empty */"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN int"
,
AC_TRY_COMPILE([
#include <pwd.h>
int setpwent_r(FILE **pwfp);
], ,
PASS_R_SET_RESULT="#define PASS_R_SET_RESULT 0"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN int"
,
)
)

```

```

)
,
PASS_R_SET_RESULT="#undef PASS_R_SET_RESULT /*empty*/"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN void"
AC_DEFINE(NEED_SETPWENT_R)
)
AC_SUBST(PASS_R_SET_RESULT)
AC_SUBST(PASS_R_SET_RETURN)

AC_CHECK_FUNC(getpwnam_r,,AC_DEFINE(NEED_GETPWNAM_R))
AC_CHECK_FUNC(getpwuid_r,,AC_DEFINE(NEED_GETPWUID_R))

AC_CHECK_FUNC(getservent_r,
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct servent *
getservent_r(struct servent *result, char *buffer, int buflen) {
],[return (0);],
[
SERV_R_ARGS="#define SERV_R_ARGS char *buf, int buflen"
SERV_R_BAD="#define SERV_R_BAD NULL"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"
SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS SERV_R_ARGS"
SERV_R_OK="#define SERV_R_OK spt"
SERV_R_SETANSWER="#undef SERV_R_SETANSWER"
SERV_R_RETURN="#define SERV_R_RETURN struct servent *"
]
,
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int
getservent_r (struct servent *, char *, size_t, struct servent **);
],[return (0);],
[
SERV_R_ARGS="#define SERV_R_ARGS char *buf, size_t buflen, struct servent **answep"
SERV_R_BAD="#define SERV_R_BAD ERANGE"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"
SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS char *buf, size_t buflen"
SERV_R_OK="#define SERV_R_OK (0)"
SERV_R_SETANSWER="#define SERV_R_SETANSWER 1"
SERV_R_RETURN="#define SERV_R_RETURN int"
]
,
)

```

```

)
,
SERV_R_ARGS="#define SERV_R_ARGS char *buf, int buflen"
SERV_R_BAD="#define SERV_R_BAD NULL"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"
SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS SERV_R_ARGS"
SERV_R_OK="#define SERV_R_OK sptr"
SERV_R_SETANSWER="#undef SERV_R_SETANSWER"
SERV_R_RETURN="#define SERV_R_RETURN struct servent *"
)
AC_SUBST(SERV_R_ARGS)
AC_SUBST(SERV_R_BAD)
AC_SUBST(SERV_R_COPY)
AC_SUBST(SERV_R_COPY_ARGS)
AC_SUBST(SERV_R_OK)
AC_SUBST(SERV_R_SETANSWER)
AC_SUBST(SERV_R_RETURN)

AC_CHECK_FUNC(endservent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void endservent_r(void);
]
,
,
[
SERV_R_END_RESULT="#define SERV_R_END_RESULT(x) /*empty*/"
SERV_R_END_RETURN="#define SERV_R_END_RETURN void "
SERV_R_ENT_ARGS="#undef SERV_R_ENT_ARGS /*empty*/"
]
,
)
,
SERV_R_END_RESULT="#define SERV_R_END_RESULT(x) /*empty*/"
SERV_R_END_RETURN="#define SERV_R_END_RETURN void "
SERV_R_ENT_ARGS="#undef SERV_R_ENT_ARGS /*empty*/"
)
AC_SUBST(SERV_R_END_RESULT)
AC_SUBST(SERV_R_END_RETURN)
AC_SUBST(SERV_R_ENT_ARGS)

AC_CHECK_FUNC(setservent_r,
AC_TRY_COMPILE(

```

```

[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setserver_r(int);
]
”
[
SERV_R_SET_RESULT="#undef SERV_R_SET_RESULT"
SERV_R_SET_RETURN="#define SERV_R_SET_RETURN void"
]
,
)
,
SERV_R_SET_RESULT="#undef SERV_R_SET_RESULT"
SERV_R_SET_RETURN="#define SERV_R_SET_RETURN void"
)
AC_SUBST(SERV_R_SET_RESULT)
AC_SUBST(SERV_R_SET_RETURN)

AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
int inetgr(const char *netgroup, const char *host, const char *user, const char *domain);
]
”
[
INNETGR_ARGS="#undef INNETGR_ARGS"
]
,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
int inetgr(char *netgroup, char *host, char *user, char *domain);
]
”

```

```

[
INNETGR_ARGS="#define INNETGR_ARGS char *netgroup, char *host, char *user, char *domain"
]
,
))

AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
void setnetgrent(const char *);
]
,
[
SETNETGRENT_ARGS="#undef SETNETGRENT_ARGS"
]
,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
void setnetgrent(char *);
]
,
[
SETNETGRENT_ARGS="#define SETNETGRENT_ARGS char *netgroup"
]
,
))
AC_SUBST(SETNETGRENT_ARGS)
AC_SUBST(INNETGR_ARGS)

#
Random remaining OS-specific issues involving compiler warnings.
XXXDCL print messages to indicate some compensation is being done?
#
AC_SUBST(ISC_PLATFORM_BRACEPTHREADONCEINIT)
ISC_PLATFORM_BRACEPTHREADONCEINIT="#undef ISC_PLATFORM_BRACEPTHREADONCEINIT"
BROKEN_IN6ADDR_INIT_MACROS="#undef BROKEN_IN6ADDR_INIT_MACROS"

```

```

case "$host" in
-bsd3.1)
hack_shutup_sputaux=yes
;;
-bsd4.0)
hack_shutup_sigwait=yes
hack_shutup_sputaux=yes
hack_shutup_in6addr_init_macros=yes
;;
-bsd4.1)
hack_shutup_stdargcast=yes
;;
*-solaris2.8)
hack_shutup_pthreadonceinit=yes
hack_shutup_in6addr_init_macros=yes
;;
esac

case "$hack_shutup_pthreadonceinit" in
yes)
#
Shut up PTHREAD_ONCE_INIT unbraced initializer warnings.
#
ISC_PLATFORM_BRACEPTHREADONCEINIT="#define ISC_PLATFORM_BRACEPTHREADONCEINIT 1"
;;
esac

case "$hack_shutup_sigwait" in
yes)
#
Shut up a -Wmissing-prototypes warning for sigwait().
#
AC_DEFINE(SHUTUP_SIGWAIT)
;;
esac

case "$hack_shutup_sputaux" in
yes)
#
Shut up a -Wmissing-prototypes warning from <stdio.h>.
#
AC_DEFINE(SHUTUP_SPUTAUX)
;;
esac

case "$hack_shutup_stdargcast" in
yes)
#

```

```

Shut up a -Wcast-qual warning from va_start().
#
AC_DEFINE(SHUTUP_STDARG_CAST)
;;
esac

case "$shack_shutup_in6addr_init_macros" in
yes)
AC_DEFINE(BROKEN_IN6ADDR_INIT_MACROS)
;;
esac

#
Substitutions
#
AC_SUBST(BIND9_TOP_BUILDDIR)
BIND9_TOP_BUILDDIR=`pwd`

AC_SUBST_FILE(BIND9_INCLUDES)
BIND9_INCLUDES=$BIND9_TOP_BUILDDIR/make/includes

AC_SUBST_FILE(BIND9_MAKE_RULES)
BIND9_MAKE_RULES=$BIND9_TOP_BUILDDIR/make/rules

. $srcdir/../../version
BIND9_VERSION="VERSION=${MAJORVER}.${MINORVER}.${PATCHVER}${RELEASETYPE}${RELEASEVER}"
AC_SUBST(BIND9_VERSION)

AC_SUBST_FILE(LIBBIND_API)
LIBBIND_API=$srcdir/api

AC_OUTPUT(
make/rules
make/mkdep
make/includes
Makefile
bsd/Makefile
dst/Makefile
include/Makefile
inet/Makefile
irs/Makefile
isc/Makefile
nameser/Makefile
port_after.h
port_before.h
resolv/Makefile
port/Makefile

```

```

${PORT_DIR}/Makefile
${PORT_INCLUDE}/Makefile
)

```

```
Tell Emacs to edit this file in shell mode.
```

```
Local Variables:
```

```
mode: sh
```

```
End:
```

```
Found in path(s):
```

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/configure.in
```

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```

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```

```
*/
```

```
/*
```

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*
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/symtab.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/lwinetpton.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/symtab.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/inet\_ntop.c

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\*/opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/nameser/ns\_samedomain.c

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.\"
.\" $Id: lwres_gnba.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
.\"
```

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\*/opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gnba.3

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/include/bind9/getaddresses.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/ntgroups.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/sterror.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccfg/include/isccfg/log.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/include/bind9/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/version.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/include/bind9/check.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccfg/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccfg/log.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/win32/version.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/platform.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/zonekey.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccfg/include/isccfg/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/include/lwres/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/solaris/include/sys/bitypes.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind9/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/sterror.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/win32/DLLMain.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/bind\_registry.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/sterror.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/ntpaths.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/syslog.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/version.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/ntgroups.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/bindevt.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/key.c

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*
* @(#)cdefs.h 8.7 (Berkeley) 1/21/94
*/
```

Found in path(s):

```
*/opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/port/qnx/include/sys/cdefs.h
*/opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/port/aux3/include/sys/cdefs.h
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.\" $Id: lwres_noop.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
.\"
```

Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/man/lwres_noop.3
```

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*/
/*
* Get the response to 'request' by filling in 'message'.
*
* 'options' is passed to dns_message_parse(). See dns_message_parse()
* for more details.
*
* Requires:
*
* 'request' is a valid request for which the caller has received the
* completion event.
*
* The result code of the completion event was ISC_R_SUCCESS.
*
*/
```

```
* Returns:
*
* ISC_R_SUCCESS
*
* Any result that dns_message_parse() can return.
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/request.h
```

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/dns\_ho.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/lcl\_ho.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/irp\_ho.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/irp\_nw.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/irp\_sv.c

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/\* \$Id: platform.h.in,v 1.1 2004/11/03 01:39:06 abstine Exp \$ \*/

```

#ifndef LWRES_PLATFORM_H
#define LWRES_PLATFORM_H 1

/*****
**** Platform-dependent defines.
****/

/**
** Network.
**/

/*
* Define if this system needs the <netinet/in6.h> header file for IPv6.
*/
@LWRES_PLATFORM_NEEDNETINETIN6H@

/*
* Define if this system needs the <netinet6/in6.h> header file for IPv6.
*/
@LWRES_PLATFORM_NEEDNETINET6IN6H@

/*
* If sockaddrs on this system have an sa_len field, LWRES_PLATFORM_HAVESALEN
* will be defined.
*/
@LWRES_PLATFORM_HAVESALEN@

/*
* If this system has the IPv6 structure definitions, LWRES_PLATFORM_HAVEIPV6
* will be defined.
*/
@LWRES_PLATFORM_HAVEIPV6@

/*
* If this system is missing in6addr_any, LWRES_PLATFORM_NEEDIN6ADDRANY will
* be defined.
*/
@LWRES_PLATFORM_NEEDIN6ADDRANY@

/*
* If this system is missing in6addr_loopback,
* LWRES_PLATFORM_NEEDIN6ADDRLOOPBACK will be defined.
*/
@LWRES_PLATFORM_NEEDIN6ADDRLOOPBACK@

/*
* If this system has in_addr6, rather than in6_addr,
* LWRES_PLATFORM_HAVEINADDR6 will be defined.

```

```

*/
@LWRES_PLATFORM_HAVEINADDR6@

/*
* Defined if unistd.h does not cause fd_set to be delared.
*/
@LWRES_PLATFORM_NEEDSYSSELECTH@

/*
* Used to control how extern data is linked; needed for Win32 platforms.
*/
@LWRES_PLATFORM_USEDECLSPEC@

/*
* Defined this system needs vsnprintf() and snprintf().
*/
@LWRES_PLATFORM_NEEDVSNPRINTF@

/*
* If this system need a modern sprintf() that returns (int) not (char*).
*/
@LWRES_PLATFORM_NEEDSPRINTF@

#ifndef LWRES_PLATFORM_USEDECLSPEC
#define LIBLWRES_EXTERNAL_DATA
#else
#ifdef LIBLWRES_EXPORTS
#define LIBLWRES_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBLWRES_EXTERNAL_DATA __declspec(dllimport)
#endif
#endif
#endif

#endif /* LWRES_PLATFORM_H */

```

Found in path(s):

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.\" \$Id: lwres\_getipnode.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

.\"

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/lib.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/base64.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/alist.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/symtype.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/cc.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/symtab.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/lib.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/base64.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/events.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/symtab.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/sexpr.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/alist.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/ccmsg.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/include/isccc/types.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isccc/sexpr.c

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 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/opensslrsa\_link.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/iscconf/parser.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/socket.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/msgs.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/validator.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/entropy.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/diff.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/byaddr.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/byaddr.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/hex.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/entropy.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/getrrset.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/memcluster.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/cygwin/include/ansi\_realloc.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/memcluster.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/bsd/utimes.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/heap.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/list.h

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.\" $Id: lwres_resutil.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
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```

/*
* eventlib.em
*
* Eventlib error message compiler input file
*
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*/

/*
* The file basename is the facility name, the name is made
* uppercase. This file defines facility EVENTLIB
*/
module {
 description "EVENTLIB system messages";
}

errmsg HISTSUMM {
 severity err;
 category software;
 cdets_component iosxe-binos-utils;

format "dispatch start: %llums elapsed time: %llums detected hog: %u set count: %u ";
 arg {
 "int" dispatch_time "event dispatch time";
 "int" elapsed_time "event elapsed time";
 "int" hog_detected "event hog detected";
 "int" set_count "event set count since dispatch"
 }
 explanation

```

```

 "Eventlib historical summary for detected hog.";

 action
 "This event summary is part of a CPUHOG or TIMEHOG error, "
 "providing diagnostic details useful to engineering. "
 "Save this summary message along with the HOG error. ";

 tac_details
 "Eventlib historical summary for detected hog.";
 }

errmsg HISTELEM {
 severity err;
 category software;
 cdets_component iosxe-binos-utils;

format "elem[%u] event: %s %s set: %llums unset: %llums hog check: %d caller: %p app-info: %s";

 arg {
 "int" set_count "element set count";
 "char *" position_string "event call type";
 "char *" position_string "event condition";
 "int" set_time "element set time";
 "int" unset_time "element unset time";
 "int" hog_check "element hog check result";
 "int" caller "caller builtin return address";
 "char *" any_string "element callback render buffer";
 }
 explanation
 "Eventlib historical element for detected hog.";

 action
 "This event element is part of a CPUHOG or TIMEHOG error, "
 "providing diagnostic details useful to engineering. "
 "Save all element messages along with the HOG error. ";

 tac_details
 "Eventlib historical element for detected hog.";
 }

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* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/ipv6.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/sec/dst/gssapi_link.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/fsaccess.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/errno2result.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/threads/mutex.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/unix/errno2result.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/file.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/sec/dst/include/dst/dst.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/lwres_gnba.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/request.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/os.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/entropy.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/cfg/include/isc/cfg/cfg.h
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.\"
.\" The following six UNCOMMENTED lines are required.
.\"Os OPERATING_SYSTEM [version/release]
.\"Dt DOCUMENT_TITLE [section number] [volume]
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh FILES
.\" .Sh EXAMPLES
.\" This next request is for sections 1, 6, 7 & 8 only
.\" (command return values (to shell) and
.\" fprintf/stderr type diagnostics)
.\" .Sh DIAGNOSTICS
.\" The next request is for sections 2 and 3 error
.\" and signal handling only.
.\" .Sh STANDARDS
.\" .Sh HISTORY
.\" .Sh BUGS
```

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```
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```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/nameser/ns_verify.c
```

```
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/result.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/gen.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/task.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/sockaddr.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/types.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/name.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/name.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rcode.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/time.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rdata.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/socket.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata.c

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Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/keyflags.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/ipv6.c

- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/nls/msgcat.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/nsap-ptr\_23.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/serial.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rcode.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/rdatastructpre.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/netdb.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/tests/include/tests/t\_api.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/kx\_36.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/dbtable.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rp\_17.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rbtdb64.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rp\_17.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rbtdb64.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/include/dst/lib.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/dbtable.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/lib.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/a6\_38.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/nsap-ptr\_23.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rdatasetiter.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/dname\_39.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/syslog.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/dname\_39.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/cert.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/app.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/any\_255/tsig\_250.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/lfsr.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/gpos\_27.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/mutexblock.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/msgcat.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/secproto.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/lib.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/time.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/commandline.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rbtdb.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/dir.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/stdtime.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/loc\_29.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/dst\_result.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/callbacks.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/tcpmsg.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/resultclass.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/serial.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/once.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/dir.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/rdatalist.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/dbiterator.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/nsap\_22.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/wks\_11.h

- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/ttl.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/taskpool.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/app.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/ipv6.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/px\_26.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rt\_21.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/compress.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/netdb.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/bufferlist.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/stdtime.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/dst\_lib.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/bitstring.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/cache.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/unspec\_103.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/taskpool.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/cert\_37.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/stdtime.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/dir.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/dbiterator.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/key\_25.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/threads/include/isc/once.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/tcpmsg.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/include/lwres/lwpacket.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/dir.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/in\_1/naptr\_35.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/interfaceiter.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/secalg.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/gen-unix.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/int.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/mutexblock.h
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- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/include/isc/syslog.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/lib.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/once.c
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- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/tkey.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/isdn\_20.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdatasetiter.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/bitstring.c
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/afbdb\_18.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/sig\_24.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/ttl.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/journal.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/include/dst/result.h
- \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/base64.h

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/rootns.h
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* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/win32/stdtime.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/random.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/hs_4/a_1.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/fixname.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/generic/x25_19.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/interfaceiter.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/lang.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/lib.h
```

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```
.\" $Id: logging.mdoc,v 1.1 2004/11/03 01:39:04 abstine Exp $
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.\"
.\" The following six UNCOMMENTED lines are required.
.\"Os OPERATING_SYSTEM [version/release]
.\"Dt DOCUMENT_TITLE [section number] [volume]
.\" The following requests should be uncommented and
.\" used where appropriate. This next request is
.\" for sections 2 and 3 function return values only.
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh EXAMPLES
.\" This next request is for sections 1, 6, 7 & 8 only
.\" (command return values (to shell) and
.\" fprintf/stderr type diagnostics)
.\" .Sh DIAGNOSTICS
.\" The next request is for sections 2 and 3 error
.\" and signal handling only.
.\" .Sh STANDARDS
.\" .Sh HISTORY
.\" .Sh BUGS
```

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/logging.mdoc

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/lookup.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/include/isc/stat.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sdb.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/peer.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/ssu.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/string.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/context.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/threads/thread.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/ssu.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/peer.h

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<!DOCTYPE refentry PUBLIC "-//OASIS//DTD DocBook V4.1//EN">

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-->

<!-- \$Id: lwres\_getipnode.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_getipnode</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_getipnodebyname</refname>

<refname>lwres\_getipnodebyaddr</refname>

<refname>lwres\_freehostent</refname>

<refpurpose>lightweight resolver nodename / address translation API</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_getipnodebyname</function></funcdef>

<paramdef>const char \*name</paramdef>

<paramdef>int af</paramdef>

<paramdef>int flags</paramdef>

<paramdef>int \*error\_num</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_getipnodebyaddr</function></funcdef>

<paramdef>const void \*src</paramdef>

<paramdef>size\_t len</paramdef>

<paramdef>int af</paramdef>

<paramdef>int \*error\_num</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

void

```
<function>lwres_freehostent</function></funcdef>
<paramdef>struct hostent *he</paramdef>
</funcprototype>
</functsynopsis>
</refsynopsisdiv>
```

```
<refsect1>
<title>DESCRIPTION</title>
```

```
<para>
These functions perform thread safe, protocol independent
nodename-to-address and address-to-nodename
translation as defined in RFC2553.
</para>
```

```
<para>
They use a
<type>struct hostent</type>
which is defined in
<filename>namedb.h</filename>:
<programlisting>
struct hostent {
 char *h_name; /* official name of host */
 char **h_aliases; /* alias list */
 int h_addrtype; /* host address type */
 int h_length; /* length of address */
 char **h_addr_list; /* list of addresses from name server */
};
#define h_addr h_addr_list[0] /* address, for backward compatibility */
</programlisting>
</para>
```

```
<para>
The members of this structure are:
<variablelist>
<varlistentry><term><constant>h_name</constant></term>
<listitem>
```

```
<para>
The official (canonical) name of the host.
</para>
```

```
</listitem></varlistentry>
<varlistentry><term><constant>h_aliases</constant></term>
<listitem>
```

```
<para>
A NULL-terminated array of alternate names (nicknames) for the host.
</para>
```

```
</listitem></varlistentry>
<varlistentry><term><constant>h_addrtype</constant></term>
```

<listitem>

<para>

The type of address being returned - usually

<type>PF\_INET</type>

or

<type>PF\_INET6</type>.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>h\_length</constant></term>

<listitem>

<para>

The length of the address in bytes.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>h\_addr\_list</constant></term>

<listitem>

<para>

A

<type>NULL</type>

terminated array of network addresses for the host.

Host addresses are returned in network byte order.

</para>

</listitem></varlistentry>

</variablelist>

</para>

<para>

<function>lwres\_getipnodebyname()</function>

looks up addresses of protocol family

<parameter>af</parameter>

for the hostname

<parameter>name</parameter>.

The

<parameter>flags</parameter>

parameter contains ORed flag bits to

specify the types of addresses that are searched

for, and the types of addresses that are returned.

The flag bits are:

<variablelist>

<varlistentry><term><constant>AI\_V4MAPPED</constant></term>

<listitem>

<para>

This is used with an

<parameter>af</parameter>

of AF\_INET6, and causes IPv4 addresses to be returned as IPv4-mapped

IPv6 addresses.

</para>  
</listitem></varlistentry>  
<varlistentry><term><constant>AI\_ALL</constant></term>  
<listitem>  
<para>  
This is used with an  
<parameter>af</parameter>  
of AF\_INET6, and causes all known addresses (IPv6 and IPv4) to be returned.  
If AI\_V4MAPPED is also set, the IPv4 addresses are return as mapped  
IPv6 addresses.

</para>  
</listitem></varlistentry>  
<varlistentry><term><constant>AI\_ADDRCONFIG</constant></term>  
<listitem>  
<para>  
Only return an IPv6 or IPv4 address if here is an active network  
interface of that type. This is not currently implemented  
in the BIND 9 lightweight resolver, and the flag is ignored.

</para>  
</listitem></varlistentry>  
<varlistentry><term><constant>AI\_DEFAULT</constant></term>  
<listitem>  
<para>  
This default sets the  
<constant>AI\_V4MAPPED</constant>  
and  
<constant>AI\_ADDRCONFIG</constant>  
flag bits.

</para>  
</listitem></varlistentry>  
</variablelist>  
</para>  
<para>  
<function>lwres\_getipnodebyaddr()</function>  
performs a reverse lookup  
of address  
<parameter>src</parameter>  
which is  
<parameter>len</parameter>  
bytes long.  
<parameter>af</parameter>  
denotes the protocol family, typically  
<type>PF\_INET</type>  
or  
<type>PF\_INET6</type>.

</para>  
<para>

<function>lwres\_freehostent()</function>

releases all the memory associated with

the

<type>struct hostent</type>

pointer

<parameter>he</parameter>.

Any memory allocated for the

<constant>h\_name</constant>,

<constant>h\_addr\_list</constant>

and

<constant>h\_aliases</constant>

is freed, as is the memory for the

<type>hostent</type>

structure itself.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

If an error occurs,

<function>lwres\_getipnodebyname()</function>

and

<function>lwres\_getipnodebyaddr()</function>

set

<parameter>\*error\_num</parameter>

to an appropriate error code and the function returns a

<type>NULL</type>

pointer.

The error codes and their meanings are defined in

<filename>&lt;lwres/netdb.h&gt;</filename>:

<variablelist>

<varlistentry><term><constant>HOST\_NOT\_FOUND</constant></term>

<listitem>

<para>

No such host is known.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>NO\_ADDRESS</constant></term>

<listitem>

<para>

The server recognised the request and the name but no address is

available. Another type of request to the name server for the

domain might return an answer.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>TRY\_AGAIN</constant></term>

```

<listitem>
<para>
A temporary and possibly transient error occurred, such as a
failure of a server to respond. The request may succeed if
retried.
</para>
</listitem></varlistentry>
<varlistentry><term><constant>NO_RECOVERY</constant></term>
<listitem>
<para>
An unexpected failure occurred, and retrying the request
is pointless.
</para>
</listitem></varlistentry>
</variablelist>
</para>
<para>
<citerefentry>
<refentrytitle>lwres_hsterror</refentrytitle><manvolnum>3
</manvolnum>
</citerefentry>
translates these error codes to suitable error messages.
</para>
</refsect1>
<refsect1>
<title>SEE ALSO</title>
<para>
<citerefentry>
<refentrytitle>RFC2553</refentrytitle>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_gethostent</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_getaddrinfo</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_getnameinfo</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>

```

<refentrytitle>lwres\_hsterror</refentrytitle><manvolnum>3</manvolnum>  
</citerefentry>.  
</para>  
</refsect1>  
</refentry>

Found in path(s):

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.\"  
.\" \$Id: lwres\_inetntop.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/openssldsa\_link.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/dst\_parse.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/sec/dst/hmac\_link.c

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<!-- \$Id: lwres\_resutil.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_resutil</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_string\_parse</refname>

<refname>lwres\_addr\_parse</refname>

<refname>lwres\_getaddrsbyname</refname>

<refname>lwres\_getnamebyaddr</refname>

<refpurpose>lightweight resolver utility functions</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include &lt;lwres/lwres.h&gt;</funcsynopsisinfo>

<funcprototype>

<funcdef>

lwres\_result\_t

<function>lwres\_string\_parse</function></funcdef>

<paramdef>lwres\_buffer\_t \*b</paramdef>

<paramdef>char \*\*c</paramdef>

<paramdef>lwres\_uint16\_t \*len</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

lwres\_result\_t

<function>lwres\_addr\_parse</function></funcdef>

<paramdef>lwres\_buffer\_t \*b</paramdef>

<paramdef>lwres\_addr\_t \*addr</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

lwres\_result\_t

```

<function>lwres_getaddrbyname</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>const char *name</paramdef>
<paramdef>lwres_uint32_t addrtypes</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_getnamebyaddr</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_uint32_t addrtype</paramdef>
<paramdef>lwres_uint16_t addrlen</paramdef>
<paramdef>const unsigned char *addr</paramdef>
<paramdef>lwres_gnbaresponse_t **structp</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>

```

```

<refsect1>
<title>DESCRIPTION</title>

```

```

<para>
<function>lwres_string_parse()</function> retrieves a DNS-encoded
string starting the current pointer of lightweight resolver buffer
<parameter>b</parameter>: i.e. <constant>b->current</constant>.
When the function returns, the address of the first byte of the
encoded string is returned via <parameter>*c</parameter> and the
length of that string is given by <parameter>*len</parameter>. The
buffer's current pointer is advanced to point at the character
following the string length, the encoded string, and the trailing
<type>NULL</type> character.
</para>

```

```

<para>
<function>lwres_addr_parse()</function> extracts an address from the
buffer <parameter>b</parameter>. The buffer's current pointer
<constant>b->current</constant> is presumed to point at an encoded
address: the address preceded by a 32-bit protocol family identifier
and a 16-bit length field. The encoded address is copied to
<constant>addr->address</constant> and
<constant>addr->length</constant> indicates the size in bytes of
the address that was copied. <constant>b->current</constant> is
advanced to point at the next byte of available data in the buffer
following the encoded address.
</para>

```

```

<para>

```

<function>lwres\_getaddrbyname()</function>

and

<function>lwres\_getnamebyaddr()</function>

use the

<type>lwres\_gnbaresponse\_t</type>

structure defined below:

<programlisting>

```
typedef struct {
 lwres_uint32_t flags;
 lwres_uint16_t naliases;
 lwres_uint16_t naddrs;
 char *realname;
 char **aliases;
 lwres_uint16_t realnamelen;
 lwres_uint16_t *aliaslen;
 lwres_addrlist_t addrs;
 void *base;
 size_t baselen;
} lwres_gabnresponse_t;
```

</programlisting>

The contents of this structure are not manipulated directly but they are controlled through the

<citerefentry>

<refentrytitle>lwres\_gabn</refentrytitle><manvolnum>3

</manvolnum>

</citerefentry>

functions.

</para>

<para>

The lightweight resolver uses

<function>lwres\_getaddrbyname()</function> to perform forward lookups.

Hostname <parameter>name</parameter> is looked up using the resolver context <parameter>ctx</parameter> for memory allocation.

<parameter>addrtypes</parameter> is a bitmask indicating which type of addresses are to be looked up. Current values for this bitmask are

<type>LWRES\_ADDRTYPE\_V4</type> for IPv4 addresses and

<type>LWRES\_ADDRTYPE\_V6</type> for IPv6 addresses. Results of the

lookup are returned in <parameter>\*structp</parameter>.

</para>

<para>

<function>lwres\_getnamebyaddr()</function> performs reverse lookups.

Resolver context <parameter>ctx</parameter> is used for memory allocation. The address type is indicated by

<parameter>addrtype</parameter>: <type>LWRES\_ADDRTYPE\_V4</type> or

<type>LWRES\_ADDRTYPE\_V6</type>. The address to be looked up is given

by <parameter>addr</parameter> and its length is

<parameter>addrlen</parameter> bytes. The result of the function call is made available through <parameter>\*structp</parameter>.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

Successful calls to

<function>lwres\_string\_parse()</function>

and

<function>lwres\_addr\_parse()</function>

return

<errorcode>LWRES\_R\_SUCCESS.</errorcode>

Both functions return

<errorcode>LWRES\_R\_FAILURE</errorcode>

if the buffer is corrupt or

<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>

if the buffer has less space than expected for the components of the encoded string or address.

</para>

<para>

<function>lwres\_getaddrbyname()</function>

returns

<errorcode>LWRES\_R\_SUCCESS</errorcode>

on success and it returns

<errorcode>LWRES\_R\_NOTFOUND</errorcode>

if the hostname

<parameter>name</parameter>

could not be found.

</para>

<para>

<errorcode>LWRES\_R\_SUCCESS</errorcode>

is returned by a successful call to

<function>lwres\_getnamebyaddr()</function>.

</para>

<para>

Both

<function>lwres\_getaddrbyname()</function>

and

<function>lwres\_getnamebyaddr()</function>

return

<errorcode>LWRES\_R\_NOMEMORY</errorcode>

when memory allocation requests fail and

<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>

if the buffers used for sending queries and receiving replies are too small.

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>

<citerefentry>

<refentrytitle>lwres\_buffer</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>,</refsect1>

<citerefentry>

<refentrytitle>lwres\_gabn</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>.</refsect1>

</para>

</refsect1>

</refentry>

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\* msg\_eventlib.c - Error messages for evlib

\*

\* January 2007, Vikram Visweswaraiah

\*

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/getnetent\_r.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/getpwent\_r.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/gethostent\_r.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/getservent\_r.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/getnetgrent\_r.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/darwin/include/sys/bitypes.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/rhapsody/include/sys/bitypes.h

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\* eventlib definitions specific to binos

\*

\* January 2007, Vikram Visweswaraiah

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.\" \$Id: lwres\_config.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

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\* This code implements the MD5 message-digest algorithm.  
\* The algorithm is due to Ron Rivest. This code was  
\* written by Colin Plumb in 1993, no copyright is claimed.  
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\* Equivalent code is available from RSA Data Security, Inc.  
\* This code has been tested against that, and is equivalent,  
\* except that you don't need to include two pages of legalese  
\* with every copy.

\*

\* To compute the message digest of a chunk of bytes, declare an  
\* MD5Context structure, pass it to MD5Init, call MD5Update as  
\* needed on buffers full of bytes, and then call MD5Final, which  
\* will fill a supplied 16-byte array with the digest.

\*/

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/lynxos/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/sco42/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/cygwin/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/next/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/aix32/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/mpe/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/aix4/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/hpux/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/unixware20/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/solaris/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/hpux9/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/sunos/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/unixware212/include/sys/cdefs.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/irix/include/sys/cdefs.h

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<!-- \$Id: lwres\_getaddrinfo.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_getaddrinfo</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_getaddrinfo</refname>

<refname>lwres\_freeaddrinfo</refname>

<refpurpose>socket address structure to host and service name</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>

<funcprototype>

<funcdef>

int

<function>lwres\_getaddrinfo</function></funcdef>

<paramdef>const char \*hostname</paramdef>

<paramdef>const char \*servname</paramdef>

<paramdef>const struct addrinfo \*hints</paramdef>

<paramdef>struct addrinfo \*\*res</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

void

<function>lwres\_freeaddrinfo</function></funcdef>

<paramdef>struct addrinfo \*ai</paramdef>

</funcprototype>

</funcsynopsis>

<para>

If the operating system does not provide a

<type>struct addrinfo</type>,

the following structure is used:

<programlisting>

```
struct addrinfo {
```

```
 int ai_flags; /* AI_PASSIVE, AI_CANONNAME */
```

```

int ai_family; /* PF_xxx */
int ai_socktype; /* SOCK_xxx */
int ai_protocol; /* 0 or IPPROTO_xxx for IPv4 and IPv6 */
size_t ai_addrlen; /* length of ai_addr */
char *ai_canonname; /* canonical name for hostname */
struct sockaddr *ai_addr; /* binary address */
struct addrinfo *ai_next; /* next structure in linked list */
};

```

</programlisting>

</para>

</refsynopsisdiv>

<refsect1>

<title>DESCRIPTION</title>

<para>

<function>lwres\_getaddrinfo()</function>

is used to get a list of IP addresses and port numbers for host

<parameter>hostname</parameter>

and service

<parameter>servname</parameter>.

The function is the lightweight resolver's implementation of

<function>getaddrinfo()</function>

as defined in RFC2133.

<parameter>hostname</parameter>

and

<parameter>servname</parameter>

are pointers to null-terminated

strings or

<type>NULL</type>.

<parameter>hostname</parameter>

is either a host name or a numeric host address string: a dotted decimal IPv4 address or an IPv6 address.

<parameter>servname</parameter>

is either a decimal port number or a service name as listed in

<filename>/etc/services</filename>.

</para>

<para>

<parameter>hints</parameter>

is an optional pointer to a

<type>struct addrinfo</type>.

This structure can be used to provide hints concerning the type of socket that the caller supports or wishes to use.

The caller can supply the following structure elements in

<parameter>\*hints</parameter>:

<variablelist>

<varlistentry><term><constant>ai\_family</constant></term>

<listitem>

<para>The protocol family that should be used.

When

<constant>ai\_family</constant>

is set to

<type>PF\_UNSPEC</type>,

it means the caller will accept any protocol family supported by the operating system.

</para></listitem></varlistentry>

<varlistentry><term><constant>ai\_socktype</constant></term>

<listitem>

<para>

denotes the type of socket &mdash;

<type>SOCK\_STREAM</type>,

<type>SOCK\_DGRAM</type>

or

<type>SOCK\_RAW</type>

&mdash; that is wanted.

When

<constant>ai\_socktype</constant>

is zero the caller will accept any socket type.

</para>

</listitem>

</varlistentry>

<varlistentry><term><constant>ai\_protocol</constant></term>

<listitem>

<para>

indicates which transport protocol is wanted: IPPROTO\_UDP or IPPROTO\_TCP.

If

<constant>ai\_protocol</constant>

is zero the caller will accept any protocol.

</para>

</listitem>

</varlistentry>

<varlistentry><term><constant>ai\_flags</constant></term>

<listitem>

<para>

Flag bits.

If the

<type>AI\_CANONNAME</type>

bit is set, a successful call to

<function>lwres\_getaddrinfo()</function>

will return a null-terminated string containing the canonical name of the specified hostname in

<constant>ai\_canonname</constant>

of the first

<type>addrinfo</type>

structure returned.

Setting the

<type>AI\_PASSIVE</type>

bit indicates that the returned socket address structure is intended for used in a call to

<citrefentry>

<refentrytitle>bind</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>.

In this case, if the hostname argument is a

<type>NULL</type>

pointer, then the IP address portion of the socket

address structure will be set to

<type>INADDR\_ANY</type>

for an IPv4 address or

<type>IN6ADDR\_ANY\_INIT</type>

for an IPv6 address.

</para>

<para>

When

<constant>ai\_flags</constant>

does not set the

<type>AI\_PASSIVE</type>

bit, the returned socket address structure will be ready

for use in a call to

<citrefentry>

<refentrytitle>connect</refentrytitle><manvolnum>2

</manvolnum>

</citrefentry>

for a connection-oriented protocol or

<citrefentry>

<refentrytitle>connect</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>sendto</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>,

or

<citrefentry>

<refentrytitle>sendmsg</refentrytitle><manvolnum>2

</manvolnum>

</citrefentry>

if a connectionless protocol was chosen.

The IP address portion of the socket address structure will be

set to the loopback address if

<parameter>hostname</parameter>

is a

<type>NULL</type>

pointer and

<type>AI\_PASSIVE</type>

is not set in

<constant>ai\_flags</constant>.

</para>

<para>

If

<constant>ai\_flags</constant>

is set to

<type>AI\_NUMERICHOST</type>

it indicates that

<parameter>hostname</parameter>

should be treated as a numeric string defining an IPv4 or IPv6 address and no name resolution should be attempted.

</para>

</listitem>

</varlistentry>

</variablelist>

</para>

<para>

All other elements of the <type>struct addrinfo</type> passed via <parameter>hints</parameter> must be zero.

</para>

<para>

A <parameter>hints</parameter> of <type>NULL</type> is treated as if the caller provided a <type>struct addrinfo</type> initialized to zero with <constant>ai\_family</constant> set to <constant>PF\_UNSPEC</constant>.

</para>

<para>

After a successful call to

<function>lwres\_getaddrinfo()</function>,

<parameter>\*res</parameter>

is a pointer to a linked list of one or more

<type>addrinfo</type>

structures.

Each

<type>struct addrinfo</type>

in this list can be processed by following

the

<constant>ai\_next</constant>



pointer, until a  
<type>NULL</type>  
pointer is encountered.  
The three members  
<constant>ai\_family</constant>,  
<constant>ai\_socktype</constant>,  
and  
<constant>ai\_protocol</constant>  
in each  
returned  
<type>addrinfo</type>  
structure contain the corresponding arguments for a call to  
<citrefentry>  
<refentrytitle>socket</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>.  
For each  
<type>addrinfo</type>  
structure in the list, the  
<constant>ai\_addr</constant>  
member points to a filled-in socket address structure of length  
<constant>ai\_addrlen</constant>.  
</para>

<para>  
All of the information returned by  
<function>lwres\_getaddrinfo()</function>  
is dynamically allocated: the addrinfo structures, and the socket  
address structures and canonical host name strings pointed to by the  
<constant>addrinfo</constant>structures.  
Memory allocated for the dynamically allocated structures created by  
a successful call to  
<function>lwres\_getaddrinfo()</function>  
is released by  
<function>lwres\_freeaddrinfo()</function>.  
<parameter>ai</parameter>  
is a pointer to a  
<type>struct addrinfo</type>  
created by a call to  
<function>lwres\_getaddrinfo()</function>.  
</para>

</refsect1>

<refsect1>  
<title>RETURN VALUES</title>  
<para>  
<function>lwres\_getaddrinfo()</function>  
returns zero on success or one of the error codes listed in

<citrefentry>  
<refentrytitle>gai\_strerror</refentrytitle><manvolnum>3  
</manvolnum>  
</citrefentry>

if an error occurs.

If both

<parameter>hostname</parameter>

and

<parameter>servname</parameter>

are

<type>NULL</type>

<function>lwres\_getaddrinfo()</function>

returns

<errorcode>EAI\_NONAME</errorcode>.

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>

<citrefentry>

<refentrytitle>lwres</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>lwres\_getaddrinfo</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>lwres\_freeaddrinfo</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>lwres\_gai\_strerror</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>RFC2133</refentrytitle>

</citrefentry>,

<citrefentry>

<refentrytitle>getservbyname</refentrytitle><manvolnum>3</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>bind</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>,

```
<citrefentry>
<refentrytitle>connect</refentrytitle><manvolnum>2</manvolnum>
</citrefentry>,>
```

```
<citrefentry>
<refentrytitle>sendto</refentrytitle><manvolnum>2</manvolnum>
</citrefentry>,>
```

```
<citrefentry>
<refentrytitle>sendmsg</refentrytitle><manvolnum>2</manvolnum>
</citrefentry>,>
```

```
<citrefentry>
<refentrytitle>socket</refentrytitle><manvolnum>2</manvolnum>
</citrefentry>.
</para>
```

```
</refsect1>
</refentry>
```

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\*

\* BINOS specific changes to associate memcluster with an evctx

\*

\* March 2014, Aswin Kuppusami

\*/

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/memcluster\_p.h

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/isc/memcluster\_binoss.c

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_net\_pton.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_pton.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/getnetent.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/inet/inet\_net\_ntop.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/dns\_pw.c  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/gen\_pw.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/nis\_p.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/util.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/mpe/include/sys/bitypes.h  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/hpux/include/sys/bitypes.h  
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; \$Id: bindevt.mc.v 1.1 2004/11/03 01:39:06 abstine Exp \$

MessageIdTypedef=DWORD

LanguageNames = (English=0x409:MSG00409)

OutputBase = 16

MessageId=0x1

Severity=Error



Facility=Application  
SymbolicName=BIND\_ERR\_MSG  
Language=English  
% 1  
.

MessageId=0x2  
Severity=Warning  
Facility=Application  
SymbolicName=BIND\_WARN\_MSG  
Language=English  
% 1  
.

MessageId=0x3  
Severity=Informational  
Facility=Application  
SymbolicName=BIND\_INFO\_MSG  
Language=English  
% 1  
.

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/win32/bindevt/bindevt.mc

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Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/lcl\_pr.c

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/irs/lcl\_pw.c

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Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/print.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/print.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/string.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/nsec.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/list.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/in_1/px_26.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/tkey.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rt_21.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/generic/tkey_249.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/in_1/kx_36.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/log.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/print_p.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/generic/afsd_b_18.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/db.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/log.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/print.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/xfrin.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/resolver.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/include/dns/keyvalues.h
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/in_1/naptr_35.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/nsec.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/dns/rdata/in_1/srv_33.c
```

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\*/

/\* \$Id: platform.h.in,v 1.1 2004/11/03 01:39:05 abstine Exp \$ \*/

#ifndef ISC\_PLATFORM\_H

#define ISC\_PLATFORM\_H 1

```
/*
**** Platform-dependent defines.
****/

/**
** Network.
**/

/*
* Define if this system needs the <netinet/in6.h> header file included
* for full IPv6 support (pretty much only UnixWare).
*/
@ISC_PLATFORM_NEEDNETINETIN6H@

/*
* Define if this system needs the <netinet6/in6.h> header file included
* to support in6_pkinfo (pretty much only BSD/OS).
*/
@ISC_PLATFORM_NEEDNETINET6IN6H@

/*
* If sockaddrs on this system have an sa_len field, ISC_PLATFORM_HAVESALEN
* will be defined.
*/
@ISC_PLATFORM_HAVESALEN@

/*
* If this system has the IPv6 structure definitions, ISC_PLATFORM_HAVEIPV6
* will be defined.
*/
@ISC_PLATFORM_HAVEIPV6@

/*
* If this system is missing in6addr_any, ISC_PLATFORM_NEEDIN6ADDRANY will
* be defined.
*/
@ISC_PLATFORM_NEEDIN6ADDRANY@

/*
* If this system is missing in6addr_loopback, ISC_PLATFORM_NEEDIN6ADDRLOOPBACK
* will be defined.
*/
@ISC_PLATFORM_NEEDIN6ADDRLOOPBACK@

/*
* If this system has in6_pktinfo, ISC_PLATFORM_HAVEIN6PKTINFO will be
* defined.
*/
```

@ISC\_PLATFORM\_HAVEIN6PKTINFO@

/\*

\* If this system has in\_addr6, rather than in6\_addr, ISC\_PLATFORM\_HAVEINADDR6  
\* will be defined.

\*/

@ISC\_PLATFORM\_HAVEINADDR6@

/\*

\* If this system has sin6\_scope\_id, ISC\_PLATFORM\_HAVESCOPEID will be defined.

\*/

@ISC\_PLATFORM\_HAVESCOPEID@

/\*

\* If this system needs inet\_ntop(), ISC\_PLATFORM\_NEEDNTOP will be defined.

\*/

@ISC\_PLATFORM\_NEEDNTOP@

/\*

\* If this system needs inet\_pton(), ISC\_PLATFORM\_NEEDPTON will be defined.

\*/

@ISC\_PLATFORM\_NEEDPTON@

/\*

\* If this system needs inet\_aton(), ISC\_PLATFORM\_NEEDATON will be defined.

\*/

@ISC\_PLATFORM\_NEEDATON@

/\*

\* If this system needs in\_port\_t, ISC\_PLATFORM\_NEEDPORTT will be defined.

\*/

@ISC\_PLATFORM\_NEEDPORTT@

/\*

\* If the system needs strsep(), ISC\_PLATFORM\_NEEDSTRSEP will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRSEP@

/\*

\* If the system needs strlcpy(), ISC\_PLATFORM\_NEEDSTRLCOPY will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRLCOPY@

/\*

\* If the system needs strlcat(), ISC\_PLATFORM\_NEEDSTRLCAT will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRLCAT@

```

/*
 * Define either ISC_PLATFORM_BSD44MSGHDR or ISC_PLATFORM_BSD43MSGHDR.
 */
@ISC_PLATFORM_MSGHDRFLAVOR@

/*
 * Define if PTHREAD_ONCE_INIT should be surrounded by braces to
 * prevent compiler warnings (such as with gcc on Solaris 2.8).
 */
@ISC_PLATFORM_BRACEPTHREADONCEINIT@

/*
 * Define on some UnixWare systems to fix erroneous definitions of various
 * IN6_IS_ADDR_* macros.
 */
@ISC_PLATFORM_FIXIN6ISADDR@

/**
 *** Printing.
 ***/

/*
 * If this system needs vsnprintf() and snprintf(), ISC_PLATFORM_NEEDVSNPRINTF
 * will be defined.
 */
@ISC_PLATFORM_NEEDVSNPRINTF@

/*
 * If this system need a modern sprintf() that returns (int) not (char*).
 */
@ISC_PLATFORM_NEEDSPRINTF@

/*
 * The printf format string modifier to use with isc_uint64_t values.
 */
@ISC_PLATFORM_QUADFORMAT@

/*
 * Defined if we are using threads.
 */
@ISC_PLATFORM_USETHREADS@

/*
 * Defined if unistd.h does not cause fd_set to be delared.
 */
@ISC_PLATFORM_NEEDSYSSELECTH@

/*

```

```

* Type used for resource limits.
*/
@ISC_PLATFORM_RLIMITTYPE@

/*
* Define if your compiler supports "long long int".
*/
@ISC_PLATFORM_HAVELONGLONG@

/*
* Define if the system has struct lifconf which is a extended struct ifconf
* for IPv6.
*/
@ISC_PLATFORM_HAVELIFCONF@

/*
* Define if the system has struct if_laddrconf which is a extended struct
* ifconf for IPv6.
*/
@ISC_PLATFORM_HAVEIF_LADDRCONF@

/*
* Define if the system has struct if_laddrreq.
*/
@ISC_PLATFORM_HAVEIF_LADDRREQ@

/*
* Used to control how extern data is linked; needed for Win32 platforms.
*/
@ISC_PLATFORM_USEDECLSPEC@

/*
* Define if the system supports if_nametoindex.
*/
@ISC_PLATFORM_HAVEIFNAMETOINDEX@

/*
* Define if this system needs strtoul.
*/
@ISC_PLATFORM_NEEDSTRTOUL@

/*
* Define if this system needs memmove.
*/
@ISC_PLATFORM_NEEDMEMMOVE@

#ifndef ISC_PLATFORM_USEDECLSPEC
#define LIBISC_EXTERNAL_DATA

```

```

#define LIBDNS_EXTERNAL_DATA
#define LIBISCCC_EXTERNAL_DATA
#define LIBISCCFG_EXTERNAL_DATA
#define LIBBIND9_EXTERNAL_DATA
#else /* ISC_PLATFORM_USEDECLSPEC */
#ifdef LIBISC_EXPORTS
#define LIBISC_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISC_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBDNS_EXPORTS
#define LIBDNS_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBDNS_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBISCCC_EXPORTS
#define LIBISCCC_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISCCC_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBISCCFG_EXPORTS
#define LIBISCCFG_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISCCFG_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBBIND9_EXPORTS
#define LIBBIND9_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBBIND9_EXTERNAL_DATA __declspec(dllimport)
#endif
#endif /* ISC_PLATFORM_USEDECLSPEC */

/*
 * Tell emacs to use C mode for this file.
 *
 * Local Variables:
 * mode: c
 * End:
 */

#endif /* ISC_PLATFORM_H */

Found in path(s):
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/platform.h.in
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```

```
$Id: includes.in,v 1.1 2004/11/03 01:39:04 abstine Exp $
```

```
Search for machine-generated header files in the build tree,
and for normal headers in the source tree (${top_srcdir}).
We only need to look in OS-specific subdirectories for the
latter case, because there are no machine-generated OS-specific
headers.
```

```
ISC_INCLUDES = @BIND9_ISC_BUILDINCLUDE@ \
-I${top_srcdir}/lib/isc \
-I${top_srcdir}/lib/isc/include \
-I${top_srcdir}/lib/isc/unix/include \
-I${top_srcdir}/lib/isc/@ISC_THREAD_DIR@/include
```

```
ISCCFG_INCLUDES = @BIND9_ISCCFG_BUILDINCLUDE@ \
-I${top_srcdir}/lib/isccfg/include
```

```
DNS_INCLUDES = @BIND9_DNS_BUILDINCLUDE@ \
-I${top_srcdir}/lib/dns/include \
-I${top_srcdir}/lib/dns/sec/dst/include
```

```
OMAPI_INCLUDES = @BIND9_OMAPI_BUILDINCLUDE@ \
-I${top_srcdir}/lib/omapi/include
```

```
LWRES_INCLUDES = @BIND9_LWRES_BUILDINCLUDE@ \
-I${top_srcdir}/lib/lwres/include
```

```
TEST_INCLUDES = \
-I${top_srcdir}/lib/tests/include
```

Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/make/includes.in
```

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```
/*
```

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```

```
*
```

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<!-- \$Id: lwres\_gabn.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

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<date>Jun 30, 2000</date>

</refentryinfo>

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<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

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<refname>lwres_gabnrequest_parse</refname>
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<refname>lwres_gabnresponse_free</refname>
<refname>lwres_gabnrequest_free</refname>
<refpurpose>lightweight resolver getaddrbyname message handling</refpurpose>
</refnamediv>
<refsynopsisdiv>
<funcsynopsis>
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lwres_result_t
<function>lwres_gabnrequest_render</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnrequest_t *req</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
</funcprototype>
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<function>lwres_gabnresponse_render</function></funcdef>
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<paramdef>lwres_buffer_t *b</paramdef>
</funcprototype>
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lwres_result_t
<function>lwres_gabnrequest_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_gabnrequest_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_gabnresponse_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>

```

```

<funcprototype>
<funcdef>
void
<function>lwres_gabnresponse_free</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_gabnrequest_free</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnrequest_t **structp</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>
<refsect1>
<title>DESCRIPTION</title>
<para>
These are low-level routines for creating and parsing
lightweight resolver name-to-address lookup request and
response messages.
</para><para>
There are four main functions for the getaddrbyname opcode.
One render function converts a getaddrbyname request structure —
<type>lwres_gabnrequest_t</type> —
to the lightweight resolver's canonical format.
It is complemented by a parse function that converts a packet in this
canonical format to a getaddrbyname request structure.
Another render function converts the getaddrbyname response structure —
<type>lwres_gabnresponse_t</type> —
to the canonical format.
This is complemented by a parse function which converts a packet in
canonical format to a getaddrbyname response structure.
</para>
<para>
These structures are defined in
<filename><lwres/lwres.h></filename>.
They are shown below.
<programlisting>
#define LWRES_OPCODE_GETADDRSBYNAME 0x00010001U

typedef struct lwres_addr lwres_addr_t;
typedef LWRES_LIST(lwres_addr_t) lwres_addrlist_t;

typedef struct {
 lwres_uint32_t flags;
 lwres_uint32_t addrtypes;

```

```

 lwres_uint16_t namelen;
 char *name;
} lwres_gabnrequest_t;

typedef struct {
 lwres_uint32_t flags;
 lwres_uint16_t naliases;
 lwres_uint16_t naddrs;
 char *realname;
 char **aliases;
 lwres_uint16_t realnamelen;
 lwres_uint16_t *aliaslen;
 lwres_addrlist_t addrs;
 void *base;
 size_t baselen;
} lwres_gabnresponse_t;

```

</programlisting>

</para>

<para>

<function>lwres\_gabnrequest\_render()</function>

uses resolver context

<parameter>ctx</parameter>

to convert getaddrbyname request structure

<parameter>req</parameter>

to canonical format.

The packet header structure

<parameter>pkt</parameter>

is initialised and transferred to

buffer

<parameter>b</parameter>.

The contents of

<parameter>\*req</parameter>

are then appended to the buffer in canonical format.

<function>lwres\_gabnresponse\_render()</function>

performs the same task, except it converts a getaddrbyname response structure

<type>lwres\_gabnresponse\_t</type>

to the lightweight resolver's canonical format.

</para>

<para>

<function>lwres\_gabnrequest\_parse()</function>

uses context

<parameter>ctx</parameter>

to convert the contents of packet

<parameter>pkt</parameter>

to a

<type>lwres\_gabnrequest\_t</type>

structure.



Buffer

<parameter>b</parameter>

provides space to be used for storing this structure.

When the function succeeds, the resulting

<type>lwres\_gabnrequest\_t</type>

is made available through

<parameter>\*structp</parameter>.

<function>lwres\_gabnresponse\_parse()</function>

offers the same semantics as

<function>lwres\_gabnrequest\_parse()</function>

except it yields a

<type>lwres\_gabnresponse\_t</type>

structure.

</para>

<para>

<function>lwres\_gabnresponse\_free()</function>

and

<function>lwres\_gabnrequest\_free()</function>

release the memory in resolver context

<parameter>ctx</parameter>

that was allocated to the

<type>lwres\_gabnresponse\_t</type>

or

<type>lwres\_gabnrequest\_t</type>

structures referenced via

<parameter>structp</parameter>.

Any memory associated with ancillary buffers and strings for those structures is also discarded.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

The getaddrbyname opcode functions

<function>lwres\_gabnrequest\_render()</function>,

<function>lwres\_gabnresponse\_render()</function>

<function>lwres\_gabnrequest\_parse()</function>

and

<function>lwres\_gabnresponse\_parse()</function>

all return

<errorcode>LWRES\_R\_SUCCESS</errorcode>

on success.

They return

<errorcode>LWRES\_R\_NOMEMORY</errorcode>

if memory allocation fails.

<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>

is returned if the available space in the buffer  
<parameter>b</parameter>  
is too small to accommodate the packet header or the  
<type>lwres\_gabnrequest\_t</type>  
and  
<type>lwres\_gabnresponse\_t</type>  
structures.  
<function>lwres\_gabnrequest\_parse()</function>  
and  
<function>lwres\_gabnresponse\_parse()</function>  
will return  
<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>  
if the buffer is not empty after decoding the received packet.  
These functions will return  
<errorcode>LWRES\_R\_FAILURE</errorcode>  
if  
<structfield>pktflags</structfield>  
in the packet header structure  
<type>lwres\_lwpacket\_t</type>  
indicate that the packet is not a response to an earlier query.  
</para>  
</refsect1>  
<refsect1>  
<title>SEE ALSO</title>  
<para>  
<citerefentry>  
<refentrytitle>lwres\_packet</refentrytitle><manvolnum>3  
</manvolnum>  
</citerefentry>  
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</refsect1>  
</refentry>

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/man/lwres\_gabn.docbook

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/resolv/res\_debug.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/resolv/res\_findzonecut.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/port/sco42/include/sys/un.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/nameser/ns\_date.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/isc/irpmarshall.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/include/irp.h

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/md5.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/md5\_locl.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/bind/dst/md5\_dgst.c  
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.\"
.\" $Id: lwres_hsterror.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
.\"
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```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/isc/ev_streams.c
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/bind/isc/ev_waits.c
```

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*/
```

```
/*
* SHA-1 in C
* By Steve Reid <steve@edmweb.com>
* 100% Public Domain
*
* Test Vectors (from FIPS PUB 180-1)
* "abc"
* A9993E36 4706816A BA3E2571 7850C26C 9CD0D89D
* "abcdefghijklmnopqrstuvwxyz"
* 84983E44 1C3BD26E BAAE4AA1 F95129E5 E54670F1
```

\* A million repetitions of "a"  
\* 34AA973C D4C4DAA4 F61EEB2B DBAD2731 6534016F  
\*/

Found in path(s):

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/sha1.c

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-->

<!-- \$Id: lwres\_config.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_config</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_conf\_init</refname>

<refname>lwres\_conf\_clear</refname>

<refname>lwres\_conf\_parse</refname>

<refname>lwres\_conf\_print</refname>

<refname>lwres\_conf\_get</refname>

<refpurpose>lightweight resolver configuration</refpurpose>

</refnamediv>

```

<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <lwres/lwres.h>;</funcsynopsisinfo>
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void
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<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
<funcprototype>
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void
<function>lwres_conf_clear</function></funcdef>
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lwres_result_t
<function>lwres_conf_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
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<funcdef>
lwres_result_t
<function>lwres_conf_print</function></funcdef>
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<paramdef>FILE *fp</paramdef>
</funcprototype>
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<funcdef>
lwres_conf_t *
<function>lwres_conf_get</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>

```

```

<refsect1>
<title>DESCRIPTION</title>
<para>
<function>lwres_conf_init()</function>
creates an empty
<type>lwres_conf_t</type>
structure for lightweight resolver context
<parameter>ctx</parameter>.
</para>

```



<para>  
<function>lwres\_conf\_clear()</function>  
frees up all the internal memory used by  
that  
<type>lwres\_conf\_t</type>  
structure in resolver context  
<parameter>ctx</parameter>.

</para>  
<para>  
<function>lwres\_conf\_parse()</function>  
opens the file  
<parameter>filename</parameter>  
and parses it to initialise the resolver context  
<parameter>ctx</parameter>'s  
<type>lwres\_conf\_t</type>  
structure.

</para>  
<para>  
<function>lwres\_conf\_print()</function>  
prints the  
<type>lwres\_conf\_t</type>  
structure for resolver context  
<parameter>ctx</parameter>  
to the  
<type>FILE</type>  
<parameter>fp</parameter>.

</para>  
</refsect1>  
<refsect1>

## <title>RETURN VALUES</title>

<para>  
<function>lwres\_conf\_parse()</function>  
returns  
<errorcode>LWRES\_R\_SUCCESS</errorcode>  
if it successfully read and parsed  
<parameter>filename</parameter>.

It returns  
<errorcode>LWRES\_R\_FAILURE</errorcode>  
if  
<parameter>filename</parameter>  
could not be opened or contained incorrect  
resolver statements.

</para>  
<para>  
<function>lwres\_conf\_print()</function>  
returns  
<errorcode>LWRES\_R\_SUCCESS</errorcode>

unless an error occurred when converting the network addresses to a numeric host address string.

If this happens, the function returns

```
<errorcode>LWRES_R_FAILURE</errorcode>.
```

```
</para>
```

```
</refsect1>
```

```
<refsect1>
```

```
<title>SEE ALSO</title>
```

```
<para>
```

```
<citerefentry>
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<refentrytitle>stdio</refentrytitle><manvolnum>3</manvolnum>
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</citerefentry>,&br/><citerefentry>
```

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<refentrytitle>resolver</refentrytitle><manvolnum>5</manvolnum>
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```
</citerefentry>.
```

```
</refsect1>
```

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```

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<title>FILES</title>
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<para>
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```
<filename>/etc/resolv.conf</filename>
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```
</para>
```

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</refsect1>
```

```
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Found in path(s):

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/lwres/man/lwres_config.docbook
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```

```
* /opt/cola/permits/1130449963_1615189022.84/0/lib-tar/lib/isc/include/isc/result.h
```

\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/time.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/base64.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/task.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/rwlock.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/result.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/win32/time.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/rwlock.c  
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.\n \$Id: lwres\_gai\_strerror.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$\n

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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rrsig\_46.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/stdlib.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/portlist.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/nsec\_47.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/rrsig\_46.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/sshfp\_44.h  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/dnskey\_48.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/nsec\_47.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/sshfp\_44.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/rdata/generic/dnskey\_48.h

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 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/unix/keyboard.c  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/nothreads/include/isc/condition.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/include/lwres/context.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/nothreads/include/isc/mutex.h  
 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/resource.h  
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 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/timer\_p.h  
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 \* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/ondestroy.c  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/include/isc/formatcheck.h  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/include/lwres/int.h  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/include/dns/sdb.h  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/lwresutil.c  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/lwres/include/lwres/lwbuffer.h  
\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/forward.c  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/isc/nothreads/thread.c  
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\* /opt/cola/permits/1130449963\_1615189022.84/0/lib-tar/lib/dns/soa.c

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## 1.340 nmap 7.80 r0

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Nmap and the other tools distributed with it. What follows is a description of each third-party package. At the end of this file is the license of each. The license of Nmap itself is in the COPYING file.

On all platforms, Nmap is normally linked with:

- o libpcap: Network packet capture library. Distributed with Nmap in the libpcap subdirectory.

<http://www.tcpdump.org/>

- o libdnet: Networking library, used for low-level tasks such as sending ethernet frames. A modified version is distributed with Nmap in the libdnet-stripped subdirectory. A summary of Nmap-local modifications is in the file NMAP\_MODIFICATIONS.

<http://code.google.com/p/libdnet/>

- o PCRE: Perl-compatible regular expressions. PCRE is part of Nmap's version detection and is also made available as an NSE library.

Distributed with Nmap in the libpcre subdirectory.

<http://www.pcre.org/>

- o liblua: Lua programming language. Lua is the implementation language of NSE, the Nmap Scripting Engine. Nmap links with liblua to allow running Lua programs inside Nmap. Distributed with Nmap in the liblua subdirectory. liblua can be omitted by configuring with the --without-liblua configuration directive.

<http://www.lua.org/>

- o OpenSSL: Cryptographic library. OpenSSL is used by service detection and by NSE to connect to SSL services. NSE also provides access to OpenSSL functions such as encryption and digest calculation. OpenSSL can be disabled by configuring with the --without-openssl configuration directive.

<http://www.openssl.org/>

- o LIBLINEAR. Used for IPv6 OS classification.

<http://www.csie.ntu.edu.tw/~cjlin/liblinear/>

- o libsvn. The Subversion library, used by the updater program nmap-update. <http://subversion.apache.org/>

- o APR (Apache Portable Runtime). Used by libsvn. <http://apr.apache.org/>

On Windows only, Nmap uses:

- o WinPcap: libpcap for Windows. The libpcap license applies to WinPcap, and it also has its own license. A binary copy of the library is distributed with Nmap in the subdirectory mswin32/winpcap.

<http://www.winpcap.org/>

Certain Nmap Scripting Engine scripts use the simplified BSD license in licenses/BSD-simplified.

Zenmap and Ndiff require:

- o Python. The binary distributions of Nmap include a Python interpreter and various libraries, built using either py2exe or py2app.

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The Windows and Mac OS X binary packages include bundled versions of:

- o GLib, GTK+, ATK, Pango: These libraries are licensed under the GNU LGPL 2, a copy of which is in the file licenses/LGPL-2.  
<http://www.gtk.org/>
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- o zlib and bzip2: compression libraries.  
<http://www.zlib.org/> <http://www.bzip.org/>
- o Expat: XML parser library.  
<http://expat.sourceforge.net/>
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<http://www.fontconfig.org/>
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- o libxml2: XML parsing library.  
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- o PyGTK, PyGObject: bindings for Python. Licensed under the GNU LGPL 2.1.  
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- o PyCairo: bindings for Python. Dual-licensed under the GNU LGPL 2.1 and the MPL 1.1.

The Mac OS binary packages also include:

- o Various X.org libraries. These were built using MacPorts.  
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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Most GNU software, including some libraries, is covered by the ordinary

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The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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- b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
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## 1.341 pkix-ssh 11.6

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```
/*
*-----
* name: pkixpath.c
*
* This file implements certificate path building/verifying SPI
* functions that conform to the descriptions in the PKIX draft
* documentation.
*
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*/
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**
*/
```

Found in path(s):

```
*/opt/cola/permits/1078111861_1615189672.12/0/pkix-tar/pkix/pkixpath.c
```

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```
/* Id
* $Source$
*-----
* pkixpath_header.h
*
* October 2005, Bob Stuercke
*
* Copyright (c) 2005-2006, 2009 by Cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1078111861_1615189672.12/0/pkix-tar/pkix/pkixpath_header.h
```

## 1.342 python3-py 1.8.0 r0

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```
/* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)
* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
*
* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
* http://www.hypermall.com/
* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
* interrupts us (except possibly for removal/insertion of the cable?)
* 10/4/97 - began heavy inline documentation of the code. Corrected typos
* and spelling mistakes.
* 10/5/97 - added code to handle PHY interrupts, disable PHY on
* loss of link, and correctly re-enable PHY when link is
* re-established. (put back CFG_PHYIE)
*
* Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
*
* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
*
* Linux driver for the IDT77201 NICStAR PCI ATM controller.
* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
* see init_nicstar() for PHY initialization to change this. This driver
* expects the Linux ATM stack to support scatter-gather lists
* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
*
* Implementing minimal-copy of received data:
* IDT always receives data into a small buffer, then large buffers
* as needed. This means that data must always be copied to create
* the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
* Fix is simple: make large buffers large enough to hold entire
* SDU, and leave <small_buffer_data> bytes empty at the start. Then
* copy small buffer contents to head of large buffer.
* Trick is to avoid fragmenting Linux, due to need for a lot of large
* buffers. This is done by 2 things:
* 1) skb->destructor / skb->atm.recycle_buffer
* combined, allow nicstar_free_rx_skb to be called to
* recycle large data buffers
* 2) skb_clone of received buffers
* See nicstar_free_rx_skb and linearize_buffer for implementation
* details.
*
*
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\* along with this program; if not, write to the Free Software  
\* Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.  
\*  
\* M. Welsh, 6 July 1996  
\*  
\*  
\*/

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Michael Hunold <m.hunold@gmx.de>  
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Christian Theiss  
for his work on the initial Linux DVB driver

Marcus Metzler <mocm@metzlerbros.de>  
Ralph Metzler <rjkm@metzlerbros.de>  
for their continuing work on the DVB driver

Michael Holz <kju@debian.org>  
for his contributions to the dvb-net driver

Diego Picciani <d.picciani@novacompt.it>  
for CyberLogin for Linux which allows logging onto EON  
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Martin Schaller <martin@smurf.franken.de>  
for patching the cable card decoder driver

Klaus Schmidinger <Klaus.Schmidinger@cadsoft.de>  
for various fixes regarding tuning, OSD and CI stuff and his work on VDR

Steve Brown <sbrown@cortland.com>  
for his AFC kernel thread

Christoph Martin <martin@uni-mainz.de>  
for his LIRC infrared handler

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Florian Schirmer <jolt@tuxbox.org>  
Ronny Strutz <3des@elitedvb.de>  
Wolfram Joost <dbox2@frokaschwei.de>  
...and all the other dbox2 people  
for many bugfixes in the generic DVB Core, frontend drivers and  
their work on the dbox2 port of the DVB driver

Oliver Endriss <o.endriss@gmx.de>  
for many bugfixes

Andrew de Quincey <adq\_dvb@lidskialf.net>  
for the tda1004x frontend driver, and various bugfixes

Peter Schildmann <peter.schildmann@web.de>  
for the driver for the Technisat SkyStar2 PCI DVB card

Vadim Catana <skystar@moldova.cc>  
Roberto Ragusa <r.ragusa@libero.it>  
Augusto Cardoso <augusto@carhil.net>  
for all the work for the FlexCopII chipset by B2C2,Inc.

Davor Emard <emard@softhome.net>  
for his work on the budget drivers, the demux code,  
the module unloading problems, ...

Hans-Frieder Vogt <hfvogt@arcor.de>  
for his work on calculating and checking the crc's for the  
TechnoTrend/Hauppauge DEC driver firmware

Michael Dreher <michael@5dot1.de>  
Andreas 'randy' Weinberger  
for the support of the Fujitsu-Siemens Activy budget DVB-S

Kenneth Aafly <ke-aa@frisurf.no>  
for adding support for Typhoon DVB-S budget card

Ernst Peinlich <e.peinlich@inode.at>  
for tuning/DiSEqC support for the DEC 3000-s

Peter Beutner <p.beutner@gmx.net>  
for the IR code for the ttusb-dec driver

Wilson Michaels <wilsonmichaels@earthlink.net>  
for the lgdt330x frontend driver, and various bugfixes

Michael Krufky <mkrufky@linuxtv.org>  
for maintaining v4l/dvb inter-tree dependencies

Taylor Jacob <rtjacob@earthlink.net>  
for the nxt2002 frontend driver

Jean-Francois Thibert <jeanfrancois@sagetv.com>  
for the nxt2004 frontend driver

Kirk Lapray <kirk.lapray@gmail.com>  
for the or51211 and or51132 frontend drivers, and  
for merging the nxt2002 and nxt2004 modules into a  
single nxt200x frontend driver.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the

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## 1.346 expat v1.2

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# 1.347 libcgroup 0.41 r0

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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# 1.348 python3-idna 2.9 r0

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```
"""
```

```
A library to support the Internationalised Domain Names in Applications (IDNA) protocol as specified in RFC 5890 et.al. This new methodology, known as IDNA 2008, can generate materially different results to the previous standard. The library can act as a drop-in replacement for the "encodings.idna" module.
```

```
"""
```

```
import io, sys
```

```
from setuptools import setup
```

```
def main():
```

```
 python_version = sys.version_info[:2]
```

```
 if python_version < (2,7):
```

```
 raise SystemExit("Sorry, Python 2.7 or newer required")
```

```
 package_data = { }
```

```
 exec(open('idna/package_data.py').read(), package_data)
```

```
 arguments = {
```

```
 'name': 'idna',
```

```
 'packages': ['idna'],
```

```
 'version': package_data['__version__'],
```

```
 'description': 'Internationalized Domain Names in Applications (IDNA)',
```

```
 'long_description': io.open("README.rst", encoding="UTF-8").read(),
```

```
 'author': 'Kim Davies',
```

```
 'author_email': 'kim@cynosure.com.au',
```

```
 'license': 'BSD-like',
```

```
 'url': 'https://github.com/kjd/idna',
```

```
 'classifiers': [
```

```
 'Development Status :: 5 - Production/Stable',
```

```
 'Intended Audience :: Developers',
```

```
 'Intended Audience :: System Administrators',
```

```
 'License :: OSI Approved :: BSD License',
```

```
 'Operating System :: OS Independent',
```

```
 'Programming Language :: Python',
```

```
 'Programming Language :: Python :: 2',
```

```
 'Programming Language :: Python :: 2.7',
```

```
 'Programming Language :: Python :: 3',
```

```
 'Programming Language :: Python :: 3.4',
```

```
'Programming Language :: Python :: 3.5',
'Programming Language :: Python :: 3.6',
'Programming Language :: Python :: 3.7',
'Programming Language :: Python :: 3.8',
'Programming Language :: Python :: Implementation :: CPython',
'Programming Language :: Python :: Implementation :: PyPy',
'Topic :: Internet :: Name Service (DNS)',
'Topic :: Software Development :: Libraries :: Python Modules',
'Topic :: Utilities',
],
'python_requires': '>=2.7, !=3.0.*, !=3.1.*, !=3.2.*, !=3.3.*',
'test_suite': 'tests',
}
```

```
setup(**arguments)
```

```
if __name__ == '__main__':
 main()
```

Found in path(s):

\* /opt/cola/permits/1084378005\_1605212166.93/0/idna-2-9-1-tar-gz/idna-2.9/setup.py

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-----

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Metadata-Version: 1.2

Name: idna

Version: 2.9

Summary: Internationalized Domain Names in Applications (IDNA)

Home-page: <https://github.com/kjd/idna>

Author: Kim Davies

Author-email: [kim@cynosure.com.au](mailto:kim@cynosure.com.au)

License: BSD-like

Description: Internationalized Domain Names in Applications (IDNA)

=====

Support for the Internationalised Domain Names in Applications (IDNA) protocol as specified in `RFC 5891 <<http://tools.ietf.org/html/rfc5891>>`\_. This is the latest version of the protocol and is sometimes referred to as “IDNA 2008”.

This library also provides support for Unicode Technical Standard 46, `Unicode IDNA Compatibility Processing <<http://unicode.org/reports/tr46/>>`\_.

This acts as a suitable replacement for the “encodings.idna” module that comes with the Python standard library, but only supports the old, deprecated IDNA specification (`RFC 3490 <<http://tools.ietf.org/html/rfc3490>>`\_).

Basic functions are simply executed:

```
.. code-block:: pycon
```

```
Python 3
>>> import idna
>>> idna.encode('.')
b'xn--eckwd4c7c.xn--zckzah'
>>> print(idna.decode('xn--eckwd4c7c.xn--zckzah'))
```

```
Python 2
>>> import idna
>>> idna.encode(u'.')
'xn--eckwd4c7c.xn--zckzah'
>>> print idna.decode('xn--eckwd4c7c.xn--zckzah')
.
```

## Packages

-----

The latest tagged release version is published in the PyPI repository:

```
.. image:: https://badge.fury.io/py/idna.svg
:target: http://badge.fury.io/py/idna
```

## Installation

-----

To install this library, you can use pip:

```
.. code-block:: bash
```

```
$ pip install idna
```

Alternatively, you can install the package using the bundled setup script:

```
.. code-block:: bash
```

```
$ python setup.py install
```

This library works with Python 2.7 and Python 3.4 or later.

## Usage

-----

For typical usage, the ``encode`` and ``decode`` functions will take a domain name argument and perform a conversion to A-labels or U-labels respectively.

```
.. code-block:: pycon
```

```
Python 3
>>> import idna
>>> idna.encode('.')
b'xn--eckwd4c7c.xn--zckzah'
>>> print(idna.decode('xn--eckwd4c7c.xn--zckzah'))
.
```

You may use the codec encoding and decoding methods using the `idna.codec` module:

```
.. code-block:: pycon
```

```
Python 2
>>> import idna.codec
>>> print u'.encode('idna')
xn--80ahd1agd.xn--80akhbyknj4f
>>> print 'xn--80ahd1agd.xn--80akhbyknj4f'.decode('idna')
.
```

Conversions can be applied at a per-label basis using the `ulabel` or `alabel` functions if necessary:

```
.. code-block:: pycon
```

```
Python 2
>>> idna.alabel(u")
'xn--0zwm56d'
```

#### Compatibility Mapping (UTS #46)

```
+++++
```

As described in [RFC 5895](http://tools.ietf.org/html/rfc5895) <<http://tools.ietf.org/html/rfc5895>>, the IDNA specification no longer normalizes input from different potential ways a user may input a domain name. This functionality, known as a “mapping”, is now considered by the specification to be a local user-interface issue distinct from IDNA conversion functionality.

This library provides one such mapping, that was developed by the Unicode Consortium. Known as [Unicode IDNA Compatibility Processing](http://unicode.org/reports/tr46/) <<http://unicode.org/reports/tr46/>>, it provides for both a regular mapping for typical applications, as well as a transitional mapping to help migrate from older IDNA 2003 applications.

For example, “Königsgäßchen” is not a permissible label as `*LATIN CAPITAL LETTER K*` is not allowed (nor are capital letters in general). UTS 46 will convert this into lower case prior to applying the IDNA conversion.

```
.. code-block:: pycon
```

```
Python 3
>>> import idna
>>> idna.encode(u'Königsgäßchen')
...
idna.core.InvalidCodepoint: Codepoint U+004B at position 1 of 'Königsgäßchen' not allowed
>>> idna.encode('Königsgäßchen', uts46=True)
```

```
b'xn--knigsgchen-b4a3dun'
>>> print(idna.decode('xn--knigsgchen-b4a3dun'))
königsgäßchen
```

Transitional processing provides conversions to help transition from the older 2003 standard to the current standard. For example, in the original IDNA specification, the \*LATIN SMALL LETTER SHARP S\* (ß) was converted into two \*LATIN SMALL LETTER S\* (ss), whereas in the current IDNA specification this conversion is not performed.

```
.. code-block:: pycon
```

```
Python 2
>>> idna.encode(u'Königsgäßchen', uts46=True, transitional=True)
'xn--knigsgsschen-lcb0w'
```

Implementors should use transitional processing with caution, only in rare cases where conversion from legacy labels to current labels must be performed (i.e. IDNA implementations that pre-date 2008). For typical applications that just need to convert labels, transitional processing is unlikely to be beneficial and could produce unexpected incompatible results.

```
``encodings.idna`` Compatibility
```

```
+++++
```

Function calls from the Python built-in ``encodings.idna`` module are mapped to their IDNA 2008 equivalents using the ``idna.compat`` module. Simply substitute the ``import`` clause in your code to refer to the new module name.

```
Exceptions
```

```

```

All errors raised during the conversion following the specification should raise an exception derived from the ``idna.IDNAError`` base class.

More specific exceptions that may be generated as ``idna.IDNABidiError`` when the error reflects an illegal combination of left-to-right and right-to-left characters in a label; ``idna.InvalidCodepoint`` when a specific codepoint is an illegal character in an IDN label (i.e. INVALID); and ``idna.InvalidCodepointContext`` when the codepoint is illegal based on its positional context (i.e. it is CONTEXTO or CONTEXTJ but the contextual requirements are not satisfied.)

```
Building and Diagnostics
```

```

```

The IDNA and UTS 46 functionality relies upon pre-calculated lookup tables for performance. These tables are derived from computing against eligibility criteria

in the respective standards. These tables are computed using the command-line script `tools/idna-data`.

This tool will fetch relevant tables from the Unicode Consortium and perform the required calculations to identify eligibility. It has three main modes:

\* `idna-data make-libdata`. Generates `idnadata.py` and `uts46data.py`, the pre-calculated lookup tables using for IDNA and UTS 46 conversions. Implementors who wish to track this library against a different Unicode version may use this tool to manually generate a different version of the `idnadata.py` and `uts46data.py` files.

\* `idna-data make-table`. Generate a table of the IDNA disposition (e.g. PVALID, CONTEXTJ, CONTEXTO) in the format found in Appendix B.1 of RFC 5892 and the pre-computed tables published by IANA <<http://iana.org/>>.

\* `idna-data U+0061`. Prints debugging output on the various properties associated with an individual Unicode codepoint (in this case, U+0061), that are used to assess the IDNA and UTS 46 status of a codepoint. This is helpful in debugging or analysis.

The tool accepts a number of arguments, described using `idna-data -h`. Most notably, the `--version` argument allows the specification of the version of Unicode to use in computing the table data. For example, `idna-data --version 9.0.0 make-libdata` will generate library data against Unicode 9.0.0.

Note that this script requires Python 3, but all generated library data will work in Python 2.7.

## Testing

-----

The library has a test suite based on each rule of the IDNA specification, as well as tests that are provided as part of the Unicode Technical Standard 46, 'Unicode IDNA Compatibility Processing' <<http://unicode.org/reports/tr46/>>.

The tests are run automatically on each commit at Travis CI:

```
.. image:: https://travis-ci.org/kjd/idna.svg?branch=master
 :target: https://travis-ci.org/kjd/idna
```

Platform: UNKNOWN

Classifier: Development Status :: 5 - Production/Stable

Classifier: Intended Audience :: Developers

Classifier: Intended Audience :: System Administrators

Classifier: License :: OSI Approved :: BSD License

Classifier: Operating System :: OS Independent

Classifier: Programming Language :: Python  
Classifier: Programming Language :: Python :: 2  
Classifier: Programming Language :: Python :: 2.7  
Classifier: Programming Language :: Python :: 3  
Classifier: Programming Language :: Python :: 3.4  
Classifier: Programming Language :: Python :: 3.5  
Classifier: Programming Language :: Python :: 3.6  
Classifier: Programming Language :: Python :: 3.7  
Classifier: Programming Language :: Python :: 3.8  
Classifier: Programming Language :: Python :: Implementation :: CPython  
Classifier: Programming Language :: Python :: Implementation :: PyPy  
Classifier: Topic :: Internet :: Name Service (DNS)  
Classifier: Topic :: Software Development :: Libraries :: Python Modules  
Classifier: Topic :: Utilities  
Requires-Python: >=2.7, !=3.0.\*, !=3.1.\*, !=3.2.\*, !=3.3.\*

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\* /opt/cola/permits/1084378005\_1605212166.93/0/idna-2-9-1-tar-gz/idna-2.9/PKG-INFO  
\* /opt/cola/permits/1084378005\_1605212166.93/0/idna-2-9-1-tar-gz/idna-2.9/idna.egg-info/PKG-INFO

## 1.349 sqlite 3.26.0-13.el8

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# 1.352 ncurses 6.1 7.20180224.e18

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spawn\_console.c spawn\_login.c  
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# 1.359 lighttpd 1.4.54 r0

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# 1.360 bash 4.2 r6

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From specdt@armory.com Wed May 10 10:21:11 1995

Flags: 10

Return-Path: specdt@armory.com

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id KAA22876; Wed, 10 May 1995 10:21:10 -0400 (from specdt@armory.com for <chet@odin.INS.CWRU.Edu>)

Received: from deepthought.armory.com (mmdf@deepthought.armory.com [192.122.209.42]) by po.cwru.edu with SMTP (8.6.10+cwru/CWRU-2.3)

id BAA16354; Wed, 10 May 1995 01:33:22 -0400 (from specdt@armory.com for <chet@po.cwru.edu>)

From: John DuBois <spcedt@armory.com>  
Date: Tue, 9 May 1995 22:33:12 -0700  
In-Reply-To: Chet Ramey <chet@odin.ins.cwru.edu>  
"ksh scripts" (May 9, 1:36pm)  
X-Www: http://www.armory.com/~spcedt/  
X-Mailer: Mail User's Shell (7.2.5 10/14/92)  
To: chet@po.cwru.edu  
Subject: Re: ksh scripts  
Message-ID: <9505092233.aa13001@deephought.armory.com>

Sure. The canonical versions are available on ftp.armory.com; you might want to pick up the latest versions before modifying them.

John

On May 9, 1:36pm, Chet Ramey wrote:

```
} Subject: ksh scripts
} From odin.ins.cwru.edu!chet Tue May 9 10:39:51 1995
} Received: from odin.INS.CWRU.Edu by deepthought.armory.com id aa22336;
} 9 May 95 10:39 PDT
} Received: (chet@localhost) by odin.INS.CWRU.Edu (8.6.10+cwru/CWRU-2.1-ins)
} id NAA20487; Tue, 9 May 1995 13:39:24 -0400 (from chet)
} Date: Tue, 9 May 1995 13:36:54 -0400
} From: Chet Ramey <chet@odin.ins.cwru.edu>
} To: john@armory.com
} Subject: ksh scripts
} Cc: chet@odin.ins.cwru.edu
} Reply-To: chet@po.cwru.edu
} Message-ID: <9505091736.AA20411.SM@odin.INS.CWRU.Edu>
} Read-Receipt-To: chet@po.CWRU.Edu
} MIME-Version: 1.0
} Content-Type: text/plain; charset=us-ascii
} Status: OR
}
} Hi. I'm the maintainer of bash (the GNU `Bourne Again shell') for
} the FSF.
}
} I picked up a tar file of ksh scripts you wrote from an anon FTP site
} a while back. I'd like your permission to include modified versions
} of some of them in the next major bash distribution (with proper credit
} given, of course). Is it OK if I do that?
}
} Chet Ramey
}
} --
} ``The lyf so short, the craft so long to lerne." - Chaucer
}
} Chet Ramey, Case Western Reserve University Internet: chet@po.CWRU.Edu
```



}-- End of excerpt from Chet Ramey  
From: friedman@cli.com Thu May 25 12:19:06 1995  
Flags: 10  
Return-Path: friedman@cli.com  
Received: from po.cwru.edu (root@po.CWRU.Edu [129.22.4.2]) by odin.INS.CWRU.Edu with ESMTP (8.6.10+cwru/CWRU-2.1-ins) id MAA08685; Thu, 25 May 1995 12:19:05 -0400 (from friedman@cli.com for <chet@odin.INS.CWRU.Edu>)  
Received: from cli.com (cli.com [192.31.85.1]) by po.cwru.edu with SMTP (8.6.10+cwru/CWRU-2.3) id MAA11299; Thu, 25 May 1995 12:19:00 -0400 (from friedman@cli.com for <chet@po.cwru.edu>)  
Received: from tepui.cli.com by cli.com (4.1/SMI-4.1) id AA27213; Thu, 25 May 95 11:18:25 CDT  
Received: by tepui.cli.com (4.1) id AA16031; Thu, 25 May 95 11:18:23 CDT  
Message-Id: <9505251618.AA16031@tepui.cli.com>  
From: friedman@gnu.ai.mit.edu (Noah Friedman)  
To: chet@po.cwru.edu  
Subject: Bash scripts  
Reply-To: friedman@gnu.ai.mit.edu  
In-Reply-To: <chet@odin.ins.cwru.edu> Thu, 25 May 1995 11:19:59 -0400  
References: <9505251519.AA06424.SM@odin.INS.CWRU.Edu>  
Date: Thu, 25 May 95 11:18:21 CST

>Hi. I snagged some of your bash functions from your home directory on >the FSF machines (naughty, I know), and I was wondering if you'd let >me distribute them with bash-2.0. Thanks.

Sure. I think there's a later copy in ~ftp/friedman/shell-inits/init-4.89.tar.gz. There are also some elisp and es frobs in that file.

It should serve as a pretty good example of how to get carried away. :-)

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```
@c Local Variables:
@c ispell-local-pdict: "ispell-dict"
@c End:
From mikel@ora.com Tue Aug 1 12:13:20 1995
Flags: 10
Return-Path: mikel@ora.com
Received: from ruby.ora.com (ruby.ora.com [198.112.208.25]) by odin.INS.CWRU.Edu with ESMTP
(8.6.12+cwru/CWRU-2.1-ins)
id MAA01565; Tue, 1 Aug 1995 12:13:18 -0400 (from mikel@ora.com for <chet@odin.INS.CWRU.Edu>)
Received: (from fax@localhost) by ruby.ora.com (8.6.12/8.6.11) with UUCP id MAA23251; Tue, 1 Aug 1995
12:07:51 -0400
Received: by los.ora.com (4.1/Spike-2.1)
id AA00672; Tue, 1 Aug 95 08:57:32 EDT
Date: Tue, 1 Aug 95 08:57:32 EDT
From: mikel@ora.com (Michael Loukides)
Message-Id: <9508011257.AA00672@los.ora.com>
Subject: Re: Ksh debugger from Rosenblatt's book [for bash]
```

To: Chet Ramey <chet@odin.INS.CWRU.Edu>

Cc: cmarie@ora.com, cam@iinet.com.au, brosenblatt@tm.com

In-Reply-To: Chet Ramey <chet@odin.INS.CWRU.Edu>, Mon, 31 Jul 1995 16:22:48 -0400

I've modified a (modified) version of Bill Rosenblatt's ksh debugger to work with bash-2.0. Does ORA have any problem with me distributing it with bash-2.0?

That's great!

Go ahead and circulate it; in fact, we should probably grab it and stick it in our ftp archive, and put a reference to it in the book. (Too late to actually discuss the thing, at least for this edition).

-----

# 1.361 libatomic-ops 7.6.10 r0

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# 1.366 json-c 0.13.1 r0

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# 1.367 lvm2 2.03.02 r0

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## 1.369 pcap-bpf-h 1.34

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/\*\_

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```
* SUCH DAMAGE.
*
* @(#)bpf.h 7.1 (Berkeley) 5/7/91
*
* @(#) $Header: /tcpdump/master/libpcap/pcap-bpf.h,v 1.34 2005/02/08 20:03:15 guy Exp $ (LBL)
*/
```

# 1.370 openssh 4.0p1

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```

[Tatu continues]

```
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- IDEA is no longer included, its use is deprecated
- DES is now external, in the OpenSSL library
- GMP is no longer used, and instead we call BN code from OpenSSL
- Zlib is now external, in a library
- The make-ssh-known-hosts script is no longer included
- TSS has been removed

- MD5 is now external, in the OpenSSL library
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- Blowfish is now external, in the OpenSSL library

[The licence continues]

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\*

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\* @version 3.0 (December 2000)  
\*  
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\*  
\* @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>  
\* @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>  
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# 1.371 python3-markupsafe 1.1.1 r0

## 1.371.1 Available under license :

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Metadata-Version: 1.2  
Name: MarkupSafe  
Version: 1.1.1  
Summary: Safely add untrusted strings to HTML/XML markup.  
Home-page: <https://palletsprojects.com/p/markupsafe/>  
Author: Armin Ronacher  
Author-email: [armin.ronacher@active-4.com](mailto:armin.ronacher@active-4.com)  
Maintainer: The Pallets Team  
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Project-URL: Documentation, <https://markupsafe.palletsprojects.com/>  
Project-URL: Code, <https://github.com/pallets/markupsafe>  
Project-URL: Issue tracker, <https://github.com/pallets/markupsafe/issues>  
Description: MarkupSafe

=====

MarkupSafe implements a text object that escapes characters so it is safe to use in HTML and XML. Characters that have special meanings are replaced so that they display as the actual characters. This mitigates injection attacks, meaning untrusted user input can safely be displayed on a page.

### Installing

-----

Install and update using `pip`\_:

.. code-block:: text

```
pip install -U MarkupSafe
```

.. \_pip: <https://pip.pypa.io/en/stable/quickstart/>

## Examples

-----

.. code-block:: pycon

```
>>> from markupsafe import Markup, escape
>>> # escape replaces special characters and wraps in Markup
>>> escape('<script>alert(document.cookie);</script>')
Markup('u'<script>alert(document.cookie);</script>')
>>> # wrap in Markup to mark text "safe" and prevent escaping
>>> Markup('Hello')
Markup('hello')
>>> escape(Markup('Hello'))
Markup('hello')
>>> # Markup is a text subclass (str on Python 3, unicode on Python 2)
>>> # methods and operators escape their arguments
>>> template = Markup("Hello %s")
>>> template % "World"
Markup('Hello "World"')
```

## Donate

-----

The Pallets organization develops and supports MarkupSafe and other libraries that use it. In order to grow the community of contributors and users, and allow the maintainers to devote more time to the projects, please donate today`\_.

.. \_please donate today: <https://palletsprojects.com/donate>

## Links

-----

- \* Website: <https://palletsprojects.com/p/markupsafe/>
- \* Documentation: <https://markupsafe.palletsprojects.com/>
- \* License: `BSD-3-Clause <<https://github.com/pallets/markupsafe/blob/master/LICENSE.rst>>`\_
- \* Releases: <https://pypi.org/project/MarkupSafe/>
- \* Code: <https://github.com/pallets/markupsafe>
- \* Issue tracker: <https://github.com/pallets/markupsafe/issues>
- \* Test status:
  
- \* Linux, Mac: <https://travis-ci.org/pallets/markupsafe>
- \* Windows: <https://ci.appveyor.com/project/pallets/markupsafe>

\* Test coverage: <https://codecov.io/gh/pallets/markupsafe>

Platform: UNKNOWN

Classifier: Development Status :: 5 - Production/Stable

Classifier: Environment :: Web Environment

Classifier: Intended Audience :: Developers

Classifier: License :: OSI Approved :: BSD License

Classifier: Operating System :: OS Independent

Classifier: Programming Language :: Python

Classifier: Programming Language :: Python :: 2

Classifier: Programming Language :: Python :: 2.7

Classifier: Programming Language :: Python :: 3

Classifier: Programming Language :: Python :: 3.4

Classifier: Programming Language :: Python :: 3.5

Classifier: Programming Language :: Python :: 3.6

Classifier: Programming Language :: Python :: 3.7

Classifier: Topic :: Internet :: WWW/HTTP :: Dynamic Content

Classifier: Topic :: Software Development :: Libraries :: Python Modules

Classifier: Topic :: Text Processing :: Markup :: HTML

Requires-Python: >=2.7,! =3.0.\*,! =3.1.\*,! =3.2.\*,! =3.3.\*

Found in path(s):

\* /opt/cola/permits/1123974655\_1612299707.81/0/markupsafe-1-1-1-1-tar-gz/MarkupSafe-1.1.1/PKG-INFO

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/\*\*

\* markupsafe.\_speedups

\* ~~~~~

\*

\* C implementation of escaping for better performance. Used instead of  
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\*

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1.1.1/src/markupsafe/\_compat.py

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1.1.1/src/markupsafe/\_constants.py

## 1.372 python-setuptools 39.2.0

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## 1.373 sshpass 1.06 r0

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<one line to give the program's name and a brief idea of what it does.>
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```

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This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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```
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`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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## 1.374 Isof 4.91 r0

## 1.375 compiler 7.1.0 r0



## 1.375.1 Available under license :

```
; RUN: llc < %s -mtriple=s390x-linux-gnu -mcpu=zEC12 -verify-machineinstrs | FileCheck %s
;
; Test that early if conversion produces LOCR with operands of the right
; register classes.
```

```
define void @autogen_SD4739(i8*) {
; CHECK-NOT: Expected a GR32Bit register, but got a GRX32Bit register
BB:
 %L34 = load i8, i8* %0
 %Cmp56 = icmp sgt i8 undef, %L34
 br label %CF246

CF246: ; preds = %CF246, %BB
 %S1163 = select i1 %Cmp56, i8 %L34, i8 undef
 br i1 undef, label %CF246, label %CF248

CF248: ; preds = %CF248, %CF246
 store i8 %S1163, i8* %0
 br label %CF248
}
```

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```
=====
; RUN: llc -mtriple=aarch64-apple-ios %s -o - | FileCheck %s
```

```
define <16 x double> @test_sitofp_fixed(<16 x i32> %in) {
; CHECK-LABEL: test_sitofp_fixed:
```

```
 ; First, extend each i32 to i64
; CHECK-DAG: sshll2.2d [[BLOCK0_HI:v[0-9]+]], v0, #0
; CHECK-DAG: sshll2.2d [[BLOCK1_HI:v[0-9]+]], v1, #0
; CHECK-DAG: sshll2.2d [[BLOCK2_HI:v[0-9]+]], v2, #0
; CHECK-DAG: sshll2.2d [[BLOCK3_HI:v[0-9]+]], v3, #0
; CHECK-DAG: sshll.2d [[BLOCK0_LO:v[0-9]+]], v0, #0
; CHECK-DAG: sshll.2d [[BLOCK1_LO:v[0-9]+]], v1, #0
; CHECK-DAG: sshll.2d [[BLOCK2_LO:v[0-9]+]], v2, #0
; CHECK-DAG: sshll.2d [[BLOCK3_LO:v[0-9]+]], v3, #0
```

```
 ; Next, convert each to double.
; CHECK-DAG: scvtf.2d v0, [[BLOCK0_LO]]
; CHECK-DAG: scvtf.2d v1, [[BLOCK0_HI]]
; CHECK-DAG: scvtf.2d v2, [[BLOCK1_LO]]
; CHECK-DAG: scvtf.2d v3, [[BLOCK1_HI]]
; CHECK-DAG: scvtf.2d v4, [[BLOCK2_LO]]
; CHECK-DAG: scvtf.2d v5, [[BLOCK2_HI]]
; CHECK-DAG: scvtf.2d v6, [[BLOCK3_LO]]
; CHECK-DAG: scvtf.2d v7, [[BLOCK3_HI]]
```

```
; CHECK: ret
 %flt = sitofp <16 x i32> %in to <16 x double>
 %res = fdiv <16 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0>
 ret <16 x double> %res
}
```

```
; This one is small enough to satisfy isSimple, but still illegally large.
```

```
define <4 x double> @test_sitofp_fixed_shortish(<4 x i64> %in) {
; CHECK-LABEL: test_sitofp_fixed_shortish:
```

```
 ; CHECK-DAG: scvtf.2d v0, v0
; CHECK-DAG: scvtf.2d v1, v1
```



```
; CHECK: ret
%flt = sitofp <4 x i64> %in to <4 x double>
%res = fdiv <4 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0>
ret <4 x double> %res
}
```

---

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```
; RUN: llc -march=hexagon < %s
```

```
; REQUIRES: asserts
```

```
; The two loads based on %struct.0, loading two different data types
; cause LSR to assume type "void" for the memory type. This would then
; cause an assert in isLegalAddressingMode. Make sure we no longer crash.
```

```
target triple = "hexagon"
```

```
%struct.0 = type { i8*, i8, %union.anon.0 }
```

```
%union.anon.0 = type { i8* }
```

```
define hidden fastcc void @fred() unnamed_addr #0 {
```

```
entry:
```

```
br i1 undef, label %while.end, label %while.body.lr.ph
```

```
while.body.lr.ph: ; preds = %entry
```

```
br label %while.body
```

```
while.body: ; preds = %exit.2, %while.body.lr.ph
```

```
%lsr.iv = phi %struct.0* [%cgep22, %exit.2], [undef, %while.body.lr.ph]
```

```
switch i32 undef, label %exit [
```

```
 i32 1, label %sw.bb.i
```

```
 i32 2, label %sw.bb3.i
```

```
]
```

```
sw.bb.i: ; preds = %while.body
```

```
unreachable
```

```
sw.bb3.i: ; preds = %while.body
```

```
unreachable
```

```
exit: ; preds = %while.body
```

```
switch i32 undef, label %exit.2 [
```

```
 i32 1, label %sw.bb.i17
```

```

 i32 2, label %sw.bb3.i20
]

sw.bb.i17: ; preds = %.exit
%0 = bitcast %struct.0* %lshr.iv to i32*
%1 = load i32, i32* %0, align 4
unreachable

sw.bb3.i20: ; preds = %exit
%2 = bitcast %struct.0* %lshr.iv to i8**
%3 = load i8*, i8** %2, align 4
unreachable

exit.2: ; preds = %exit
%cgep22 = getelementptr %struct.0, %struct.0* %lshr.iv, i32 1
br label %while.body

while.end: ; preds = %entry
ret void
}

attributes #0 = { nounwind optsize "target-cpu"="hexagonv55" }
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```

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```
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;
; D31946
```

; Check that we dont end up with the ""LLVM ERROR: Cannot select" error.  
; Additionally ensure that the output code actually put fp128 values in SSE registers.

```
declare fp128 @llvm.fabs.f128(fp128)
declare fp128 @llvm.copysign.f128(fp128, fp128)

define fp128 @TestSelect(fp128 %a, fp128 %b) {
 %cmp = fcmp ogt fp128 %a, %b
 %sub = fsub fp128 %a, %b
 %res = select i1 %cmp, fp128 %sub, fp128 0xL00000000000000000000000000000000
 ret fp128 %res
; CHECK-LABEL: TestSelect:
; CHECK movaps 16(%rsp), %xmm1
; CHECK-NEXT callq __subtf3
; CHECK-NEXT testl %ebx, %ebx
; CHECK-NEXT jg .LBB0_2
; CHECK-NEXT # %bb.1:
; CHECK-NEXT movaps .LCPI0_0(%rip), %xmm0
; CHECK-NEXT .LBB0_2:
; CHECK-NEXT addq $32, %rsp
; CHECK-NEXT popq %rbx
; CHECK-NEXT retq
}

define fp128 @TestFabs(fp128 %a) {
 %res = call fp128 @llvm.fabs.f128(fp128 %a)
 ret fp128 %res
; CHECK-LABEL: TestFabs:
; CHECK andps .LCPI1_0(%rip), %xmm0
; CHECK-NEXT retq
}

define fp128 @TestCopysign(fp128 %a, fp128 %b) {
 %res = call fp128 @llvm.copysign.f128(fp128 %a, fp128 %b)
 ret fp128 %res
; CHECK-LABEL: TestCopysign:
; CHECK andps .LCPI2_1(%rip), %xmm0
; CHECK-NEXT orps %xmm1, %xmm0
; CHECK-NEXT retq
}

define fp128 @TestFneg(fp128 %a) {
 %mul = fmul fp128 %a, %a
 %res = fsub fp128 0xL00000000000000000800000000000000, %mul
 ret fp128 %res
; CHECK-LABEL: TestFneg:
; CHECK movaps %xmm0, %xmm1
; CHECK-NEXT callq __multf3
}
```

```
; CHECK-NEXT xorps .LCPI3_0(%rip), %xmm0
; CHECK-NEXT popq %rax
; CHECK-NEXT retq
}
```

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## 1.376 brotli 1.0.6 2.el8

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## 1.377 sfdisk 2.25.2 r0

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Ty Coon, President of Vice
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Initialize empty image

f1c9645dbc14efddc7d8a322685f26eb bsd.img

Create new DOS partition table

57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout-----

Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors

Units: sectors of 1 \* 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: dos

Disk identifier: <removed>

-----

Create 1st primary partition

ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout-----

Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors

Units: sectors of 1 \* 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: dos

Disk identifier: <removed>

Device Boot Start End Sectors Size Id Type

<removed>1 2048 4095 2048 1M 83 Linux

-----

Create 2st primary partition

1bebf87248e05d6e4e62b749da65d023 bsd.img

Set 2nd partition type  
2d8e8dff51a88a045db233418dd73fbe bsd.img

---layout-----

Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors  
Units: sectors of 1 \* 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: <removed>

Device	Boot	Start	End	Sectors	Size	Id	Type
<removed>1		2048	4095	2048	1M	83	Linux
<removed>2		4096	20479	16384	8M	a5	FreeBSD

-----

Create default BSD  
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout-----

Welcome to fdisk <removed>.  
Changes will remain in memory only, until you decide to write them.  
Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help): Disk <removed>2: 10 MiB, 10485760 bytes, 20480 sectors  
Geometry: 255 heads, 63 sectors/track, 1 cylinders  
Units: sectors of 1 \* 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: bsd  
partitions: 4

Slice	Start	End	Sectors	Size	Type	Fsize	Bsize	Cpg
c	4096	20479	16384	8M	unused	0	0	0
d	0	16064	16065	7.9M	unused	0	0	0

Partition table entries are not in disk order.

Command (m for help): Leaving nested disklabel.

Command (m for help):

-----

b5c121c2091b2ff26b880551feac7112 bsd.img

---layout-----

Welcome to fdisk <removed>.

Changes will remain in memory only, until you decide to write them.

Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help): Disk <removed>2: 10 MiB, 10485760 bytes, 20480 sectors

Geometry: 255 heads, 63 sectors/track, 1 cylinders

Units: sectors of 1 \* 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: bsd

partitions: 4

Slice	Start	End	Sectors	Size	Type	Fsize	Bsize	Cpg
a	4096	6144	2049	1M	4.2BSD	0	0	0
c	4096	20479	16384	8M	unused	0	0	0
d	0	16064	16065	7.9M	unused	0	0	0

Partition table entries are not in disk order.

Command (m for help): Leaving nested disklabel.

Command (m for help):

-----

Changes will remain in memory only, until you decide to write them.

Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help):

0	unused	5	4.1BSD	9	4.4LFS	d	boot
1	swap	6	Eighth Edition	a	unknown	e	ADOS
2	Version 6	7	4.2BSD	b	HPFS	f	HFS
3	Version 7	8	MS-DOS	c	ISO-9660	10	AdvFS
4	System V						

Command (m for help):

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## 1.378 jemalloc 4.0.4 r0

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## 1.380 cffi 1.14.4

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## 1.381 go-connections

### 0.2.1+gitAUTOINC+4ccf312bf1 r0

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\*

\* @(#)ttydefaults.h 8.4 (Berkeley) 1/21/94

\* \$FreeBSD: src/sys/sys/ttydefaults.h,v 1.13.2.1 2001/03/06 03:37:08 jkh Exp \$

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*
* @(#)ttycom.h 8.1 (Berkeley) 3/28/94
* $FreeBSD: src/sys/sys/ttycom.h,v 1.16 2000/01/29 16:47:35 peter Exp $
*/
/*-
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*
* @(#)ttychars.h 8.2 (Berkeley) 1/4/94
* $FreeBSD: src/sys/sys/ttychars.h,v 1.7 1999/08/28 00:52:06 peter Exp $
*/

```

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To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

^L

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is

linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

^L

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.



Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

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Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the

library". The executable is therefore covered by this License.  
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

^L

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

-----  
EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected in released code until Nov 2009 - slow release cycle...)  
-----

Discussion thread from mailing list archive, with approval from everyone actively involved or holding original licensing rights included.

[Cracklib-devel] cracklib license  
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML  
looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=  
r=20  
GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists  
=2Dmike

Re: [Cracklib-devel] cracklib license  
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18  
I understand that, and you're welcome to bring it up with Alec directly and see if he wants to relicense his code as LGPL... but at this point, it was enough to just get it consistent and documented as to what it was released under. This wasn't actually a license change, just a clarification of the licensing that was already in place.=20

-- Nathan

=20

-----  
Nathan Neulinger EMail: nneul@um...  
University of Missouri - Rolla Phone: (573) 341-6679  
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...

> [mailto:cracklib-devel-bounces@li...] On Behalf Of

> Mike Frysinger

> Sent: Monday, October 01, 2007 8:15 PM

> To: cracklib-devel@li...

> Subject: [Cracklib-devel] cracklib license

>=20

> looks like 2.8.11 is out and marked as "GPL-2" ... releasing

> libraries under

> GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists

> -mike

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML

On Monday 01 October 2007, Neulinger, Nathan wrote:

> I understand that, and you're welcome to bring it up with Alec directly  
> and see if he wants to relicense his code as LGPL... but at this point,  
> it was enough to just get it consistent and documented as to what it was  
> released under. This wasn't actually a license change, just a  
> clarification of the licensing that was already in place.

the original license (before moving to sourceforge -- aka, 2.7) was not=20  
GPL-2 ... it was a modified artistic license ... i didnt notice the license=  
=20

change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=  
eir=20

applications are also GPL-2 which imo is just wrong. it isnt the place of =  
a=20

library to dictact to application writes what license they should be using.=  
=20

thus LGPL-2.1 enters to fill this void.

=2Dmike



Re: [Cracklib-devel] cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46

Seems like the ideal thing here would be for you and the other distro maintainers to get together with Alec in a conversation and come to a decision as to what licensing scheme y'all want. I haven't really done much other than cleaning up the packaging and patches and a small bit of additional code, so whatever licensing y'all come up with is fine by me.

-- Nathan

=20

-----  
Nathan Neulinger EMail: nneul@um...

University of Missouri - Rolla Phone: (573) 341-6679

UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...

> [mailto:cracklib-devel-bounces@li...] On Behalf Of

> Mike Frysinger

> Sent: Monday, October 01, 2007 8:33 PM

> To: Neulinger, Nathan

> Cc: cracklib-devel@li...; Alec Muffett

> Subject: Re: [Cracklib-devel] cracklib license

>=20

> On Monday 01 October 2007, Neulinger, Nathan wrote:

> > I understand that, and you're welcome to bring it up with Alec

> directly

> > and see if he wants to relicense his code as LGPL... but at this

> point,

> > it was enough to just get it consistent and documented as to what

> it was

> > released under. This wasn't actually a license change, just a

> > clarification of the licensing that was already in place.

>=20

> the original license (before moving to sourceforge -- aka, 2.7) was

> not

> GPL-2 ... it was a modified artistic license ... i didnt notice the

> license

> change until it was mentioned in the latest notes.

>=20

> unlike the old license, GPL-2 prevents people from using cracklib

> unless their

> applications are also GPL-2 which imo is just wrong. it isnt the

> place of a

> library to dictact to application writes what license they should

> be using.

> thus LGPL-2.1 enters to fill this void.

> -mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57

> Seems like the ideal thing here would be for you and the other distro  
> maintainers to get together with Alec in a conversation and come to a  
> decision as to what licensing scheme y'all want. I haven't really done  
> much other than cleaning up the packaging and patches and a small  
> bit of  
> additional code, so whatever licensing y'all come up with is fine  
> by me.

I am sympathetic. Guys, what do you reckon?

What I am hearing so far is that LGPL makes sense, since it can be  
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license

From: Devin Reade <gdr@gn...> - 2007-10-02 15:04

I would like to see it under LGPL as well. I think it is in everyone's  
best interests to have as secure systems as possible, and I think tainting  
it via GPL will just make it less likely that the library gets used, and  
will not usually cause companies/developers to GPL the dependent code  
(where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct  
license in this situation.

Devin

--

If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license

From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

>> Seems like the ideal thing here would be for you and the other distro  
>> maintainers to get together with Alec in a conversation and come to a  
>> decision as to what licensing scheme y'all want. I haven't really done  
>> much other than cleaning up the packaging and patches and a small  
>> bit of  
>> additional code, so whatever licensing y'all come up with is fine  
>> by me.

>

> I am sympathetic. Guys, what do you reckon?

>  
> What I am hearing so far is that LGPL makes sense, since it can be  
> linked with any code, not just GPL...

My apologies for not chiming in in anything resembling a reasonable  
timeframe.

I'd also suggest the LGPL, for the reason you noted above. Alternately,  
GPLv2 with the option of using the library under a later version of the  
GPL would permit applications which were released under version 3 of the  
GPL to use the library, too, which would be sufficient for the packages  
which are included in Fedora. FWIW, I'd personally lean toward LGPL.

In any case, I thank you both for working on sorting this out.

Cheers,

Nalin

Re: [Cracklib-devel] cracklib license  
From: Mike Frysinger <vapier@ge...> - 2008-10-05 21:27

Attachments: Message as HTML

On Monday 28 January 2008, Nalin Dahyabhai wrote:

> On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:  
>>> Seems like the ideal thing here would be for you and the other distro  
>>> maintainers to get together with Alec in a conversation and come to a  
>>> decision as to what licensing scheme y'all want. I haven't really done  
>>> much other than cleaning up the packaging and patches and a small  
>>> bit of  
>>> additional code, so whatever licensing y'all come up with is fine  
>>> by me.

>>

>> I am sympathetic. Guys, what do you reckon?

>>

>> What I am hearing so far is that LGPL makes sense, since it can be  
>> linked with any code, not just GPL...

>

> My apologies for not chiming in in anything resembling a reasonable  
> timeframe.

>

> I'd also suggest the LGPL, for the reason you noted above. Alternately,  
> GPLv2 with the option of using the library under a later version of the  
> GPL would permit applications which were released under version 3 of the  
> GPL to use the library, too, which would be sufficient for the packages  
> which are included in Fedora. FWIW, I'd personally lean toward LGPL.

>

> In any case, I thank you both for working on sorting this out.

looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make the change now ?

-mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2008-10-05 23:18

>> In any case, I thank you both for working on sorting this out.

>

> looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make  
> the change now ?

yes. go for it. thanks++

-a

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-25 22:34

Attachments: Message as HTML

On Sunday 05 October 2008, Alec Muffett wrote:

> >> In any case, I thank you both for working on sorting this out.

> >

> > looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we  
> > make the change now ?

>

> yes. go for it. thanks++

Nathan Neulinger is the only one who can actually make said change ...

-mike

-----  
BELOW IS ORIGINAL LICENSING DISCUSSION RE CHANGING TO GPL from Artistic.  
-----

CrackLib was originally licensed with a variant of the Artistic license. In the interests of wider acceptance and more modern licensing, it was switched with the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed as of 2007-10-01 with the following email from Alec Muffett.

The below email references nneul@umr.edu address, as that is the address

that was used at the time. For any future emails regarding this, please use nneul@neulinger.org.

-----

From alecm@crypticide.com Mon Oct 1 12:26:03 2007  
Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);  
Mon, 1 Oct 2007 12:26:03 -0500  
Received: from scansrv2.srv.mst.edu ([131.151.1.114]) by umr-exproto2.cc.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);  
Mon, 1 Oct 2007 12:26:02 -0500  
Received: (qmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000  
Received: from smtp1.srv.mst.edu (131.151.1.43)  
by scanin-ipvs.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000  
Received: from spunkymail-mx8.g.dreamhost.com (mx1.spunky.mail.dreamhost.com [208.97.132.47])  
by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id 191Gxtp020623  
for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500  
Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])  
by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTP id 2C7734D311  
for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)  
Received: from [82.68.43.14] (helo=[192.168.1.3])  
by rutherford.zen.co.uk with esmtp (Exim 4.50)  
id 1IcOcX-0004Qt-6L  
for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000  
Mime-Version: 1.0 (Apple Message framework v752.2)  
In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>  
References: <1190922867.3457.147.camel@localhost.localdomain>  
<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>  
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Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed  
Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFE6E9F@crypticide.com>  
Content-Transfer-Encoding: 7bit  
From: Alec Muffett <alecm@crypticide.com>  
Subject: Re: cracklib license  
Date: Mon, 1 Oct 2007 17:59:46 +0100  
To: Nathan Neulinger <nneul@neulinger.org>  
X-Mailer: Apple Mail (2.752.2)  
X-Originating-Rutherford-IP: [82.68.43.14]  
Return-Path: alecm@crypticide.com  
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]  
Status: RO  
Content-Length: 585  
Lines: 21

>

> ----- Forwarded message -----  
> From: Neulinger, Nathan <nneul@umr.edu>  
> Date: Sep 27, 2007 2:58 PM  
> Subject: RE: cracklib license  
> To: alecm@crypto.dircon.co.uk  
>  
> Any chance you could write me a self-contained email stating clearly  
> that the license is being changed to GPL, so I could include that  
> email  
> in the repository and clean up the repository/tarballs? I have all the  
> original discussion, but something succinct and self contained  
> would be  
> ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

# 1.389 libmnl 1.0.4 r0

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```
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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <[Cyan4973@github.com](mailto:Cyan4973@github.com)>

Source: <https://github.com/lz4/lz4>

Files: \*

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## 1.391 rpm 4.14.2.1 r0

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```

```
<signature of Ty Coon>, 1 April 1989
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## 1.392 libxslt 1.1.32-6.el8

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## 1.393 gnulib 2018-03-07.03 r0

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Version 3, 29 June 2007

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```
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Files:

tests/test-update-copyright.sh

Depends-on:

configure.ac:

```
abs_aux_dir=`cd "$ac_aux_dir"; pwd`
```

```
AC_SUBST([abs_aux_dir])
```

Makefile.am:

```
TESTS += test-update-copyright.sh
```

```
TESTS_ENVIRONMENT += abs_aux_dir='${abs_aux_dir}'
```

```
@c The GNU Lesser General Public License.
```

```
@center Version 2.1, February 1999
```

```
@c This file is intended to be included within another document,
```

```
@c hence no sectioning command or @node.
```

@display

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

@item

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under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

@item

A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a ``work that uses the Library''. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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@item

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@enumerate a

@item

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@item

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@item

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@item

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@end enumerate

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Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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@subheading END OF TERMS AND CONDITIONS

@page

@subheading How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the ``copyright" line and a pointer to where the full notice is found.

@smallexample

@var{one line to give the library's name and an idea of what it does.}

Copyright (C) @var{year} @var{name of author}

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@end smallexample

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You should also get your employer (if you work as a programmer) or your school, if any, to sign a ``copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

```
@smallexample
```

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the library
`Frob' (a library for tweaking knobs) written by James Random Hacker.
```

```
@var{signature of Ty Coon}, 1 April 1990
```

```
Ty Coon, President of Vice
```

```
@end smallexample
```

That's all there is to it!

Files:

```
tests/test-canonicalize-lgpl.c
```

```
tests/signature.h
```

```
tests/null-ptr.h
```

```
tests/macros.h
```

Depends-on:

```
ignore-value
```

```
same-inode
```

```
symlink
```

configure.ac:

Makefile.am:

```
TESTS += test-canonicalize-lgpl
```

```
check_PROGRAMS += test-canonicalize-lgpl
```

```
$Id: COPYING,v 1.3 2006-10-26 16:20:28 eggert Exp $
```

```
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are under assorted licenses. Mostly, but not entirely, GPL.
```

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Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

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@end enumerate

@iftex  
@heading END OF TERMS AND CONDITIONS  
@end iftex  
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@page

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the ``copyright" line and a pointer to where the full notice is found.

@smallexample

@var{one line to give the program's name and a brief idea of what it does.}

Copyright (C) @var{yyyy} @var{name of author}

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@end smallexample

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If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

@smallexample

Gnomovision version 69, Copyright (C) @var{year} @var{name of author}

Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.

This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

@end smallexample

The hypothetical commands @samp{show w} and @samp{show c} should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than @samp{show w} and @samp{show c}; they could even be mouse-clicks or menu items---whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a ``copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

@example

Yoyodyne, Inc., hereby disclaims all copyright interest in the program

`Gnomovision' (which makes passes at compilers) written by James Hacker.

@var{signature of Ty Coon}, 1 April 1989

Ty Coon, President of Vice

@end example

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

Description:

Concatenate two arbitrary file names.

Files:

lib/filenamecat.h

lib/filenamecat-lgpl.c

m4/filenamecat.m4

Depends-on:

dirname-lgpl

configure.ac:

gl\_FILE\_NAME\_CONCAT\_LGPL

Makefile.am:

lib\_SOURCES += filenamecat-lgpl.c

Include:

"filenamecat.h"

License:

GPLv2+

Maintainer:

Jim Meyering

The files in this directory describe the gnulib modules.

The following copyright notice applies to each of these description files.

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Please use your full legal name (in ASCII characters) as the subject line of the message.

-----  
REQUEST: SEND FORM FOR PAST AND FUTURE CHANGES

[What is the name of the program or package you're contributing to?]

[Did you copy any files or text written by someone else in these changes?  
Even if that material is free software, we need to know about it.]

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your changes? Do you attend a school which might make such a claim?]

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[What year were you born?]

[Please write your email address here.]

[Please write your postal address here.]

[Which files have you changed so far, and which new files have you written  
so far?]

Description:

Provide the GNU Free Documentation License in Texinfo format.

Files:

doc/fdl.texi

Depends-on:

configure.ac:

Makefile.am:

Include:

License:

unmodifiable license text

Maintainer:

all

Description:

Help make libraries relocatable, that is, to allow them to function properly when copied to an arbitrary directory.

Files:

doc/relocatable.texi  
lib/relocatable.h  
lib/relocatable.c  
lib/relocatable.valgrind  
m4/relocatable-lib.m4

Depends-on:

strdup

configure.ac:

```
gl_RELOCATABLE_LIBRARY
if test $RELOCATABLE = yes; then
 AC_LIBOBJ([relocatable])
fi
```

Makefile.am:

```
DEFS += -DNO_XMALLOC
```

Include:

```
"relocatable.h"
```

License:

GPLv2+

Maintainer:

Ben Pfaff

Description:

Ensure getcwd(NULL, 0) returns a buffer allocated by the malloc() function.

Files:

lib/getcwd-lgpl.c  
m4/getcwd.m4

Depends-on:

unistd  
strdup [test \$REPLACE\_GETCWD = 1]

configure.ac:

```
gl_FUNC_GETCWD_LGPL
if test $REPLACE_GETCWD = 1; then
 AC_LIBOBJ([getcwd-lgpl])
fi
gl_UNISTD_MODULE_INDICATOR([getcwd])
```

Makefile.am:

Include:

<unistd.h>

License:

LGPLv2+

Maintainer:

Eric Blake

Legal Issues about Contributing Code to GNU last updated 14 July 2015

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\* Keep the copyright and release the program yourself under the GNU GPL. (This alternative is too impractical for contributions to a preexisting FSF-copyrighted GNU program.)

\* Put the code in the public domain. Then there is nothing to stop hoarding of modified versions, but we can still use the program in GNU.

Most of these alternatives require a signed piece of paper, or in some cases a digital signature, to make it happen.

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The assignment contract commits the foundation to setting distribution

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\* Public domain.

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Digital Simulation Corporation hereby disclaims all copyright interest in the program "sample.el" (a program to direct assemblers to make passes at compilers under GNU Emacs) written by Hugh Hacker.

<signature of Mo Ghoul>, 1 April 1987

Mo Ghoul, President of Vice, Digital Simulation Corp.

The description of what the program does is just to make it clearer what the disclaimer covers.

If what you did was change an existing program, it should say this:

...in the changes and enhancements made by Hugh Hacker to the program "sample.el".

\* Did anyone else contribute?

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It is not considered a serious problem if you have read Unix sources



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Description:

Locating a program in PATH (LGPLed version).

Files:

lib/findprog.h

lib/findprog.c

lib/findprog-lgpl.c

m4/findprog.m4

m4/eaccess.m4

Depends-on:

stdbool

strdup

concat-filename

unistd

configure.ac:

gl\_FINDPROG

gl\_MODULE\_INDICATOR([findprog-lgpl])

Makefile.am:

lib\_SOURCES += findprog.h findprog.c

Include:

"findprog.h"

License:

LGPLv2+

Maintainer:

all

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Version 2, June 1991

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```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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Files:

tests/test-getcwd-lgpl.c

tests/signature.h

tests/macros.h

Depends-on:

configure.ac:

Makefile.am:

TESTS += test-getcwd-lgpl

check\_PROGRAMS += test-getcwd-lgpl

test\_getcwd-lgpl\_LDADD = \$(LDADD) \$(LIBINTL)

Description:

realpath, canonicalize\_file\_name: Provide canonical absolute file name

Files:

lib/canonicalize-lgpl.c

m4/canonicalize.m4

m4/double-slash-root.m4

Depends-on:

extensions

stdlib

nocrash

alloca-opt [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

errno [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

lstat [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test \$REPLACE\_CANONICALIZE\_FILE\_NAME  
= 1]

malloca [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

memmove [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

pathmax [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

readlink [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

sys\_stat [test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test  
\$REPLACE\_CANONICALIZE\_FILE\_NAME = 1]

configure.ac:

gl\_CANONICALIZE\_LGPL

if test \$HAVE\_CANONICALIZE\_FILE\_NAME = 0 || test \$REPLACE\_CANONICALIZE\_FILE\_NAME = 1; then  
AC\_LIBOBJ([canonicalize-lgpl])

fi

gl\_MODULE\_INDICATOR([canonicalize-lgpl])

gl\_STDLIB\_MODULE\_INDICATOR([canonicalize\_file\_name])

gl\_STDLIB\_MODULE\_INDICATOR([realpath])

Makefile.am:

Include:

<stdlib.h>

License:

GPLv2+

Maintainer:

all

Description:

Extract specific portions of filenames.

Files:

lib/dirname.h

lib/dirname-lgpl.c

lib/basename-lgpl.c

lib/stripdash.c

m4/dirname.m4

Depends-on:

dosname

double-slash-root

malloc-posix

stdbool

configure.ac:

gl\_DIRNAME\_LGPL

Makefile.am:

lib\_SOURCES += dirname-lgpl.c basename-lgpl.c stripdash.c

Include:

"dirname.h"

License:

GPLv2+

Maintainer:

Jim Meyering, Eric Blake

# 1.394 nspr 4.21 r0

## 1.394.1 Available under license :

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## 1.395 zlib 1.2.11

### 1.395.1 Available under license :

/\* zlib.h -- interface of the 'zlib' general purpose compression library  
version 1.2.11, January 15th, 2017

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Jean-loup Gailly      Mark Adler  
jloup@gzip.org      madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).

\*/

# 1.396 python-wcwidth 0.1.7 r0

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# 1.397 fribidi 1.0.5 r0

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Version 2.1, February 1999

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## 1.398 libxml-parser-perl 2.44 r0

## 1.399 keyutils 1.5.10 6.el8

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Version 2, June 1991

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```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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```
7zXZF!t/o."w[7gp<G
H:Oed 18uyMQ9]FO6
87I8.mhGl^eb_X/UQKuB
)Cdk!B_M\|tw|11np#_(~*uM%S61opMG`YfRXvY[R+t[BS=)d
;*!;_>KfBqxY(F|0.Ve%S61opMG`YfRXvY[R+t[BS=)d
;*!;_>KfBqxYm+sS|11np#_(~*uM%S61opMG`YfRXvY[R+t[BS=)d
;*!;_>KfBqxY(F|0.Ve%S61opMG`YfRXvY[R+t[BS=)d;*!;_>KfBqxY(F|0.Ve%Q?
*sS|11np#_(~*u7gi)[IgYZ
```

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## 1.406 ca-certificates 20190110 r0

## 1.407 yajl 2.1.0 r0

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```
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Version 2, June 1991

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## 1.410 nghttp2 1.33.0 3.e18\_2.1

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```
set yrange [0:]
set terminal pngcairo font 'Sans, 8' lw 1 size 1400,1024
set xtics rotate by -45
set style histogram errorbars gap 2 lw 1
set style fill solid border -1
```

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That's all there is to it!

# 1.412 ptest-runner

## 2.3.2+gitAUTOINC+7015e9199c r0

### 1.412.1 Available under license :

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Version 2, June 1991

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# 1.418 python-iso8601 0.1.12 r0

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## 1.419 python-setuptools 41.2.0 r0

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The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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<one line to give the library's name and a brief idea of what it does.>  
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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

# 1.421 elfutils 0.182-3.el8

## 1.421.1 Available under license :

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```
/*
* symbol_type_info.c
*
* July 2016, Jingfeng Yan
*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1130449857_1615191950.34/0/elfutils-tar/binary_tool/symbol_type_info.c
```

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parser\_bin\_tool\_readme.html

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```
* /opt/cola/permits/1130449857_1615191950.34/0/elfutils-tar/binary_tool/parser_bin_tool_readme.html
```

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- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/parseinfo.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/datastore.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/structdef.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/ActionTable.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/fixup\_parser\_extension.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/LinkTable.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/SimpleELF.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/Makefile
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/extract\_func\_calls.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/codegen.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/StructFormat.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/SimpleCType.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/setup.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/struct\_unpack.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/gdblist.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/bat\_structoffset.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/CmdSelector.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/parser\_bin\_tool.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/SymbolTable.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/extract\_address.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/Traverser.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/graph\_algo.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/actionenum.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/handler.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/Condition.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/SimpleTraverser.py
- \* /opt/cola/permits/1130449857\_1615191950.34/0/elfutils-tar/binary\_tool/tlutils.py

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/\*

\* lua\_ex\_api.c

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\*

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## 1.422 libdnet 1.12 r0

### 1.422.1 Available under license :

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## 1.423 systemd-bootchart

### 233+gitAUTOINC+fe1c5e41e6 r0

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Version 2, June 1991

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# 1.427 keyutils 1.6 r0

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```

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```
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```

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```
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```

```
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Ty Coon, President of Vice
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## 1.428 e2fsprogs

## 1.42.99+1.43+gitAUTOINC+0f26747167 r0

### 1.428.1 Available under license :

Index: tdbsa/tdb.c

=====

--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

\*/

/\*

- Unix SMB/CIFS implementation.
- + trivial database library - standalone version
  
- trivial database library - private includes

- 
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This package was put together by Yann Dirson <dirson@debian.org>,  
from sources obtained from a mirror of:  
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

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Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

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#

# This is a Makefile stub which handles the creation of BSD shared  
# libraries.

#

# In order to use this stub, the following makefile variables must be defined.

#

# BSDLIB\_VERSION = 1.0

# BSDLIB\_IMAGE = libce

# BSDLIB\_MYDIR = et

# BSDLIB\_INSTALL\_DIR = \$(SHLIBDIR)

#

all:: image

real-subdirs:: Makefile

@echo " MKDIR pic"

@mkdir -p pic

BSD\_LIB = \$(BSDLIB\_IMAGE).so.\$(BSDLIB\_VERSION)

BSDLIB\_PIC\_FLAG = -fpic

image: \$(BSD\_LIB)

\$(BSD\_LIB): \$(OBJS)

(cd pic; ld -Bshareable -o \$(BSD\_LIB) \$(LDFLAGS) \$(OBJS))

\$(MV) pic/\$(BSD\_LIB) .

\$(RM) -f ../\$(BSD\_LIB)

(cd ..; \$(LN) \$(LINK\_BUILD\_FLAGS) \

`echo \$(my\_dir) | sed -e 's;lib/;;'"/\$(BSD\_LIB) \$(BSD\_LIB))

install-shlibs install:: \$(BSD\_LIB)

@echo " INSTALL\_PROGRAM \$(BSDLIB\_INSTALL\_DIR)/\$(BSD\_LIB)"

@\$(INSTALL\_PROGRAM) \$(BSD\_LIB) \

\$(DESTDIR)\$\$(BSDLIB\_INSTALL\_DIR)/\$(BSD\_LIB)

@-\$(LDCONFIG)

install-strip: install

install-shlibs-strip: install-shlibs

uninstall-shlibs uninstall::

```
$(RM) -f $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

clean::

```
$(RM) -rf pic
```

```
$(RM) -f $(BSD_LIB)
```

```
$(RM) -f ../$(BSD_LIB)
```

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Theodore Ts'o  
23-June-2007

---

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```

```
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```
set xrange [0:]
```

```
set terminal pngcairo font 'Sans, 8' lw 1 size 1400,1024
```

```
set xtics rotate by -45
```

```
set style histogram errorbars gap 2 lw 1
```

```
set style fill solid border -1
```

```
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```

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The following people contributed improvements, fixes, suggestions, and comments:

- Oliver Kurth (oku@debian.org) contributed bug fixes and the manual page for picocom.
- Julius P. Malkiewicz (julius@sonartech.com.au) contributed FreeBSD portability fixes, the C-\ command implementation, the UUCP locks implementation, and other minor fixes.
- Pavel Vymetalek (pvymentalek@seznam.cz) contributed the higher baudrates support.
- Niels Moller (nisse@lysator.liu.se) contributed support for non-alphabetic escape keys.
- (lwithers@gmail.com) contributed fixes to select(2) and read(2) error handling.
- (bob.dunlop@xyzyzy.org.uk) suggested fix to prevent serial port from becoming controlling terminal.
- Edgar Johansen (edgar@storteig.com) suggested conditionals to enable compilation without UUCP\_LOCK\_DIR
- Scott Tsai (scott.tw@gmail.com) suggested better UUCP\_LOCK\_DIR definition
- Josh Handley (<https://github.com/jhandley>) added support for line-editing, autocompletion and history when entering "send" and "receive" file names. Editing support uses the "linenoise" library. See: <https://github.com/jhandley/picocom>
- Salvatore Sanfilippo (<https://github.com/antirez>) is the author of the linenoise line-editing library. See: <https://github.com/antirez/linenoise>
- From Cody Schafer's (<https://github.com/jmesmon>) fork originated the idea to add custom baudrate support to picocom. See: <https://github.com/jmesmon/picocom>

- From Paul Chakravarti's (<https://github.com/paulchakravarti>) fork originated the idea to add support for disabling the send- and receive-file commands, and for not using the shell when executing external programs (to avoid shell escapes). See: <https://github.com/paulchakravarti/picocom-noexec>
- Vicente Olivert Riera (Vincent.Riera@imgtec.com) contributed minor patches
- Peter Bradstreet (peter.bradstreet@oracle.com) helped diagnose input performance problems on overloaded / slow systems.
- Cody Planteen (<https://github.com/planteen>) contributed the implementation of the toggle-RTS command.
- Joe Merten (<https://github.com/JoeMerten>) contributed the --lower-rts and --lower-dtr options, custom baudrate support for FreeBSD and macOS, the --logfile option implementation, and several bug-fixes.
- Maciej Grela (<https://github.com/mgrela>) contributed the initial --initstring option implementation.
- Baruch Siach (<https://github.com/baruchsiach>) contributed improvements to the Makefile
- Christopher N. Hesse (<https://github.com/raymanfx>) contributed the initial Android makefile
- Ben (<https://github.com/the-dem>) contributed backward compatibility fixes.

# 1.431 json-c 0.99.8-2.el8

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## 1.432 gawk 5.0.1 r0

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```
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```
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```

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```

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```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

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## 1.433 minix 3

### 1.433.1 Available under license :

```
/* $NetBSD: statvfs.h,v 1.17 2011/11/18 21:17:45 christos Exp $ */
```

```
/*-
```

```
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```

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\*

\* \$FreeBSD: src/lib/libc/inet\_network.c,v 1.6 1999/11/04 04:30:44 ache Exp \$

\*/

/\* \$NetBSD: scanf.c,v 1.12 2003/08/07 16:43:31 agc Exp \$ \*/

/\*-

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Version 3, 29 June 2007

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```
/* -*- Mode: Text -*- */
```

```
copyright = {
 date = "1992-2017";
 owner = "The University of Delaware and Network Time Foundation";
 eaddr = "http://bugs.ntp.org, bugs@ntp.org";
 type = ntp;
};
```

```
long-opts;
config-header = config.h;
environrc;
no-misuse-usage;
version-proc = ntpOptionPrintVersion;
```

```
version = `
eval VERSION=\`sed -e 's/.*;\\[//' -e 's/^\\.*/' < ../sntp/m4/version.m4\
[-z "${VERSION}"] && echo "Cannot determine VERSION" && kill -TERM $AG_pid
echo $VERSION`;
```

```
version-value = "; /* Don't use -v as a shortcut for --version */
```

```
/*
* HMS: man pages already have this, and texi pages can use the
* values in sntp/include/version.texi .
*/
```

```
// doc-sub = {
// sub-name = version;
// sub-text = 's/#VERSION#/<<version>>/g';
// };
```

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```
=====
```

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```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
```

```
<html>
```

```
<head>
```

```
<meta http-equiv="content-type" content="text/html; charset=iso-8859-1">
```

```
<title>Copyright Notice</title>
```

```
<!-- Changed by: Harlan Stenn, 10-Mar-2014 -->
```

```
<link href="scripts/style.css" type="text/css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
<h3>Copyright Notice</h3>
```

```
 "Clone me," says Dolly sheepishly.
```

<p>Last update:

<!-- #BeginDate format:En2m -->2-Jan-2017 11:58<!-- #EndDate -->

UTC</p>

<br clear="left">

</p>

<hr>

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- <li><a href="mailto:%20mark\_andrews@isc.org">Mark Andrews <mark\_andrews@isc.org></a> Leitch atomic clock controller</li>
- <li><a href="mailto:%20altmeier@atsoft.de">Bernd Altmeier <altmeier@atsoft.de></a> hopf Elektronik serial line and PCI-bus devices</li>
- <li><a href="mailto:%20vbais@mailman1.intel.co">Viraj Bais <vbais@mailman1.intel.com></a> and <a href="mailto:%20kirkwood@striderfm.intel.com">Clayton Kirkwood <kirkwood@striderfm.intel.com></a> port to WindowsNT 3.5</li>
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- <li><a href="mailto:%20greg.brackley@bigfoot.com">Greg Brackley <greg.brackley@bigfoot.com></a> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.</li>
- <li><a href="mailto:%20Marc.Brett@westgeo.com">Marc Brett <Marc.Brett@westgeo.com></a> Magnavox GPS clock driver</li>
- <li><a href="mailto:%20Piete.Brooks@cl.cam.ac.uk">Piete Brooks <Piete.Brooks@cl.cam.ac.uk></a> MSF clock driver, Trimble PARSE support</li>
- <li><a href="mailto:%20nelson@bolyard.me">Nelson B Bolyard <nelson@bolyard.me></a> update and complete broadcast and crypto features in sntp</li>
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- <li><a href="mailto:%20casey@csc.co.za">Casey Crellin <casey@csc.co.za></a> vxWorks (Tornado) port and help with target configuration</li>
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- <li><a href="mailto:%20duwe@immd4.informatik.uni-erlangen.de">Torsten Duwe

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<li><a href="mailto:%20Hans.Lambermont@nl.origin-it.com">Hans Lambermont <Hans.Lambermont@nl.origin-it.com> or <a href="mailto:H.Lambermont@chello.nl">H.Lambermont@chello.nl</li> ntpsweep</li>

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<li><a href="mailto:%20dkatz@cisco.com">Dave Katz <dkatz@cisco.com> RS/6000 AIX port</li>

<li><a href="mailto:%20leres@ee.lbl.gov">Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver</li>

<li><a href="mailto:%20lindholm@ucs.ubc.ca">George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port</li>

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52. [56]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline



functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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@subheading END OF TERMS AND CONDITIONS

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@var{signature of Ty Coon}, 1 April 1990

Ty Coon, President of Vice

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/\* setjmp is implemented in setjmp.S \*/

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@c Local Variables:  
@c ispell-local-pdict: "ispell-dict"  
@c End:

## 1.437 inflate-c c10p1

### 1.437.1 Available under license :

```
/* $Id: inflate.c,v 3.2.60.1 1996/03/18 19:11:09 gstovall Exp $
* $Source: /release/111/cvs/Xsys/czip/inflate.c,v $
*-----
* inflate.c - unzip inflate
*
* December 1994, Michael Beesley
*
* Copyright (c) 1990-1997, 2001, 2004-2005, 2007 by cisco Systems, Inc.
* All rights reserved.
*
*-----
* $Log: inflate.c,v $
* Revision 3.2.60.1 1996/03/18 19:11:09 gstovall
* Branch: California_branch
* Elvis has left the building. He headed out to California, and took the
* port ready changes with him.
*
* Revision 3.2.26.2 1996/03/07 08:42:15 mdb
* Branch: DeadKingOnAThrone_branch
* cisco and ANSI/POSIX libraries.
*
* Revision 3.2.26.1 1996/02/20 13:44:31 dstine
* Branch: DeadKingOnAThrone_branch
* Sync from DeadKingOnAThrone_baseline_960122 to
* DeadKingOnAThrone_baseline_960213
*
* Revision 3.2 1995/11/17 08:58:13 hampton
* Remove old entries from the RCS header logs.
```

```

*
* Revision 3.1 1995/11/09 11:15:19 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.2 1995/06/23 22:23:30 mbeesley
* CSCdi36360: 95q1 compiler fails to build czip_elf
* Work-around the compiler bug by declaring variables static.
* This allows zipped images for c4500, rsp to ship in 11.0.
*
* Revision 2.1 1995/06/07 20:22:19 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/
/* inflate.c -- Not copyrighted 1992 by Mark Adler
 version c10p1, 10 January 1993 */

/* You can do whatever you like with this source file, though I would
 prefer that if you modify it and redistribute it that you include
 comments to that effect with your name and the date. Thank you.
 [The history has been moved to the file ChangeLog.]
*/

```

# 1.438 luajit 2.2.1

## 1.438.1 Available under license :

=====

LuaJIT -- a Just-In-Time Compiler for Lua. <http://luajit.org/>

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=====  
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## 1.439 libsolv 0.7.6 r0

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MUSL

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-----  
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-----

TRE (tre.h, tre-mem.c)

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-----

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# 1.440 cudd v2.4.1

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# 1.441 dnf 4.4.2-2.el8

## 1.441.1 Available under license :

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```
/*
*-----
* erp_io.sm - Ethernet Ring Protection Controller state machine
*
* June 2010, Viet Nguyen
*
```

\* Copyright (c) 2010-2011, 2019 by Cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

XOS\_SM\_EVENTLIST\_BEGIN

XOS\_SM\_EVENT(init)

XOS\_SM\_EVENT(clear)

XOS\_SM\_EVENT(fs)

XOS\_SM\_EVENT(aps\_fs)

XOS\_SM\_EVENT(local\_sf)

XOS\_SM\_EVENT(local\_clear\_sf)

XOS\_SM\_EVENT(aps\_sf)

XOS\_SM\_EVENT(aps\_ms)

XOS\_SM\_EVENT(ms)

XOS\_SM\_EVENT(wtr\_expires)

XOS\_SM\_EVENT(wtb\_expires)

XOS\_SM\_EVENT(aps\_nr\_rb)

XOS\_SM\_EVENT(aps\_nr)

XOS\_SM\_EVENT(ack)

XOS\_SM\_EVENTLIST\_END

/\*

\* State machine states

\* - Init,

\* A\_Idle,

\* B\_Protection,

\* C\_ManualSwitch,

\* D\_ForcedSwitch,

\* E\_Pending

\*/

XOS\_SM\_STATE\_BEGIN(init)

XOS\_SM\_TRANSITION(init, erp\_io\_sm\_action\_init, init) /\* wait ack \*/

XOS\_SM\_TRANSITION(ack, erp\_io\_sm\_action\_init\_ack, E\_Pending)

XOS\_SM\_STATE\_END

XOS\_SM\_STATE\_BEGIN(A\_Idle)

XOS\_SM\_TRANSITION(clear, erp\_io\_sm\_action\_null, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(fs, erp\_io\_sm\_action\_fs, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(aps\_fs, erp\_io\_sm\_action\_aps\_fs, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(local\_sf, erp\_io\_sm\_action\_local\_sf, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(local\_clear\_sf, erp\_io\_sm\_action\_null, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(aps\_sf, erp\_io\_sm\_action\_aps\_sf, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(aps\_ms, erp\_io\_sm\_action\_aps\_ms, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(ms, erp\_io\_sm\_action\_ms, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(wtr\_expires, erp\_io\_sm\_action\_null, A\_Idle) /\* wait ack \*/

XOS\_SM\_TRANSITION(wtb\_expires, erp\_io\_sm\_action\_null, A\_Idle) /\* wait ack \*/

```
XOS_SM_TRANSITION(aps_nr_rb, erp_io_sm_action_aps_nr_rb, A_Idle) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_io_sm_action_aps_nr, A_Idle) /* wait ack */
XOS_SM_TRANSITION(ack, erp_io_sm_action_A_Idle_ack, A_Idle)
XOS_SM_TRANSITION(init, erp_io_sm_action_init, init) /* wait ack */
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(B_Protection)
```

```
XOS_SM_TRANSITION(clear, erp_io_sm_action_null, B_Protection)
XOS_SM_TRANSITION(fs, erp_io_sm_action_fs, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_io_sm_action_aps_fs, B_Protection) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_io_sm_action_local_sf, B_Protection) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_io_sm_action_local_clear_sf, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(ms, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_io_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_io_sm_action_aps_nr, B_Protection) /* wait ack */
XOS_SM_TRANSITION(ack, erp_io_sm_action_B_Protection_ack, B_Protection)
XOS_SM_TRANSITION(init, erp_io_sm_action_init, init) /* wait ack */
```

```
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(C_ManualSwitch)
```

```
XOS_SM_TRANSITION(clear, erp_io_sm_action_clear, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(fs, erp_io_sm_action_fs, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_io_sm_action_aps_fs, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_io_sm_action_local_sf, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_io_sm_action_null, C_ManualSwitch)
XOS_SM_TRANSITION(aps_sf, erp_io_sm_action_aps_sf, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_io_sm_action_aps_ms, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(ms, erp_io_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_io_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_io_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_io_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_io_sm_action_aps_nr, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(ack, erp_io_sm_action_C_ManualSwitch_ack, C_ManualSwitch)
XOS_SM_TRANSITION(init, erp_io_sm_action_init, init) /* wait ack */
```

```
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(D_ForcedSwitch)
```

```
XOS_SM_TRANSITION(clear, erp_io_sm_action_clear, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(fs, erp_io_sm_action_fs, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
```

```
XOS_SM_TRANSITION(ms, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_io_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_io_sm_action_aps_nr_rb, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_io_sm_action_aps_nr, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(ack, erp_io_sm_action_D_ForcedSwitch_ack, D_ForcedSwitch)
XOS_SM_STATE_END
```

XOS\_SM\_STATE\_BEGIN(E\_Pending)

```
XOS_SM_TRANSITION(clear, erp_io_sm_action_clear, E_Pending) /* wait ack */
XOS_SM_TRANSITION(fs, erp_io_sm_action_fs, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_io_sm_action_aps_fs, E_Pending) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_io_sm_action_local_sf, E_Pending) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_io_sm_action_null, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_io_sm_action_aps_sf, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_io_sm_action_aps_ms, E_Pending) /* wait ack */
XOS_SM_TRANSITION(ms, erp_io_sm_action_ms, E_Pending) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_io_sm_action_wtr_expires, E_Pending) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_io_sm_action_wtb_expires, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_io_sm_action_aps_nr_rb, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_io_sm_action_aps_nr, E_Pending) /* wait ack */
XOS_SM_TRANSITION(ack, erp_io_sm_action_E_Pending_ack, E_Pending)
XOS_SM_STATE_END
```

Found in path(s):

\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_io.sm

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* erp_io.c - ERP IO common code
*
* July 2010, Viet Nguyen
*
* Copyright (c) 2010-2011, 2016-2017 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_io.c

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```
/*
*-----
* erp_ctrl_ha.c - ERP Controller HA common code
*
* Sep 2010, Ramachandran Ramanujalu
```

```
*
* Copyright (c) 2010-2011, 2018-2019 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450014_1615191955.57/0/dnf-tar/src/erp_ctrl_ha.c
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```

```
/*
*-----
* erp_common.c - ERP common code
*
* July 2010, Viet Nguyen
*
* Copyright (c) 2010-2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
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```

```
#
erp_ring.zn - Oxide rules file
#
June 2018, Gangadhara Valluri
#
Copyright (c) 2018 by cisco Systems, Inc.
All rights reserved.
#
```

```
name: erp_ring;
type: erp_ring_t;
type: erp_instance_t;
type: erp_port_id_t;
type: erp_profile_t;
type: erp_instance_stats_t;
type: erp_port_info_t;
type: erp_l2req_state_t;
type: erp_raps_encap_t;
type: xos_bitlist_handle;
type: xos_list_t;
type: xos_list_element_t;
```

Found in path(s):

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/\*

\*-----

\* erp\_ctrl\_sm.c

\* G.8032 ERP Controller state machine

\*

\* July 2010, Viet Nguyen

\*

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\* All rights reserved.

\*-----

\*/

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\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_ctrl\_sm.c

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/\*

\*-----

\* erp\_debug.c - G.8032 Ethernet Ring Protection debug routines

\*

\* June 2010, Viet Nguyen

\*

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\*-----

\*/

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\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_debug.c

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/\*

\*-----

\* erp\_pdb.h

\* G.8032 Profile Database

\*

\* July 2010, Mark Bilstad

\*

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\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_pdb.c

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```
/*
*-----
* erp_ctrl.sm - Ethernet Ring Protection Controller state machine
*
* June 2010, Viet Nguyen
*
* Copyright (c) 2010-2011, 2019 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

```
XOS_SM_EVENTLIST_BEGIN
XOS_SM_EVENT(init)
XOS_SM_EVENT(clear)
XOS_SM_EVENT(fs)
XOS_SM_EVENT(aps_fs)
XOS_SM_EVENT(local_sf)
XOS_SM_EVENT(local_clear_sf)
XOS_SM_EVENT(aps_sf)
XOS_SM_EVENT(aps_ms)
XOS_SM_EVENT(ms)
XOS_SM_EVENT(wtr_expires)
XOS_SM_EVENT(wtb_expires)
XOS_SM_EVENT(aps_nr_rb)
XOS_SM_EVENT(aps_nr)
XOS_SM_EVENT(ack)
XOS_SM_EVENTLIST_END
```

```
/*
* State machine states
* - Init,
* A_Idle,
* B_Protection,
* C_ManualSwitch,
* D_ForcedSwitch,
* E_Pending
*/
```

```
XOS_SM_STATE_BEGIN(init)
XOS_SM_TRANSITION(init, erp_ctrl_sm_action_init, init) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_init_ack, E_Pending)
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(A_Idle)
XOS_SM_TRANSITION(clear, erp_ctrl_sm_action_null, A_Idle) /* wait ack */
XOS_SM_TRANSITION(fs, erp_ctrl_sm_action_fs, A_Idle) /* wait ack */
```

```

XOS_SM_TRANSITION(aps_fs, erp_ctrl_sm_action_aps_fs, A_Idle) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_ctrl_sm_action_local_sf, A_Idle) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_ctrl_sm_action_null, A_Idle) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_ctrl_sm_action_aps_sf, A_Idle) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_ctrl_sm_action_aps_ms, A_Idle) /* wait ack */
XOS_SM_TRANSITION(ms, erp_ctrl_sm_action_ms, A_Idle) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_ctrl_sm_action_null, A_Idle) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_ctrl_sm_action_null, A_Idle) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_ctrl_sm_action_aps_nr_rb, A_Idle) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_ctrl_sm_action_aps_nr, A_Idle) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_A_Idle_ack, A_Idle)
XOS_SM_TRANSITION(init, erp_ctrl_sm_action_init, init) /* wait ack */
XOS_SM_STATE_END

```

```

XOS_SM_STATE_BEGIN(B_Protection)

```

```

XOS_SM_TRANSITION(clear, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(fs, erp_ctrl_sm_action_fs, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_ctrl_sm_action_aps_fs, B_Protection) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_ctrl_sm_action_local_sf,
 B_Protection) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_ctrl_sm_action_local_clear_sf,
 B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(ms, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_ctrl_sm_action_null, B_Protection) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_ctrl_sm_action_aps_nr, B_Protection) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_B_Protection_ack, B_Protection)
XOS_SM_TRANSITION(init, erp_ctrl_sm_action_init, init) /* wait ack */
XOS_SM_STATE_END

```

```

XOS_SM_STATE_BEGIN(C_ManualSwitch)

```

```

XOS_SM_TRANSITION(clear, erp_ctrl_sm_action_clear, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(fs, erp_ctrl_sm_action_fs, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_ctrl_sm_action_aps_fs,
 C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_ctrl_sm_action_local_sf,
 C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_ctrl_sm_action_null, C_ManualSwitch)
XOS_SM_TRANSITION(aps_sf, erp_ctrl_sm_action_aps_sf,
 C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_ctrl_sm_action_aps_ms, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(ms, erp_ctrl_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_ctrl_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_ctrl_sm_action_null, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_ctrl_sm_action_null, C_ManualSwitch) /* wait ack */

```



```
XOS_SM_TRANSITION(aps_nr, erp_ctrl_sm_action_aps_nr, C_ManualSwitch) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_C_ManualSwitch_ack,
 C_ManualSwitch)
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(D_ForcedSwitch)
```

```
XOS_SM_TRANSITION(clear, erp_ctrl_sm_action_clear, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(fs, erp_ctrl_sm_action_fs, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(ms, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_ctrl_sm_action_null, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_ctrl_sm_action_aps_nr, D_ForcedSwitch) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_D_ForcedSwitch_ack,
 D_ForcedSwitch)
```

```
XOS_SM_STATE_END
```

```
XOS_SM_STATE_BEGIN(E_Pending)
```

```
XOS_SM_TRANSITION(clear, erp_ctrl_sm_action_clear, E_Pending) /* wait ack */
XOS_SM_TRANSITION(fs, erp_ctrl_sm_action_fs, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_fs, erp_ctrl_sm_action_aps_fs, E_Pending) /* wait ack */
XOS_SM_TRANSITION(local_sf, erp_ctrl_sm_action_local_sf,
 E_Pending) /* wait ack */
XOS_SM_TRANSITION(local_clear_sf, erp_ctrl_sm_action_null, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_sf, erp_ctrl_sm_action_aps_sf, E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_ms, erp_ctrl_sm_action_aps_ms, E_Pending) /* wait ack */
XOS_SM_TRANSITION(ms, erp_ctrl_sm_action_ms, E_Pending) /* wait ack */
XOS_SM_TRANSITION(wtr_expires, erp_ctrl_sm_action_wtr_expires,
 E_Pending) /* wait ack */
XOS_SM_TRANSITION(wtb_expires, erp_ctrl_sm_action_wtb_expires,
 E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_nr_rb, erp_ctrl_sm_action_aps_nr_rb,
 E_Pending) /* wait ack */
XOS_SM_TRANSITION(aps_nr, erp_ctrl_sm_action_aps_nr, E_Pending) /* wait ack */
XOS_SM_TRANSITION(ack, erp_ctrl_sm_action_E_Pending_ack, E_Pending)
XOS_SM_TRANSITION(init, erp_ctrl_sm_action_init, init) /* wait ack */
```

```
XOS_SM_STATE_END
```

Found in path(s):

\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_ctrl.sm

No license file was found, but licenses were detected in source scan.

/\*

```
*-----
* erp_ctrl.c - ERP Controller common code
*
* July 2010, Viet Nguyen
*
* Copyright (c) 2010-2014, 2016-2019, 2021 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450014_1615191955.57/0/dnf-tar/src/erp_ctrl.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* erp_io_ha.c - ERP IO HA common code
*
* Sep 2010, Ramachandran Ramanujalu
*
* Copyright (c) 2010-2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450014_1615191955.57/0/dnf-tar/src/erp_io_ha.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* erp_ridb.c
* G.8032 Ring/Instance Database
*
* July 2010, Mark Bilstad
*
* Copyright (c) 2010-2014, 2016, 2019 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450014_1615191955.57/0/dnf-tar/src/erp_ridb.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* erp_io_pak.c - ERP IO packet handling source file
```

\*  
\* August 2010, Ramachandran Ramanujalu  
\*  
\* Copyright (c) 2010-2014 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

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\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_io\_pak.c  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* erp\_pd\_caps\_stubs.c - ERP Controller stub file  
\*  
\* July 2010, Ramachandran Ramanujalu  
\*  
\* Copyright (c) 2010-2011 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):  
\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_pd\_caps\_stubs.c  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* erp\_cfg\_parser.c - ERP config parser code  
\*  
\* August 2011  
\*  
\* Copyright (c) 2011-2012, 2016-2017, 2019 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):  
\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_cfg\_parser.c  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* erp\_io\_sm.c  
\* G.8032 ERP IO state machine  
\*  
\* July 2010, Viet Nguyen

\*  
\* Copyright (c) 2010-2012, 2014-2017, 2019 by Cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450014\_1615191955.57/0/dnf-tar/src/erp\_io\_sm.c

# 1.442 kmod 26 r0

## 1.442.1 Available under license :

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Version 2.1, February 1999

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```

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```
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* /opt/ws_local/PERMITS_SQL/1084376474_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1.egg-info/PKG-INFO
```

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ASN.1 library for Python

=====

.. toctree::

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Abstract Syntax Notation One (ASN.1

[http://en.wikipedia.org/wiki/Abstract\\_Syntax\\_Notation\\_1x](http://en.wikipedia.org/wiki/Abstract_Syntax_Notation_1x)) is a technology for exchanging structured data in a universally understood, hardware agnostic way. Many industrial, security and telephony applications heavily rely on ASN.1.

The `pyasn1` <https://pypi.org/project/pyasn1/> library implements ASN.1 support in pure-Python.

What is ASN.1

-----

ASN.1 is a large, arguably over-engineered and extremely old data modelling and serialisation tool. It is probably among the first serialisation protocols in the history of computer science and technology.

ASN.1 started its life over 30 years ago as a serialisation mechanism for the first electronic mail (known as X.400). Later on it was split off the e-mail application and become a stand-alone tech still being actively supported by its designers and widely used in industry and technology.

Since then ASN.1 is sort of haunted by its relations with the OSI model -- the first, unsuccessful, version of the Internet. You can read many interesting [discussions https://news.ycombinator.com/item?id=8871453](https://news.ycombinator.com/item?id=8871453) on that topic.

In the following years, generations of software engineers tackled the serialisation problem many times. We can see that in Google's `ProtoBuffers` <https://developers.google.com/protocol-buffers/> or `FlatBuffers` <https://google.github.io/flatbuffers/>, for example. Interestingly, many new takes on binary protocol design do not depart

far from ASN.1 from technical perspective. It's more of a matter of striking a balance between processing overhead, wire format overhead and human readability.

Looking at what ASN.1 has to offer, it has three loosely coupled parts:

- \* Data types: the standard introduces a collection of basic data types (integers, bits, strings, arrays and records) that can be used for describing arbitrarily complex, nested data structures.
- \* Serialisation protocols: the above data structures could be converted into a series of octets for storage or transmission over the wire as well as recovered back into their structured form. The system is fully agnostic to hardware architectures differences.
- \* Schema language: ASN.1 data structures could be described in terms of a schema language for ASN.1 compiler to turn it into platform-specific implementation.

ASN.1 applications

-----

Being an old and generally successful standard, ASN.1 is widely adopted for many uses. To give you an example, these technologies use ASN.1 for their data exchange needs:

- \* Signaling standards for the public switched telephone network (SS7 family)
- \* Network management standards (SNMP, CMIP)
- \* Directory standards (X.500 family, LDAP)
- \* Public Key Infrastructure standards (X.509, etc.)
- \* PBX control (CSTA)
- \* IP-based Videoconferencing (H.323 family)
- \* Biometrics (BIP, CBEFF, ACBio)
- \* Intelligent transportation (SAE J2735)
- \* Cellular telephony (GSM, GPRS/EDGE, UMTS, LTE)

ASN.1 gotchas

-----

Apparently, ASN.1 is hard to implement properly. Quality open-source ASN.1 tools are rare, but ad-hoc implementations are numerous. Judging from the ``statistics <http://cve.mitre.org/cgi-bin/cvekey.cgi?keyword=ASN.1>`_` on discovered security vulnerabilities, many people have implemented ASN.1 parsers and oftentimes fell victim to its edge cases.

On the bright side, ASN.1 has been around for a long time, it is well understood and security reviewed.

## Documentation

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```
.. toctree::
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```

/pyasn1/contents

## Use case

-----

```
.. toctree::
 :maxdepth: 2
```

/example-use-case

## Download & Install

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```
.. toctree::
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```

/download

## Changes

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All changes and release history is maintained in changelog. There you could also download the latest unreleased pyasn1 tarball containing the latest fixes and improvements.

```
.. toctree::
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```

/changelog

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```

/license

## Getting help

-----



Please, file your `issues` <<https://github.com/etingof/pyasn1/issues>>`\_`  
and `PRs` <<https://github.com/etingof/pyasn1/pulls>>`\_` at GitHub.  
Alternatively, you could ask for help at  
`Stack Overflow` <<http://stackoverflow.com/questions/tagged/pyasn1>>`\_`  
or search  
`pyasn1-users` <<https://lists.sourceforge.net/lists/listinfo/pyasn1-users>>`\_`  
mailing list archive.

## Books on ASN.1

-----

The pyasn1 implementation is largely based on reading up the following awesome books:

- \* `ASN.1 - Communication between heterogeneous systems` <<http://www.oss.com/asn1/dubuisson.html>>`\_` by Olivier Dubuisson
- \* `ASN.1 Complete` <<http://www.oss.com/asn1/resources/books-whitepapers-pubs/larmouth-asn1-book.pdf>>`\_` by Prof John Larmouth

Here you can get the official standards which is hard to read:

- \* `ITU standards` <<http://www.itu.int/ITU-T/studygroups/com17/languages/X.680-X.693-0207w.zip>>`\_`

On the other end of the readability spectrum, here is a quick and sweet write up:

- \* `A Layman's Guide to a Subset of ASN.1, BER, and DER` <<ftp://ftp.rsasecurity.com/pub/pkcs/ascii/layman.asc>>`\_` by Burton S. Kaliski

If you are working with ASN.1, we'd highly recommend reading a proper book on the subject.

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- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/docs/source/contents.rst

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- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/compat/test\_integer.py
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- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/codec/native/\_\_main\_\_.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/type/test\_namedval.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/type/base.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/type/test\_namedtype.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/codec/ber/\_\_main\_\_.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/type/tagmap.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/error.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/base.py
- \* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/codec/ber/decoder.py

\* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/codec/cer/test\_encoder.py  
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\* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/compat/dateandtime.py  
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\* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/type/test\_constraint.py

\* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/pyasn1/type/constraint.py  
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\* /opt/ws\_local/PERMITS\_SQL/1084376474\_1598474112.79/0/pyasn1-0-4-7-tar-gz/pyasn1-0.4.7/tests/type/test\_opentype.py

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## ASN.1 library for Python

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[![PyPI](https://img.shields.io/pypi/v/pyasn1.svg?maxAge=2592000)](https://pypi.org/project/pyasn1)  
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blue.svg)](https://raw.githubusercontent.com/etingof/pyasn1/master/LICENSE.txt)

This is a free and open source implementation of ASN.1 types and codecs  
as a Python package. It has been first written to support particular  
protocol (SNMP) but then generalized to be suitable for a wide range  
of protocols based on

[ASN.1 specification](https://www.itu.int/rec/dologin\_pub.asp?lang=e&id=T-REC-X.208-198811-W!!PDF-  
E&type=items).

## Features

-----

- \* Generic implementation of ASN.1 types (X.208)
- \* Standards compliant BER/CER/DER codecs
- \* Dumps/loads ASN.1 structures from Python types
- \* 100% Python, works with Python 2.4 up to Python 3.7
- \* MT-safe
- \* Contributed ASN.1 compiler [Asn1ate](https://github.com/kimgr/asn1ate)

## Why using pyasn1

-----

ASN.1 solves the data serialisation problem. This solution was  
designed long ago by the wise Ancients. Back then, they did not  
have the luxury of wasting bits. That is why ASN.1 is designed  
to serialise data structures of unbounded complexity into  
something compact and efficient when it comes to processing  
the data.

That probably explains why many network protocols and file formats  
still rely on the 30+ years old technology. Including a number of  
high-profile Internet protocols and file formats.

Quite a number of books cover the topic of ASN.1.

[Communication between heterogeneous systems](http://www.oss.com/asn1/dubuisson.html)  
by Olivier Dubuisson is one of those high quality books freely  
available on the Internet.

The pyasn1 package is designed to help Python programmers tackling network protocols and file formats at the comfort of their Python prompt. The tool struggles to capture all aspects of a rather complicated ASN.1 system and to represent it on the Python terms.

How to use pyasn1

-----

With pyasn1 you can build Python objects from ASN.1 data structures. For example, the following ASN.1 data structure:

```
```bash
Record ::= SEQUENCE {
  id    INTEGER,
  room  [0] INTEGER OPTIONAL,
  house [1] INTEGER DEFAULT 0
}
```
```

Could be expressed in pyasn1 like this:

```
```python
class Record(Sequence):
    componentType = NamedTypes(
        NamedType('id', Integer()),
        OptionalNamedType(
            'room', Integer().subtype(
                implicitTag=Tag(tagClassContext, tagFormatSimple, 0)
            )
        ),
        DefaultedNamedType(
            'house', Integer(0).subtype(
                implicitTag=Tag(tagClassContext, tagFormatSimple, 1)
            )
        )
    )
```
```

It is in the spirit of ASN.1 to take abstract data description and turn it into a programming language specific form. Once you have your ASN.1 data structure expressed in Python, you can use it along the lines of similar Python type (e.g. ASN.1 `SET` is similar to Python `dict`, `SET OF` to `list`):

```
```python
>>> record = Record()
>>> record['id'] = 123
```
```

```

>>> record['room'] = 321
>>> str(record)
Record:
id=123
room=321
>>>
...

```

Part of the power of ASN.1 comes from its serialisation features. You can serialise your data structure and send it over the network.

```

```python
>>> from pyasn1.codec.der.encoder import encode
>>> substrate = encode(record)
>>> hexdump(substrate)
00000: 30 07 02 01 7B 80 02 01 41
...

```

Conversely, you can turn serialised ASN.1 content, as received from network or read from a file, into a Python object which you can introspect, modify, encode and send back.

```

```python
>>> from pyasn1.codec.der.decoder import decode
>>> received_record, rest_of_substrate = decode(substrate, asn1Spec=Record())
>>>
>>> for field in received_record:
>>> print('{} is {}'.format(field, received_record[field]))
id is 123
room is 321
house is 0
>>>
>>> record == received_record
True
>>> received_record.update(room=123)
>>> substrate = encode(received_record)
>>> hexdump(substrate)
00000: 30 06 02 01 7B 80 01 7B
...

```

The pyasn1 classes struggle to emulate their Python prototypes (e.g. int, list, dict etc.). But ASN.1 types exhibit more complicated behaviour. To make life easier for a Pythonista, they can turn their pyasn1 classes into Python built-ins:

```

```python
>>> from pyasn1.codec.native.encoder import encode
>>> encode(record)

```

```
{'id': 123, 'room': 321, 'house': 0}
'''
```

Or vice-versa -- you can initialize an ASN.1 structure from a tree of Python objects:

```
```python
>>> from pyasn1.codec.native.decoder import decode
>>> record = decode({'id': 123, 'room': 321, 'house': 0}, asn1Spec=Record())
>>> str(record)
Record:
id=123
room=321
>>>
'''
```

With ASN.1 design, serialisation codecs are decoupled from data objects, so you could turn every single ASN.1 object into many different serialised forms. As of this moment, pyasn1 supports BER, DER, CER and Python built-ins codecs. The extremely compact PER encoding is expected to be introduced in the upcoming pyasn1 release.

More information on pyasn1 APIs can be found in the [documentation](<http://snmplabs.com/pyasn1/>), compiled ASN.1 modules for different protocols and file formats could be found in the pyasn1-modules [repo](<https://github.com/etingof/pyasn1-modules>).

How to get pyasn1

-----

The pyasn1 package is distributed under terms and conditions of 2-clause BSD [license](<http://snmplabs.com/pyasn1/license.html>). Source code is freely available as a GitHub [repo](<https://github.com/etingof/pyasn1>).

You could `pip install pyasn1` or download it from [PyPI](<https://pypi.org/project/pyasn1>).

If something does not work as expected, [open an issue](<https://github.com/etingof/pyasn1/issues>) at GitHub or post your question [on Stack Overflow](<https://stackoverflow.com/questions/ask>) or try browsing pyasn1 [mailing list archives](<https://sourceforge.net/p/pyasn1/mailman/pyasn1-users/>).

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# 1.444 sed 4.2.2 r0

## 1.444.1 Available under license :

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Version 3, 29 June 2007

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## 1.446 regex 3.8a

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# 1.447 python3-pyopenssl 19.1.0 r0

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## 1.448 boost 1.71.0 r0

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--- end ---

```
<!DOCTYPE html>
```

```
<html>
```

```
<head></head>
```

```
<body>
```

```
<h3>
```

```
 Copyright Test
```

```
</h3>
```

```
<p class="copyright">
```

```
 1963, 1964, 1965 Jane Doe
```

```
</p>
```

```
<p class="copyright">
```

```
 2018 Joe Blow, John Coe
```

```
</p>
```

```
<p class="copyright">
```

```
 1977, 1985 Someone else
```

```
</p>
```

```
</body>
```

```
</html>
```

```
<!-- Copyright 2018 Paul Fultz II
```

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---

The default copyright note for C++ source files reads:

```
// Boost.Geometry (aka GGL, Generic Geometry Library)
```

```
// Copyright (c) 2007-2011 Barend Gehrels, Amsterdam, the Netherlands.
```

```
// Copyright (c) 2008-2011 Bruno Lalande, Paris, France.
```

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```

```
// Parts of Boost.Geometry are redesigned from Geodan's Geographic Library
```

```
// (geolib/GGL), copyright (c) 1995-2010 Geodan, Amsterdam, the Netherlands.
```

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Examples:

- adapted geometry types e.g. array, Boost.Polygon
- implemented file-format e.g. WKB
- implemented specific strategy or algorithm e.g. intersections

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- 5) Docs -> might take sole copyright
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```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE article PUBLIC "-//Boost//DTD BoostBook XML V1.0//EN"
"http://www.boost.org/tools/boostbook/dtd/boostbook.dtd">
<article id="copyright_test" last-revision="DEBUG MODE Date: 2000/12/20 12:00:00 $"
xmlns:xi="http://www.w3.org/2001/XInclude">
<title>Copyright Test</title>
<articleinfo>
<copyright>
<year>1963</year> <year>1964</year> <year>1965</year> <holder>Jane Doe</holder>
</copyright>
<copyright>
<year>2018</year> <holder>Joe Blow, John Coe</holder>
</copyright>
<copyright>
<year>1977</year> <year>1985</year> <holder>Someone else</holder>
</copyright>
</articleinfo>
</article>
```

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This package was debianized by Vladimir Prus <ghost@cs.msu.su> on Wed, 17 July 2002, 19:27:00 +0400.

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```
/+\
+\ Copyright 1993-2002 Christopher Seiwald and Perforce Software, Inc.
\+/
```

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////

```
[#mpl]
MPL Support, <boost/mp11/mpl.hpp>
:toc:
:toc-title:
:idprefix:
```

The header `<boost/mp11/mpl.hpp>`, when included, defines the necessary support infrastructure for `mp_list` and `std::tuple` to be valid link:../../libs/mpl[MPL] sequences.

NOTE: `mpl.hpp` is not included by `<boost/mp11.hpp>`.  
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## 1.449 iptables 1.8.4-16.el8

### 1.449.1 Available under license :

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(include systemd-common)

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system-preset/90-systemd.preset
usr/lib/systemd/system-preset/90-systemd.preset
/usr/lib/systemd/system/tmp.mount usr/lib/systemd/system/local-
fs.target.requires/tmp.mount
infra/systemd/sysinit.target usr/lib/systemd/system/sysinit.target
infra/systemd/cpld-symlink.service usr/lib/systemd/system/cpld-symlink.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-journald.service
usr/lib/systemd/system/systemd-journald.service
infra/systemd/systemd-journald.service.d/visible.conf usr/lib/systemd/system/systemd-
journald.service.d/visible.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-timedated.service
usr/lib/systemd/system/systemd-timedated.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-udev.service
usr/lib/systemd/system/systemd-udev.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/tmp.mount
usr/lib/systemd/system/tmp.mount
```

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/systemd

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(include systemd-common)

```
infra/systemd/switchroot/sysinit.target usr/lib/systemd/system/sysinit.target
infra/systemd/switchroot/systemd-journald.service usr/lib/systemd/system/systemd-
journald.service
infra/systemd/switchroot/systemd-timedated.service usr/lib/systemd/system/systemd-
timedated.service
infra/systemd/switchroot/systemd-udev.service usr/lib/systemd/system/systemd-
udev.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-journald-audit.socket
usr/lib/systemd/system/systemd-journald-audit.socket
```

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/systemd-swrt

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#

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(include all-common)

(include systemd-swrt)

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/all-swrt

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#

# This file contains all needed files related to nfs server daemon.

#

infra/systemd/nfs-mountd.service                   usr/lib/systemd/system/nfs-mountd.service

infra/systemd/nfs-server.service                 usr/lib/systemd/system/nfs-server.service

infra/systemd/proc-fs-nfsd.mount                 usr/lib/systemd/system/proc-fs-nfsd.mount

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/exportfs   usr/sbin/exportfs

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.mountd   usr/sbin/rpc.mountd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.nfsd   usr/sbin/rpc.nfsd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/rpcinfo   usr/bin/rpcinfo

(include nfs-common)

# The following kernel modules are needed when NFSV4 support is configured

# in kernel.

# nfsd.ko depend on auth\_rpcgss.ko

# auth\_rpcgss.ko depend on oid\_registry.ko

-\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/nfsv4/nfs-utils

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linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/journalctl

usr/bin/journalctl

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemctl

usr/bin/systemctl

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-inhibit

usr/bin/systemd-inhibit

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-notify

usr/bin/systemd-notify

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-tmpfiles

usr/bin/systemd-tmpfiles

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/udevadm

usr/bin/udevadm

contrib/yocto/CGE7/journald.conf

etc/systemd/journald.conf

infra/systemd/system.conf	etc/systemd/system.conf
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/systemd/user.conf	etc/systemd/user.conf
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/udev/udev.conf	etc/udev/udev.conf
/usr/lib/systemd/systemd	init
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system-generators/systemd-fstab-generator	
usr/lib/systemd/system-generators/systemd-fstab-generator	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/basic.target	
usr/lib/systemd/system/basic.target	
/usr/lib/systemd/system/reboot.target	usr/lib/systemd/system/ctrl-alt-del.target
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/dev-hugepages.mount	
usr/lib/systemd/system/dev-hugepages.mount	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/dev-mqueue.mount	
usr/lib/systemd/system/dev-mqueue.mount	
infra/systemd/emergency.service	usr/lib/systemd/system/emergency.service
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/emergency.target	
usr/lib/systemd/system/emergency.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/final.target	
usr/lib/systemd/system/final.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/halt.target	
usr/lib/systemd/system/halt.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/kexec.target	
usr/lib/systemd/system/kexec.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/local-fs-pre.target	
usr/lib/systemd/system/local-fs-pre.target	
infra/systemd/local-fs.target	usr/lib/systemd/system/local-fs.target
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/network-online.target	
usr/lib/systemd/system/network-online.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/network.target	
usr/lib/systemd/system/network.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/paths.target	
usr/lib/systemd/system/paths.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/poweroff.target	
usr/lib/systemd/system/poweroff.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/reboot.target	
usr/lib/systemd/system/reboot.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/remote-fs.target	
usr/lib/systemd/system/remote-fs.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.service	
usr/lib/systemd/system/rescue.service	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.target	
usr/lib/systemd/system/rescue.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/shutdown.target	
usr/lib/systemd/system/shutdown.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/slices.target	
usr/lib/systemd/system/slices.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sockets.target	
usr/lib/systemd/system/sockets.target	
/usr/lib/systemd/system/systemd-journald.socket	

usr/lib/systemd/system/sockets.target.requires/systemd-journald.socket  
 /usr/lib/systemd/system/systemd-udev-control.socket  
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-control.socket  
 /usr/lib/systemd/system/systemd-udev-kernel.socket  
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-kernel.socket  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-config.mount  
 usr/lib/systemd/system/sys-kernel-config.mount  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-debug.mount  
 usr/lib/systemd/system/sys-kernel-debug.mount  
 /usr/lib/systemd/system/dev-hugepages.mount  
 usr/lib/systemd/system/sysinit.target.wants/dev-hugepages.mount  
 /usr/lib/systemd/system/dev-mqueue.mount  
 usr/lib/systemd/system/sysinit.target.wants/dev-mqueue.mount  
 /usr/lib/systemd/system/sys-kernel-config.mount  
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-config.mount  
 /usr/lib/systemd/system/sys-kernel-debug.mount  
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-debug.mount  
 /usr/lib/systemd/system/systemd-journal-flush.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-journal-flush.service  
 /usr/lib/systemd/system/systemd-journald.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-journald.service  
 /usr/lib/systemd/system/systemd-modules-load.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-modules-load.service  
 /usr/lib/systemd/system/systemd-sysctl.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-sysctl.service  
 /usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup-dev.service  
 /usr/lib/systemd/system/systemd-tmpfiles-setup.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup.service  
 /usr/lib/systemd/system/systemd-udev-trigger.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev-trigger.service  
 /usr/lib/systemd/system/systemd-udev.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-halt.service  
 usr/lib/systemd/system/systemd-halt.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journal-flush.service  
 usr/lib/systemd/system/systemd-journal-flush.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journald-dev-log.socket  
 usr/lib/systemd/system/systemd-journald-dev-log.socket  
 infra/systemd/systemd-journald.service.d/visible.conf                      usr/lib/systemd/system/systemd-  
 journald.service.d/visible.conf  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-fsck@.service  
 usr/lib/systemd/system/systemd-fsck@.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journald.socket  
 usr/lib/systemd/system/systemd-journald.socket  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-kexec.service  
 usr/lib/systemd/system/systemd-kexec.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-modules-load.service

```

usr/lib/systemd/system/systemd-modules-load.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-poweroff.service
usr/lib/systemd/system/systemd-poweroff.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-reboot.service
usr/lib/systemd/system/systemd-reboot.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-sysctl.service
usr/lib/systemd/system/systemd-sysctl.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service
usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup.service
usr/lib/systemd/system/systemd-tmpfiles-setup.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-udev-settle.service
usr/lib/systemd/system/systemd-udev-settle.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-udev-trigger.service
usr/lib/systemd/system/systemd-udev-trigger.service
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-udev-control.socket
usr/lib/systemd/system/systemd-udev-control.socket
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/systemd-udev-kernel.socket
usr/lib/systemd/system/systemd-udev-kernel.socket
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/timers.target
usr/lib/systemd/system/timers.target
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/time-sync.target
usr/lib/systemd/system/time-sync.target
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/system/umount.target
usr/lib/systemd/system/umount.target
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd usr/lib/systemd/systemd
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/bin/systemd-socket-activate usr/bin/systemd-socket-
activate
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-bootchart
usr/lib/systemd/systemd-bootchart
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-fsck usr/lib/systemd/systemd-
fsck
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-journald usr/lib/systemd/systemd-
journald
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-modules-load
usr/lib/systemd/systemd-modules-load
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-shutdown
usr/lib/systemd/systemd-shutdown
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-sysctl usr/lib/systemd/systemd-
sysctl
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-timedated
usr/lib/systemd/systemd-timedated
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/systemd/systemd-udev usr/lib/systemd/systemd-
udev
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/udev/rules.d/50-udev-default.rules
usr/lib/udev/rules.d/50-udev-default.rules
linkfarm/${SYSROOT}/${ARCH}/${SDK}/usr/lib/udev/rules.d/99-systemd.rules usr/lib/udev/rules.d/99-
systemd.rules

```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemd-analyze usr/bin/systemd-analyze
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/machine.slice
usr/lib/systemd/system/machine.slice
infra/systemd/systemd-journald.service.d/visible.conf usr/lib/systemd/system/systemd-
journald.service.d/visible.conf
```

```
infra/systemd/sysctl/inotify-user-instances.conf etc/sysctl.d/inotify-user-instances.conf
```

Found in path(s):

```
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/systemd-common
```

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#

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#files related to nfs-statd.service

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.statd usr/sbin/rpc.statd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sm-notify usr/sbin/sm-notify
infra/systemd/nfs-statd.service usr/lib/systemd/system/nfs-statd.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/nfsstat usr/sbin/nfsstat
```

#files related to nfs-idmapd.service

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.idmapd usr/sbin/rpc.idmapd
infra/systemd/var-lib-nfs-rpc_pipefs.mount usr/lib/systemd/system/var-lib-nfs-rpc_pipefs.mount
plugin nsswitch for rpc.idmapd can not be figure out automatilly by dependency.
The directory for plugin is fix to usr/lib/libnfsidmap
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/${LIB}/libnfsidmap/nsswitch.so usr/lib/libnfsidmap/nsswitch.so
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/idmapd.conf etc/idmapd.conf
infra/systemd/nfs-idmapd.service usr/lib/systemd/system/nfs-idmapd.service
```

```
contrib/initscripts/binos/etc/${NFS_VER}/nfs-utils.conf etc/nfs-utils.conf
```

Found in path(s):

```
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/nfsv4/nfs-common
```

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#

# May 2018, Victor Kamensky

#

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#

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditd usr/sbin/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditd usr/sbin/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditd usr/sbin/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditd usr/sbin/auditd
```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditctl usr/sbin/auditctl
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auresearch usr/sbin/auresearch
```

```
contrib/initscripts/binos/etc/audit/auditd.conf etc/audit/auditd.conf
contrib/initscripts/binos/etc/audit/audispd.conf etc/audit/audispd.conf
contrib/initscripts/binos/etc/audit/audit.rules etc/audit/audit.rules
contrib/initscripts/binos/etc/audit/plugins.d/syslog.conf etc/audit/plugins.d/syslog.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/default/auditd etc/default/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/libaudit.conf etc/libaudit.conf
```

Found in path(s):

```
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/audit
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```

#

```
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```

```
This file is to store extra files needed to support NFSV4 client.
```

#

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mount.nfs usr/sbin/mount.nfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/umount.nfs usr/sbin/umount.nfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mount.nfs4 usr/sbin/mount.nfs4
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/umount.nfs4 usr/sbin/umount.nfs4
```

```
contrib/initscripts/binos/etc/${NFS_VER}/nfsmount.conf etc/nfsmount.conf
${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko
usr/lib/modules/${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko
```

```
(include nfs-common)
```

Found in path(s):

```
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/nfsv4/nfs-utils-client
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```

```
Original Creation Date Unknown
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```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/staprun usr/bin/staprun
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/libexec/systemtap/stapio usr/libexec/systemtap/stapio
```

Found in path(s):

```
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/systemtap
No license file was found, but licenses were detected in source scan.
```

```
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```

linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/bin/ipcalc usr/bin/ipcalc

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/ipcalc

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#

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(include audit)

(include bash)

(include binutils)

(include bridge-utils)

(include busybox)

(include bzip2)

(include coreutils)

(include cpio)

(include dbus)

(include diffutils)

(include dosfstools)

(include e2fsprogs)

(include ethtool)

(include file)

(include filesystem)

(include findutils)

(include gawk)

(include glibc)

(include grep)

(include gzip)

(include initscripts)

(include ipcalc)

(include iproute2)

(include iptables)

(include iputils)

(include kexec-tools)

(include kmod)

(include less)

(include libcap)

(include lsof)

(include modules)

(include ncurses)

(include netbase)

(include netcat)

(include netkit-telnet)

(include net-tools)

(include \${NFS\_VER}/nfs-utils-client)



(include pciutils)  
(include procps)  
(include psmisc)  
(include rpcbind)  
(include sed)  
(include shadow)  
(include strace)  
(include sysklogd)  
(include systemtap)  
(include sysvinit)  
(include tar)  
(include tcpdump)  
(include tftp-hpa)  
(include traceroute)  
(include util-linux)

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/all-common

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```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/dmesg usr/bin/dmesg
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/kill usr/bin/kill
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/mount usr/bin/mount
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/umount usr/bin/umount
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/agetty usr/sbin/agetty
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/blockdev usr/sbin/blockdev
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/cfdisk usr/sbin/cfdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/ctrlaltdel usr/sbin/ctrlaltdel
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fdisk usr/sbin/fdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fsck usr/sbin/fsck
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/hwclock usr/sbin/hwclock
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mkswap usr/sbin/mkswap
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/pivot_root usr/sbin/pivot_root
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sfdisk usr/sbin/sfdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/swapoff usr/sbin/swapoff
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/swapon usr/sbin/swapon
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/arch usr/bin/arch
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/cal usr/bin/cal
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/chrt usr/bin/chrt
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/col usr/bin/col
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/colcrt usr/bin/colcrt
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/colrm usr/bin/colrm
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/column usr/bin/column
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/flock usr/bin/flock
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/getopt usr/bin/getopt
```

```

linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/hexdump usr/bin/hexdump
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ionice usr/bin/ionice
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ipcrm usr/bin/ipcrm
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ipcs usr/bin/ipcs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/isosize usr/bin/isosize
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/last usr/bin/last
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/logger usr/bin/logger
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/look usr/bin/look
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/lslblk usr/bin/lslblk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/mesg usr/bin/mesg
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/namei usr/bin/namei
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/newgrp usr/bin/newgrp
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/nsenter usr/bin/nsenter
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rename usr/bin/rename
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/renice usr/bin/renice
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rev usr/bin/rev
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/script usr/bin/script
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/setsid usr/bin/setsid
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/setterm usr/bin/setterm
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/taskset usr/bin/taskset
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ul usr/bin/ul
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/wall usr/bin/wall
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/whereis usr/bin/whereis
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/write usr/bin/write
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fdformat usr/sbin/fdformat
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mkfs usr/sbin/mkfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/raw usr/sbin/raw
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/zramctl usr/sbin/zramctl

```

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/util-linux

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```

linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.statd usr/sbin/rpc.statd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sm-notify usr/sbin/sm-notify
infra/systemd/nfs-statd.service usr/lib/systemd/system/nfs-statd.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/nfsstat usr/sbin/nfsstat

```

contrib/initscripts/binos/etc/\${NFS\_VER}/nfs-utils.conf etc/nfs-utils.conf

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/nfsv3/nfs-common

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#

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(include all-common)

(include systemd)

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/all

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#

# This file contains all needed files related to nfs server daemon.

#

infra/systemd/nfs-mountd.service           usr/lib/systemd/system/nfs-mountd.service

infra/systemd/nfs-server.service         usr/lib/systemd/system/nfs-server.service

infra/systemd/proc-fs-nfsd.mount         usr/lib/systemd/system/proc-fs-nfsd.mount

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/exportfs   usr/sbin/exportfs

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.mountd   usr/sbin/rpc.mountd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.nfsd   usr/sbin/rpc.nfsd

(include nfs-common)

# The following optional kernel modules are put here to allow forwarding

# compatible when NFSV4 support is configured in kernel.

# When nfsv4 is enabled in kernel, it brings in extra dependency for

# nfsd.ko, which is needed for nfsv3 verver.

# so treat extra modules needed by nfsd.ko as optional since it depend on kernel

# configure.

#

# nfsd.ko depend on auth\_rpcgss.ko

# auth\_rpcgss.ko depend on oid\_registry.ko

-\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

-\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

Found in path(s):

\* /opt/cola/permits/1130450074\_1615190715.28/0/iptables-tar/linux-system/nfsv3/nfs-utils

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#

# November 2018, Cisco Systems, Inc.

#

```
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#
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ping usr/bin/ping
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/tracepath usr/bin/tracepath
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/in.tftpd-hpa usr/bin/tftpd

Found in path(s):
* /opt/cola/permits/1130450074_1615190715.28/0/iptables-tar/linux-system/iputils
```

## 1.450 squashfs-tools

## 4.3+gitrAUTOINC+f95864afe8 r0

### 1.450.1 Available under license :

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Version 2, June 1991

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```

```
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Ty Coon, President of Vice
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## 1.451 libtomcrypt 1.17

### 1.451.1 Available under license :

```
/*
* SHA-512
* Implementation derived from LibTomCrypt (Tom St Denis)
*
* LibTomCrypt is a library that provides various cryptographic
* algorithms in a highly modular and flexible manner.
*
* The library is free for all purposes without any express
* guarantee it works.
*
* Tom St Denis, tomstdenis@gmail.com, http://libtomcrypt.org
*/
```

## 1.452 ethtool 5.2 r0

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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

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# 1.454 python3-pygobject 3.34.0 r0

## 1.454.1 Available under license :

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Version 2.1, February 1999

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less

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# 1.455 python3-multidict 4.7.5 r0

## 1.455.1 Available under license :

Apache License

Version 2.0, January 2004

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Version 2.1, February 1999

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# 1.457 gdbm 1.18 1.e18

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Version 3, 29 June 2007

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# 1.458 python-networkx 2.2 r0

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# 1.462 audit 2.8.5 r0

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## 1.463 python3-asn1crypto 1.0.1 r0

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## 1.464 curl 7.66.0 r0

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=====

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## 1.465 python-six 1.14.0 r0

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```

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## 1.467 python3-engineio 3.13.2 r0

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## 1.468 python3-socketio 4.6.0 r0

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## 1.469 llvm-project-source 7.1.0 r0

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```
; RUN: llc < %s -mtriple=s390x-linux-gnu -mcpu=zEC12 -verify-machineinstrs | FileCheck %s
;
; Test that early if conversion produces LOCR with operands of the right
; register classes.
```

```
define void @autogen_SD4739(i8*) {
; CHECK-NOT: Expected a GR32Bit register, but got a GRX32Bit register
BB:
 %L34 = load i8, i8* %0
 %Cmp56 = icmp sgt i8 undef, %L34
 br label %CF246

CF246: ; preds = %CF246, %BB
 %S1163 = select i1 %Cmp56, i8 %L34, i8 undef
 br i1 undef, label %CF246, label %CF248

CF248: ; preds = %CF248, %CF246
 store i8 %S1163, i8* %0
 br label %CF248
}
```

```
=====
libc++ License
=====
```

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```
; RUN: llc -mtriple=aarch64-apple-ios %s -o - | FileCheck %s
```

```
define <16 x double> @test_sitofp_fixed(<16 x i32> %in) {
; CHECK-LABEL: test_sitofp_fixed:
```

```
 ; First, extend each i32 to i64
```

```
 ; CHECK-DAG: sshll2.2d [[BLOCK0_HI:v[0-9]+]], v0, #0
```

```
 ; CHECK-DAG: sshll2.2d [[BLOCK1_HI:v[0-9]+]], v1, #0
```

```
 ; CHECK-DAG: sshll2.2d [[BLOCK2_HI:v[0-9]+]], v2, #0
```

```
 ; CHECK-DAG: sshll2.2d [[BLOCK3_HI:v[0-9]+]], v3, #0
```

```
 ; CHECK-DAG: sshll.2d [[BLOCK0_LO:v[0-9]+]], v0, #0
```

```
 ; CHECK-DAG: sshll.2d [[BLOCK1_LO:v[0-9]+]], v1, #0
```

```
 ; CHECK-DAG: sshll.2d [[BLOCK2_LO:v[0-9]+]], v2, #0
```

```
 ; CHECK-DAG: sshll.2d [[BLOCK3_LO:v[0-9]+]], v3, #0
```

```
 ; Next, convert each to double.
```

```
 ; CHECK-DAG: scvtf.2d v0, [[BLOCK0_LO]]
```

```
 ; CHECK-DAG: scvtf.2d v1, [[BLOCK0_HI]]
```

```
 ; CHECK-DAG: scvtf.2d v2, [[BLOCK1_LO]]
```

```
 ; CHECK-DAG: scvtf.2d v3, [[BLOCK1_HI]]
```

```
 ; CHECK-DAG: scvtf.2d v4, [[BLOCK2_LO]]
```

```
 ; CHECK-DAG: scvtf.2d v5, [[BLOCK2_HI]]
```

```
 ; CHECK-DAG: scvtf.2d v6, [[BLOCK3_LO]]
```

```
 ; CHECK-DAG: scvtf.2d v7, [[BLOCK3_HI]]
```

```
 ; CHECK: ret
```

```
 %flt = sitofp <16 x i32> %in to <16 x double>
```

```
 %res = fdiv <16 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0>
```

```
 ret <16 x double> %res
```

```
}
```

```
 ; This one is small enough to satisfy isSimple, but still illegally large.
```

```
define <4 x double> @test_sitofp_fixed_shortish(<4 x i64> %in) {
```

```
 ; CHECK-LABEL: test_sitofp_fixed_shortish:
```

```
 ; CHECK-DAG: scvtf.2d v0, v0
```

```
 ; CHECK-DAG: scvtf.2d v1, v1
```

```
 ; CHECK: ret
```

```
 %flt = sitofp <4 x i64> %in to <4 x double>
```

```
 %res = fdiv <4 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0>
```

```
 ret <4 x double> %res
```

```
}
```

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add_lldb_library(lldbPluginObjectContainerBSDArchive PLUGIN
ObjectContainerBSDArchive.cpp
```

```
LINK_LIBS
```

```
 lldbCore
```

```
 lldbHost
```

```
 lldbSymbol
```

```
LINK_COMPONENTS
```

```
 Support
```

```
)
```

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```
; RUN: llc -march=hexagon < %s
```

```
; REQUIRES: asserts
```

```
; The two loads based on %struct.0, loading two different data types
; cause LSR to assume type "void" for the memory type. This would then
; cause an assert in isLegalAddressingMode. Make sure we no longer crash.
```

```
target triple = "hexagon"
```

```
%struct.0 = type { i8*, i8, %union.anon.0 }
```

```
%union.anon.0 = type { i8* }
```

```
define hidden fastcc void @fred() unnamed_addr #0 {
```

```
entry:
```

```
br i1 undef, label %while.end, label %while.body.lr.ph
```

```
while.body.lr.ph: ; preds = %entry
```

```
br label %while.body
```

```

while.body: ; preds = %exit.2, %while.body.lr.ph
%lsr.iv = phi %struct.0* [%cgep22, %exit.2], [undef, %while.body.lr.ph]
switch i32 undef, label %exit [
 i32 1, label %sw.bb.i
 i32 2, label %sw.bb3.i
]

sw.bb.i: ; preds = %while.body
unreachable

sw.bb3.i: ; preds = %while.body
unreachable

exit: ; preds = %while.body
switch i32 undef, label %exit.2 [
 i32 1, label %sw.bb.i17
 i32 2, label %sw.bb3.i20
]

sw.bb.i17: ; preds = %exit
%0 = bitcast %struct.0* %lsr.iv to i32*
%1 = load i32, i32* %0, align 4
unreachable

sw.bb3.i20: ; preds = %exit
%2 = bitcast %struct.0* %lsr.iv to i8**
%3 = load i8*, i8** %2, align 4
unreachable

exit.2: ; preds = %exit
%cgep22 = getelementptr %struct.0, %struct.0* %lsr.iv, i32 1
br label %while.body

while.end: ; preds = %entry
ret void
}

```

```

attributes #0 = { nounwind optsize "target-cpu"="hexagonv55" }
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```

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```
; RUN: llc < %s -mtriple=x86_64-linux-android -mattr=+mmx -enable-legalize-types-checking | FileCheck %s
;
; D31946
; Check that we dont end up with the ""LLVM ERROR: Cannot select" error.
; Additionally ensure that the output code actually put fp128 values in SSE registers.
```

```
declare fp128 @llvm.fabs.f128(fp128)
declare fp128 @llvm.copysign.f128(fp128, fp128)
```

```
define fp128 @TestSelect(fp128 %a, fp128 %b) {
 %cmp = fcmp ogt fp128 %a, %b
 %sub = fsub fp128 %a, %b
 %res = select i1 %cmp, fp128 %sub, fp128 0xL00000000000000000000000000000000
 ret fp128 %res
; CHECK-LABEL: TestSelect:
; CHECK movaps 16(%rsp), %xmm1
; CHECK-NEXT callq __subtf3
; CHECK-NEXT testl %ebx, %ebx
; CHECK-NEXT jg .LBB0_2
; CHECK-NEXT # %bb.1:
; CHECK-NEXT movaps .LCPI0_0(%rip), %xmm0
; CHECK-NEXT .LBB0_2:
; CHECK-NEXT addq $32, %rsp
; CHECK-NEXT popq %rbx
; CHECK-NEXT retq
}
```

```
define fp128 @TestFabs(fp128 %a) {
 %res = call fp128 @llvm.fabs.f128(fp128 %a)
 ret fp128 %res
; CHECK-LABEL: TestFabs:
; CHECK andps .LCPI1_0(%rip), %xmm0
; CHECK-NEXT retq
}
```

```

define fp128 @TestCopysign(fp128 %a, fp128 %b) {
 %res = call fp128 @llvm.copysign.f128(fp128 %a, fp128 %b)
 ret fp128 %res
; CHECK-LABEL: TestCopysign:
; CHECK andps .LCPI2_1(%rip), %xmm0
; CHECK-NEXT orps %xmm1, %xmm0
; CHECK-NEXT retq
}

define fp128 @TestFneg(fp128 %a) {
 %mul = fmul fp128 %a, %a
 %res = fsub fp128 0xL00000000000000008000000000000000, %mul
 ret fp128 %res
; CHECK-LABEL: TestFneg:
; CHECK movaps %xmm0, %xmm1
; CHECK-NEXT callq __multf3
; CHECK-NEXT xorps .LCPI3_0(%rip), %xmm0
; CHECK-NEXT popq %rax
; CHECK-NEXT retq
}

```

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## Constant-time SSSE3 AES core implementation.

## version 0.1

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## By Mike Hamburg (Stanford University), 2009

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Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this

case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not

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Version 3, 29 June 2007

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The precise terms and conditions for copying, distribution and modification follow.

## TERMS AND CONDITIONS

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A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of

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The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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```

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## 1.473 python-idna 2.8 r0

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```
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```

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\*\*\*\*

A library to support the Internationalised Domain Names in Applications (IDNA) protocol as specified in RFC 5890 et.al. This new methodology, known as IDNA 2008, can generate materially different results to the previous standard. The library can act as a drop-in replacement for the "encodings.idna" module.

\*\*\*\*

```
import io, sys
from setuptools import setup
```

```
def main():
```

```
 python_version = sys.version_info[:2]
```

```
 if python_version < (2,7):
```

```

raise SystemExit("Sorry, Python 2.7 or newer required")

package_data = {}
exec(open('idna/package_data.py').read(), package_data)

arguments = {
 'name': 'idna',
 'packages': ['idna'],
 'version': package_data['__version__'],
 'description': 'Internationalized Domain Names in Applications (IDNA)',
 'long_description': io.open("README.rst", encoding="UTF-8").read(),
 'author': 'Kim Davies',
 'author_email': 'kim@cynosure.com.au',
 'license': 'BSD-like',
 'url': 'https://github.com/kjd/idna',
 'classifiers': [
 'Development Status :: 5 - Production/Stable',
 'Intended Audience :: Developers',
 'Intended Audience :: System Administrators',
 'License :: OSI Approved :: BSD License',
 'Operating System :: OS Independent',
 'Programming Language :: Python',
 'Programming Language :: Python :: 2',
 'Programming Language :: Python :: 2.7',
 'Programming Language :: Python :: 3',
 'Programming Language :: Python :: 3.4',
 'Programming Language :: Python :: 3.5',
 'Programming Language :: Python :: 3.6',
 'Topic :: Internet :: Name Service (DNS)',
 'Topic :: Software Development :: Libraries :: Python Modules',
 'Topic :: Utilities',
],
 'python_requires': '>=2.7, !=3.0.*, !=3.1.*, !=3.2.*, !=3.3.*',
 'test_suite': 'tests',
}

setup(**arguments)

if __name__ == '__main__':
 main()

Found in path(s):
* /opt/ws_local/PERMITS_SQL/1084376762_1598473689.32/0/idna-2-8-1-tar-gz/idna-2.8/setup.py

```

## 1.474 npth 1.5 4.e18

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Version 2.1, February 1999

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# 1.475 linux-kernel v4.19.183 7fe3586dc094

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## 1.476 tar 1.30 5.el8

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# 1.477 iosionplatform 1

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# 1.478 m4 1.4.18 r0

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Version 3, 29 June 2007

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```

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```
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```

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```
/* GNU m4 -- A simple macro processor
```

```
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```

```
This file is part of GNU M4.
```

```
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```

```
*/
```

```
#include "m4.h"
```

```
#include <getopt.h>
```

```
#include <limits.h>
```

```
#include <signal.h>
```

```
#include "c-stack.h"
```

```

#include "ignore-value.h"
#include "progrname.h"
#include "version-etc.h"

#ifdef DEBUG_STKOVF
include "assert.h"
#endif

#define AUTHORS "Rene' Seindal"

static void usage (int) M4_GNUC_NORETURN;

/* Enable sync output for /lib/cpp (-s). */
int sync_output = 0;

/* Debug (-d[flags]). */
int debug_level = 0;

/* Hash table size (should be a prime) (-Hsize). */
size_t hash_table_size = HASHMAX;

/* Disable GNU extensions (-G). */
int no_gnu_extensions = 0;

/* Prefix all builtin functions by `m4_'. */
int prefix_all_builtins = 0;

/* Max length of arguments in trace output (-lsize). */
int max_debug_argument_length = 0;

/* Suppress warnings about missing arguments. */
int suppress_warnings = 0;

/* If true, then warnings affect exit status. */
static bool fatal_warnings = false;

/* If not zero, then value of exit status for warning diagnostics. */
int warning_status = 0;

/* Artificial limit for expansion_level in macro.c. */
int nesting_limit = 1024;

#ifdef ENABLE_CHANGEWORD
/* User provided regexp for describing m4 words. */
const char *user_word_regexp = "";
#endif

/* Global catchall for any errors that should affect final error status, but

```



```

 where we try to continue execution in the meantime. */
int retcode;

struct macro_definition
{
 struct macro_definition *next;
 int code; /* D, U, s, t, 'l', or DEBUGFILE_OPTION. */
 const char *arg;
};
typedef struct macro_definition macro_definition;

/* Error handling functions. */

/*-----
| Wrapper around error. |
`-----*/

void
m4_error (int status, int errnum, const char *format, ...)
{
 va_list args;
 va_start (args, format);
 verror_at_line (status, errnum, current_line ? current_file : NULL,
 current_line, format, args);
 if (fatal_warnings && ! retcode)
 retcode = EXIT_FAILURE;
 va_end (args);
}

/*-----
| Wrapper around error_at_line. |
`-----*/

void
m4_error_at_line (int status, int errnum, const char *file, int line,
 const char *format, ...)
{
 va_list args;
 va_start (args, format);
 verror_at_line (status, errnum, line ? file : NULL, line, format, args);
 if (fatal_warnings && ! retcode)
 retcode = EXIT_FAILURE;
 va_end (args);
}

#endif
#define SIGBUS SIGILL
#endif

```

```

#ifndef NSIG
ifndef MAX
define MAX(a,b) ((a) < (b) ? (b) : (a))
endif
define NSIG (MAX (SIGABRT, MAX (SIGILL, MAX (SIGFPE, \
 MAX (SIGSEGV, SIGBUS)))) + 1)
#endif

/* Pre-translated messages for program errors. Do not translate in
the signal handler, since gettext and strsignal are not
async-signal-safe. */
static const char * volatile program_error_message;
static const char * volatile signal_message[NSIG];

/* Print a nicer message about any programmer errors, then exit. This
must be aync-signal safe, since it is executed as a signal
handler. If SIGNO is zero, this represents a stack overflow; in
that case, we return to allow c_stack_action to handle things. */
static void M4_GNUC_PURE
fault_handler (int signo)
{
if (signo)
{
/* POSIX states that reading static memory is, in general, not
async-safe. However, the static variables that we read are
never modified once this handler is installed, so this
particular usage is safe. And it seems an oversight that
POSIX claims strlen is not async-safe. Ignore write
failures, since we will exit with non-zero status anyway. */
#define WRITE(f, b, l) ignore_value (write (f, b, l))
WRITE (STDERR_FILENO, program_name, strlen (program_name));
WRITE (STDERR_FILENO, ": ", 2);
WRITE (STDERR_FILENO, program_error_message,
 strlen (program_error_message));
if (signal_message[signo])
{
WRITE (STDERR_FILENO, ": ", 2);
WRITE (STDERR_FILENO, signal_message[signo],
 strlen (signal_message[signo]));
}
WRITE (STDERR_FILENO, "\n", 1);
#undef WRITE
_exit (EXIT_INTERNAL_ERROR);
}
}

```

```

/*-----
| Print a usage message and exit with STATUS. |
`-----*/

static void
usage (int status)
{
if (status != EXIT_SUCCESS)
 xfprintf (stderr, "Try `%s --help' for more information.\n", program_name);
else
 {
 xprintf ("Usage: %s [OPTION]... [FILE]...\n", program_name);
 fputs ("\
Process macros in FILEs. If no FILE or if FILE is `-', standard input\n\
is read.\n\
", stdout);
 fputs ("\
\n\
Mandatory or optional arguments to long options are mandatory or optional\n\
for short options too.\n\
\n\
Operation modes:\n\
 --help display this help and exit\n\
 --version output version information and exit\n\
", stdout);
 xprintf ("\
-E, --fatal-warnings once: warnings become errors, twice: stop\n\
 execution at first error\n\
-i, --interactive unbuffer output, ignore interrupts\n\
-P, --prefix-builtins force a `m4_' prefix to all builtins\n\
-Q, --quiet, --silent suppress some warnings for builtins\n\
 --warn-macro-sequence[=REGEXP]\n\
 warn if macro definition matches REGEXP,\n\
 default %s\n\
", DEFAULT_MACRO_SEQUENCE);
#ifdef ENABLE_CHANGEWORD
 fputs ("\
-W, --word-regexp=REGEXP use REGEXP for macro name syntax\n\
", stdout);
#endif
 fputs ("\
\n\
Preprocessor features:\n\
-D, --define=NAME[=VALUE] define NAME as having VALUE, or empty\n\
-I, --include=DIRECTORY append DIRECTORY to include path\n\
-s, --synclines generate `#line NUM `FILE' lines\n\
-U, --undefine=NAME undefine NAME\n\
", stdout);

```

```

 puts ("");
 xprintf (_("\n
Limits control:\n\
-g, --gnu override -G to re-enable GNU extensions\n\
-G, --traditional suppress all GNU extensions\n\
-H, --hashsize=PRIME set symbol lookup hash table size [509]\n\
-L, --nesting-limit=NUMBER change nesting limit, 0 for unlimited [%d]\n\
"), nesting_limit);
 puts ("");
 fputs ("\n
Frozen state files:\n\
-F, --freeze-state=FILE produce a frozen state on FILE at end\n\
-R, --reload-state=FILE reload a frozen state from FILE at start\n\
", stdout);
 fputs ("\n\
\n\
Debugging:\n\
-d, --debug[=FLAGS] set debug level (no FLAGS implies `aeq')\n\
 --debugfile[=FILE] redirect debug and trace output to FILE\n\
 (default stderr, discard if empty string)\n\
-l, --arglength=NUM restrict macro tracing size\n\
-t, --trace=NAME trace NAME when it is defined\n\
", stdout);
 fputs ("\n\
\n\
FLAGS is any of:\n\
a show actual arguments\n\
c show before collect, after collect and after call\n\
e show expansion\n\
f say current input file name\n\
i show changes in input files\n\
l say current input line number\n\
p show results of path searches\n\
q quote values as necessary, with a or e flag\n\
t trace for all macro calls, not only traceon'ed\n\
x add a unique macro call id, useful with c flag\n\
V shorthand for all of the above flags\n\
", stdout);
 fputs ("\n\
\n\
If defined, the environment variable `M4PATH' is a colon-separated list\n\
of directories included after any specified by `-I'.\n\
", stdout);
 fputs ("\n\
\n\
Exit status is 0 for success, 1 for failure, 63 for frozen file version\n\
mismatch, or whatever value was passed to the m4exit macro.\n\
", stdout);

```

```

 emit_bug_reporting_address ();
}
exit (status);
}

/*-----
| Decode options and launch execution. |
`-----*/

/* For long options that have no equivalent short option, use a
non-character as a pseudo short option, starting with CHAR_MAX + 1. */
enum
{
 DEBUGFILE_OPTION = CHAR_MAX + 1, /* no short opt */
 DIVERSIONS_OPTION, /* not quite -N, because of message */
 WARN_MACRO_SEQUENCE_OPTION, /* no short opt */

 HELP_OPTION, /* no short opt */
 VERSION_OPTION /* no short opt */
};

static const struct option long_options[] =
{
 {"arglength", required_argument, NULL, 'l'},
 {"debug", optional_argument, NULL, 'd'},
 {"define", required_argument, NULL, 'D'},
 {"error-output", required_argument, NULL, 'o'}, /* FIXME: deprecate in 2.0 */
 {"fatal-warnings", no_argument, NULL, 'E'},
 {"freeze-state", required_argument, NULL, 'F'},
 {"gnu", no_argument, NULL, 'g'},
 {"hashsize", required_argument, NULL, 'H'},
 {"include", required_argument, NULL, 'I'},
 {"interactive", no_argument, NULL, 'i'},
 {"nesting-limit", required_argument, NULL, 'L'},
 {"prefix-builtins", no_argument, NULL, 'P'},
 {"quiet", no_argument, NULL, 'Q'},
 {"reload-state", required_argument, NULL, 'R'},
 {"silent", no_argument, NULL, 'S'},
 {"synclines", no_argument, NULL, 's'},
 {"trace", required_argument, NULL, 't'},
 {"traditional", no_argument, NULL, 'G'},
 {"undefine", required_argument, NULL, 'U'},
#ifdef ENABLE_CHANGEWORD
 {"word-regexp", required_argument, NULL, 'W'},
#endif

 {"debugfile", optional_argument, NULL, DEBUGFILE_OPTION},
 {"diversions", required_argument, NULL, DIVERSIONS_OPTION},

```

```

{"warn-macro-sequence", optional_argument, NULL, WARN_MACRO_SEQUENCE_OPTION},

{"help", no_argument, NULL, HELP_OPTION},
{"version", no_argument, NULL, VERSION_OPTION},

{ NULL, 0, NULL, 0 },
};

/* Process a command line file NAME, and return true only if it was
 stdin. */
static void
process_file (const char *name)
{
 if (STREQ (name, "-"))
 {
 /* If stdin is a terminal, we want to allow 'm4 - file -'
 to read input from stdin twice, like GNU cat. Besides,
 there is no point closing stdin before wrapped text, to
 minimize bugs in syscmd called from wrapped text. */
 push_file (stdin, "stdin", false);
 }
 else
 {
 char *full_name;
 FILE *fp = m4_path_search (name, &full_name);
 if (fp == NULL)
 {
 error (0, errno, _("cannot open `%s'"), name);
 /* Set the status to EXIT_FAILURE, even though we
 continue to process files after a missing file. */
 retcode = EXIT_FAILURE;
 return;
 }
 push_file (fp, full_name, true);
 free (full_name);
 }
 expand_input ();
}

/* POSIX requires only -D, -U, and -s; and says that the first two
 must be recognized when interspersed with file names. Traditional
 behavior also handles -s between files. Starting OPTSTRING with
 '-' forces getopt_long to hand back file names as arguments to opt
 '\1', rather than reordering the command line. */
#ifdef ENABLE_CHANGEWORD
#define OPTSTRING "-B:D:EF:GH:I:L:N:PQR:S:T:U:W:d::egil:o:st:"
#else
#define OPTSTRING "-B:D:EF:GH:I:L:N:PQR:S:T:U:d::egil:o:st:"

```

```

#endif

int
main (int argc, char *const *argv)
{
 struct sigaction act;
 macro_definition *head; /* head of deferred argument list */
 macro_definition *tail;
 macro_definition *defn;
 int optchar; /* option character */

 macro_definition *defines;
 bool interactive = false;
 bool seen_file = false;
 const char *debugfile = NULL;
 const char *frozen_file_to_read = NULL;
 const char *frozen_file_to_write = NULL;
 const char *macro_sequence = "";

 set_program_name (argv[0]);
 retcode = EXIT_SUCCESS;
 atexit (close_stdin);

 include_init ();
 debug_init ();

 /* Stack overflow and program error handling. Ignore failure to
 install a handler, since this is merely for improved output on
 crash, and we should never crash ;). We install SIGBUS and
 SIGSEGV handlers prior to using the c-stack module; depending on
 the platform, c-stack will then override none, SIGSEGV, or both
 handlers. */
 program_error_message
 = xasprintf (_("internal error detected; please report this bug to <%s>"),
 PACKAGE_BUGREPORT);
 signal_message[SIGSEGV] = xstrdup (strsignal (SIGSEGV));
 signal_message[SIGABRT] = xstrdup (strsignal (SIGABRT));
 signal_message[SIGILL] = xstrdup (strsignal (SIGILL));
 signal_message[SIGFPE] = xstrdup (strsignal (SIGFPE));
 if (SIGBUS != SIGILL && SIGBUS != SIGSEGV)
 signal_message[SIGBUS] = xstrdup (strsignal (SIGBUS));
 sigemptyset (&act.sa_mask);
 /* One-shot - if we fault while handling a fault, we want to revert
 to default signal behavior. */
 act.sa_flags = SA_NODEFER | SA_RESETHAND;
 act.sa_handler = fault_handler;
 sigaction (SIGSEGV, &act, NULL);
 sigaction (SIGABRT, &act, NULL);

```

```

sigaction (SIGILL, &act, NULL);
sigaction (SIGFPE, &act, NULL);
sigaction (SIGBUS, &act, NULL);
if (c_stack_action (fault_handler) == 0)
 nesting_limit = 0;

#ifdef DEBUG_STKOVF
/* Make it easier to test our fault handlers. Exporting M4_CRASH=0
 attempts a SIGSEGV, exporting it as 1 attempts an assertion
 failure with a fallback to abort. */
{
 char *crash = getenv ("M4_CRASH");
 if (crash)
 {
 if (!strtol (crash, NULL, 10))
 ++*(int *) 8;
 assert (false);
 abort ();
 }
 }
#endif /* DEBUG_STKOVF */

/* First, we decode the arguments, to size up tables and stuff. */
head = tail = NULL;

while ((optchar = getopt_long (argc, (char **) argv, OPTSTRING,
 long_options, NULL)) != -1)
 switch (optchar)
 {
 default:
 usage (EXIT_FAILURE);

 case 'B':
 case 'S':
 case 'T':
 /* Compatibility junk: options that other implementations
 support, but which we ignore as no-ops and don't list in
 --help. */
 error (0, 0, _("warning: `m4 -%c' may be removed in a future release"),
 optchar);
 break;

 case 'N':
 case DIVERSIONS_OPTION:
 /* -N became an obsolete no-op in 1.4.x. */
 error (0, 0, _("warning: `m4 %s' is deprecated"),
 optchar == 'N' ? "-N" : "--diversions");
 break;
 }

```



```

case 'D':
case 'U':
case 's':
case 't':
case '\l':
case DEBUGFILE_OPTION:
 /* Arguments that cannot be handled until later are accumulated. */

 defn = (macro_definition *) xmalloc (sizeof (macro_definition));
 defn->code = optchar;
 defn->arg = optarg;
 defn->next = NULL;

 if (head == NULL)
 head = defn;
 else
 tail->next = defn;
 tail = defn;

 break;

case 'E':
 if (! fatal_warnings)
 fatal_warnings = true;
 else
 warning_status = EXIT_FAILURE;
 break;

case 'F':
 frozen_file_to_write = optarg;
 break;

case 'G':
 no_gnu_extensions = 1;
 break;

case 'H':
 hash_table_size = strtol (optarg, NULL, 10);
 if (hash_table_size == 0)
 hash_table_size = HASHMAX;
 break;

case 'I':
 add_include_directory (optarg);
 break;

case 'L':

```

```

 nesting_limit = strtol (optarg, NULL, 10);
 break;

case 'P':
 prefix_all_builtins = 1;
 break;

case 'Q':
 suppress_warnings = 1;
 break;

case 'R':
 frozen_file_to_read = optarg;
 break;

#ifdef ENABLE_CHANGEWORD
case 'W':
 user_word_regexp = optarg;
 break;
#endif

case 'd':
 debug_level = debug_decode (optarg);
 if (debug_level < 0)
 {
 error (0, 0, _("bad debug flags: `%s'"), optarg);
 debug_level = 0;
 }
 break;

case 'e':
 error (0, 0, _("warning: `m4 -e' is deprecated, use `-i' instead"));
 /* fall through */
case 'i':
 interactive = true;
 break;

case 'g':
 no_gnu_extensions = 0;
 break;

case 'l':
 max_debug_argument_length = strtol (optarg, NULL, 10);
 if (max_debug_argument_length <= 0)
 max_debug_argument_length = 0;
 break;

case 'o':

```

```

/* -o/--error-output are deprecated synonyms of --debugfile,
 but don't issue a deprecation warning until autoconf 2.61
 or later is more widely established, as such a warning
 would interfere with all earlier versions of autoconf. */
/* Don't call debug_set_output here, as it has side effects. */
debugfile = optarg;
break;

case WARN_MACRO_SEQUENCE_OPTION:
/* Don't call set_macro_sequence here, as it can exit.
 --warn-macro-sequence sets optarg to NULL (which uses the
 default regexp); --warn-macro-sequence= sets optarg to ""
 (which disables these warnings). */
macro_sequence = optarg;
break;

case VERSION_OPTION:
version_etc (stdout, PACKAGE, PACKAGE_NAME, VERSION, AUTHORS, NULL);
exit (EXIT_SUCCESS);
break;

case HELP_OPTION:
usage (EXIT_SUCCESS);
break;
}

defines = head;

/* Do the basic initializations. */
if (debugfile && !debug_set_output (debugfile))
M4ERROR ((warning_status, errno, "cannot set debug file `%s'", debugfile));

input_init ();
output_init ();
symtab_init ();
set_macro_sequence (macro_sequence);
include_env_init ();

if (frozen_file_to_read)
reload_frozen_state (frozen_file_to_read);
else
builtin_init ();

/* Interactive mode means unbuffered output, and interrupts ignored. */

if (interactive)
{
signal (SIGINT, SIG_IGN);

```

```

 setbuf (stdout, (char *) NULL);
}

/* Handle deferred command line macro definitions. Must come after
initialization of the symbol table. */

while (defines != NULL)
{
 macro_definition *next;
 symbol *sym;

 switch (defines->code)
 {
 case 'D':
 {
 /* defines->arg is read-only, so we need a copy. */
 char *macro_name = xstrdup (defines->arg);
 char *macro_value = strchr (macro_name, '=');
 if (macro_value)
 *macro_value++ = '\0';
 define_user_macro (macro_name, macro_value, SYMBOL_INSERT);
 free (macro_name);
 }
 break;

 case 'U':
 lookup_symbol (defines->arg, SYMBOL_DELETE);
 break;

 case 't':
 sym = lookup_symbol (defines->arg, SYMBOL_INSERT);
 SYMBOL_TRACED (sym) = true;
 break;

 case 's':
 sync_output = 1;
 break;

 case '\1':
 seen_file = true;
 process_file (defines->arg);
 break;

 case DEBUGFILE_OPTION:
 if (!debug_set_output (defines->arg))
 M4ERROR ((warning_status, errno, "cannot set debug file `%s",
 debugfile ? debugfile : _("stderr")));
 break;
 }
}

```

```

default:
 M4ERROR ((0, 0, "INTERNAL ERROR: bad code in deferred arguments"));
 abort ();
}

next = defines->next;
free (defines);
defines = next;
}

/* Handle remaining input files. Each file is pushed on the input,
 and the input read. Wrapup text is handled separately later. */

if (optind == argc && !seen_file)
 process_file ("-");
else
 for (; optind < argc; optind++)
 process_file (argv[optind]);

/* Now handle wrapup text. */

while (pop_wrapup ())
 expand_input ();

/* Change debug stream back to stderr, to force flushing the debug
 stream and detect any errors it might have encountered. The
 three standard streams are closed by close_stdin. */
debug_set_output (NULL);

if (frozen_file_to_write)
 produce_frozen_state (frozen_file_to_write);
else
 {
 make_diversion (0);
 undivert_all ();
 }
output_exit ();
free_macro_sequence ();
exit (retcode);
}

```

## 1.479 acl 2.2.53 1.el8

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```
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```

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<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice

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-----  
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Version 2.1, February 1999

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```
<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

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version 2.1 of the License, or (at your option) any later version.
```

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```

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```
Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James Random Hacker.
```

```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

That's all there is to it!

# 1.480 python3-pluggy 0.13.0 r0

## 1.480.1 Available under license :

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## 1.481 lzw-compression 1.0

### 1.481.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
/* $Id: compress_lzw.c,v 3.3.62.2 1996/07/10 22:21:52 dstine Exp $
* $Source: /release/112/cvs/Xsys/os/compress_lzw.c,v $
*-----
* compress_lzw.c - generic compress/decompress routines
*
* September 1993, Stig Thormodsrud
*
* Copyright (c) 1993-2005, 2007-2012 by cisco Systems, Inc.
* All rights reserved.
*
* Portions of this module are based on public domain software and/or
* software copyright (c) 1990 by Network Computing Devices, Inc., and
* used with permission.
*-----
* $Log: compress_lzw.c,v $
* Revision 3.3.62.2 1996/07/10 22:21:52 dstine
* CSCdi62471: Superfluous #include files in atalk, atm, os files
* Branch: California_branch
*
```



```

* Revision 3.3.62.1 1996/03/18 21:29:18 gstovall
* Branch: California_branch
* Elvis has left the building. He headed out to California, and took the
* port ready changes with him.
*
* Revision 3.3.26.2 1996/03/07 10:18:00 mdb
* Branch: DeadKingOnAThrone_branch
* cisco and ANSI/POSIX libraries.
*
* Revision 3.3.26.1 1996/02/20 16:38:04 dstine
* Branch: DeadKingOnAThrone_branch
* Sync from DeadKingOnAThrone_baseline_960122 to
* DeadKingOnAThrone_baseline_960213
*
* Revision 3.3 1995/11/17 18:46:04 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.2 1995/11/17 00:17:23 gstovall
* Ladies and gentlemen, I introduce to you, the port ready commit.
*
* Revision 3.1 1995/11/09 12:44:48 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/06/07 21:54:12 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/ws_local/PERMITS_SQL/1033344783_1590682057.47/0/compress-lzw-1-zip/compress_lzw.c

```

# 1.482 libpcre 8.43 r0

## 1.482.1 Available under license :

PCRE LICENCE

-----

PCRE is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language.

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The basic library functions are written in C and are freestanding. Also included in the distribution is a set of C++ wrapper functions, and a just-in-time compiler that can be used to optimize pattern matching. These are both optional features that can be omitted when the library is built.

## THE BASIC LIBRARY FUNCTIONS

-----

Written by: Philip Hazel

Email local part: ph10

Email domain: cam.ac.uk

University of Cambridge Computing Service,  
Cambridge, England.

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## PCRE JUST-IN-TIME COMPILATION SUPPORT

-----

Written by: Zoltan Herczeg

Email local part: hzmester

Email domain: freemail.hu

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## STACK-LESS JUST-IN-TIME COMPILER

-----

Written by: Zoltan Herczeg

Email local part: hzmester

Email domain: freemail.hu

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## THE C++ WRAPPER FUNCTIONS

-----

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# 1.483 libassuan 2.5.1 3.el8

## 1.483.1 Available under license :

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Version 3, 29 June 2007

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# 1.484 binutils 2.32.0 r0

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@smallexample

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```
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```

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@c man end

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Ty Coon, President of Vice

That's all there is to it!

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Version 3, 29 June 2007

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be

linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy

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d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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Version 2.1, February 1999

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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(This file is under construction.) -\*- text -\*-

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Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for gdb-specific debug information and the 68k series machines, most of the preprocessing pass, and extensive changes in messages.c, input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various enhancements and many bug fixes, including merging support for several processors, breaking gas up to handle multiple object file format backends (including heavy rewrite, testing, an integration of the coff and b.out backends), adding configuration including heavy testing and verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan. Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog

targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using

patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't intentionally leaving anyone out.

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# 1.486 pycparser 2.20

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pycparser -- A C parser in Python

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# 1.487 coreutils 8.31 r0

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## 1.488 libtirpc 1.1.4 4.el8

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Written by: Philip Hazel  
Email local part: ph10  
Email domain: cam.ac.uk

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# 1.494 cpio 2.12 r0

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## 1.496 fdisk 2.32.1

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The following individuals contributed in part to the Network Time Protocol Distribution Version 4 and are acknowledged as authors of this work.

1. [1]Mark Andrews <mark\_andrews@isc.org> Leitch atomic clock controller
2. [2]Bernd Altmeier <altmeier@atsoft.de> hopf Elektronik serial line and PCI-bus devices
3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5
4. [5]Michael Barone <michael,barone@lmco.com> GPSVME fixes
5. [6]Jean-Francois Boudreault <Jean-Francois.Boudreault@viagenie.qc.ca>IPv6 support
6. [7]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option
7. [8]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.
8. [9]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver
9. [10]Piete Brooks <Piete.Brooks@cl.cam.ac.uk> MSF clock driver, Trimble PARSE support
10. [11]Reg Clemens <reg@dwf.com> Oncore driver (Current maintainer)
11. [12]Steve Clift <clift@ml.csiro.au> OMEGA clock driver
12. [13]Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration
13. [14]Sven Dietrich <sven\_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.
14. [15]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port
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16. [17]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119
17. [18]John Hay <jhay@icomtek.csir.co.za> IPv6 support and testing
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20. [21]Jim Jagielski <jim@jagubox.gsfc.nasa.gov> A/UX port
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  25. [28]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX  
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  29. [32]Louis A. Mamakos <louie@ni.umd.edu> MD5-based authentication
  30. [33]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation  
code for Version 3 as specified in RFC-1305
  31. [34]Danny Mayer <mayer@ntp.org>Network I/O, Windows Port, Code  
Maintenance
  32. [35]David L. Mills <mills@udel.edu> Version 4 foundation: clock  
discipline, authentication, precision kernel; clock drivers:  
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audio clock drivers: CHU, WWV/H, IRIG
  33. [36]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port
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  40. [44]Wilfredo S?nchez <wsanchez@apple.com> added support for  
NetInfo
  41. [45]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules
  42. [46]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of  
space on the stuff in the html/pic/ subdirectory
  43. [47]Ray Schnitzler <schnitz@unipress.com> Unixware1 port
  44. [48]Michael Shields <shields@tembel.org> USNO clock driver
  45. [49]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock  
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  46. [50]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure  
makeover, various other bits (see the ChangeLog)
  47. [51]Kenneth Stone <ken@sdd.hp.com> HP-UX port
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  51. [55]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and  
validated HTML documents according to the HTML DTD

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# 1.499 python3-zipp 0.6.0 r0

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```
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```

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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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## 1.503 gdbm 1.18.1 r0

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# 1.504 python-pyopenssl 19.0.0 r0

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## 1.507 jansson 2.12 r0

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## 1.508 libsmi 0.5.0 r0

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tools/shhopt.c, tools/shhopt.h:

Title: shhopt - library for parsing command line options.

Version: 1.1.2

Entered-date: 23MAR97

Description: C-functions for parsing command line options, both  
traditional one-character options, and GNU'ish  
--long-options.

Keywords: programming, library, lib, commandline, options

Author: s.h.huseby@usit.uio.no (Sverre H. Huseby)

Primary-site: <http://www.ifi.uio.no/~sverrehu/pub-unix/>

Alternate-site: [sunsite.unc.edu/pub/Linux/libs](http://sunsite.unc.edu/pub/Linux/libs)  
shhopt-1.1.2.tar.gz

Platforms: Requires ANSI C-compiler.

Copying-policy: BeerWare: If you have the time and money, send me a bottle  
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**1.509 ccid 1.4.30 r0**

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Version 2.1, February 1999

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If distribution of object code is made by offering access to copy

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the

library". The executable is therefore covered by this License.  
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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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# 1.511 strace 5.3 r0

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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## 1.513 d-bus 1.12.8-12.el8

### 1.513.1 Available under license :

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```
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```

```
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```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.statd usr/sbin/rpc.statd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sm-notify usr/sbin/sm-notify
infra/systemd/nfs-statd.service usr/lib/systemd/system/nfs-statd.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/nfsstat usr/sbin/nfsstat
```

```
contrib/initscripts/binos/etc/${NFS_VER}/nfs-utils.conf etc/nfs-utils.conf
```

Found in path(s):

```
* /opt/cola/permits/1130449848_1615191957.87/0/iptables-tar/linux-system/nfsv3/nfs-common
```

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```
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```

```
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```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/dmesg usr/bin/dmesg
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/kill usr/bin/kill
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/mount usr/bin/mount
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/umount usr/bin/umount
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/agetty usr/sbin/agetty
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/blockdev usr/sbin/blockdev
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/cfdisk usr/sbin/cfdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/ctrlaltdel usr/sbin/ctrlaltdel
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fdisk usr/sbin/fdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fsck usr/sbin/fsck
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/hwclock usr/sbin/hwclock
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mkswap usr/sbin/mkswap
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/pivot_root usr/sbin/pivot_root
```

```

linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/sfdisk usr/sbin/sfdisk
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/swapoff usr/sbin/swapoff
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/swapon usr/sbin/swapon
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/arch usr/bin/arch
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/cal usr/bin/cal
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/chrt usr/bin/chrt
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/col usr/bin/col
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/colcrt usr/bin/colcrt
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linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/hexdump usr/bin/hexdump
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ionice usr/bin/ionice
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ipcrm usr/bin/ipcrm
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ipcs usr/bin/ipcs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/isosize usr/bin/isosize
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/last usr/bin/last
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/logger usr/bin/logger
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/look usr/bin/look
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/lslblk usr/bin/lslblk
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linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/newgrp usr/bin/newgrp
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/nsenter usr/bin/nsenter
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rename usr/bin/rename
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/renice usr/bin/renice
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rev usr/bin/rev
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/script usr/bin/script
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/setsid usr/bin/setsid
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/setterm usr/bin/setterm
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/taskset usr/bin/taskset
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/ul usr/bin/ul
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/wall usr/bin/wall
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/whereis usr/bin/whereis
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/write usr/bin/write
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/fdformat usr/sbin/fdformat
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mkfs usr/sbin/mkfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/raw usr/sbin/raw
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/zramctl usr/sbin/zramctl

```

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/util-linux

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linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ipcalc usr/bin/ipcalc

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\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/ipcalc

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#

# This file contains all needed files related to nfs server daemon.

#

infra/systemd/nfs-mountd.service usr/lib/systemd/system/nfs-mountd.service

infra/systemd/nfs-server.service usr/lib/systemd/system/nfs-server.service

infra/systemd/proc-fs-nfsd.mount usr/lib/systemd/system/proc-fs-nfsd.mount

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/exportfs usr/sbin/exportfs

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.mountd usr/sbin/rpc.mountd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.nfsd usr/sbin/rpc.nfsd

(include nfs-common)

# The following optional kernel modules are put here to allow forwarding

# compatible when NFSV4 support is configured in kernel.

# When nfsv4 is enabled in kernel, it brings in extra dependency for

# nfsd.ko, which is needed for nfsv3 server.

# so treat extra modules needed by nfsd.ko as optional since it depend on kernel

# configure.

#

# nfsd.ko depend on auth\_rpcgss.ko

# auth\_rpcgss.ko depend on oid\_registry.ko

-\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/lib/oid\_registry.ko

-\${PLATFORM\_SYSROOT}/usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

usr/lib/modules/\${KERNEL\_VER}/kernel/net/sunrpc/auth\_gss/auth\_rpcgss.ko

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/nfsv3/nfs-utils

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linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/journalctl

usr/bin/journalctl

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemctl

usr/bin/systemctl

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-inhibit

usr/bin/systemd-inhibit

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-notify

usr/bin/systemd-notify

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/systemd-tmpfiles

usr/bin/systemd-tmpfiles

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/udevadm	usr/bin/udevadm
contrib/yocto/CGE7/journald.conf	etc/systemd/journald.conf
infra/systemd/system.conf	etc/systemd/system.conf
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/systemd/user.conf	etc/systemd/user.conf
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/udev/udev.conf	etc/udev/udev.conf
/usr/lib/systemd/systemd	init
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system-generators/systemd-fstab-generator	
usr/lib/systemd/system-generators/systemd-fstab-generator	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/basic.target	
usr/lib/systemd/system/basic.target	
/usr/lib/systemd/system/reboot.target	usr/lib/systemd/system/ctrl-alt-del.target
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/dev-hugepages.mount	
usr/lib/systemd/system/dev-hugepages.mount	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/dev-mqueue.mount	
usr/lib/systemd/system/dev-mqueue.mount	
infra/systemd/emergency.service	usr/lib/systemd/system/emergency.service
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/emergency.target	
usr/lib/systemd/system/emergency.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/final.target	
usr/lib/systemd/system/final.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/halt.target	
usr/lib/systemd/system/halt.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/kexec.target	
usr/lib/systemd/system/kexec.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/local-fs-pre.target	
usr/lib/systemd/system/local-fs-pre.target	
infra/systemd/local-fs.target	usr/lib/systemd/system/local-fs.target
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/network-online.target	
usr/lib/systemd/system/network-online.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/network.target	
usr/lib/systemd/system/network.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/paths.target	
usr/lib/systemd/system/paths.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/poweroff.target	
usr/lib/systemd/system/poweroff.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/reboot.target	
usr/lib/systemd/system/reboot.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/remote-fs.target	
usr/lib/systemd/system/remote-fs.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.service	
usr/lib/systemd/system/rescue.service	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/rescue.target	
usr/lib/systemd/system/rescue.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/shutdown.target	
usr/lib/systemd/system/shutdown.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/slices.target	
usr/lib/systemd/system/slices.target	
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sockets.target	

usr/lib/systemd/system/sockets.target  
 /usr/lib/systemd/system/systemd-journald.socket  
 usr/lib/systemd/system/sockets.target.requires/systemd-journald.socket  
 /usr/lib/systemd/system/systemd-udev-control.socket  
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-control.socket  
 /usr/lib/systemd/system/systemd-udev-kernel.socket  
 usr/lib/systemd/system/sockets.target.requires/systemd-udev-kernel.socket  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-config.mount  
 usr/lib/systemd/system/sys-kernel-config.mount  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/sys-kernel-debug.mount  
 usr/lib/systemd/system/sys-kernel-debug.mount  
 /usr/lib/systemd/system/dev-hugepages.mount  
 usr/lib/systemd/system/sysinit.target.wants/dev-hugepages.mount  
 /usr/lib/systemd/system/dev-mqueue.mount  
 usr/lib/systemd/system/sysinit.target.wants/dev-mqueue.mount  
 /usr/lib/systemd/system/sys-kernel-config.mount  
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-config.mount  
 /usr/lib/systemd/system/sys-kernel-debug.mount  
 usr/lib/systemd/system/sysinit.target.wants/sys-kernel-debug.mount  
 /usr/lib/systemd/system/systemd-journal-flush.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-journal-flush.service  
 /usr/lib/systemd/system/systemd-journald.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-journald.service  
 /usr/lib/systemd/system/systemd-modules-load.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-modules-load.service  
 /usr/lib/systemd/system/systemd-sysctl.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-sysctl.service  
 /usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup-dev.service  
 /usr/lib/systemd/system/systemd-tmpfiles-setup.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-tmpfiles-setup.service  
 /usr/lib/systemd/system/systemd-udev-trigger.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev-trigger.service  
 /usr/lib/systemd/system/systemd-udev.service  
 usr/lib/systemd/system/sysinit.target.wants/systemd-udev.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-halt.service  
 usr/lib/systemd/system/systemd-halt.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journal-flush.service  
 usr/lib/systemd/system/systemd-journal-flush.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journald-dev-log.socket  
 usr/lib/systemd/system/systemd-journald-dev-log.socket  
 infra/systemd/systemd-journald.service.d/visible.conf                      usr/lib/systemd/system/systemd-  
 journald.service.d/visible.conf  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-fsck@.service  
 usr/lib/systemd/system/systemd-fsck@.service  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journald.socket  
 usr/lib/systemd/system/systemd-journald.socket  
 linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-kexec.service

usr/lib/systemd/system/systemd-kexec.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-modules-load.service  
usr/lib/systemd/system/systemd-modules-load.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-poweroff.service  
usr/lib/systemd/system/systemd-poweroff.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-reboot.service  
usr/lib/systemd/system/systemd-reboot.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-sysctl.service  
usr/lib/systemd/system/systemd-sysctl.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service  
usr/lib/systemd/system/systemd-tmpfiles-setup-dev.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-tmpfiles-setup.service  
usr/lib/systemd/system/systemd-tmpfiles-setup.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-settle.service  
usr/lib/systemd/system/systemd-udev-settle.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-trigger.service  
usr/lib/systemd/system/systemd-udev-trigger.service  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-control.socket  
usr/lib/systemd/system/systemd-udev-control.socket  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/systemd-udev-kernel.socket  
usr/lib/systemd/system/systemd-udev-kernel.socket  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/timers.target  
usr/lib/systemd/system/timers.target  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/time-sync.target  
usr/lib/systemd/system/time-sync.target  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/system/umount.target  
usr/lib/systemd/system/umount.target  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd usr/lib/systemd/systemd  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/bin/systemd-socket-activate usr/bin/systemd-socket-activate  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-bootchart  
usr/lib/systemd/systemd-bootchart  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-fsck usr/lib/systemd/systemd-fsck  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-journald usr/lib/systemd/systemd-journald  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-modules-load  
usr/lib/systemd/systemd-modules-load  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-shutdown  
usr/lib/systemd/systemd-shutdown  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-sysctl usr/lib/systemd/systemd-sysctl  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-timedated  
usr/lib/systemd/systemd-timedated  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/systemd/systemd-udev usr/lib/systemd/systemd-udev  
linkfarm/\${SYSROOT}/\${ARCH}/\${SDK}/usr/lib/udev/rules.d/50-udev-default.rules  
usr/lib/udev/rules.d/50-udev-default.rules

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/udev/rules.d/99-systemd.rules usr/lib/udev/rules.d/99-
systemd.rules
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/systemd-analyze usr/bin/systemd-analyze
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/machine.slice
usr/lib/systemd/system/machine.slice
infra/systemd/systemd-journald.service.d/visible.conf usr/lib/systemd/system/systemd-
journald.service.d/visible.conf

infra/systemd/sysctl/inotify-user-instances.conf etc/sysctl.d/inotify-user-instances.conf
```

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/systemd-common

No license file was found, but licenses were detected in source scan.

```
Original Creation Date Unknown
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```

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/staprun usr/bin/staprun
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/libexec/systemtap/stapio usr/libexec/systemtap/stapio
```

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/systemtap

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```
#
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```

```
(include audit)
(include bash)
(include binutils)
(include bridge-utils)
(include busybox)
(include bzip2)
(include coreutils)
(include cpio)
(include dbus)
(include diffutils)
(include dosfstools)
(include e2fsprogs)
(include ethtool)
(include file)
(include filesystem)
(include findutils)
(include gawk)
(include glibc)
(include grep)
```

(include gzip)  
(include initscripts)  
(include ipcalc)  
(include iproute2)  
(include iptables)  
(include iputils)  
(include kexec-tools)  
(include kmod)  
(include less)  
(include libcap)  
(include lsof)  
(include modules)  
(include ncurses)  
(include netbase)  
(include netcat)  
(include netkit-telnet)  
(include net-tools)  
(include \${NFS\_VER}/nfs-utils-client)  
(include pciutils)  
(include procps)  
(include psmisc)  
(include rpcbind)  
(include sed)  
(include shadow)  
(include strace)  
(include sysklogd)  
(include systemtap)  
(include sysvinit)  
(include tar)  
(include tcpdump)  
(include tftp-hpa)  
(include traceroute)  
(include util-linux)

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/all-common

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#

# November 2018, Cisco Systems, Inc.

#

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#

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/ping      usr/bin/ping

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/bin/tracepath      usr/bin/tracepath

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/in.tftpd-hpa      usr/bin/tftpd

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/iputils

No license file was found, but licenses were detected in source scan.

#

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(include all-common)

(include systemd)

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/all

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#

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#files related to nfs-statd.service

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.statd          usr/sbin/rpc.statd

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/sm-notify          usr/sbin/sm-notify

infra/systemd/nfs-statd.service          usr/lib/systemd/system/nfs-statd.service

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/nfsstat          usr/sbin/nfsstat

#files related to nfs-idmapd.service

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/sbin/rpc.idmapd          usr/sbin/rpc.idmapd

infra/systemd/var-lib-nfs-rpc\_pipefs.mount          usr/lib/systemd/system/var-lib-nfs-rpc\_pipefs.mount

# plugin nsswitch for rpc.idmapd can not be figure out automatilly by dependency.

# The directory for plugin is fix to usr/lib/libnfsidmap

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/\${LIB}/libnfsidmap/nsswitch.so          usr/lib/libnfsidmap/nsswitch.so

linkfarm/\${SYSROOT}\${ARCH}\${SDK}/etc/idmapd.conf          etc/idmapd.conf

infra/systemd/nfs-idmapd.service          usr/lib/systemd/system/nfs-idmapd.service

contrib/initscripts/binos/etc/\${NFS\_VER}/nfs-utils.conf          etc/nfs-utils.conf

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/nfsv4/nfs-common

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#

# May 2018, Victor Kamensky

#

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#

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditd usr/sbin/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/audispd usr/sbin/audispd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/autrace usr/sbin/autrace
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/aureport usr/sbin/aureport
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/auditctl usr/sbin/auditctl
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/aureport usr/sbin/aureport
```

```
contrib/initscripts/binos/etc/audit/auditd.conf etc/audit/auditd.conf
contrib/initscripts/binos/etc/audisp/audispd.conf etc/audisp/audispd.conf
contrib/initscripts/binos/etc/audit/audit.rules etc/audit/audit.rules
contrib/initscripts/binos/etc/audisp/plugins.d/syslog.conf etc/audisp/plugins.d/syslog.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/default/auditd etc/default/auditd
linkfarm/${SYSROOT}${ARCH}${SDK}/etc/libaudit.conf etc/libaudit.conf
```

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/audit

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(include systemd-common)

```
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system-preset/90-systemd.preset
usr/lib/systemd/system-preset/90-systemd.preset
/usr/lib/systemd/system/tmp.mount usr/lib/systemd/system/local-
fs.target.requires/tmp.mount
infra/systemd/sysinit.target usr/lib/systemd/system/sysinit.target
infra/systemd/cpld-symlink.service usr/lib/systemd/system/cpld-symlink.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-journald.service
usr/lib/systemd/system/systemd-journald.service
infra/systemd/systemd-journald.service.d/visible.conf usr/lib/systemd/system/systemd-
journald.service.d/visible.conf
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-timedated.service
usr/lib/systemd/system/systemd-timedated.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/systemd-udev.service
usr/lib/systemd/system/systemd-udev.service
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/lib/systemd/system/tmp.mount
usr/lib/systemd/system/tmp.mount
```

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/systemd

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#



```

This file contains all needed files related to nfs server daemon.
#
infra/systemd/nfs-mountd.service usr/lib/systemd/system/nfs-mountd.service
infra/systemd/nfs-server.service usr/lib/systemd/system/nfs-server.service
infra/systemd/proc-fs-nfsd.mount usr/lib/systemd/system/proc-fs-nfsd.mount

linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/exportfs usr/sbin/exportfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.mountd usr/sbin/rpc.mountd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/rpc.nfsd usr/sbin/rpc.nfsd
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/bin/rpcinfo usr/bin/rpcinfo

(include nfs-common)
The following kernel modules are needed when NFSV4 support is configured
in kernel.
nfsd.ko depend on auth_rpcgss.ko
auth_rpcgss.ko depend on oid_registry.ko

-${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/lib/oid_registry.ko
usr/lib/modules/${KERNEL_VER}/kernel/lib/oid_registry.ko
${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko
usr/lib/modules/${KERNEL_VER}/kernel/net/sunrpc/auth_gss/auth_rpcgss.ko

Found in path(s):
* /opt/cola/permits/1130449848_1615191957.87/0/iptables-tar/linux-system/nfsv4/nfs-utils
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#
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This file is to store extra files needed to support NFSV4 client.
#
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mount.nfs usr/sbin/mount.nfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/umount.nfs usr/sbin/umount.nfs
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/mount.nfs4 usr/sbin/mount.nfs4
linkfarm/${SYSROOT}${ARCH}${SDK}/usr/sbin/umount.nfs4 usr/sbin/umount.nfs4

contrib/initscripts/binos/etc/${NFS_VER}/nfsmount.conf etc/nfsmount.conf
${PLATFORM_SYSROOT}/usr/lib/modules/${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko
usr/lib/modules/${KERNEL_VER}/kernel/fs/nfs/nfsv4.ko

(include nfs-common)

Found in path(s):
* /opt/cola/permits/1130449848_1615191957.87/0/iptables-tar/linux-system/nfsv4/nfs-utils-client
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```

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(include systemd-common)

infra/systemd/switchroot/sysinit.target	usr/lib/systemd/system/sysinit.target
infra/systemd/switchroot/systemd-journald.service	usr/lib/systemd/system/systemd-journald.service
infra/systemd/switchroot/systemd-timedated.service	usr/lib/systemd/system/systemd-timedated.service
infra/systemd/switchroot/systemd-udev.service	usr/lib/systemd/system/systemd-udev.service
linkfarm/\${SYSROOT}\${ARCH}\${SDK}/usr/lib/systemd/system/systemd-journald-audit.socket	
usr/lib/systemd/system/systemd-journald-audit.socket	

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/systemd-swrt

No license file was found, but licenses were detected in source scan.

#

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(include all-common)

(include systemd-swrt)

Found in path(s):

\* /opt/cola/permits/1130449848\_1615191957.87/0/iptables-tar/linux-system/all-swrt

# 1.514 log-rotate 3.15.1 r0

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\* imap\_gssapi.c is partially derived from sample code in:

\* GSS-API Programming Guide

\* Part No: 816-1331-11

\* Sun Microsystems, Inc. 4150 Network Circle Santa Clara, CA 95054 U.S.A.

\*

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Network Working Group     H. Krawczyk  
Request for Comments: 2104     IBM  
Category: Informational     M. Bellare  
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                              R. Canetti  
                              IBM  
                              February 1997

HMAC: Keyed-Hashing for Message Authentication

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## 1.526 libpcap 1.9.1 4.el8

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## 1.530 python 2.7.18 r0

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

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1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
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2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
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## 1.531 traceroute 2.1.0 6.el8

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Version 3, 29 June 2007

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* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/aaa/OnepAAAAttributeType.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-
tar/python/onep/interfaces/InterfaceAddressChangeEvent.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/interfaces/InterfaceFilter.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/policy/L3Acl.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-
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tar/python/onep/interfaces/InterfaceCreateDeleteListener.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/core/event/EventManager.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/interfaces/InterfaceStatus.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/tools/release_Acl.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/tunnels/__init__.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/policyservice/__init__.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/interfaces/InterfaceStatisticsListener.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/element/ConnectionEvent.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/core/event/KeepaliveMonitor.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/element/FRU.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-
tar/python/onep/core/exception/ConfigFailedException.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/policy/utest_l2_acl.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/container/csevent.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/aaa/AddressAttribute.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/element/AppListener.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/core/util/LicensingService.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/applmgmt/__init__.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/location/location.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/crypto/test_ike.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-
tar/python/onep/interfaces/InterfaceAddressChangeFilter.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/crypto/__init__.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/policy/utest_l3_acl.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/element/SyslogFilter.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/tunnels/__init__.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/element/SessionHandle.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/__init__.py
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tar/python/onep/core/exception/OnepIllegalArgumentException.py
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* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/policyservice/statistics.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/interfaces/InterfaceMtuListener.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/routing/vrf.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/test/element/element\_tls\_Test.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/TTIPCSocket.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/vty/\_\_init\_\_.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/element/NetworkApplication.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/element/SyslogListener.py
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* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/tools/internal_setup.py
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* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/policy/FirewallService.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/policy/nat.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/test/pfr/pfr_test.py
* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/pfr/pfrconfig.py
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* /opt/cola/permits/1130449986_1615182707.44/0/python-tar/python/onep/advancedrouting/config.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/server/\_\_init\_\_.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/protocol/TBase.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/Thrift.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/TTransport.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/server/TServer.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/protocol/TBinaryProtocol.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/protocol/TCompactProtocol.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/\_\_init\_\_.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/TSSLSocket.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/TCons.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/server/TNonblockingServer.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/THttpClient.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/TSocket.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/\_\_init\_\_.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/transport/TZlibTransport.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/thrift/server/THttpServer.py
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\* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/test/interfaces/InterfaceFilter\_Test.py

\* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/test/applmgmt/CliExtension\_Test.py

\* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/test/interfaces/NetworkInterface\_Test.py

\* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/interfaces/InterfaceMtuEvent.py

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tar/python/test/interfaces/InterfaceCreateDeleteEvent\_Test.py

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tar/python/test/interfaces/InterfaceStatisticsEvent\_Test.py

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tar/python/test/interfaces/InterfaceVlanChangeEvent\_Test.py

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tar/python/test/interfaces/InterfaceCreateDeleteFilter\_Test.py

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tar/python/test/interfaces/InterfaceAddressChangeFilter\_Test.py

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tar/python/test/interfaces/InterfaceVrfChangeEvent\_Test.py

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tar/python/test/interfaces/InterfaceBandwidthEvent\_Test.py

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\*  
\* Cisco ONE-P Python SDK  
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\*-----  
\*/

#### Introduction:

-----

The APIs contained in these modules allow the developer to design controller applications that interface to compatible Cisco network elements. These applications will be able to configure the element and retrieve statistics.

#### WARNING:

It is suggested that the developer be very knowledgeable of the network element configuration before applying. You can bring down a production network with the wrong setup!

#### onePK Python API Reference:

-----

The onePK Python API Reference is provided in HTML format and can be found in the docs directory. Open the index.html with a web browser.

#### Installing Modules

-----

Must have Python version 2.7.

From root of uncompressed directory type:

```
python setup.py install
```

This will install the SDK modules in the standard directory.

If you wish to locate the modules into a custom directory:

```
python setup.py install --prefix="<your custom directory>"
```

Alternatively, pip can be used to install the SDK.

```
pip install <sdk_tar>
```

Pip can also be used to uninstall the sdk

```
pip uninstall onep-python-sdk
```

This will install the SDK modules in :

```
<your custom directory>/lib/python2.7/site-packages/onep
```

Be sure that your custom directory is included in the PYTHONPATH.

## Creating Application

-----

Must have a Cisco network device capable of communicating with ONE-P APIs. Network Element must also have onep configured with the socket transport and have the correct onep services activated. A network interface must be configured with a valid IP address and pingable.

First step to communicate with network element is to connect. See sample.py for a very basic example. You should be able to run:

```
./sample.py
```

Usage:

```
sample.py -a <element address or FQDN> [-t <transport_type>] \
 [-C <client cert file> -K <client private key file> \
 -R <root certificates file>]
```

-a <ip\_addr or FQDN> Network element's IP Address or Fully Qualified Domain Name

-t <tls|tipc> Transport type. Default is TLS connection

-C <clientcert.pem> Client certificate file required TLS connection  
(default location ./clientcert.pem)

-K <clientkey.pem> Client private key file required for TLS connection  
(default location ./clientkey.pem)

-R <nerootca.pem> Root certificate file required for TLS connection  
(default location ./nerootca.pem)

The application will prompt the user to enter username and password that are configured on the network element you are connecting to.

For more information on how to use TLS connection please refer to the Getting Started Guide.

Happy Scripting!

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```
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/core/util/tlspinning.py

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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/mediatrace/mtrace.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/dhcp/dhcp.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/applmgmt/ApplicationConfigCliListener.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/element/OIRListener.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/element/ConnectionProperty.py

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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/TopologyListener.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RouteRange.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RouteOperation.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RIBFilter.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/L3UnicastRouteOperation.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RIBRouteStateListener.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/NextHop.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/ReplayRouteEventListener.py
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- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/Scope.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/TopologyFilter.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RoutingServiceStatusEvent.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/UpdateRouteResponse.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/Edge.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/L3UnicastNextHop.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/TopologyClass.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/L3UnicastRoute.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RoutingClass.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/L3UnicastRIBFilter.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/TopologyEvent.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/core/util/IdlConverter.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/NodeConnector.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/RIBRouteStateEvent.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/Route.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/topology/Graph.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/ReplayRouteEvent.py
- \* /opt/cola/permits/1130449986\_1615182707.44/0/python-tar/python/onep/routing/ARTRouteStateEvent.py
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Gnomovision version 69, Copyright (C) 19yy name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
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```

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```
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`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

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# 1.541 liburcu 0.11.1 r0

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Version 2.1, February 1999

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```
Mathieu Desnoyers
May 13th, 2009
```

IBM Corporation allowed LGPLv2.1+ licensing of their contribution to the userspace RCU library in a patch submitted on May 8, 2009 from Paul E. McKenney and reviewed by Steven L. Bennett:

<https://lists.lttng.org/pipermail/lttng-dev/2009-May/012835.html>

I (Mathieu Desnoyers) re-implemented `ACCESS_ONCE()`, `likely()`, `unlikely()` and `barrier()` from scratch without reference to the original code.

```
commit id : 2dc5fa0f7cfbfb0a64a7a67b39626650e863f16a
```

Bert Wesarg <bert.wesarg@googlemail.com> approved LGPL relicensing of his patch in an email dated May 13, 2009 :

<http://lkml.org/lkml/2009/5/13/16>

xchg() primitives has been rewritten from a MIT-licensed cmpxchg for Intel and powerpc. They are MIT-licensed and therefore usable in LGPL code. This cmpxchg code was obtained from the atomic\_ops project:

[http://www.hpl.hp.com/research/linux/atomic\\_ops/](http://www.hpl.hp.com/research/linux/atomic_ops/)

I (Mathieu Desnoyers) wrote the remainder of the code.

The license for the library files in this project was therefore changed to LGPLv2.1 on May 13, 2009, as detailed in LICENSE.

## 1.542 regex 3.4a

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*/
```

## 1.543 qemu 4.1.0 r0

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John R. Hauser  
2018 January 20

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==> edk2/License-History.txt <==

License-History.txt

=====

This file contains the history of license change and contributor's agreement changes.

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#### Key Dates

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\* August 3, 2017

Update the TianoCore Contribution Agreement from Version 1.0 to Version 1.1 to cover open source documentation associated with the TianoCore project.

Version 1.0 covers source code files. Version 1.1 is a backwards compatible extension that adds support for document files in both source form and compiled form.

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#### Proposals (RFCs):

<https://lists.01.org/pipermail/edk2-devel/2017-March/008654.html>

#### TianoCore Bugzilla:

[https://bugzilla.tianocore.org/show\\_bug.cgi?id=629](https://bugzilla.tianocore.org/show_bug.cgi?id=629)

\* April 9, 2019

Replace BSD 2-Clause License with BSD + Patent License removing the need for the TianoCore Contribution Agreement.

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<https://lists.01.org/pipermail/edk2-devel/2019-February/036260.html>

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-----  
Contributions.txt: TianoCore Contribution Agreement 1.1  
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1. Create a change description in the format specified below to use in the source control commit log.
2. Your commit message must include your "Signed-off-by" signature, and "Contributed-under" message.
3. Your "Contributed-under" message explicitly states that the contribution is made under the terms of the specified contribution agreement. Your "Contributed-under" message

must include the name of contribution agreement and version.  
For example: Contributed-under: TianoCore Contribution Agreement 1.1  
The "TianoCore Contribution Agreement" is included below in  
this document.

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```
=====
= Change Description / Commit Message / Patch Email =
=====
```

Your change description should use the standard format for a commit message, and must include your "Signed-off-by" signature and the "Contributed-under" message.

```
== Sample Change Description / Commit Message =
```

```
=== Start of sample patch email message ===
```

```
From: Contributor Name <contributor@example.com>
Subject: [Repository/Branch PATCH] Module: Brief-single-line-summary
```

```
Full-commit-message
```

```
Contributed-under: TianoCore Contribution Agreement 1.1
Signed-off-by: Contributor Name <contributor@example.com>
```

```

```

An extra message for the patch email which will not be considered part of the commit message can be added here.

Patch content inline or attached

==== End of sample patch email message ====

==== Notes for sample patch email ====

- \* The first line of commit message is taken from the email's subject line following [Repository/Branch PATCH]. The remaining portion of the commit message is the email's content until the '---' line.
- \* git format-patch is one way to create this format

==== Definitions for sample patch email ====

- \* "Repository" is the identifier of the repository the patch applies. This identifier should only be provided for repositories other than 'edk2'. For example 'edk2-BuildSpecification' or 'staging'.
- \* "Branch" is the identifier of the branch the patch applies. This identifier should only be provided for branches other than 'edk2/master'. For example 'edk2/UDK2015', 'edk2-BuildSpecification/release/1.27', or 'staging/edk2-test'.
- \* "Module" is a short identifier for the affected code or documentation. For example 'MdePkg', 'MdeModulePkg/UsbBusDxe', 'Introduction', or 'EDK II INF File Format'.
- \* "Brief-single-line-summary" is a short summary of the change.
- \* The entire first line should be less than ~70 characters.
- \* "Full-commit-message" a verbose multiple line comment describing the change. Each line should be less than ~70 characters.
- \* "Contributed-under" explicitly states that the contribution is made under the terms of the contribution agreement. This agreement is included below in this document.
- \* "Signed-off-by" is the contributor's signature identifying them by their real/legal name and their email address.

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-----  
-----

Contributions.txt: TianoCore Contribution Agreement 1.0

-----

=====  
= Code Contributions =  
=====

To make a contribution to a TianoCore project, follow these steps.

1. Create a change description in the format specified below to use in the source control commit log.
2. Your commit message must include your "Signed-off-by" signature, and "Contributed-under" message.
3. Your "Contributed-under" message explicitly states that the contribution is made under the terms of the specified contribution agreement. Your "Contributed-under" message must include the name of contribution agreement and version.

For example: Contributed-under: TianoCore Contribution Agreement 1.0  
The "TianoCore Contribution Agreement" is included below in  
this document.

4. Submit your code to the TianoCore project using the process  
that the project documents on its web page. If the process is  
not documented, then submit the code on development email list  
for the project.
5. It is preferred that contributions are submitted using the same  
copyright license as the base project. When that is not possible,  
then contributions using the following licenses can be accepted:
  - \* BSD (2-clause): <http://opensource.org/licenses/BSD-2-Clause>
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Contributions of code put into the public domain can also be  
accepted.

Contributions using other licenses might be accepted, but further  
review will be required.

```
=====
= Change Description / Commit Message / Patch Email =
=====
```

Your change description should use the standard format for a  
commit message, and must include your "Signed-off-by" signature  
and the "Contributed-under" message.

```
== Sample Change Description / Commit Message ==
```

```
=== Start of sample patch email message ===
```

```
From: Contributor Name <contributor@example.com>
Subject: [PATCH] CodeModule: Brief-single-line-summary
```

```
Full-commit-message
```

```
Contributed-under: TianoCore Contribution Agreement 1.0
Signed-off-by: Contributor Name <contributor@example.com>
```

```

```

An extra message for the patch email which will not be considered part  
of the commit message can be added here.

Patch content inline or attached

==== End of sample patch email message ====

==== Notes for sample patch email ====

- \* The first line of commit message is taken from the email's subject line following [PATCH]. The remaining portion of the commit message is the email's content until the '--' line.
- \* git format-patch is one way to create this format

==== Definitions for sample patch email ====

- \* "CodeModule" is a short identifier for the affected code. For example MdePkg, or MdeModulePkg UsbBusDxe.
- \* "Brief-single-line-summary" is a short summary of the change.
- \* The entire first line should be less than ~70 characters.
- \* "Full-commit-message" a verbose multiple line comment describing the change. Each line should be less than ~70 characters.
- \* "Contributed-under" explicitly states that the contribution is made under the terms of the contribution agreement. This agreement is included below in this document.
- \* "Signed-off-by" is the contributor's signature identifying them by their real/legal name and their email address.

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John R. Hauser  
2018 January 20

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\* FreeBSD strace list

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\*/

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{ TARGET_FREEBSD_NR__umtx_op, "_umtx_op", "%s(%#x, %d, %d, %#x, %#x)", NULL, NULL },
{ TARGET_FREEBSD_NR_accept, "accept", "%s(%d,%#x,%#x)", NULL, NULL },
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{ TARGET_FREEBSD_NR_adjtime, "adjtime", NULL, NULL, NULL },
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{ TARGET_FREEBSD_NR_break, "break", NULL, NULL, NULL },
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{ TARGET_FREEBSD_NR_chmod, "chmod", "%s(\"%s\",%#o)", NULL, NULL },
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{ TARGET_FREEBSD_NR_chroot, "chroot", NULL, NULL, NULL },
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{ TARGET_FREEBSD_NR_getppid, "getppid", "%s()", NULL, NULL },
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{ TARGET_FREEBSD_NR_thr_self, "thr_self", "%s(%#x)", NULL, NULL },
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1. Create a change description in the format specified below to use in the source control commit log.
2. Your commit message must include your "Signed-off-by" signature, and "Contributed-under" message.
3. Your "Contributed-under" message explicitly states that the contribution is made under the terms of the specified contribution agreement. Your "Contributed-under" message must include the name of contribution agreement and version.  
For example: Contributed-under: TianoCore Contribution Agreement 1.1  
The "TianoCore Contribution Agreement" is included below in

this document.

4. Submit your code to the TianoCore project using the process that the project documents on its web page. If the process is not documented, then submit the code on development email list for the project.
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  - \* Zlib: <http://opensource.org/licenses/Zlib>

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Contributions using other licenses might be accepted, but further review will be required.

```
=====
= Change Description / Commit Message / Patch Email =
=====
```

Your change description should use the standard format for a commit message, and must include your "Signed-off-by" signature and the "Contributed-under" message.

```
== Sample Change Description / Commit Message =
```

```
=== Start of sample patch email message ===
```

```
From: Contributor Name <contributor@example.com>
Subject: [Repository/Branch PATCH] Module: Brief-single-line-summary
```

```
Full-commit-message
```

```
Contributed-under: TianoCore Contribution Agreement 1.1
Signed-off-by: Contributor Name <contributor@example.com>
```

```

```

An extra message for the patch email which will not be considered part of the commit message can be added here.



Patch content inline or attached

==== End of sample patch email message ====

==== Notes for sample patch email ====

- \* The first line of commit message is taken from the email's subject line following [Repository/Branch PATCH]. The remaining portion of the commit message is the email's content until the '---' line.
- \* git format-patch is one way to create this format

==== Definitions for sample patch email ====

- \* "Repository" is the identifier of the repository the patch applies. This identifier should only be provided for repositories other than 'edk2'. For example 'edk2-BuildSpecification' or 'staging'.
- \* "Branch" is the identifier of the branch the patch applies. This identifier should only be provided for branches other than 'edk2/master'. For example 'edk2/UDK2015', 'edk2-BuildSpecification/release/1.27', or 'staging/edk2-test'.
- \* "Module" is a short identifier for the affected code or documentation. For example 'MdePkg', 'MdeModulePkg/UsbBusDxe', 'Introduction', or 'EDK II INF File Format'.
- \* "Brief-single-line-summary" is a short summary of the change.
- \* The entire first line should be less than ~70 characters.
- \* "Full-commit-message" a verbose multiple line comment describing the change. Each line should be less than ~70 characters.
- \* "Contributed-under" explicitly states that the contribution is made under the terms of the contribution agreement. This agreement is included below in this document.
- \* "Signed-off-by" is the contributor's signature identifying them by their real/legal name and their email address.

=====  
= TianoCore Contribution Agreement 1.1 =  
=====

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-----  
-----  
Contributions.txt: TianoCore Contribution Agreement 1.0  
-----

=====  
= Code Contributions =  
=====

To make a contribution to a TianoCore project, follow these steps.

1. Create a change description in the format specified below to use in the source control commit log.
2. Your commit message must include your "Signed-off-by" signature, and "Contributed-under" message.
3. Your "Contributed-under" message explicitly states that the contribution is made under the terms of the specified contribution agreement. Your "Contributed-under" message must include the name of contribution agreement and version. For example: Contributed-under: TianoCore Contribution Agreement 1.0 The "TianoCore Contribution Agreement" is included below in this document.

4. Submit your code to the TianoCore project using the process that the project documents on its web page. If the process is not documented, then submit the code on development email list for the project.
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Contributions using other licenses might be accepted, but further review will be required.

```
=====
= Change Description / Commit Message / Patch Email =
=====
```

Your change description should use the standard format for a commit message, and must include your "Signed-off-by" signature and the "Contributed-under" message.

```
== Sample Change Description / Commit Message =
```

```
=== Start of sample patch email message ===
```

```
From: Contributor Name <contributor@example.com>
Subject: [PATCH] CodeModule: Brief-single-line-summary
```

```
Full-commit-message
```

```
Contributed-under: TianoCore Contribution Agreement 1.0
Signed-off-by: Contributor Name <contributor@example.com>

```

An extra message for the patch email which will not be considered part of the commit message can be added here.

```
Patch content inline or attached
```

```
=== End of sample patch email message ===
```

```
=== Notes for sample patch email ===
```

- \* The first line of commit message is taken from the email's subject line following [PATCH]. The remaining portion of the commit message is the email's content until the '---' line.
- \* git format-patch is one way to create this format

==== Definitions for sample patch email ====

- \* "CodeModule" is a short identifier for the affected code. For example MdePkg, or MdeModulePkg UsbBusDxe.
- \* "Brief-single-line-summary" is a short summary of the change.
- \* The entire first line should be less than ~70 characters.
- \* "Full-commit-message" a verbose multiple line comment describing the change. Each line should be less than ~70 characters.
- \* "Contributed-under" explicitly states that the contribution is made under the terms of the contribution agreement. This agreement is included below in this document.
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=====  
 = TianoCore Contribution Agreement 1.0 =  
 =====

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---

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-- Wolfgang Denk

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Fabrice Bellard and the QEMU team

Index: debug.c

```
=====
RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/debug.c,v
retrieving revision 1.1
retrieving revision 1.3
diff -u -u -r1.1 -r1.3
--- debug.c 7 Sep 2007 10:01:21 -0000 1.1
+++ debug.c 15 Jan 2008 13:49:25 -0000 1.3
@@ -52,7 +52,11 @@
void X86EMU_trace_regs (void)
{
 if (DEBUG_TRACE()) {
- x86emu_dump_regs();
+ if (M.x86.mode & (SYSMODE_PREFIX_DATA | SYSMODE_PREFIX_ADDR)) {
+ x86emu_dump_xregs();
+ } else {
+ x86emu_dump_regs();
 }
}
```

```

+ }
+ }
+ if (DEBUG_DECODE() && ! DEBUG_DECODE_NOPRINT()) {
+ printk("%04x:%04x ", M.x86.saved_cs, M.x86.saved_ip);
@@ -185,7 +189,7 @@
+ for (i=0; i< M.x86.enc_pos; i++) {
+ sprintf(buf1+2*i, "%02x", fetch_data_byte_abs(s,o+i));
+ }
- printk("%-20s", buf1);
+ printk("%-20s ", buf1);
+ }

```

static void print\_decoded\_instruction (void)

Index: ops2.c

=====

RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/ops2.c,v

retrieving revision 1.1

retrieving revision 1.3

diff -u -u -r1.1 -r1.3

--- ops2.c 7 Sep 2007 10:01:21 -0000 1.1

+++ ops2.c 20 Mar 2008 15:48:34 -0000 1.3

@@ -149,8 +149,69 @@

```

+ target += (s16) M.x86.R_IP;
+ DECODE_PRINTF2("%04x\n", target);
+ TRACE_AND_STEP();
- if (cond)
+ if (cond) {
+ M.x86.R_IP = (u16)target;
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, " LONG COND ");
+ }
+ DECODE_CLEAR_SEGOVR();
+ END_OF_INSTR();
+ }
+
+ /*****
+REMARKS:
+Handles opcode 0x0f,0xC8-0xCF
+*****/
+s32 x86emu_bswap(s32 reg)
+{
+ // perform the byte swap
+ s32 temp = reg;
+ reg = (temp & 0xFF000000) >> 24;
+ reg |= (temp & 0xFF0000) >> 8;
+ reg |= (temp & 0xFF00) << 8;
+ reg |= (temp & 0xFF) << 24;
+ return reg;
+ }

```

```

+
+void x86emuOp2_bswap(u8 op2)
+{
+ /* byte swap 32 bit register */
+ START_OF_INSTR();
+ DECODE_PRINTF("BSWAP\t");
+ switch (op2) {
+ case 0xc8:
+ DECODE_PRINTF("EAX\n");
+ M.x86.R_EAX = x86emu_bswap(M.x86.R_EAX);
+ break;
+ case 0xc9:
+ DECODE_PRINTF("ECX\n");
+ M.x86.R_ECX = x86emu_bswap(M.x86.R_ECX);
+ break;
+ case 0xca:
+ DECODE_PRINTF("EDX\n");
+ M.x86.R_EDX = x86emu_bswap(M.x86.R_EDX);
+ break;
+ case 0xcb:
+ DECODE_PRINTF("EBX\n");
+ M.x86.R_EBX = x86emu_bswap(M.x86.R_EBX);
+ break;
+ case 0xcc:
+ DECODE_PRINTF("ESP\n");
+ M.x86.R_ESP = x86emu_bswap(M.x86.R_ESP);
+ break;
+ case 0xcd:
+ DECODE_PRINTF("EBP\n");
+ M.x86.R_EBP = x86emu_bswap(M.x86.R_EBP);
+ break;
+ case 0xce:
+ DECODE_PRINTF("ESI\n");
+ M.x86.R_ESI = x86emu_bswap(M.x86.R_ESI);
+ break;
+ case 0xcf:
+ DECODE_PRINTF("EDI\n");
+ M.x86.R_EDI = x86emu_bswap(M.x86.R_EDI);
+ break;
+ }
+ TRACE_AND_STEP();
+ DECODE_CLEAR_SEGOVR();
+ END_OF_INSTR();
+ }
@@ -1702,14 +1763,14 @@
/* 0xc5 */ x86emuOp2_illegal_op,
/* 0xc6 */ x86emuOp2_illegal_op,
/* 0xc7 */ x86emuOp2_illegal_op,

```

```

-/* 0xc8 */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xc9 */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xca */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xcb */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xcc */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xcd */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xce */ x86emuOp2_illegal_op, /* TODO: bswap */
-/* 0xcf */ x86emuOp2_illegal_op, /* TODO: bswap */
+/* 0xc8 */ x86emuOp2_bswap,
+/* 0xc9 */ x86emuOp2_bswap,
+/* 0xca */ x86emuOp2_bswap,
+/* 0xcb */ x86emuOp2_bswap,
+/* 0xcc */ x86emuOp2_bswap,
+/* 0xcd */ x86emuOp2_bswap,
+/* 0xce */ x86emuOp2_bswap,
+/* 0xcf */ x86emuOp2_bswap,

```

```

/* 0xd0 */ x86emuOp2_illegal_op,
/* 0xd1 */ x86emuOp2_illegal_op,

```

Index: ops.c

=====  
RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/ops.c,v

retrieving revision 1.1

diff -u -u -r1.1 ops.c

--- ops.c 7 Sep 2007 10:01:21 -0000 1.1

+++ ops.c 20 Mar 2008 16:52:00 -0000

@@ -1061,7 +1061,11 @@

```

 imm = (s8)fetch_byte_imm();
 DECODE_PRINTF2("PUSH\t%d\n", imm);
 TRACE_AND_STEP();

```

```

- push_word(imm);
+ if (M.x86.mode & SYSMODE_PREFIX_DATA) {
+ push_long(imm);
+ } else {
+ push_word(imm);
+ }
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}

```

@@ -1256,8 +1260,10 @@

```

 target = (u16)(M.x86.R_IP + (s16)offset);
 DECODE_PRINTF2("%x\n", target);
 TRACE_AND_STEP();
- if (cond)
+ if (cond) {
 M.x86.R_IP = target;
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, " NEAR COND ");
+ }

```

```

 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -2516,9 +2522,11 @@
 count = 1;
 if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
 - /* move them until CX is ZERO. */
 - count = M.x86.R_CX;
 + /* move them until (E)CX is ZERO. */
 + count = (M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX;
 M.x86.R_CX = 0;
 + if (M.x86.mode & SYSMODE_32BIT_REP)
 + M.x86.R_ECX = 0;
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
 }
 while (count--) {
@@ -2526,6 +2534,8 @@
 store_data_byte_abs(M.x86.R_ES, M.x86.R_DI, val);
 M.x86.R_SI += inc;
 M.x86.R_DI += inc;
 + if (M.x86.intr & INTR_HALTED)
 + break;
 }
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -2559,9 +2569,11 @@
 count = 1;
 if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
 - /* move them until CX is ZERO. */
 - count = M.x86.R_CX;
 + /* move them until (E)CX is ZERO. */
 + count = (M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX;
 M.x86.R_CX = 0;
 + if (M.x86.mode & SYSMODE_32BIT_REP)
 + M.x86.R_ECX = 0;
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
 }
 while (count--) {
@@ -2574,6 +2586,8 @@
 }
 M.x86.R_SI += inc;
 M.x86.R_DI += inc;
 + if (M.x86.intr & INTR_HALTED)
 + break;
 }
 DECODE_CLEAR_SEGOVR();

```

```

END_OF_INSTR();
@@ -2598,16 +2612,21 @@

if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* REPE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
 val1 = fetch_data_byte(M.x86.R_SI);
 val2 = fetch_data_byte_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_byte(val1, val2);
- M.x86.R_CX --;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX --;
+ else
+ M.x86.R_CX --;
 M.x86.R_SI += inc;
 M.x86.R_DI += inc;
 if ((M.x86.mode & SYSMODE_PREFIX_REPE) && (ACCESS_FLAG(F_ZF) == 0)) break;
 if ((M.x86.mode & SYSMODE_PREFIX_REPNE) && ACCESS_FLAG(F_ZF)) break;
+ if (M.x86.intr & INTR_HALTED)
+ break;
 }
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
} else {
@@ -2644,8 +2663,8 @@
TRACE_AND_STEP();
if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* REPE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
 if (M.x86.mode & SYSMODE_PREFIX_DATA) {
 val1 = fetch_data_long(M.x86.R_SI);
 val2 = fetch_data_long_abs(M.x86.R_ES, M.x86.R_DI);
@@ -2655,11 +2674,16 @@
 val2 = fetch_data_word_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_word((u16)val1, (u16)val2);
 }
- M.x86.R_CX --;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX --;
+ else
+ M.x86.R_CX --;
 M.x86.R_SI += inc;
 M.x86.R_DI += inc;

```



```

 if ((M.x86.mode & SYSMODE_PREFIX_REPE) && ACCESS_FLAG(F_ZF) == 0) break;
 if ((M.x86.mode & SYSMODE_PREFIX_REPNE) && ACCESS_FLAG(F_ZF)) break;
+ if (M.x86.intr & INTR_HALTED)
+ break;
 }
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
} else {
@@ -2741,11 +2765,16 @@
TRACE_AND_STEP();
if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
 store_data_byte_abs(M.x86.R_ES, M.x86.R_DI, M.x86.R_AL);
- M.x86.R_CX --;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX --;
+ else
+ M.x86.R_CX --;
 M.x86.R_DI += inc;
+ if (M.x86.intr & INTR_HALTED)
+ break;
 }
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
} else {
@@ -2783,9 +2812,11 @@
count = 1;
if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
- /* move them until CX is ZERO. */
- count = M.x86.R_CX;
+ /* move them until (E)CX is ZERO. */
+ count = (M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX;
 M.x86.R_CX = 0;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX = 0;
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
}
while (count--) {
@@ -2795,6 +2826,8 @@
 store_data_word_abs(M.x86.R_ES, M.x86.R_DI, M.x86.R_AX);
}
M.x86.R_DI += inc;
+ if (M.x86.intr & INTR_HALTED)
+ break;
}

```

```

 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -2817,11 +2850,16 @@
 inc = 1;
 if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
 - /* move them until CX is ZERO. */
 - while (M.x86.R_CX != 0) {
 + /* move them until (E)CX is ZERO. */
 + while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
 M.x86.R_AL = fetch_data_byte(M.x86.R_SI);
 - M.x86.R_CX --;
 + if (M.x86.mode & SYSMODE_32BIT_REP)
 + M.x86.R_ECX --;
 + else
 + M.x86.R_CX --;
 M.x86.R_SI += inc;
 + if (M.x86.intr & INTR_HALTED)
 + break;
 }
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
 } else {
@@ -2859,9 +2897,11 @@
 count = 1;
 if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
 - /* move them until CX is ZERO. */
 - count = M.x86.R_CX;
 + /* move them until (E)CX is ZERO. */
 + count = (M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX;
 M.x86.R_CX = 0;
 + if (M.x86.mode & SYSMODE_32BIT_REP)
 + M.x86.R_ECX = 0;
 M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
 }
 while (count--) {
@@ -2871,6 +2911,8 @@
 M.x86.R_AX = fetch_data_word(M.x86.R_SI);
 }
 M.x86.R_SI += inc;
 + if (M.x86.intr & INTR_HALTED)
 + break;
 }
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -2894,26 +2936,36 @@
 inc = 1;
 if (M.x86.mode & SYSMODE_PREFIX_REPE) {

```

```

/* REPE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
+ val2 = fetch_data_byte_abs(M.x86.R_ES, M.x86.R_DI);
+ cmp_byte(M.x86.R_AL, val2);
- M.x86.R_CX -- 1;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX -- 1;
+ else
+ M.x86.R_CX -- 1;
+ M.x86.R_DI += inc;
+ if (ACCESS_FLAG(F_ZF) == 0)
+ break;
+ if (M.x86.intr & INTR_HALTED)
+ break;
+ }
+ M.x86.mode &= ~SYSMODE_PREFIX_REPE;
} else if (M.x86.mode & SYSMODE_PREFIX_REPNE) {
/* REPNE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
+ val2 = fetch_data_byte_abs(M.x86.R_ES, M.x86.R_DI);
+ cmp_byte(M.x86.R_AL, val2);
- M.x86.R_CX -- 1;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX -- 1;
+ else
+ M.x86.R_CX -- 1;
+ M.x86.R_DI += inc;
+ if (ACCESS_FLAG(F_ZF))
+ break; /* zero flag set means equal */
+ if (M.x86.intr & INTR_HALTED)
+ break;
+ }
+ M.x86.mode &= ~SYSMODE_PREFIX_REPNE;
} else {
@@ -2951,8 +3003,8 @@
TRACE_AND_STEP();
if (M.x86.mode & SYSMODE_PREFIX_REPE) {
/* REPE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {

```

```

 if (M.x86.mode & SYSMODE_PREFIX_DATA) {
 val = fetch_data_long_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_long(M.x86.R_EAX, val);
@@ -2960,16 +3012,21 @@
 val = fetch_data_word_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_word(M.x86.R_AX, (u16)val);
 }
- M.x86.R_CX -= 1;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX -= 1;
+ else
+ M.x86.R_CX -= 1;
 M.x86.R_DI += inc;
 if (ACCESS_FLAG(F_ZF) == 0)
 break;
+ if (M.x86.intr & INTR_HALTED)
+ break;
 }
 M.x86.mode &= ~SYSMODE_PREFIX_REPE;
} else if (M.x86.mode & SYSMODE_PREFIX_REPNE) {
 /* REPNE */
- /* move them until CX is ZERO. */
- while (M.x86.R_CX != 0) {
+ /* move them until (E)CX is ZERO. */
+ while (((M.x86.mode & SYSMODE_32BIT_REP) ? M.x86.R_ECX : M.x86.R_CX) != 0) {
 if (M.x86.mode & SYSMODE_PREFIX_DATA) {
 val = fetch_data_long_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_long(M.x86.R_EAX, val);
@@ -2977,10 +3034,15 @@
 val = fetch_data_word_abs(M.x86.R_ES, M.x86.R_DI);
 cmp_word(M.x86.R_AX, (u16)val);
 }
- M.x86.R_CX -= 1;
+ if (M.x86.mode & SYSMODE_32BIT_REP)
+ M.x86.R_ECX -= 1;
+ else
+ M.x86.R_CX -= 1;
 M.x86.R_DI += inc;
 if (ACCESS_FLAG(F_ZF))
 break; /* zero flag set means equal */
+ if (M.x86.intr & INTR_HALTED)
+ break;
 }
 M.x86.mode &= ~SYSMODE_PREFIX_REPNE;
} else {
@@ -3238,9 +3300,9 @@
 DECODE_PRINTF("RET\t");
 imm = fetch_word_imm();

```

```

 DECODE_PRINTF2("%x\n", imm);
- RETURN_TRACE("RET",M.x86.saved_cs,M.x86.saved_ip);
TRACE_AND_STEP();
 M.x86.R_IP = pop_word();
+ RETURN_TRACE(M.x86.saved_cs,M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, "NEAR");
 M.x86.R_SP += imm;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -3254,9 +3316,9 @@
{
 START_OF_INSTR();
 DECODE_PRINTF("RET\n");
- RETURN_TRACE("RET",M.x86.saved_cs,M.x86.saved_ip);
TRACE_AND_STEP();
 M.x86.R_IP = pop_word();
+ RETURN_TRACE(M.x86.saved_cs,M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, "NEAR");
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -3471,10 +3533,10 @@
 DECODE_PRINTF("RETF\t");
 imm = fetch_word_imm();
 DECODE_PRINTF2("%x\n", imm);
- RETURN_TRACE("RETF",M.x86.saved_cs,M.x86.saved_ip);
TRACE_AND_STEP();
 M.x86.R_IP = pop_word();
 M.x86.R_CS = pop_word();
+ RETURN_TRACE(M.x86.saved_cs,M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, "FAR");
 M.x86.R_SP += imm;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -3488,10 +3550,10 @@
{
 START_OF_INSTR();
 DECODE_PRINTF("RETF\n");
- RETURN_TRACE("RETF",M.x86.saved_cs,M.x86.saved_ip);
TRACE_AND_STEP();
 M.x86.R_IP = pop_word();
 M.x86.R_CS = pop_word();
+ RETURN_TRACE(M.x86.saved_cs,M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, "FAR");
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -4020,8 +4082,11 @@
 ip += (s16) M.x86.R_IP;
 DECODE_PRINTF2("%04x\n", ip);
 TRACE_AND_STEP();
- M.x86.R_CX -= 1;

```

```

- if (M.x86.R_CX != 0 && !ACCESS_FLAG(F_ZF)) /* CX != 0 and !ZF */
+ if (M.x86.mode & SYSMODE_PREFIX_ADDR)
+ M.x86.R_ECX -= 1;
+ else
+ M.x86.R_CX -= 1;
+ if (((M.x86.mode & SYSMODE_PREFIX_ADDR) ? M.x86.R_ECX : M.x86.R_CX) != 0 &&
!ACCESS_FLAG(F_ZF)) /* (E)CX != 0 and !ZF */
 M.x86.R_IP = ip;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -4041,8 +4106,11 @@
 ip += (s16) M.x86.R_IP;
 DECODE_PRINTF2("%04x\n", ip);
 TRACE_AND_STEP();
- M.x86.R_CX -= 1;
- if (M.x86.R_CX != 0 && ACCESS_FLAG(F_ZF)) /* CX != 0 and ZF */
+ if (M.x86.mode & SYSMODE_PREFIX_ADDR)
+ M.x86.R_ECX -= 1;
+ else
+ M.x86.R_CX -= 1;
+ if (((M.x86.mode & SYSMODE_PREFIX_ADDR) ? M.x86.R_ECX : M.x86.R_CX) != 0 &&
ACCESS_FLAG(F_ZF)) /* (E)CX != 0 and ZF */
 M.x86.R_IP = ip;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -4062,8 +4130,11 @@
 ip += (s16) M.x86.R_IP;
 DECODE_PRINTF2("%04x\n", ip);
 TRACE_AND_STEP();
- M.x86.R_CX -= 1;
- if (M.x86.R_CX != 0)
+ if (M.x86.mode & SYSMODE_PREFIX_ADDR)
+ M.x86.R_ECX -= 1;
+ else
+ M.x86.R_CX -= 1;
+ if (((M.x86.mode & SYSMODE_PREFIX_ADDR) ? M.x86.R_ECX : M.x86.R_CX) != 0) /* (E)CX != 0 */
 M.x86.R_IP = ip;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
@@ -4085,8 +4156,10 @@
 target = (u16)(M.x86.R_IP + offset);
 DECODE_PRINTF2("%x\n", target);
 TRACE_AND_STEP();
- if (M.x86.R_CX == 0)
+ if (M.x86.R_CX == 0) {
 M.x86.R_IP = target;
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, M.x86.R_IP, " CXZ ");
+ }

```

```

 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -4213,6 +4286,7 @@
 ip = (s16)fetch_word_imm();
 ip += (s16)M.x86.R_IP;
 DECODE_PRINTF2("%04x\n", ip);
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, ip, " NEAR ");
 TRACE_AND_STEP();
 M.x86.R_IP = (u16)ip;
 DECODE_CLEAR_SEGOVR();
@@ -4233,6 +4307,7 @@
 cs = fetch_word_imm();
 DECODE_PRINTF2("%04x:", cs);
 DECODE_PRINTF2("%04x\n", ip);
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, cs, ip, " FAR ");
 TRACE_AND_STEP();
 M.x86.R_IP = ip;
 M.x86.R_CS = cs;
@@ -4254,6 +4329,7 @@
 offset = (s8)fetch_byte_imm();
 target = (u16)(M.x86.R_IP + offset);
 DECODE_PRINTF2("%x\n", target);
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, target, " BYTE ");
 TRACE_AND_STEP();
 M.x86.R_IP = target;
 DECODE_CLEAR_SEGOVR();
@@ -4357,6 +4433,8 @@
 DECODE_PRINTF("REPNE\n");
 TRACE_AND_STEP();
 M.x86.mode |= SYSMODE_PREFIX_REPNE;
+ if (M.x86.mode & SYSMODE_PREFIX_ADDR)
+ M.x86.mode |= SYSMODE_32BIT_REP;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -4371,6 +4449,8 @@
 DECODE_PRINTF("REPE\n");
 TRACE_AND_STEP();
 M.x86.mode |= SYSMODE_PREFIX_REPE;
+ if (M.x86.mode & SYSMODE_PREFIX_ADDR)
+ M.x86.mode |= SYSMODE_32BIT_REP;
 DECODE_CLEAR_SEGOVR();
 END_OF_INSTR();
}
@@ -5013,12 +5093,14 @@
 break;
 case 4: /* jmp word ptr ... */

```

```

 destval = fetch_data_word(destoffset);
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, M.x86.R_CS, destval, " WORD ");
 TRACE_AND_STEP();
 M.x86.R_IP = destval;
 break;
case 5: /* jmp far ptr ... */
 destval = fetch_data_word(destoffset);
 destval2 = fetch_data_word(destoffset + 2);
+ JMP_TRACE(M.x86.saved_cs, M.x86.saved_ip, destval2, destval, " FAR ");
 TRACE_AND_STEP();
 M.x86.R_IP = destval;
 M.x86.R_CS = destval2;

```

Index: prim\_ops.c

=====

RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/prim\_ops.c,v

retrieving revision 1.1

retrieving revision 1.3

diff -u -u -r1.1 -r1.3

--- prim\_ops.c 7 Sep 2007 10:01:21 -0000 1.1

+++ prim\_ops.c 16 Jan 2008 14:18:15 -0000 1.3

@@ -1921,7 +1921,7 @@

void imul\_long\_direct(u32 \*res\_lo, u32\* res\_hi,u32 d, u32 s)

{

#ifdef \_\_HAS\_LONG\_LONG\_\_

- s64 res = (s64)d \* (s64)s;

+ s64 res = (s64)(s32)d \* (s64)(s32)s;

    \*res\_lo = (u32)res;

    \*res\_hi = (u32)(res >> 32);

@@ -2013,7 +2013,7 @@

void mul\_long(u32 s)

{

#ifdef \_\_HAS\_LONG\_LONG\_\_

- u64 res = (u32)M.x86.R\_EAX \* (u32)s;

+ u64 res = (u64)M.x86.R\_EAX \* s;

    M.x86.R\_EAX = (u32)res;

    M.x86.R\_EDX = (u32)(res >> 32);

@@ -2312,16 +2312,15 @@

    }

    if (M.x86.mode & (SYSMODE\_PREFIX\_REPE | SYSMODE\_PREFIX\_REPNE)) {

        /\* dont care whether REPE or REPNE \*/

-     /\* in until CX is ZERO. \*/

-     u32 count = ((M.x86.mode & SYSMODE\_PREFIX\_DATA) ?

+     /\* in until (E)CX is ZERO. \*/

+     u32 count = ((M.x86.mode & SYSMODE\_32BIT\_REP) ?

        M.x86.R\_ECX : M.x86.R\_CX);

-



```

while (count--) {
 single_in(size);
 M.x86.R_DI += inc;
}
M.x86.R_CX = 0;
- if (M.x86.mode & SYSMODE_PREFIX_DATA) {
+ if (M.x86.mode & SYSMODE_32BIT_REP) {
 M.x86.R_ECX = 0;
}
M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);
@@ -2355,15 +2354,15 @@
}
if (M.x86.mode & (SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE)) {
 /* dont care whether REPE or REPNE */
- /* out until CX is ZERO. */
- u32 count = ((M.x86.mode & SYSMODE_PREFIX_DATA) ?
+ /* out until (E)CX is ZERO. */
+ u32 count = ((M.x86.mode & SYSMODE_32BIT_REP) ?
 M.x86.R_ECX : M.x86.R_CX);
while (count--) {
 single_out(size);
 M.x86.R_SI += inc;
}
M.x86.R_CX = 0;
- if (M.x86.mode & SYSMODE_PREFIX_DATA) {
+ if (M.x86.mode & SYSMODE_32BIT_REP) {
 M.x86.R_ECX = 0;
}
M.x86.mode &= ~(SYSMODE_PREFIX_REPE | SYSMODE_PREFIX_REPNE);

```

Index: sys.c

=====

RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/sys.c,v

retrieving revision 1.1

retrieving revision 1.2

diff -u -u -r1.1 -r1.2

--- sys.c 7 Sep 2007 10:01:21 -0000 1.1

+++ sys.c 7 Sep 2007 10:03:13 -0000 1.2

@@ -45,11 +45,6 @@

#include <x86emu/regs.h>

#include "debug.h"

#include "prim\_ops.h"

ifndef LINUXBIOS\_VERSION

include "io.h"

else

include <sys/io.h>

endif

ifdef IN\_MODULE

```

#include "xf86_ansi.h"
@@ -220,7 +215,7 @@
{
DB(if (DEBUG_IO_TRACE())
printk("inb %#04x \n", addr);
- return inb(addr);
+ return 0;
}

/*****
@@ -235,7 +230,7 @@
{
DB(if (DEBUG_IO_TRACE())
printk("inw %#04x \n", addr);
- return inw(addr);
+ return 0;
}

/*****
@@ -250,7 +245,7 @@
{
DB(if (DEBUG_IO_TRACE())
printk("inl %#04x \n", addr);
- return inl(addr);
+ return 0;
}

/*****
@@ -264,7 +259,6 @@
{
DB(if (DEBUG_IO_TRACE())
printk("outb %#02x -> %#04x \n", val, addr);)
- outb(val, addr);
return;
}

@@ -279,7 +273,6 @@
{
DB(if (DEBUG_IO_TRACE())
printk("outw %#04x -> %#04x \n", val, addr);)
- outw(val, addr);
return;
}

@@ -295,7 +288,6 @@
DB(if (DEBUG_IO_TRACE())
printk("outl %#08x -> %#04x \n", val, addr);)

```

```
- outl(val, addr);
return;
}
```

```
@@ -405,6 +397,6 @@
```

```
void X86EMU_setMemBase(void *base, size_t size)
{
- M.mem_base = (int) base;
+ M.mem_base = (unsigned long) base;
 M.mem_size = size;
}
```

```
Index: include/x86emu/debug.h
```

```
=====
RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/include/x86emu/debug.h,v
```

```
retrieving revision 1.1
```

```
retrieving revision 1.4
```

```
diff -u -u -r1.1 -r1.4
```

```
--- include/x86emu/debug.h 7 Sep 2007 10:01:21 -0000 1.1
```

```
+++ include/x86emu/debug.h 20 Mar 2008 15:25:27 -0000 1.4
```

```
@@ -40,8 +40,6 @@
```

```
#ifndef __X86EMU_DEBUG_H
```

```
#define __X86EMU_DEBUG_H
```

```
//#define DEBUG 0
```

```
#undef DEBUG
```

```
/*----- Macros and type definitions -----*/
```

```
/* checks to be enabled for "runtime" */
```

```
@@ -78,6 +76,8 @@
```

```
define DEBUG_SYSINT() (M.x86.debug & DEBUG_SYSINT_F)
```

```
define DEBUG_TRACECALL() (M.x86.debug & DEBUG_TRACECALL_F)
```

```
define DEBUG_TRACECALLREGS() (M.x86.debug & DEBUG_TRACECALL_REGS_F)
```

```
+# define DEBUG_TRACEJMP() (M.x86.debug & DEBUG_TRACEJMP_F)
```

```
+# define DEBUG_TRACEJMPREGS() (M.x86.debug & DEBUG_TRACEJMP_REGS_F)
```

```
define DEBUG_SYS() (M.x86.debug & DEBUG_SYS_F)
```

```
define DEBUG_MEM_TRACE() (M.x86.debug & DEBUG_MEM_TRACE_F)
```

```
define DEBUG_IO_TRACE() (M.x86.debug & DEBUG_IO_TRACE_F)
```

```
@@ -96,6 +96,8 @@
```

```
define DEBUG_SYSINT() 0
```

```
define DEBUG_TRACECALL() 0
```

```
define DEBUG_TRACECALLREGS() 0
```

```
+# define DEBUG_TRACEJMP() 0
```

```
+# define DEBUG_TRACEJMPREGS() 0
```

```
define DEBUG_SYS() 0
```

```
define DEBUG_MEM_TRACE() 0
```

```
define DEBUG_IO_TRACE() 0
```

```
@@ -169,14 +171,20 @@
```

```

x86emu_dump_regs();
if (DEBUG_TRACECALL())
 printk("%04x:%04x: CALL %s%04x:%04x\n", u, v, s, w, x);
-# define RETURN_TRACE(n,u,v)
+# define RETURN_TRACE(u,v,w,x,s)
if (DEBUG_TRACECALLREGS())
 x86emu_dump_regs();
if (DEBUG_TRACECALL())
- printk("%04x:%04x: %s\n",u,v,n);
+ printk("%04x:%04x: RET %s %04x:%04x\n",u,v,s,w,x);
+# define JMP_TRACE(u,v,w,x,s)
+ if (DEBUG_TRACEJMPREGS()) \
+ x86emu_dump_regs(); \
+ if (DEBUG_TRACEJMP()) \
+ printk("%04x:%04x: JMP %s%04x:%04x\n", u, v, s, w, x);
#else
define CALL_TRACE(u,v,w,x,s)
-# define RETURN_TRACE(n,u,v)
+# define RETURN_TRACE(u,v,w,x,s)
+# define JMP_TRACE(u,v,w,x,s)
#endif

#ifdef DEBUG
Index: include/x86emu/regs.h
=====
RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/include/x86emu/regs.h,v
retrieving revision 1.1
retrieving revision 1.4
diff -u -u -r1.1 -r1.4
--- include/x86emu/regs.h 7 Sep 2007 10:01:21 -0000 1.1
+++ include/x86emu/regs.h 15 Jan 2008 13:46:40 -0000 1.4
@@ -231,6 +231,9 @@
#define SYSMODE_PREFIX_REPNE 0x00000100
#define SYSMODE_PREFIX_DATA 0x00000200
#define SYSMODE_PREFIX_ADDR 0x00000400
+//phueper: for REP(E|NE) Instructions, we need to decide wether it should be using
+//the 32bit ECX register as or the 16bit CX register as count register
+#define SYSMODE_32BIT_REP 0x00000800
#define SYSMODE_INTR_PENDING 0x10000000
#define SYSMODE_EXTRN_INTR 0x20000000
#define SYSMODE_HALTED 0x40000000
@@ -250,7 +253,8 @@
 SYSMODE_SEGOVR_GS | \
 SYSMODE_SEGOVR_SS | \
 SYSMODE_PREFIX_DATA | \
- SYSMODE_PREFIX_ADDR)
+ SYSMODE_PREFIX_ADDR | \
+ SYSMODE_32BIT_REP)

```

```

#define INTR_SYNCH 0x1
#define INTR_ASYNCH 0x2
@@ -274,9 +278,9 @@
 */
 u32 mode;
 volatile int intr; /* mask of pending interrupts */
- int debug;
+ volatile int debug;
#ifdef DEBUG
- int check;
+ int check;
 u16 saved_ip;
 u16 saved_cs;
 int enc_pos;
Index: include/x86emu/x86emu.h

```

=====

RCS file: /cvs/osdf/cvs/host/other-licence/x86emu/include/x86emu/x86emu.h,v

retrieving revision 1.1

retrieving revision 1.3

diff -u -u -r1.1 -r1.3

--- include/x86emu/x86emu.h 7 Sep 2007 10:01:21 -0000 1.1

+++ include/x86emu/x86emu.h 19 Oct 2007 08:42:15 -0000 1.3

@@ -47,6 +47,7 @@

#include <console.h>

#define printk(x...) printk(BIOS\_DEBUG, x)

#else

+#include <stdio.h>

#define printk printf

#endif

@@ -189,6 +181,8 @@

#define DEBUG\_TRACECALL\_REGS\_F 0x004000

#define DEBUG\_DECODE\_NOPRINT\_F 0x008000

#define DEBUG\_SAVE\_IP\_CS\_F 0x010000

+#define DEBUG\_TRACEJMP\_F 0x020000

+#define DEBUG\_TRACEJMP\_REGS\_F 0x040000

#define DEBUG\_SYS\_F (DEBUG\_SVC\_F|DEBUG\_FS\_F|DEBUG\_PROC\_F)

void X86EMU\_trace\_regs(void);

@@ -200,5 +194,4 @@

#ifdef \_\_cplusplus

} /\* End of "C" linkage for C++ \*/

#endif

-

#endif /\* \_\_X86EMU\_X86EMU\_H \*/

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Version 2.1, February 1999

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## 1.544 python-backports-lzma 0.0.3 r0

### 1.545 bc 1.07.1 5.e18

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# 1.546 libxcrypt 4.4.8 r0

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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```

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## 1.548 kerberos 5

### 1.548.1 Available under license :

[ NOTE: MIT has only incorporated the mechglue and spnego change, and  
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```
cmd/krb5/iprof/iprof.x
cmd/krb5/iprof/iprof_hdr.h
cmd/krb5/kadmin/server/iprofd_svc.c
cmd/krb5/kproplog/kproplog.c
cmd/krb5/slave/kpropd_rpc.c
lib/gss_mechs/mech_krb5/et/kdb5_err.c
lib/gss_mechs/mech_spnego/mech/gssapiP_spnego.h
lib/gss_mechs/mech_spnego/mech/spnego_mech.c
lib/krb5/kadm5/kadm_host_srv_names.c
lib/krb5/kdb/kdb_convert.c
lib/krb5/kdb/kdb_hdr.h
```

lib/krb5/kdb/kdb\_log.c  
lib/krb5/kdb/kdb\_log.h  
lib/libgss/g\_accept\_sec\_context.c  
lib/libgss/g\_acquire\_cred.c  
lib/libgss/g\_canon\_name.c  
lib/libgss/g\_compare\_name.c  
lib/libgss/g\_context\_time.c  
lib/libgss/g\_delete\_sec\_context.c  
lib/libgss/g\_dsp\_name.c  
lib/libgss/g\_dsp\_status.c  
lib/libgss/g\_dup\_name.c  
lib/libgss/g\_exp\_sec\_context.c  
lib/libgss/g\_export\_name.c  
lib/libgss/g\_glue.c  
lib/libgss/g\_imp\_name.c  
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lib/libgss/g\_inquire\_context.c  
lib/libgss/g\_inquire\_cred.c  
lib/libgss/g\_inquire\_names.c  
lib/libgss/g\_process\_context.c  
lib/libgss/g\_rel\_buffer.c  
lib/libgss/g\_rel\_cred.c  
lib/libgss/g\_rel\_name.c  
lib/libgss/g\_rel\_oid\_set.c  
lib/libgss/g\_seal.c  
lib/libgss/g\_sign.c  
lib/libgss/g\_store\_cred.c  
lib/libgss/g\_unseal.c  
lib/libgss/g\_userok.c  
lib/libgss/g\_utils.c  
lib/libgss/g\_verify.c  
lib/libgss/gssd\_pname\_to\_uid.c  
uts/common/gssapi/include/gssapi\_err\_generic.h  
uts/common/gssapi/include/mechglueP.h

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The implementations of GSSAPI mechglue in GSSAPI-SPNEGO in "src/lib/gssapi", including the following files:

lib/gssapi/generic/gssapi\_err\_generic.et  
lib/gssapi/mechglue/g\_accept\_sec\_context.c  
lib/gssapi/mechglue/g\_acquire\_cred.c  
lib/gssapi/mechglue/g\_canon\_name.c  
lib/gssapi/mechglue/g\_compare\_name.c  
lib/gssapi/mechglue/g\_context\_time.c  
lib/gssapi/mechglue/g\_delete\_sec\_context.c  
lib/gssapi/mechglue/g\_dsp\_name.c  
lib/gssapi/mechglue/g\_dsp\_status.c  
lib/gssapi/mechglue/g\_dup\_name.c  
lib/gssapi/mechglue/g\_exp\_sec\_context.c

lib/gssapi/mechglue/g\_export\_name.c  
lib/gssapi/mechglue/g\_glue.c  
lib/gssapi/mechglue/g\_imp\_name.c  
lib/gssapi/mechglue/g\_imp\_sec\_context.c  
lib/gssapi/mechglue/g\_init\_sec\_context.c  
lib/gssapi/mechglue/g\_initialize.c  
lib/gssapi/mechglue/g\_inquire\_context.c  
lib/gssapi/mechglue/g\_inquire\_cred.c  
lib/gssapi/mechglue/g\_inquire\_names.c  
lib/gssapi/mechglue/g\_process\_context.c  
lib/gssapi/mechglue/g\_rel\_buffer.c  
lib/gssapi/mechglue/g\_rel\_cred.c  
lib/gssapi/mechglue/g\_rel\_name.c  
lib/gssapi/mechglue/g\_rel\_oid\_set.c  
lib/gssapi/mechglue/g\_seal.c  
lib/gssapi/mechglue/g\_sign.c  
lib/gssapi/mechglue/g\_store\_cred.c  
lib/gssapi/mechglue/g\_unseal.c  
lib/gssapi/mechglue/g\_userok.c  
lib/gssapi/mechglue/g\_utils.c  
lib/gssapi/mechglue/g\_verify.c  
lib/gssapi/mechglue/gssd\_pname\_to\_uid.c  
lib/gssapi/mechglue/mglueP.h  
lib/gssapi/mechglue/oid\_ops.c  
lib/gssapi/spnego/gssapiP\_spnego.h  
lib/gssapi/spnego/spnego\_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/iprop\_hdr.h  
kadmin/server/ipropd\_svc.c  
lib/kdb/iprop.x  
lib/kdb/kdb\_convert.c  
lib/kdb/kdb\_log.c  
lib/kdb/kdb\_log.h  
lib/krb5/error\_tables/kdb5\_err.et  
kprop/kpropd\_rpc.c  
kprop/kproplog.c

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# 1.550 crontabs 1.11 16.20150630git.el8

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.



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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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That's all there is to it!

# 1.552 python3-pycparser 2.20 r0

## 1.552.1 Available under license :

pycparser -- A C parser in Python

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# 1.553 diffutils 3.7 r0

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Version 3, 29 June 2007

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```
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```

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# 1.554 makedumpfile 1.6.7 r0

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# 1.560 util-linux 2.34 r0

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```
x ?"U@,5 @mISmIN<GimCN7g1u|E
43mI,5WEV @@ WEV @mImImIAmImImI0mImImI*mImI
A0mImImI...
lost+found...
```

```
;9GimCN7g
```

```
!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
```

```
!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
```

```
!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
```

```
!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~WEV @@
WEV[B "1
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## 1.561 netkit-telnet 0.17 r0

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## 1.562 python3-more-itertools 7.2.0 r0

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## 1.563 libcap-ng 0.7.9 5.el8

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Gocheck - A rich testing framework for Go

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<one line to give the library's name and a brief idea of what it does.>

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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

# 1.567 selinux 2.9-5.el8

## 1.567.1 Available under license :

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```

February 2020, Victor Kamensky

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<summary>Polaris dbgd Policy Rules.</summary>

#####
```

```

<summary>
Write dbgd /var/run socket file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dbg_d_var_sock_write`,`
 gen_require(`
 type polaris_dbg_d_t;
 type polaris_dbg_d_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_dbg_d_var_run_t)
 allow $1 polaris_dbg_d_t:unix_stream_socket { connectto };
)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdbgd.if
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```

```

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#

```

```

<summary>Polaris cpp_stats Policy Rules.</summary>

```

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```

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```

```

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November 2020, Christine Hwang
#
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#

```

```

Map GNSS TTY to correct device context
/dev/ttyS1 -c gen_context(system_u:object_r:polaris_cabo_gnss_device_t,s0)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscabognss.fc

```

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```
#
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#
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#

policy_module(polarisnginx, 1.0);

gen_require(
 type polaris_nginx_t;
)

polaris_btrace_data_manage(polaris_nginx_t)
polaris_chasfs_manage(polaris_nginx_t)
polaris_tdlresolve_read(polaris_nginx_t)
polaris_tdlldb_list_dirs(polaris_nginx_t)
polaris_cpld_read(polaris_nginx_t)
polaris_lua_read(polaris_nginx_t)
polaris_flashlib_read(polaris_nginx_t)
polaris_crft_data_manage(polaris_nginx_t)

polaris_ripc_sman_ui_serv_connect(polaris_nginx_t)

polaris_lua_read(polaris_nginx_t)
polaris_disk_harddisk_read_lnk(polaris_nginx_t)

allow polaris_nginx_t self:tcp_socket { bind create listen accept setopt getopt shutdown};
allow polaris_nginx_t self:capability2 block_suspend;
allow polaris_nginx_t self:capability { setgid setuid sys_resource };

polaris_lfts_dev_use(polaris_nginx_t)
logging_send_syslog_msg(polaris_nginx_t)

corenet_tcp_connect_http_port(polaris_nginx_t)
corenet_tcp_bind_generic_node(polaris_nginx_t)
corenet_tcp_bind_http_port(polaris_nginx_t)
corenet_tcp_connect_pkiserver_port(polaris_nginx_t)
FIXME: add interface to allow bind to port 1025-65535
corenet_tcp_bind_all_ports(polaris_nginx_t)
#Allow the nginx to search/read the web servers config files
apache_read_config(polaris_nginx_t)
apache_search_config(polaris_nginx_t)
allow read httpd_sys_content_t (/var/www/...)
apache_read_sys_content(polaris_nginx_t)
```

```

gen_require(
 type httpd_var_run_t;
 type syslogd_var_run_t;
)
setattr_dirs_pattern(polaris_nginx_t, httpd_var_run_t, httpd_var_run_t)
manage_dirs_pattern(polaris_nginx_t, httpd_var_run_t, httpd_var_run_t)
manage_files_pattern(polaris_nginx_t, httpd_var_run_t, httpd_var_run_t)
manage_sock_files_pattern(polaris_nginx_t, httpd_var_run_t, httpd_var_run_t)
files_pid_filetrans(polaris_nginx_t, httpd_var_run_t, { file sock_file dir unix_stream_socket })

polaris_socketat_nsfs_read(polaris_nginx_t)
socketat does setsockopt SO_VRF
allow polaris_nginx_t self:capability net_admin;
auth_use_nsswitch(polaris_nginx_t)

allow polaris_nginx_t tmp_t:dir create_dir_perms;
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "ngx_access.log")
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "ngx_error.log")
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "nginx.pid")
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "nginx.lock.accept")
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "nginx.lock.cookie_tbl")
files_tmp_filetrans(polaris_nginx_t, httpd_log_t, file, "nginx.lock.login_count")
filetrans_pattern(polaris_nginx_t, syslogd_var_run_t, httpd_log_t, file, "openresty.log")
filetrans_pattern(polaris_nginx_t, syslogd_var_run_t, httpd_log_t, file, "ngxcsrcf.log")
filetrans_pattern(polaris_nginx_t, syslogd_var_run_t, httpd_log_t, file, "ngxtest.log")
create_dirs_pattern(polaris_nginx_t, httpd_log_t, httpd_log_t)
manage_files_pattern(polaris_nginx_t, httpd_log_t, httpd_log_t)
apache_read_log(polaris_nginx_t)
apache_write_log(polaris_nginx_t)

polaris_restconf_tmp_use(polaris_nginx_t)
dev_read_sysfs(polaris_nginx_t)

dev/zram0 needs fs_t:filesystem setattr
#ifdef('quake_platform')
fs_getattr_xattr_fs(polaris_nginx_t)
)

type polaris_nginx_tmp_t;
files_tmp_file(polaris_nginx_tmp_t)
manage_files_pattern(polaris_nginx_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
manage_dirs_pattern(polaris_nginx_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, file, "nginx_aaa")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, file, "nginx_master")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, file, "nginx_session")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, file, "ciscosdwan.cfg")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "proxy_temp")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "client_temp")

```

```

files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "fastcgi_temp")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "scgi_temp")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "uwsgi_temp")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "pki")
files_tmp_filetrans(polaris_nginx_t, polaris_nginx_tmp_t, dir, "auth")

polaris_restconf_read(polaris_nginx_t)

#####
webui_helper.sh/webui_helper_upgrade.sh
#####

polaris_process_domain_template(nginx_webui)
polaris_process_domain_template(nginx_webui_install)

polaris_nginx_exec_domain(polaris_nginx_webui_t, polaris_nginx_webui_exec_t)
polaris_nginx_exec_domain(polaris_nginx_webui_install_t, polaris_nginx_webui_install_exec_t)

corecmd_exec_bin(polaris_nginx_webui_t)
corecmd_exec_bin(polaris_nginx_webui_install_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_nginx_webui_t)
auth_use_nsswitch(polaris_nginx_webui_install_t)

#allow polaris_nginx_webui_t/polaris_nginx_webui_install_t access to nginx webui /tmp base folder
/tmp/nginx/webui_tmp
manage_files_pattern(polaris_nginx_webui_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
manage_files_pattern(polaris_nginx_webui_install_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)

#allow polaris_file_transfer_client_t to access nginx webui /tmp base folder
/tmp/nginx/webui_tmp. We also need to allow chvrf to use the FIFO in cases
where we use the VRF interface
gen_require(`
 type polaris_file_transfer_client_t;
 type polaris_chvrf_t;
`)
manage_files_pattern(polaris_file_transfer_client_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
manage_fifo_files_pattern(polaris_file_transfer_client_t, polaris_nginx_t, polaris_nginx_t)
manage_fifo_files_pattern(polaris_chvrf_t, polaris_nginx_t, polaris_nginx_t)

#fts_client binary requires access to chassis, tdlresolve and cpld
polaris_tdlresolve_read(polaris_file_transfer_client_t)
polaris_chasfs_manage(polaris_file_transfer_client_t)
polaris_cpld_read(polaris_file_transfer_client_t, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)

gen_require(`
 type polaris_file_transfer_client_exec_t;

```

```

')
polaris_bexecute_domain(polaris_file_transfer_client_t, polaris_file_transfer_client_exec_t)

type polaris_fts_client_tmp_t;
files_tmp_file(polaris_fts_client_tmp_t)
polaris_fts_client_tmp_manage(polaris_file_transfer_client_t)

on ultra /var/www directory created by systemd unit that runs /mount_packages.sh
under unconfined_service_t domain
gen_require(
 type unconfined_service_t;
)
files_var_filetrans(unconfined_service_t, httpd_sys_content_t, dir, "www")

allow polaris_nginx_t self:capability dac_override;

#iox local mgr in webui connects to caf service on port 8098
corenet_tcp_connect_polaris_caf_api_port(polaris_nginx_t)

IOx downloads the application package using network protocol (e.g http)
gen_require(
 type fifo_var_run_t;
)
allow polaris_file_transfer_client_t fifo_var_run_t:fifo_file read;

webui connects to dbm backend service on port 9090
corenet_tcp_connect_polaris_wnc_mgrd_port(polaris_nginx_t)

webui connects to poljvm service on port 9093
corenet_tcp_connect_polaris_poljvm_websocket_port(polaris_nginx_t)

remote docker workflow
corenet_tcp_connect_us_cli_port(polaris_nginx_t)

webui sw mgmt app which does install and smu, invokes webui helper shell
scripts which inturn invoke installer scripts. Hence need to provide transition
rule to polaris_install_engine_t domain
polaris_install_engine_domtrans(polaris_nginx_webui_install_t)
polaris_install_show_domtrans(polaris_nginx_webui_install_t)

Allow pipe operations during install command invocation
polaris_nginx_manage_fifo_files(polaris_bexecute_t)
polaris_nginx_manage_fifo_files(polaris_code_verify_t)
polaris_nginx_manage_fifo_files(polaris_install_engine_t)
polaris_nginx_manage_fifo_files(polaris_install_show_t)
polaris_nginx_manage_fifo_files(rsync_t)

During install-add via WebUI, code_sign_verify generates a file:map denial

```



```

"/usr/bin/code_sign_verify package
/tmp/patch/smus/10_vwlc_apsp_ap3g3_17.6.bin/mount/C9800-CL-mono-patch.2021-01-11_11.31_radonep"
require {
 type etc_runtime_t;
}
allow polaris_code_verify_t etc_runtime_t:file map;

Provide sys_resource capability to webui install scripts for sys_pipe calls.
allow polaris_nginx_webui_install_t self:capability sys_resource;

nginx/webui File-manager app provides bootflash file-mgmt facility.
as part of this it needs RW access to bootflash.
TODO: Bug CSCvp83328 to isolate the access to another utility, which
can have its own domain and nginx_t can transition to it.
polaris_bootflash_manage(polaris_nginx_t)

allow nginx to manage core files
polaris_core_file_manage(polaris_nginx_t)

luajit module for nginx triggers execmem denial due to mprotect call.
TODO: cdets CSCvp70095 is used to track this vulnerability in
current nginx component.
allow polaris_nginx_t self:process execmem;

FIXME : allow shell/binary execution
Elevated privelage needs to be addressed
Tracked by Bugid : CSCvp93448
corecmd_exec_bin(polaris_nginx_t)
corecmd_exec_shell(polaris_nginx_t)

#FIXME
Need to re-evaluate these privileges
#Tracked by Bugid : CSCvp92908, CSCvt81963(fts_client)
polaris_file_transfer_client_domtrans(polaris_nginx_webui_install_t)
nginx need access btrace fifo file:
polaris_use_btrace_fifo(polaris_nginx_t)
gen_require(
 type proc_t;
)
manage_files_pattern(polaris_nginx_t, polaris_nginx_t,polaris_nginx_t)
allow polaris_nginx_t proc_t:filesystem { associate };
nginx needs access to /dev/stdout which is owned by pman
allow polaris_nginx_t polaris_pman_t:fifo_file open;

#####
aireos_translate_helper.sh
Invokes a python library that converts aireos config to ewlc config.

```

```

#####
type polaris_aireos_translator_scripts_t;
files_type(polaris_aireos_translator_scripts_t)
polaris_process_domain_template(nginx_webui_aireos_translator)
polaris_nginx_exec_domain(polaris_nginx_webui_aireos_translator_t,
polaris_nginx_webui_aireos_translator_exec_t)
allow polaris_nginx_t polaris_aireos_translator_scripts_t:dir { getattr open read search };
allow polaris_nginx_t polaris_aireos_translator_scripts_t:file { getattr ioctl open read };
allow polaris_nginx_t polaris_nginx_webui_aireos_translator_exec_t:file ioctl;
allow polaris_nginx_t self:process setfscreate;
files_list_var(polaris_nginx_t)

#####
ra_trace_webui_helper.sh
Invokes mcp_trace_filter.sh to perform radio active tracing.
#####
polaris_process_domain_template(nginx_webui_trace_filter)
polaris_nginx_exec_domain(polaris_nginx_webui_trace_filter_t, polaris_nginx_webui_trace_filter_exec_t)
corecmd_exec_bin(polaris_nginx_webui_trace_filter_t)
manage_files_pattern(polaris_nginx_webui_trace_filter_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
manage_dirs_pattern(polaris_nginx_webui_trace_filter_t, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
auth_use_nsswitch(polaris_nginx_webui_trace_filter_t)
polaris_trace_filter_domtrans(polaris_nginx_webui_trace_filter_t)
polaris_nginx_manage_fifo_files(polaris_trace_filter_t)

#####
nginx_helper.sh
#nginx show command helper run by pman invoking curl
#####
polaris_utility_domain_template(nginx_helper)
polaris_pman_entry(polaris_nginx_helper_t, polaris_nginx_helper_exec_t)

#allow execution of nginx_helper.sh
corecmd_exec_bin(polaris_nginx_helper_t)

#allow read of /etc/passwd
auth_use_nsswitch(polaris_nginx_helper_t)

#allow access to the tmp fifo file
polaris_use_btrace_fifo(polaris_nginx_helper_t)

nginx_helper.sh reads from chasfs
polaris_chasfs_manage(polaris_nginx_helper_t)

gen_require(
 type polaris_curl_t;
)

```

```
allow execution of /usr/bin/curl on the pkiserver port
polaris_curl_domtrans(polaris_nginx_helper_t)
corenet_tcp_connect_pkiserver_port(polaris_curl_t)
```

```
#allow curl to write into chasfs
polaris_chasfs_manage(polaris_curl_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnginx.te
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```

```
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#
```

```
<summary>Polaris cpp_cdm Policy Rules.</summary>
```

```
#####
```

```
<summary>
Allow access to semaphore with type polaris_cpp_cdm_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_cpp_cdm_sem_use`,`
 gen_require(`
 type polaris_cpp_cdm_t;
 `)
 allow $1 polaris_cpp_cdm_t:sem rw_sem_perms;
`)
```

```
#####
```

```
<summary>
Allow access to shared memory with type polaris_cpp_cdm_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_cpp_cdm_shm_use`,`
```

```

gen_require(
 type polaris_cpp_cdm_t;
)
allow $1 polaris_cpp_cdm_t:shm rw_shm_perms;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppcdm.if

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```

#
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#

<summary>Polaris dmi_ndbmand Policy Rules.</summary>

```

```
#####
```

```

<summary>
Work with NDBLOAD_LOCK_PATH.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_ndbload_lock_use',`
 gen_require(
 type polaris_dmi_ndbutil_lock_t;
 type tmp_t;
)
 manage_files_pattern($1, tmp_t, polaris_dmi_ndbutil_lock_t)
 files_tmp_filetrans($1, polaris_dmi_ndbutil_lock_t, file, ".1.ndbutil-load")
 files_tmp_filetrans($1, polaris_dmi_ndbutil_lock_t, file, ".1.ndbutil-use")
)

```

```
#####
```

```

<summary>
Manage polaris_ndbmand_ndbutil_t files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```
#
interface(`polaris_ndbmand_ndbutil_manage',`
 gen_require(`
 type polaris_ndbmand_ndbutil_t;
 type polaris_confd_ndbutil_lock_t;
 `)
 manage_files_pattern($1, polaris_confd_ndbutil_lock_t, polaris_ndbmand_ndbutil_t)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmbmand.if

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```
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#
```

```
<summary>Polaris sif_mgr Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Allow the specified domain able to read sif_mgr /tmp files.
```

```
</summary>
```

```
<param name="type">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<param name="object">
```

```
<summary>
```

```
File name in /tmp that the sif_mgr domain creates and other domains
```

```
access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_sif_mgr_tmp_files_read',`
```

```
 gen_require(`
```

```
 type polaris_sif_mgr_tmp_t;
```

```
 `)
```

```
 read_files_pattern($1, polaris_sif_mgr_tmp_t, polaris_sif_mgr_tmp_t)
```

```
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarissifmgr.if

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```
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#

<summary>Polaris Chasfs Policy Rules.</summary>

#####
Chasfs policy
#####

#####
<summary>
Manage chasfs files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface('polaris_chasfs_manage',`
 gen_require(`
 type polaris_chasfs_t;
 `)
 manage_dirs_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
 manage_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
 manage_lnk_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
 manage_fifo_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
 manage_sock_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)

 allow $1 polaris_chasfs_t:{file dir} watch;

 # chasfs contains a lot of weird permission files
 allow $1 self:capability dac_read_search;
)

#####
<summary>
Read chasfs files
</summary>
<param name="domain">
<summary>
```

```

Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_chasfs_read`,`
gen_require(`
type polaris_chasfs_t;
`)
list_dirs_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
read_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
read_lnk_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
read_fifo_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)
read_sock_files_pattern($1, polaris_chasfs_t, polaris_chasfs_t)

allow $1 polaris_chasfs_t:{file dir} watch;

chasfs contains a lot of weird permission files
allow $1 self:capability dac_read_search;
`)

#####
<summary>
Manage chasync file(user_input_custom.xml)
</summary>
<param name="domain">
<summary>
getattr allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_chasync_files_manage`,`
gen_require(`
type polaris_chasync_files_t;
`)
manage_files_pattern($1, polaris_chasync_files_t, polaris_chasync_files_t)
`)

#####
<summary>
Watch read chasfs directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```
<rolebase/>
#
interface(`polaris_chasfs_watch_read`,`
 gen_require(`
 type polaris_chasfs_t;
 `)
 allow $1 polaris_chasfs_t:dir watch_reads;
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarischasfs.if

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
/dev/dev_lfts -c gen_context(system_u:object_r:polaris_lfts_device_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislfts.fc

No license file was found, but licenses were detected in source scan.

```
#
July 2019, Victor Kamensky
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#
```

```
<summary>Polaris GR Manager Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisgrmgr.if

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```
#
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#
```

```
policy_module(polarisngwc, 1.0);
```



```

chdrvmmmap device (MMAP Driver for ASIC Memory mapping)
type polaris_chdrvmmmap_device_t;
dev_node(polaris_chdrvmmmap_device_t)

gettysburg_fpga device (/dev/gettysburg_dev1)
type polaris_gettysburg_fpga_device_t;
dev_node(polaris_gettysburg_fpga_device_t)

dplr io memory mapping driver /dev/cisco/dplriomem
type polaris_dplr_iomem_mmapdrv_device_t;
dev_node(polaris_dplr_iomem_mmapdrv_device_t)

/dev/shm/ngwc_shm shared memory
type polaris_ngwc_shm_t;
files_type(polaris_ngwc_shm_t)

/dev/shm/ngwc_scc_shm shared memory
type polaris_ngwc_scc_shm_t;
files_type(polaris_ngwc_scc_shm_t)

/dev/shm/iomd_to_fed_ptp_offload shared memory
type polaris_ngwc_itfpo_t;
files_type(polaris_ngwc_itfpo_t)

/dev/shm/sdm shared memory
type polaris_sdm_shm_t;
files_type(polaris_sdm_shm_t)

/dev/shm/sem.i2c_sem00N quake sempaphor
type polaris_quake_i2c_t;
files_type(polaris_quake_i2c_t)

#FPGA io memory mapping driver /dev/cisco/fpga_iomem
type polaris_fpga_iomem_mmapfpga_device_t;
dev_node(polaris_fpga_iomem_mmapfpga_device_t)

Mapping permission for /dev/shm/<name>
#ifdef(^quake_platform',`
gen_require(`
 type systemd_tmpfiles_t;
 `)
mmap_files_pattern(systemd_tmpfiles_t, polaris_quake_i2c_t, polaris_quake_i2c_t)
`)

In combined image we have several policies and we choose
one to use in run-time, but file system is shared and
labeled with different file_context files, so it is
possible that we may have some labels that other policy

```

```

does not understand for now just hard missing entries
ifdef(`nyquist_platform',`
type polaris_cm_cc_exec_t;
files_type(polaris_cm_cc_exec_t)
type polaris_cm_fp_exec_t;
files_type(polaris_cm_fp_exec_t)
type polaris_flashcheck_exec_t;
files_type(polaris_flashcheck_exec_t)
type polaris_emd_exec_t;
files_type(polaris_emd_exec_t)
type polaris_ngwc_ishow_exec_t;
files_type(polaris_ngwc_ishow_exec_t)

Adding here as this unmount command is specific to Nyquist platform.
/bin/cat9k_ssd_auth_cmds.sh
polaris_utility_domain_template(ssd_unmount)
corecmd_exec_bin(polaris_ssd_unmount_t)
storage_getattr_fixed_disk_dev(polaris_ssd_unmount_t)
fstools_domtrans(polaris_ssd_unmount_t)
mount_domtrans(polaris_ssd_unmount_t)
polaris_use_btrace_fifo(polaris_ssd_unmount_t)

#allow to read /etc/passwd
auth_use_nsswitch(polaris_ssd_unmount_t)
polaris_chasfs_read(polaris_ssd_unmount_t)
polaris_cpld_read(polaris_ssd_unmount_t)

#Read /tmp/sw/boot files
polaris_boot_tmp_read(polaris_ssd_unmount_t)
Allow read to btrace tmp files
polaris_btrace_tmppub_read(polaris_ssd_unmount_t)
Allow getattr to tmpfs
fs_getattr_tmpfs(polaris_ssd_unmount_t)
Allow read to ssd auth tmp files /tmp/ssd_blk_device created by udev
polaris_read_ssd_tmp_files(polaris_ssd_unmount_t)

allow creation/access of temporary files created by bash such as
/tmp/sh-thd-1499428203 etc
type polaris_ssd_unmount_tmp_t;
files_tmp_file(polaris_ssd_unmount_tmp_t)
files_tmp_filetrans(polaris_ssd_unmount_t, polaris_ssd_unmount_tmp_t, file)
manage_files_pattern(polaris_ssd_unmount_t, polaris_ssd_unmount_tmp_t, polaris_ssd_unmount_tmp_t)
allow polaris_ssd_unmount_t polaris_ssd_unmount_tmp_t:file { unlink };

#Allow nfs dir/file read
rpc_manage_nfs_state_data_dir(polaris_ssd_unmount_t)
rpc_manage_nfs_state_data(polaris_ssd_unmount_t)
#Allow read access to files on nfsd file system

```

```

fs_read_nfsd_files(polaris_ssd_unmount_t)
kernel_rw_rpc_sysctls(polaris_ssd_unmount_t)
fs_getattr_xattr_fs(polaris_ssd_unmount_t)

allow create/sendto/connect operations for logger
allow polaris_ssd_unmount_t self:unix_dgram_socket sendto;
allow polaris_ssd_unmount_t self:unix_dgram_socket create_socket_perms;
logging_create_devlog_dev(polaris_ssd_unmount_t)
logging_send_syslog_msg(polaris_ssd_unmount_t)
polaris_persistent_getattr(polaris_ssd_unmount_t)
#allow dir:search getattr read for udev tmp files
#allow file:write open for udev tmp files
polaris_udev_tmp_manage(polaris_ssd_unmount_t)
gen_require(
 type rsync_exec_t;
 type rsync_port_t;
)
#allow tcp_socket:name_connect for rsync_port_t
#polaris_ssd_unmount_t has superset privileges of rsync, so its good
#to run rsync in unmount domain. This is not the case everywhere. Please use
#corenet_tcp_connect_rsync_port if rsync needs to be run in its own domain
allow polaris_ssd_unmount_t rsync_port_t:tcp_socket name_connect;
#allow file:get_attr exec read open map execute_no_trans for rsync_exec_t
allow polaris_ssd_unmount_t rsync_exec_t:file { execute execute_no_trans getattr map open read };
#allow dir:getattr for removable_t
polaris_getattr_removable(polaris_ssd_unmount_t)
)
#ifdef(`passport_platform',`
type polaris_auto_upgrade_server_rp_exec_t;
files_type(polaris_auto_upgrade_server_rp_exec_t)
type polaris_bt_logger_exec_t;
files_type(polaris_bt_logger_exec_t)
type polaris_cmm_exec_t;
files_type(polaris_cmm_exec_t)
type polaris_ngwc_plfm_mgr_exec_t;
files_type(polaris_ngwc_plfm_mgr_exec_t)
type polaris_sif_mgr_exec_t;
files_type(polaris_sif_mgr_exec_t)
type polaris_torch_exec_t;
files_type(polaris_torch_exec_t)
type polaris_xcvr_test_exec_t;
files_type(polaris_xcvr_test_exec_t)
type polaris_faked_exec_t;
files_type(polaris_faked_exec_t)
type polaris_emd_exec_t;
files_type(polaris_emd_exec_t)
type polaris_ngwc_ishow_exec_t;
files_type(polaris_ngwc_ishow_exec_t)
)

```

```

type polaris_gr_mgr_exec_t;
files_type(polaris_gr_mgr_exec_t)
type polaris_ioxss_rp_exec_t;
files_type(polaris_ioxss_rp_exec_t)
')
ifdef(`starfleet_platform',`
type polaris_xcvr_test_exec_t;
files_type(polaris_xcvr_test_exec_t)
type polaris_auto_upgrade_server_rp_exec_t;
files_type(polaris_auto_upgrade_server_rp_exec_t)
type polaris_bt_logger_exec_t;
files_type(polaris_bt_logger_exec_t)
type polaris_cmm_exec_t;
files_type(polaris_cmm_exec_t)
type polaris_ngwc_plfm_mgr_exec_t;
files_type(polaris_ngwc_plfm_mgr_exec_t)
type polaris_sif_mgr_exec_t;
files_type(polaris_sif_mgr_exec_t);
type polaris_torch_exec_t;
files_type(polaris_torch_exec_t);
')

type polaris_disk_ucode0_t;
files_type(polaris_disk_ucode0_t);

type polaris_nplum_power_file_t;
polaris_pfile_type(polaris_nplum_power_file_t)

#permission for /unicode0
optional_policy(`
 gen_require(`
 type polaris_periodic_t;
 ')
 polaris_disk_ucode0_read_lnk(polaris_periodic_t)
')

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwc.te
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#
February 2020, Victor Kamensky
#
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#

<summary>Polaris cfgmgr Policy Rules.</summary>

```

```
#####
<summary>
Write cfmgr /var/run socket file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cfmgr_var_sock_write`,`
 gen_require(`
 type polaris_cfmgr_t;
 type polaris_cfmgr_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_cfmgr_var_run_t)
 allow $1 polaris_cfmgr_t:unix_stream_socket { connectto };
)`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscfmgr.if

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```
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March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisstackmgr, 1.0);
```

```
gen_require(`
 type polaris_stack_mgr_t;
`)
polaris_btrace_data_manage(polaris_stack_mgr_t)
polaris_crft_data_manage(polaris_stack_mgr_t)
polaris_chasfs_manage(polaris_stack_mgr_t)
polaris_tdlresolve_read(polaris_stack_mgr_t)
polaris_tdlldb_list_dirs(polaris_stack_mgr_t)
polaris_cpld_read(polaris_stack_mgr_t)
polaris_lua_read(polaris_stack_mgr_t)
polaris_flashlib_read(polaris_stack_mgr_t)

polaris_rpc_sman_ui_serv_connect(polaris_stack_mgr_t)
```

```

polaris_db_tdlldb_dir_use(polaris_stack_mgr_t)

allow to send message to /dev/log
logging_send_syslog_msg(polaris_stack_mgr_t)

allow polaris_stack_mgr_t self:capability { dac_override };

polaris_dyncfg_tmp_read(polaris_stack_mgr_t)

corecmd_exec_bin(polaris_stack_mgr_t)
corecmd_exec_shell(polaris_stack_mgr_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_stack_mgr_t)

read /proc/cmdline
kernel_read_system_state(polaris_stack_mgr_t)

open /dev/ttyS0 console in stack_console_write_init
term_use_unallocated_ttys(polaris_stack_mgr_t)

on ngwc/vwlc FIPS code reads /tmp/hw_entropy
polaris_hw_entropy_use(polaris_stack_mgr_t)

#stackmgr runs mcp_trace_request.sh
polaris_trace_request_domtrans(polaris_stack_mgr_t)

#stack_mgr needs to be able to access /tmp/issu_stk/prst_sync_rld_info_prsd
polaris_issu_stack_tmp_manage(polaris_stack_mgr_t)

may use mcp_chvrf.sh to access other nodes in system.
Note that we do not actually need to transition to the chvrf domain, however
a file descriptor leak can occur and the domain transition permission macro
expands to allow polaris_chvrf_t to access the fifo
polaris_chvrf_domtrans(polaris_stack_mgr_t)

#Allow read on bootflash to be able to read reload_history
polaris_bootflash_read(polaris_stack_mgr_t)

stackmgr tmp files
type polaris_stack_mgr_tmp_t;
files_tmp_file(polaris_stack_mgr_tmp_t)
files_tmp_filetrans(polaris_stack_mgr_t, polaris_stack_mgr_tmp_t, file, "ngwc_reload_reason")
manage_files_pattern(polaris_stack_mgr_t, polaris_stack_mgr_tmp_t, polaris_stack_mgr_tmp_t)

allow polaris_stack_mgr_t self:capability sys_nice;
allow polaris_stack_mgr_t self:process setsched;

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisstackmgr.te

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#

# January 2018, Manohar Hungund

#

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#

# polarisoctdplogrp file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisoctdplogrp.fc

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#

# February 2020, Victor Kamensky

#

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#

## <summary>Polaris cedge\_start Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscedgestart.if

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

define(^ polaris\_mqipc\_service\_server\_aux',`dnl

type \$1;

polaris\_mqipc\_type(\$1)

polaris\_mqipc\_\$2\_create\_name(\$3)')

define(^ polaris\_mqipc\_service\_server',`dnl

polaris\_mqipc\_service\_server\_aux(mqipc\_label(\$1), mqipc\_stem(\$1), process\_label(\$2))dnl

')

define(^ polaris\_mqipc\_service\_client\_aux',`dnl

polaris\_mqipc\_\$2\_use(\$3)')

```
define(`polaris_mqipc_service_client',`dnl
polaris_mqipc_service_client_aux(mqipc_label($1), mqipc_stem($1), process_label($2))dnl
`)

define(`polaris_mqipc_service_server_elastic_client',`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_mqipc\_te.m4

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```
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#

<summary>Polaris polarisqfp Policy Rules.</summary>
```

```
#####
```

```
<summary>
Work (read, write, ioctl) with /dev/netmap device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_netmap_dev_use',`
gen_require(`
 type device_t;
 type polaris_netmap_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_netmap_device_t)
 read_chr_files_pattern($1, device_t, polaris_netmap_device_t)
 allow $1 polaris_netmap_device_t:chr_file map;
')
```

```
#####
```

```
<summary>
Work (read, write, ioctl) with /dev/svc_eng_puntNN devices
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
```



```

#
interface(`polaris_svc_eng_punt_dev_use',`
gen_require(`
 type device_t;
 type polaris_sep_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_sep_device_t)
 read_chr_files_pattern($1, device_t, polaris_sep_device_t)
`)

```

```
#####
```

```

<summary>
Allow access to semaphore with type polaris_qfp_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_qfp_sem_use',`
 gen_require(`
 type polaris_qfp_t;
 `)
 allow $1 polaris_qfp_t:sem rw_sem_perms;
`)

```

```
#####
```

```

<summary>
Send messages to qfp unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_qfp_dgram_send',`
gen_require(`
 type polaris_qfp_t;
`)

allow $1 polaris_qfp_t:unix_dgram_socket sendto;
`)

```

```
CSR & C8KV infiniband devices in Azure
```

```

interface(`polaris_infiniband_dev_use',`
gen_require(`

```

```

 type device_t;
type polaris_infiniband_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_infiniband_device_t)
 read_chr_files_pattern($1, device_t, polaris_infiniband_device_t)
 allow $1 polaris_infiniband_device_t:chr_file map;
)

```

```
#####
```

```

<summary>
Execute iodbd.sh script in the polaris_iodbd_t domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#

```

```

interface(`polaris_iodbd_domtrans`,`
 gen_require(`
 type polaris_iodbd_t, polaris_iodbd_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_iodbd_exec_t, polaris_iodbd_t)
)

```

```
#####
```

```

<summary>
Manage files and directoris under /tmp/iodb
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_iodb_tmp_manage`,`
 gen_require(`
 type polaris_iodb_tmp_t;
 `)

 manage_files_pattern($1, polaris_iodb_tmp_t,polaris_iodb_tmp_t)
 manage_dirs_pattern($1, polaris_iodb_tmp_t, polaris_iodb_tmp_t)

 fs_getattr_tmpfs($1)
)

```

```
#####
<summary>
Manage files and directoris under /tmp/memif
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_qfp_memif_manage`,`
 gen_require(`
 type polaris_qfp_memif_t;
 `)
 manage_files_pattern($1, polaris_qfp_memif_t, polaris_qfp_memif_t)
 manage_sock_files_pattern($1, polaris_qfp_memif_t, polaris_qfp_memif_t)
 gen_require(`
 type tmp_t;
 `)
 manage_dirs_pattern($1, { tmp_t polaris_qfp_memif_t }, polaris_qfp_memif_t)
 allow $1 polaris_qfp_memif_t:file map;
`)
```

```
#####
<summary>
polaris_qfp_log_manage
</summary>
<param name="filename">
<summary>
Name of the file being managed.
</summary>
</param>
<rolebase/>
#
interface(`polaris_qfp_log_manage`,`
 type polaris_qfp_var_log_t;
 logging_log_file(polaris_qfp_var_log_t)
 logging_log_filetrans(polaris_qfp_t, polaris_qfp_var_log_t, file, $1)
 manage_files_pattern(polaris_qfp_t, var_log_t, polaris_qfp_var_log_t)
`)
```

```
#####
<summary>
Work (read, write, ioctl) with /dev/icp_adf_ctl and
/dev/icp_dev_mem devices
</summary>
```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_icp_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_icp_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_icp_device_t)
 read_chr_files_pattern($1, device_t, polaris_icp_device_t)
 allow $1 polaris_icp_device_t:chr_file map;
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisqfp.if

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```

#
March 2017, Victor Kamensky
#
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#

```

```

/usr/binos/bin/*.linux_iosd.*ms -- gen_context(system_u:object_r:polaris_iosd_exec_t,s0)
/usr/binos/bin/mcpcc-ic-ms -- gen_context(system_u:object_r:polaris_iosd_exec_t,s0)

/tmp/boottime gen_context(system_u:object_r:polaris_iosd_tmp_files_t,s0)
/tmp/booted gen_context(system_u:object_r:polaris_iosd_tmp_files_t,s0)
/tmp/restconf(/.*)? gen_context(system_u:object_r:polaris_restconf_tmp_t,s0)

/tmp/netio0(/.*)? gen_context(system_u:object_r:polaris_iosd_tmp_files_t,s0)
/tmp/nginx.conf gen_context(system_u:object_r:httpd_config_t,s0)

/bootflash/.geo(/.*)? gen_context(system_u:object_r:polaris_geodb_files_t,s0)
/harddisk/.geo(/.*)? gen_context(system_u:object_r:polaris_geodb_files_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisiosd.fc

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```

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#

## <summary>Polaris cli\_agent Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscliagent.if

No license file was found, but licenses were detected in source scan.

#

# August 2017, Shawn Lu

#

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#

# polarisrogued file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrogued.fc

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#

# July 2017, Victor Kamensky

#

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#

## <summary>Polaris MCP Platform Policy Rules.</summary>

#####

## <summary>

## Work (read, write, ioctl) with /dev/scooby

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_scooby\_dev\_use`,`

gen\_require(`

type device\_t;

type polaris\_scooby\_device\_t;

`)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_scooby\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_scooby\_device\_t)

)

#####

## <summary>

## Work (read, write, ioctl) with /dev/spa[0123]

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_spa\_dev\_use',`

gen\_require(`

type device\_t;

type polaris\_spa\_device\_t;

)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_spa\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_spa\_device\_t)

allow \$1 polaris\_spa\_device\_t:chr\_file map;

)

#####

## <summary>

## Work (read, write, ioctl) with /dev/htdp[0-9]\*

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_htdp\_dev\_use',`

gen\_require(`

type device\_t;

type polaris\_htdp\_device\_t;

)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_htdp\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_htdp\_device\_t)

)

#####

## <summary>

## Work (read, write, ioctl) with /sys/devices/virtual/sys\_platform

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

```

</summary>
</param>
#
interface(`polaris_sysfs_platform_dev_use`,`
gen_require(`
type polaris_sysfs_platform_t;
`)
manage_files_pattern($1, polaris_sysfs_platform_t, polaris_sysfs_platform_t)
`)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/ds31408
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_ds31408_dev_use`,`
gen_require(`
type device_t;
type polaris_ds31408_device_t;
`)
rw_chr_files_pattern($1, device_t, polaris_ds31408_device_t)
`)

```

```
#####
```

```

<summary>
Allow access to /dev/cbdma
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_cbdma_dev_use`,`
gen_require(`
type device_t;
type polaris_cbdma_device_t;
`)
write_chr_files_pattern($1, device_t, polaris_cbdma_device_t)
read_chr_files_pattern($1, device_t, polaris_cbdma_device_t)
allow $1 polaris_cbdma_device_t:chr_file map;
`)

```

```
#####
```

```

<summary>
Allow access to /dev/cpp_htdp
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_htdp_dev_use`,`
 gen_require(`
 type polaris_cpp_htdp_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_cpp_htdp_device_t)
 read_chr_files_pattern($1, device_t, polaris_cpp_htdp_device_t)
 allow $1 polaris_cpp_htdp_device_t:chr_file map;
`)

```

#####

```

<summary>
Allow access to /dev/n2_device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_n2_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_n2_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_n2_device_t)
 read_chr_files_pattern($1, device_t, polaris_n2_device_t)
`)

```

#####

```

<summary>
Allow access to /dev/cy2213
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cy2213_dev_use`,`

```



```

gen_require(
 type device_t;
 type polaris_cy2213_device_t;
)
write_chr_files_pattern($1, device_t, polaris_cy2213_device_t)
read_chr_files_pattern($1, device_t, polaris_cy2213_device_t)
)

```

#####

```

<summary>
Allow access to /dev/vega
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_vega_dev_use`,`
gen_require(
 type device_t;
 type polaris_vega_device_t;
)
write_chr_files_pattern($1, device_t, polaris_vega_device_t)
read_chr_files_pattern($1, device_t, polaris_vega_device_t)
)

```

#####

```

<summary>
Work (read, write, ioctl) with /dev/dash_fpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_dash_dev_mcp_use`,`
gen_require(
 type device_t;
 type polaris_dash_device_t;
)
write_chr_files_pattern($1, device_t, polaris_dash_device_t)
read_chr_files_pattern($1, device_t, polaris_dash_device_t)
allow $1 polaris_dash_device_t:chr_file map;
)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismcp.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
dnl
```

```
dnl April 2018, Victor Kamensky
```

```
dnl
```

```
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
```

```
dnl All rights reserved
```

```
dnl
```

```
dnl Crankshaft (Overlord, Utah and Fugazi) Platform Max Bay Limits
```

```
max_bay_map_set(`rp', `per_bay', 3)
```

```
max_bay_map_set(`cc', `per_bay', 3)
```

```
max_bay_map_set(`fp', `per_bay', 3)
```

```
max_bay_ripc_map_set(`rp', `per_bay', 3)
```

```
max_bay_ripc_map_set(`cc', `per_bay', 3)
```

```
max_bay_ripc_map_set(`fp', `per_bay', 3)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/mcmaps.m4
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2016-2021 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
policy_module(polarisiosd, 1.0);
```

```
gen_require(`
```

```
 type polaris_iosd_t;
```

```
`)
```

```
#####
```

```
mqipc manual, one that missing in platform tdl file
```

```
#####
```

```
ifdef(`nyquist_platform',`
```

```
gen_require(`
```

```
 type polaris_bt_logger_iosd_mqipc_t;
```

```
`)
```

```
iosd may start first and create this mqipc channel
```

```
polaris_mqipc_create_name(polaris_iosd_t, polaris_bt_logger_iosd_mqipc_t, bt_logger_iosd)
```

```
`)
```

```
polaris_btrace_data_manage_all(polaris_iosd_t)
```

```

polaris_chasfs_manage(polaris_iosd_t)
polaris_tdlresolve_read(polaris_iosd_t)
polaris_tdlldb_list_dirs(polaris_iosd_t)
polaris_cpld_read(polaris_iosd_t)
polaris_lua_read(polaris_iosd_t)
polaris_flashlib_read(polaris_iosd_t)
polaris_crft_data_manage_all(polaris_iosd_t)
optional_policy(
polaris_gnmib_gnoi_images_manage(polaris_iosd_t)
')

polaris_ripc_sman_ui_serv_connect(polaris_iosd_t)

polaris_db_tdlldb_dir_use(polaris_iosd_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_iosd_t)

allow iosd read/write via hostname <>
systemd_hostnamed_manage_config(polaris_iosd_t)

creates /etc/netns/1/resolv.conf via ip domain-name <> command
creates /etc/netns/vrf.VRFNAME via ip vfr VRFNAME command
creates /etc/netns/vrf.VRFNAME/resolv.conf via ip
domain-name vrf VRFNAME <> command
gen_require(
 type net_conf_t;
)
files_etc_filetrans(polaris_iosd_t, net_conf_t, file, "resolv.conf")
files_etc_filetrans(polaris_iosd_t, net_conf_t, file, "hosts")
files_etc_filetrans(polaris_iosd_t, net_conf_t, dir, "netns")
sysnet_manage_config(polaris_iosd_t)
sysnet_manage_config_dirs(polaris_iosd_t)

for pluggable FS, allow iosd to access files on them.
polaris_getattr_removable(polaris_iosd_t)
polaris_removable_manage(polaris_iosd_t)
fs_read_removable_symlinks(polaris_iosd_t)

polaris_lsmpi_dev_use(polaris_iosd_t)
polaris_lsmpi_sysctl_read(polaris_iosd_t)
polaris_cfg_data_manage(polaris_iosd_t)
polaris_proc_rmonbifo_read(polaris_iosd_t)

polaris_icc_broken_relocations(polaris_iosd_t)

allow polaris_iosd_t self:capability { sys_nice chown fsetid sys_rawio dac_override dac_read_search ipc_lock };

```

```

gen_require(
 type httpd_config_t;
 type tmp_t;
)

iosd creates /tmp/nginx.conf file
manage_files_pattern(polaris_iosd_t, tmp_t, httpd_config_t)
transition nginx.conf into httpd_config_t
files_tmp_filetrans(polaris_iosd_t, httpd_config_t, file, "nginx.conf")
RW access to /usr/binos/conf/nginx-conf/servers (utd feature)
manage_dirs_pattern(polaris_iosd_t, httpd_config_t, httpd_config_t)

#iosd create /tmp/nginx/cert/ca.cert
polaris_nginx_tmp_manage(polaris_iosd_t)

!!!LOOK AT ME!!! - we allow iosd to read raw memory
dev_read_raw_memory(polaris_iosd_t)

polaris_flashlib_write(polaris_iosd_t)
polaris_nvram_manage(polaris_iosd_t)
polaris_persistent_manage(polaris_iosd_t)

smu management in iosd (linked in via libbcrdu.so) accesses
files created by the installer under /tmp/patch
polaris_install_tmp_read(polaris_iosd_t)

optional_policy(
 polaris_cpp_tmp_ifdev_use(polaris_iosd_t)
)

polaris_dyncfg_tmp_read(polaris_iosd_t)

lsmpi_fetch_linux_ifindex tries to ioctl(skfd, SIOCGIFINDEX, &ifr) on
non existent ethN interface, as result kernel triggers attempt to
load kernel module that would correspond to such interface. Deny
and don't audit iosd_t attempt to load kernel modules.
LOOK AT ME: in long term we don't want iosd even try to load modules
and we would actually would want to report and fail such
kernel_dontaudit_request_load_module(polaris_iosd_t)

iosd calls nice function to change fast path priority (mcp_fastpath_thread_func)
allow polaris_iosd_t self:process setsched;

ifdef(`crankshaft_family',`
 ifconfig_attach_tun_iface(polaris_iosd_t)
 corenet_rw_tun_tap_dev(polaris_iosd_t)
)

```

```

ifdef(`mcp_family',`
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
allow polaris_iosd_t polaris_iosd_t:tun_socket relabelfrom;
')

on ultra iosd is figuring out parameters of interfaces of underlying
hypervisors kvm, vmware, etc. See vxe_gethd_ifdb_scan
ifdef(`crankshaft_family',`
dev_rw_sysfs(polaris_iosd_t)
polaris_disk_objstore_manage(polaris_iosd_t)
')
ifdef(`vxe_family',`
dev_read_sysfs(polaris_iosd_t)
polaris_disk_objstore_manage(polaris_iosd_t)
polaris_objstore_sem_use(polaris_iosd_t)
')
ifdef(`vwlc_platform',`
polaris_disk_objstore_manage(polaris_iosd_t)
optional_policy(`
 polaris_vwlc_grub_efi_use(polaris_iosd_t)
')
')
ifdef(`wlc_family',`
dev_read_sysfs(polaris_iosd_t)
polaris_tlscd_uds_manage(polaris_iosd_t)
gen_require(`
 type polaris_tlscd_t;
')
allow polaris_iosd_t polaris_tlscd_t:unix_dgram_socket sendto;
')
on 1ng mcpcc-lc-ms reads /sys/devices/system/cpu/online
ifdef(`mcp_family',`
dev_read_sysfs(polaris_iosd_t)
')
neptune need to figure fan type by reading
/sys/bus/platform/devices/nios/n2h_fan_ctrl_fan_tray_status
ifdef(`neptune_platform',`
dev_read_sysfs(polaris_iosd_t)
')
radium need to figure fan type by reading
/sys/bus/platform/devices/nios/n2h_fan_ctrl_fan_tray_status
ifdef(`radium_platform',`
dev_read_sysfs(polaris_iosd_t)
')
__get_nprocs opens /sys/devices/system/cpu/online
ifdef(`quake_platform',`
dev_read_sysfs(polaris_iosd_t)

```

```

)
__get_nprocs opens /sys/devices/system/cpu/online
ifdef(`supernova_platform',`
dev_read_sysfs(polaris_iosd_t)
)

work with /tmp/boottime, /tmp/booted files: create/write
type polaris_iosd_tmp_files_t;
files_tmp_file(polaris_iosd_tmp_files_t)
files_tmp_filetrans(polaris_iosd_t, polaris_iosd_tmp_files_t, file, "boottime")
files_tmp_filetrans(polaris_iosd_t, polaris_iosd_tmp_files_t, file, "booted")
create_files_pattern(polaris_iosd_t, polaris_iosd_tmp_files_t, polaris_iosd_tmp_files_t)

#allow polaris_iosd_t polaris_udev_tmp_files_t:dir { getattr open read search };
#allow polaris_iosd_t polaris_udev_tmp_files_t:file { open, read, write };
LOOK AT ME (need to review write access with iosd team)
polaris_udev_tmp_manage(polaris_iosd_t)

work with /tmp/restconf
type polaris_restconf_tmp_t;
files_tmp_file(polaris_restconf_tmp_t)
polaris_restconf_tmp_use(polaris_iosd_t)

files_tmp_filetrans(polaris_iosd_t, polaris_restconf_tmp_t, dir, "restconf")
filetrans_pattern(polaris_iosd_t, polaris_restconf_tmp_t, polaris_restconf_tmp_t, file)

work with /tmp/netio0
files_tmp_filetrans(polaris_iosd_t, polaris_iosd_tmp_files_t, dir, "netio0")
sockets and dirs created under /tmp/netio0
manage_dirs_pattern(polaris_iosd_t, polaris_iosd_tmp_files_t, polaris_iosd_tmp_files_t)
manage_sock_files_pattern(polaris_iosd_t, polaris_iosd_tmp_files_t, polaris_iosd_tmp_files_t)
allow polaris_iosd_t self:unix_dgram_socket create_socket_perms;

gen_require(`
 type inetd_child_t;
)
sendto permission for /tmp/netio0/ttyC100
allow polaris_iosd_t inetd_child_t:unix_dgram_socket sendto;

polaris_socketat_nsfs_read(polaris_iosd_t)

onep uses TIPC sockets see onep_tipc_transport_start
allow polaris_iosd_t self:socket { bind create listen accept getattr read write ioctl getopt setopt };

mcp_eobc_create_socket creates UDP socket for eobc
corenet_udp_bind_polaris_iosd_eobc_port(polaris_iosd_t)
gen_require(`
 type node_t;

```

```

)
allow polaris_iods_t node_t:udp_socket node_bind;
allow polaris_iods_t self:udp_socket { bind create ioctl setopt read write };

direct access to serial TTY devices like /dev/ttyS1
term_use_unallocated_ttys(polaris_iods_t)

on ultra cvac_load_config function tried to access cdrom0:/iosxe_config.txt
and if exists read
#ifdef(^vxe_family',`
fs_read_iso9660_files(polaris_iods_t)
)
#ifdef(^wlc_family',`
fs_read_iso9660_files(polaris_iods_t)
)

ifs_get_free_bytes invokes mcp_fs_statfs and eventually mcp_wrapper_statvfs
with "/bootflash"...this needs attr access for "/"
fs_getattr_xattr_fs(polaris_iods_t)

iosd works with cpp /dev/shm//cpp_ifdev_shmem shared mmory
optional_policy(`
polaris_cpp_tmpfs_ifdev_rw(polaris_iods_t)
)

iosd reads/writes into grubenv for confreg
optional_policy(`
polaris_grub_efi_use(polaris_iods_t)
)

when /bootflash or /harddisk are 100% full
allow polaris_iods_t self:capability sys_resource;

mcp_set_clock wants to call settimeofday
allow polaris_iods_t self:capability sys_time;

Need this for bluetooth to work. HCI library uses this
allow polaris_iods_t self:capability net_raw;

#ifdef(^mcp_family',`
polaris_obfl_data_read(polaris_iods_t)
)

iosd uses quack on mcp and crankshaft and ngwc
#ifdef(^mcp_family',`
polaris_quack_dev_use(polaris_iods_t)
)
#ifdef(^crankshaft_family',`

```

```

polaris_quack_dev_use(polaris_iosd_t)
')
#ifdef(^ngwc_family',`
polaris_quack_dev_use(polaris_iosd_t)
')
#ifdef(^qwlc_platform',`
polaris_quack_dev_use(polaris_iosd_t)
')
#ifdef(^katar_platform',`
polaris_quack_dev_use(polaris_iosd_t)
')

#ifdef(^mcp_family',`
polaris_spa_dev_use(polaris_iosd_t)
polaris_sysfs_platform_dev_use(polaris_iosd_t)
')

on lng write/ioctl into /dev/cpld-ha
on vwlc ha scenario, iosd needs write access to /dev/cpld-ha
optional_policy(`
polaris_cpld_dev_use(polaris_iosd_t)
')

deals with /dev/shm files semaphors; like uuid_sem semaphore
created by btrace_get_uuid function
type polaris_iosd_tmpfs_t;
files_tmpfs_file(polaris_iosd_tmpfs_t)
fs_tmpfs_filetrans(polaris_iosd_t, polaris_iosd_tmpfs_t, file)
manage_files_pattern(polaris_iosd_t, tmpfs_t, polaris_iosd_tmpfs_t)

optional_policy(`
polaris_iodb_tmp_manage(polaris_iosd_t)
')

on ngwc FIPS code reads /tmp/hw_entropy
seems like iosd can delete the file as well
polaris_hw_entropy_create(polaris_iosd_t)

optional_policy(`
#on macallan iosd needs to access /dev/cpld
polaris_cpld_dev_read(polaris_iosd_t)
')

on tsn iosd needs write access to
sys/devices/platform/cpld/reg_rp_reset_button_status
sys/devices/platform/cpn-110-master DSR/DTR status
#ifdef(^crankshaft_family',`

```



```

type polaris_quake_i2c_t;

polaris_cpld_write(polaris_iosd_t)
polaris_ggpio_dev_read_write(polaris_iosd_t)
polaris_quake_i2c_manage(polaris_iosd_t)
')

#ifdef(^katar_platform')
polaris_cpld_write(polaris_iosd_t)
')

on tsn iosd needs access to /sys/devices/platform/moka_fpga
/sys/devices/platform/moka_fpga/led_status
optional_policy(
polaris_mokafpga_rw(polaris_iosd_t)
')

iosd reads /tmp/iosd_level
polaris_lm_tmp_read(polaris_iosd_t)

iosd needs manage_dirs, manage_files and manage_lnk
permissions at "/tmp/ufs/lic0/<remote_ip>/*"
optional_policy(
polaris_ncd_tmp_manage(polaris_iosd_t)
')

access NFS mounted directories from other nodes or members
fs_getattr_nfs(polaris_iosd_t)

mcp/mcprp/if_unix_se.c code works with /sys/devices/virtual/contdev
files and /proc/net/dev
polaris_manage_contdev_dev(polaris_iosd_t)
kernel_read_network_state(polaris_iosd_t)

iosd creates /tmp/iox_xml.dat file
optional_policy(
polaris_iox_manage_tmp_files(polaris_iosd_t)
')

polaris_caf_var_run_files_manage(polaris_iosd_t)
container_read_lib_files(polaris_iosd_t)

work with files like /tmp/rp/.shell_exec.5B1BF1D7648E21AEE3000002
type polaris_iosd2iox_tmp_t;
files_tmp_file(polaris_iosd2iox_tmp_t)
files_tmp_filetrans(polaris_iosd_t, polaris_iosd2iox_tmp_t, file)
polaris_iosd2iox_tmp_manage(polaris_iosd_t)
work with response

```

```

optional_policy(`
 polaris_iox2iosd_tmp_manage(polaris_iosd_t)
`)

polaris_sandbox_file_dir_list(polaris_iosd_t)

lfts 2.0 iosd provides route information to kernel. it talks
using generic netlink family socket. See iosd bsock_sar_netlink_process
process
allow polaris_iosd_t self:netlink_generic_socket create_socket_perms;
allow polaris_iosd_t self:netlink_socket create_socket_perms;

LOOK AT ME
on nyquist iosd accesses files like lic0-2:/sanosync.data.readLock
from saLockCheck function and it happens just right after lic0-2 was
mounted over NFSv4. It seems that labels from remote node did not
take an effect yet. For now allow access to dir and files that
are not yet labeled.
ifdef(`nyquist_platform',`
files_manage_isid_type_dirs(polaris_iosd_t)
files_manage_isid_type_files(polaris_iosd_t)
`)

ifdef(`ngwc_family',`
polaris_getattr_filesystem_disk_ucode(polaris_iosd_t)
#policy needed for accessing sys/bus/usb/drivers/usb/*/authorized
dev_rw_sysfs(polaris_iosd_t)
`)

ifdef(`passport_platform',`
polaris_cm_rp_tmp_manage(polaris_iosd_t)
`)

polaris_lfts_dev_use(polaris_iosd_t)

/dev/shm/vrf_shm access for show command
polaris_vrf_shm_manage(polaris_iosd_t)

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_iosd_t)
`)

iosd needs access to logging facility
logging_send_syslog_msg(polaris_iosd_t)

#iosd need access to /webui/*.odm files
polaris_read_webui_files(polaris_iosd_t)

```

```

allow getting binos networking stats AF_NETLINK
allow polaris_iosd_t self:netlink_route_socket rw_netlink_socket_perms;

confd needs to talk with IOSd via real linux udp snmp socket
allow polaris_iosd_t self:udp_socket { create_socket_perms recv_msg send_msg };
corenet_udp_bind_snmp_port(polaris_iosd_t)

PLEASE LOOK AT code should not use sysv IPC ARIs,
instead POSIX variants must be used. Remove after
code changed in proper way
allow access sysv semaphor created by qfp process
ifdef(`vxe_family',`
polaris_qfp_sem_use(polaris_iosd_t)
')
ifdef(`wlc_family',`
polaris_qfp_sem_use(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
')

lsmpi replacement punt/inject over domain sockets
ifdef(`vxe_family',`
polaris_pi_uds_manage(polaris_iosd_t)
polaris_qfp_dgram_send(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
')

CSR when operating in VGA mode uses /dev/tty0 as the console for the system
(including IOSD).IOSD setup scripts pass in the tty device(s) to use in the
REAL_CONSOLE and REAL_AUX environment variables. IOSD configures the tty
for its operation and hence need the capability.
allow polaris_iosd_t self:capability sys_tty_config;

LOOK AT ME: hot patch upon a reboot requires execmem operation - which
currently is not allowed. Remove the following policy when CSCvq59763
has been completed.
allow polaris_iosd_t self:process execmem;

/dev/epaN on qwlc/asr1k(mcp)
optional_policy(`
polaris_epa_dev_use(polaris_iosd_t)
')

/dev/qae_mem device access on overlord
optional_policy(`
polaris_qae_dev_use(polaris_iosd_t)
')

```

```

')

ioucon binary invoked on standby console attach.
polaris_ioucon_dgram_send(polaris_iosd_t)

usb device requires read permissions.
kernel_read_debugfs(polaris_iosd_t)

iosd requires access to /tmp/sv
#ifdef(^ngwc_family',`
polaris_sv_tmp_use(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
')

polaris_i2c_use(polaris_iosd_t)

on CSR AWS deployment iosd needs read access to /dev/console
term_read_console(polaris_iosd_t)

On vxe platforms the cloudint config is stored in /varied. We need
to be able to read it.
#ifdef(^vxe_family',`
polaris_disk_varied_read(polaris_iosd_t)
')

In stacked and ha setup secondary SUP bootflash and hardisk
are mounted on active and is accessed by iosd.
polaris_getattr_bootflash(polaris_iosd_t)
polaris_getattr_harddisk(polaris_iosd_t)

read access to /dev/random
dev_read_rand(polaris_iosd_t)

Allow access of /tmp/maroon_stats files
polaris_maroon_data_manage_all(polaris_iosd_t)

#access to /dev/bp_async device on nanook platform
optional_policy(^
polaris_bp_async_dev_use(polaris_iosd_t)
')

#Permission for access file attribute to list the file info
polaris_caf_tmp_files_getattr(polaris_iosd_t)

#DB persistence
polaris_tldbpersist_setup(polaris_iosd_t)
polaris_tmp_tldbpersist_setup(polaris_iosd_t)

```

```

IOSCC needs access to /mnt/firmware for intelligent spa during bootup
polaris_firmware_read(polaris_iosd_t)

On Sparrow platform: IOSd requires access to /dev/remap_mem0
and /dev/usb_console for OOB management
Also allows access to /dev/sparrow_psu and /dev/net/tun
/dev/shm/sem._dev_i2c_0 sempaphor
#ifdef(`sparrow_platform',`
gen_require(`
 type polaris_cm_cc_tmpfs_t;
`)
polaris_remap_mem_dev_use(polaris_iosd_t)
term_use_usb_ttys(polaris_iosd_t)
polaris_sparrow_psu_dev_use(polaris_iosd_t)
polaris_i2c_sem_manage(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
mmap_files_pattern(polaris_iosd_t, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
`)

On Blackheart platform: /dev/shm/sem._dev_i2c_0 sempaphor
Allow access to /tmp/udev/etc/udev/msata/udev-info and /dev/net/tun
Allow access to /dev/remap_mem0 for alarm port
#ifdef(`blackheart_platform',`
gen_require(`
 type polaris_cm_cc_tmpfs_t;
`)
polaris_udev_access(polaris_iosd_t)
polaris_remap_mem_dev_use(polaris_iosd_t)
polaris_i2c_sem_manage(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
mmap_files_pattern(polaris_iosd_t, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
`)

handle /tmp/rp/.iosp_client_app token
type polaris_iosp_client_app_token_t;
files_tmp_file(polaris_iosp_client_app_token_t)
files_tmp_filetrans(polaris_iosd_t, polaris_iosp_client_app_token_t, file, ".iosp_client_app")
manage_files_pattern(polaris_iosd_t, polaris_iosp_client_app_token_t, polaris_iosp_client_app_token_t)

handle /tmp/rp/.iosp_client_dmi token
type polaris_iosp_client_dmi_token_t;
files_tmp_file(polaris_iosp_client_dmi_token_t)
files_tmp_filetrans(polaris_iosd_t, polaris_iosp_client_dmi_token_t, file, ".iosp_client_dmi")
manage_files_pattern(polaris_iosd_t, polaris_iosp_client_dmi_token_t, polaris_iosp_client_dmi_token_t)

```

```

handle /tmp/rp/.iosp_dmiauthd token
type polaris_dmiauthd_token_t;
files_tmp_file(polaris_dmiauthd_token_t)
files_tmp_filetrans(polaris_iosd_t, polaris_dmiauthd_token_t, file, ".iosp_dmiauthd")
manage_files_pattern(polaris_iosd_t, polaris_dmiauthd_token_t, polaris_dmiauthd_token_t)

handle /tmp/rp/.iosp_gnmib token
type polaris_gnmib_token_t;
files_tmp_file(polaris_gnmib_token_t)
files_tmp_filetrans(polaris_iosd_t, polaris_gnmib_token_t, file, ".iosp_gnmib")
manage_files_pattern(polaris_iosd_t, polaris_gnmib_token_t, polaris_gnmib_token_t)

polaris_udev_tmp_watch(polaris_iosd_t)

Interfaces needed for Aventus platform, allow access to
/dev/shm/sem._dev_i2c_0 sempaphor
/dev/usb_console for OOB management
/dev/net/tun
brctl process needs access to fifo_file
ifdef(^aventus_platform',`
gen_require(`
 type brctl_t;
 type polaris_pman_t;
 type polaris_cm_cc_tmpfs_t;
 type ifconfig_t;
 type polaris_i2c_device_t;
`)
polaris_i2c_sem_manage(polaris_iosd_t)
ifconfig_attach_tun_iface(polaris_iosd_t)
corenet_rw_tun_tap_dev(polaris_iosd_t)
term_use_usb_ttys(polaris_iosd_t)
allow brctl_t polaris_pman_t:fifo_file append;
mmap_files_pattern(polaris_iosd_t, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
allow ifconfig_t polaris_i2c_device_t:chr_file { read write };
`)

allow access and modify files in /tftp/inv directory
TODO Need to revisit this for further analysis
ifdef(^mcp_family',`
gen_require(`
 type tftpd_dir_rw_t;
`)
read_files_pattern(polaris_iosd_t, tftpd_dir_rw_t, tftpd_dir_rw_t)
`)

#allow access and modify awips file in /bootflash
gen_require(`
type polaris_awips_signature_file_t;

```

```

)
filetrans_pattern(polaris_iosd_t, polaris_disk_bootflash_t, polaris_awips_signature_file_t, file, "awips.json")
allow polaris_iosd_t polaris_awips_signature_file_t:file { write create read open getattr unlink};

handle geodb file access
type polaris_geodb_files_t;
polaris_disk_type(polaris_geodb_files_t)
filetrans_pattern(polaris_iosd_t, polaris_disk_bootflash_t, polaris_geodb_files_t, dir, ".geo")
filetrans_pattern(polaris_iosd_t, polaris_disk_hddisk_t, polaris_geodb_files_t, dir, ".geo")
polaris_geodb_files_manage(polaris_iosd_t)

handle /var/ip_local_port_range
type polaris_ip_linux_port_var_t;
files_tmp_file(polaris_ip_linux_port_var_t)
files_var_filetrans(polaris_iosd_t, polaris_ip_linux_port_var_t, file, "ip_local_port_range")

linux_iosd-imag access to file /var/ip_local_port_range
manage_files_pattern(polaris_iosd_t, var_t, polaris_ip_linux_port_var_t)

Allow access to /bootflash/certs
polaris_wlc_ap_cert_manage(polaris_iosd_t)

commad "ls" on /var/ip_local_port_range
gen_require(
 type polaris_shell_t;
)
allow polaris_shell_t polaris_ip_linux_port_var_t:file getattr;

handling /boot/vcpu_template.txt or /csl_p_0/vcpu_template.txt file
created by iosd by platform resource config command
type polaris_iosd_vcpu_t;
files_type(polaris_iosd_vcpu_t)
gen_require(
 type polaris_disk_csl_p_t;
 type polaris_disk_varied_t;
)
filetrans_pattern(polaris_iosd_t, { polaris_disk_csl_p_t polaris_disk_varied_t }, polaris_iosd_vcpu_t, file,
"vcpu_template.txt")
manage_files_pattern(polaris_iosd_t, { polaris_disk_csl_p_t polaris_disk_varied_t }, polaris_iosd_vcpu_t)

allow open/read/search cgroup files like /sys/fs/cgroup/cpu,cpuacct/machine
fs_read_cgroup_files(polaris_iosd_t)
fs_search_cgroup_dirs(polaris_iosd_t)
for Dynamic Core Allocation IOSd needs write access to cpu sets/shares
ifdef(^crankshaft_family',`
fs_write_cgroup_files(polaris_iosd_t)
)

```

```

sdwan_admintech_generate() creates admintech and admintech_trace files
gen_require(
 type polaris_admin_tech_data_t;
)
polaris_bootflash_filetrans(polaris_iods_t, polaris_admin_tech_data_t, file, "admintech")
polaris_bootflash_filetrans(polaris_iods_t, polaris_admin_tech_data_t, file, "admintech_trace")
filetrans_pattern(polaris_iods_t, polaris_chasfs_t, polaris_admin_tech_data_t, file, "ios_admintech_done")
filetrans_pattern(polaris_iods_t, polaris_chasfs_t, polaris_admin_tech_data_t, file, "ios_admintech_request")
polaris_admin_tech_data_manage(polaris_iods_t)
with "/bootflash"...this needs attr to access for logfile
polaris_user_file_getattr(polaris_iods_t)
allow polaris_iods_t polaris_user_file_t:file { open unlink };
#=====
petra platform
ifdef(^petra_platform',`
iosd need access to petra fpga
polaris_iots_fpga_dev_use(polaris_iods_t)
iosd need access to memory devices
polaris_iots_tm_dev_use(polaris_iods_t)
#allow map permission for /dev/shm/TM_A53_APIS
allow polaris_iods_t polaris_iods_tmpfs_t:file map;
#allow access to polaris_cm_rp_t sem
polaris_cm_rp_sem_use(polaris_iods_t)
#allow access to userio
dev_rw_userio_dev(polaris_iods_t)
allow polaris_iods_t userio_device_t:chr_file { map };
#iosd need access to sysfs
dev_rw_sysfs(polaris_iods_t)
allow polaris_iods_t sysfs_t:file { create map };
dev_manage_sysfs_dirs(polaris_iods_t)
iosd need access to sdflash files image is stored
polaris_swipedrive_file_manage(polaris_iods_t)
polaris_getattr_swipedrive(polaris_iods_t)
#iosd need access to mmcblk0p3
gen_require(
 type polaris_disk_recovery_t;
)
allow polaris_iods_t polaris_disk_recovery_t:filesystem getattr;
#iosd need access to mmcblk0p2
polaris_getattr_filesystem_disk_ucode(polaris_iods_t)
iosd need access to /dev/mvDmaDrv
polaris_mvDmaDrv_dev_use(polaris_iods_t)
iosd need access to /dev/mvIntDrv
polaris_mvIntDrv_dev_use(polaris_iods_t)
#iosd need permission for LED
polaris_led_dev_use(polaris_iods_t)
#iosd need access to rawip socket by initscripts/rc.d/init.d/iptables
allow polaris_iods_t self:rawip_socket create_socket_perms;

```



```

#iosd needs access to /opt/cisco/caf/config/system-config.ini
polaris_caf_files_read(polaris_iosd_t)
#iosd need permission to /dev/rtc0 done via imsp_update_sw_hwclock()
dev_rw_realtime_clock(polaris_iosd_t)
')
work with /tmp/usb-disable: create/write
type polaris_iosd_usb_disable_tmp_t;
files_tmp_file(polaris_iosd_usb_disable_tmp_t);
polaris_iosd_usb_disable_tmp_manage(polaris_iosd_t)

ifdef(`ngwc_family',`
SELINUX Mismatch warning when doing power redundancy configuration commands
Allow access /bootflash/nplum-power
polaris_nplum_power_manage(polaris_iosd_t)
')

optional_policy(`
 polaris_efi_files_list_dirs(polaris_iosd_t)
')

work with /dev/shm/mq.-iosd_to_timingd
type polaris_iosd_timing_mqipc_t;
polaris_mqipc_type(polaris_iosd_timing_mqipc_t)

polaris_mqipc_create_name(polaris_iosd_t, polaris_iosd_timing_mqipc_t, iosd_to_timingd)

watch /tmp
allow polaris_iosd_t tmp_t:dir watch;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiosd.te
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#
January 2018, Manohar Hungund
#
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#

<summary>Polaris oct_dp_log_rp Policy Rules.</summary>

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisoctdplogrp.if
No license file was found, but licenses were detected in source scan.

#
February 2020, Victor Kamensky

```

```

#
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#

<summary>Polaris cedge Policy Rules.</summary>

#####
<summary>
Manage /tmp/xml files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_xml_tmp_manage`,`
 gen_require(`
 type polaris_cedge_xml_tmp_t;
 `)
 manage_dirs_pattern($1, polaris_cedge_xml_tmp_t, polaris_cedge_xml_tmp_t)
 manage_files_pattern($1, polaris_cedge_xml_tmp_t, polaris_cedge_xml_tmp_t)
 files_tmp_filetrans($1, polaris_cedge_xml_tmp_t, dir, "xml")

 allow $1 polaris_cedge_xml_tmp_t:dir { watch mounon };
 allow $1 polaris_cedge_xml_tmp_t:file map;
)

#####
<summary>
Manage /tmp/tmp files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_tmp_manage`,`
 gen_require(`
 type polaris_cedge_tmp_t;
 `)
 manage_dirs_pattern($1, polaris_cedge_tmp_t, polaris_cedge_tmp_t)
 manage_files_pattern($1, polaris_cedge_tmp_t, polaris_cedge_tmp_t)
 files_tmp_filetrans($1, polaris_cedge_tmp_t, dir, "tmp")

)

```

```
#####
<summary>
Manage /etc/viptela files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_etc_manage',`
 gen_require(`
 type polaris_cedge_etc_t;
 `)
 manage_dirs_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 manage_files_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 manage_lnk_files_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 files_etc_filetrans($1, polaris_cedge_etc_t, dir, "viptela")
`)
```

```
#####
<summary>
Read /etc/viptela files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_etc_read',`
 gen_require(`
 type polaris_cedge_etc_t;
 `)
 search_dirs_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 read_files_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 read_lnk_files_pattern($1, polaris_cedge_etc_t, polaris_cedge_etc_t)
 files_etc_filetrans($1, polaris_cedge_etc_t, dir, "viptela")
`)
```

```
#####
<summary>
Watch cedge_etc directories and files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
```

```

</summary>
</param>
<rolebase/>
#
interface(`polaris_cedge_etc_watch',`
gen_require(
type polaris_cedge_etc_t;
)
allow $1 polaris_cedge_etc_t:{ dir file } watch;
)

#####
<summary>
Read access /var/run/netns/* performed from vip_util_set_ns
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_set_ns',`
init_read_state($1)
fs_read_nsfs_files($1)
sysnet_manage_ifconfig_run($1)
)

#####
<summary>
Read access /proc/1/ns/net performed from vip_util_reset_ns
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_reset_ns',`
init_read_state($1)
)

#####
<summary>
Manage /dev/shm viptela files
</summary>
<param name="domain">
<summary>
Domain allowed access.

```

```

</summary>
</param>
#
interface(`polaris_cedge_tmpfs_manage',`
 gen_require(`
 type polaris_cedge_tmpfs_t;
 type tmpfs_t;
 `)
 fs_tmpfs_filetrans($1, polaris_cedge_tmpfs_t, file)
 manage_files_pattern($1, tmpfs_t, polaris_cedge_tmpfs_t)
 allow $1 polaris_cedge_tmpfs_t:file map;
`)

#####
<summary>
Manage /tmp/.econfd2sysmgr-ipc files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_econfd2sysmgr_tmp_manage',`
 gen_require(`
 type polaris_econfd2sysmgr_tmp_t;
 `)
 manage_dirs_pattern($1, polaris_econfd2sysmgr_tmp_t, polaris_econfd2sysmgr_tmp_t)
 manage_files_pattern($1, polaris_econfd2sysmgr_tmp_t, polaris_econfd2sysmgr_tmp_t)
 files_tmp_filetrans($1, polaris_econfd2sysmgr_tmp_t, dir, ".econfd2sysmgr-ipc")
 allow $1 polaris_econfd2sysmgr_tmp_t:dir watch;
`)

#####
<summary>
Manage /tmp/* labeled with polaris_vconfd_cert_tmp_t
for vconfd_script_upload_root_ca.crt_chain.sh to access
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vconfd_cert_tmp_manage',`
 gen_require(`
 type polaris_vconfd_cert_tmp_t;
 `)

```

```
manage_dirs_pattern($1, polaris_vconfd_cert_tmp_t, polaris_vconfd_cert_tmp_t)
manage_files_pattern($1, polaris_vconfd_cert_tmp_t, polaris_vconfd_cert_tmp_t)
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscedge.if
```

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```
#
March 2017, Victor Kamensky
#
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#
<summary>Polaris cpp_driver Policy Rules.</summary>
```

```
#####
<summary>
Allow access to semaphore with type polaris_cpp_driver_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_driver_sem_use`,
 gen_require(`
 type polaris_cpp_driver_t;
 `)
 allow $1 polaris_cpp_driver_t:sem rw_sem_perms;
)
```

```
#####
<summary>
Allow access to shared memory with type polaris_cpp_driver_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_driver_shm_use`,
 gen_require(`
 type polaris_cpp_driver_t;
 `)
)
```

```
 allow $1 polaris_cpp_driver_t:shm rw_shm_perms;
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppdriver.if

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```
#
March 2017, Victor Kamensky
#
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#

<summary>Polaris polarisautoupgrade Policy Rules.</summary>
```

```
#####
```

```
<summary>
Execute auto-upgrade scripts in their own domain
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
```

```
interface(`polaris_autoupgrade_domtrans`,`
 gen_require(`
 type polaris_autoupgrade_t;
 type polaris_autoupgrade_exec_t;
 `)
)
```

```
 domtrans_pattern($1, polaris_autoupgrade_exec_t, polaris_autoupgrade_t)
)
```

```
#####
```

```
<summary>
Manage tmp files created by autoupgrade.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
```

```
interface(`polaris_autoupgrade_tmp_manage`,`
```

```

gen_require(`
 type polaris_automount_tmp_t;
`)

manage_files_pattern($1, polaris_automount_tmp_t, polaris_automount_tmp_t)
manage_lnk_files_pattern($1, polaris_automount_tmp_t, polaris_automount_tmp_t)
manage_fifo_files_pattern($1, polaris_automount_tmp_t, polaris_automount_tmp_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisautomount.if

No license file was found, but licenses were detected in source scan.

```

#
October 2019, Patrick O'Halloran
#
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#

<summary>Polaris CRFT Policy Rules.</summary>

#####
CRFT policy
#####

#####
<summary>
Allow read-only access to CRFT generated files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="file_type">
<summary>
File type of crft that corresponds to given domain.
</summary>
</param>
<rolebase/>
#
interface(`polaris_crft_data_read`,
 gen_require(`
 type polaris_crft_data_t;
 type polaris_crft_request_t;
 type polaris_crft_request_crft_t;
 `)
)

```



```

read_lnk_files_pattern($1, polaris_crft_data_t, polaris_crft_data_t)
polaris_disk_bootflash_read_lnk($1)
polaris_disk_harddisk_read_lnk($1)
read_files_pattern($1, polaris_crft_request_crft_t, polaris_crft_request_crft_t)
allow $1 polaris_crft_request_t:fifo_file { ioctl write };
')

```

```
#####
```

```

<summary>
Manage crft persistent files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_crft_data_manage`,`
gen_require(`
 type polaris_crft_data_t;
`)

```

```

manage_dirs_pattern($1, polaris_crft_data_t, polaris_crft_data_t)
manage_lnk_files_pattern($1, polaris_crft_data_t, polaris_crft_data_t)
manage_files_pattern($1, polaris_crft_data_t, polaris_crft_data_t)
Note: Based on dicussion with SELinux team, we need to call this
out specifically here for lnk file access, as:
- NGWC /harddisk -(symlink)-> /misc/scratch -(symlink)-> /mnt/sda3/user
polaris_disk_bootflash_read_lnk($1)
polaris_disk_harddisk_read_lnk($1)
allow $1 polaris_crft_data_t:file map;
')

```

```
#####
```

```

<summary>
Manage crft files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_crft_data_manage_all`,`
 polaris_crft_data_manage($1)

```

```

gen_require(
 attribute polaris_crft_data_domain;
 type polaris_crft_data_t;
)

manage_files_pattern($1, polaris_crft_data_t, polaris_crft_data_domain)
manage_lnk_files_pattern($1, polaris_crft_data_t, polaris_crft_data_domain)
allow $1 polaris_crft_data_domain:file map;
)

```

```

#####
<summary>
Make the specified type usable as crft data file type.
</summary>
<param name="type">
<summary>
Type to be used for files.
</summary>
</param>
#

```

```

interface(`polaris_crft_data_type`,`
 files_type($1)
 polaris_pfile_type($1)
 gen_require(
 attribute polaris_crft_data_domain;
)
 typeattribute $1 polaris_crft_data_domain;
)

```

```

#####
<summary>
Process to manage its own crft files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="file_type">
<summary>
File type of crft that corresponds to given domain.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_crft_data_client`,`
 gen_require(

```

```

 type polaris_crft_data_t;
)

manage_dirs_pattern($1, polaris_crft_data_t, $2)
manage_files_pattern($1, polaris_crft_data_t, $2)
manage_lnk_files_pattern($1, polaris_crft_data_t, $2)
filetrans_pattern($1, polaris_crft_data_t, $2, file)
allow $1 $2:file map;
)

#####
<summary>
Process to manage its own crft files
</summary>
<param name="domain_stem">
<summary>
Steam of domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_crft_data_client_template',`
 gen_require(`
 attribute polaris_crft_data_domain;
 type polaris_crft_data_t;
 `)

 type polaris_$1_crft_t;
 polaris_crft_data_type(polaris_$1_crft_t)
 polaris_crft_data_client(polaris_$1_t, polaris_$1_crft_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscrft.if

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```

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#

```

```

/usr/cpp/bin/cpp_ha_top_level_server -- gen_context(system_u:object_r:polaris_cpp_ha_exec_t,s0)
/usr/cpp/bin/cpp_ha_top_level_server_ledp -- gen_context(system_u:object_r:polaris_cpp_ha_exec_t,s0)
/usr/cpp/bin/cpp_ha_top_level_server_us_ledp -- gen_context(system_u:object_r:polaris_cpp_ha_exec_t,s0)
/usr/cpp/bin/cpp_ha_top_level_server_vwlc -- gen_context(system_u:object_r:polaris_cpp_ha_exec_t,s0)
/usr/cpp/bin/cpp_ha_top_level_server_vwlc_ledp -- gen_context(system_u:object_r:polaris_cpp_ha_exec_t,s0)

```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppha.fc

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#
```

```
policy_module(polariscfg, 1.0);
```

```

Cfg files policy
#####
```

```
type polaris_cfg_data_t;
files_type(polaris_cfg_data_t)
```

```
gen_require(
 attribute polaris_extended_domain;
)
```

```
files_tmp_filetrans(polaris_extended_domain, polaris_cfg_data_t, dir, "cfg")
```

```

cfg_sync.sh policy
#####
```

```
polaris_utility_domain_template(cfg_sync)
```

```
polaris_bexecute_domain(polaris_cfg_sync_t, polaris_cfg_sync_exec_t)
```

```
polaris_boot_tmp_read(polaris_cfg_sync_t)
polaris_btrace_data_manage(polaris_cfg_sync_t)
polaris_chasfs_read(polaris_cfg_sync_t)
polaris_cpld_read(polaris_cfg_sync_t)
polaris_use_btrace_fifo(polaris_cfg_sync_t)
```

```
corecmd_exec_bin(polaris_cfg_sync_t)
auth_use_nsswitch(polaris_cfg_sync_t)
```

```
polaris_bootflash_read(polaris_cfg_sync_t)
polaris_nvram_manage(polaris_cfg_sync_t)
telnet_use_ptys(polaris_cfg_sync_t)
```

```
gen_require(`
 type rsync_t;
`)
rsync_entry_domtrans(polaris_cfg_sync_t, rsync_t)
allow rsync_t polaris_cfg_sync_t:process sigchld;
file descriptor leak when rsync is called
allow rsync_t polaris_cfg_sync_t:fifo_file { write getattr };
```

```
logging_send_syslog_msg(polaris_cfg_sync_t)
```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscfg.te

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```
dnl
```

```
dnl April 2018, Victor Kamensky
```

```
dnl
```

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```
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```

```
polarisvxeipbaseauto file contexts place holder
```

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```
#
```

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```

```
#
```

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```

```
#
```

```
<summary>Polaris cm_fp Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Execute cmand_fp in the polaris_cm_fp_t domain.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed to transition.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_cm_fp_domtrans',`
```

```
gen_require(`
```

```
type polaris_cm_fp_t, polaris_cm_fp_exec_t;
```

```

)

corecmd_search_bin($1)
domtrans_pattern($1, polaris_cm_fp_exec_t, polaris_cm_fp_t)
)

#####
<summary>
Allow the specified domain to manage cm_fp_tmp files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_fp_tmp_manage`,`
 gen_require(`
 type polaris_cm_fp_tmp_t;
 type tmp_t;
 `)

 manage_files_pattern($1, { polaris_cm_fp_tmp_t tmp_t }, polaris_cm_fp_tmp_t)
)

#####
<summary>
Create objects in /tmp with a polaris_cm_fp_tmp_t
type using a type_transition.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_fp_tmp_filetrans`,`
 gen_require(`
 type polaris_cm_fp_tmp_t;
 `)
 files_tmp_filetrans($1, polaris_cm_fp_tmp_t, file, "octeon-remote-lock-pci:0")
)

#####
<summary>
Allow access to semaphore with type polaris_cm_fp_t
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_fp_sem_use`,`
 gen_require(`
 type polaris_cm_fp_t;
 `)
 allow $1 polaris_cm_fp_t:sem rw_sem_perms;
`)

#####
<summary>
Allow access to shared memory with type polaris_cm_fp_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_fp_shm_use`,`
 gen_require(`
 type polaris_cm_fp_t;
 `)
 allow $1 polaris_cm_fp_t:shm rw_shm_perms;
`)

#####
<summary>
Allow access to /dev/hkp with type polaris_cm_fp_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_hkp_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_hkp_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_hkp_device_t)
 read_chr_files_pattern($1, device_t, polaris_hkp_device_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscmfp.if

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# August 2017, Shawn Lu

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#

# polarisifmgr file contexts place holder

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#

## <summary>Polaris crankshaft Platform Policy Rules.</summary>

#####

## <summary>

## Work (read, write, ioctl) with /dev/linux-(user|kernel)-bde devices

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_bde\_dev\_use',`

gen\_require(`

type device\_t;

type polaris\_bde\_device\_t;

')

write\_chr\_files\_pattern(\$1, device\_t, polaris\_bde\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_bde\_device\_t)

allow \$1 polaris\_bde\_device\_t:chr\_file map;

')

#####

## <summary>



```

Work (read, write, ioctl) with /dev/dash_fpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dash_dev_use',`
gen_require(`
 type device_t;
 type polaris_dash_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_dash_device_t)
 read_chr_files_pattern($1, device_t, polaris_dash_device_t)
 allow $1 polaris_dash_device_t:chr_file map;
`)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/huron_fpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_huron_dev_use',`
gen_require(`
 type device_t;
 type polaris_huron_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_huron_device_t)
 read_chr_files_pattern($1, device_t, polaris_huron_device_t)
 allow $1 polaris_huron_device_t:chr_file map;
`)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/dplr_sumatra
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_sumatra_doppler_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_sumatra_doppler_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_sumatra_doppler_device_t)
 read_chr_files_pattern($1, device_t, polaris_sumatra_doppler_device_t)
 allow $1 polaris_sumatra_doppler_device_t:chr_file map;
)

```

```
#####
```

```

<summary>
Work (open, read, write, ioctl) with /dev/sirius_fpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_sirius_fpga_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_siriusfpga_device_t;
 `)
 rw_chr_files_pattern($1, device_t, polaris_siriusfpga_device_t);
)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/nios device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_nios_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_nios_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_nios_device_t)
 read_chr_files_pattern($1, device_t, polaris_nios_device_t)
)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/qaе_mem device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_qae_dev_use`,`
gen_require(`
 type device_t;
 type polaris_qae_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_qae_device_t)
 read_chr_files_pattern($1, device_t, polaris_qae_device_t)
`)

#####
<summary>
Read mokafpga files in /sys/devices/platform directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_mokafpga_read`,`
gen_require(`
 type polaris_sysfs_mokafpga_t;
 type sysfs_t;
`)
 read_files_pattern($1, polaris_sysfs_mokafpga_t, polaris_sysfs_mokafpga_t)
 list_dirs_pattern($1, polaris_sysfs_mokafpga_t, polaris_sysfs_mokafpga_t)
`)

#####
<summary>
Read/Write mokafpga files in /sys/devices/platform directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_mokafpga_rw`,`

```

```

gen_require(
 type polaris_sysfs_mokafpga_t;
 type sysfs_t;
)
rw_files_pattern($1, polaris_sysfs_mokafpga_t, polaris_sysfs_mokafpga_t)
list_dirs_pattern($1, polaris_sysfs_mokafpga_t, polaris_sysfs_mokafpga_t)
)

```

```

#####
<summary>
Work (read, write, ioctl) with /dev/moka_fpga
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_mokafpga_dev_use',`
 gen_require(
 type device_t;
 type polaris_mokafpga_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_mokafpga_device_t)
 read_chr_files_pattern($1, device_t, polaris_mokafpga_device_t)
)

```

```

#####
<summary>
Work (read, write, ioctl) with /dev/nim_dm_0_1 and
/dev/nim_dm devices
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_nim_dm_dev_use',`
 gen_require(
 type device_t;
 type polaris_nim_dm_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_nim_dm_device_t)
 read_chr_files_pattern($1, device_t, polaris_nim_dm_device_t)
 allow $1 polaris_nim_dm_device_t:chr_file map;
 allow $1 device_t:chr_file map;
)

```

```
#####
<summary>
Execute a domain transition to run load_usbnet.sh.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_load_usbnet_domtrans`,`
 gen_require(`
 type polaris_load_usbnet_t, polaris_load_usbnet_exec_t;
 `)

 domtrans_pattern($1, polaris_load_usbnet_exec_t, polaris_load_usbnet_t)
`)
```

```
#####
<summary>
Label and allow access to i2c semaphore files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_i2c_sem_manage`,`
 gen_require(`
 type tmpfs_t;
 type polaris_cm_cc_tmpfs_t;
 `)

 manage_files_pattern($1, tmpfs_t, polaris_cm_cc_tmpfs_t)
 mmap_files_pattern($1, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
`)
```

```
#####
<summary>
Work (read, write, ioctl) with /dev/bp_async device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
```

```

#
interface(`polaris_bp_async_dev_use',`
 gen_require(`
 type device_t;
 type polaris_bp_async_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_bp_async_device_t)
 read_chr_files_pattern($1, device_t, polaris_bp_async_device_t)
 allow $1 polaris_bp_async_device_t:chr_file map;
)

#####
<summary>
Label and allow access to i2c semaphore files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_udev_access',`
 gen_require(`
 type tmpfs_t;
 type polaris_udev_tmp_files_t;
 `)
 manage_files_pattern($1, tmpfs_t, polaris_udev_tmp_files_t)
)

<summary>
Work (read, write, ioctl) with /dev/sparrow_psu device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sparrow_psu_dev_use',`
 gen_require(`
 type device_t;
 type polaris_sparrow_psu_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_sparrow_psu_device_t)
 read_chr_files_pattern($1, device_t, polaris_sparrow_psu_device_t)
)

#####

```

```

<summary>
Work (read, write, ioctl) with /dev/nutella_fpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_nutella_fpga_dev_use',`
 gen_require(`
 type device_t;
 type polaris_nutella_fpga_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_nutella_fpga_device_t)
 read_chr_files_pattern($1, device_t, polaris_nutella_fpga_device_t)
`)

```

```
#####
```

```

<summary>
Read and write to qcqmi devices.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_qcqmi_dev_use',`
 gen_require(`
 type device_t, qcqmi_device_t;
 `)

 rw_chr_files_pattern($1, device_t, qcqmi_device_t)
`)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/sm_nim_adpt device files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sm_nim_adpt_dev_use',`
 gen_require(`

```

```

 type device_t;
type polaris_sm_nim_adpt_device_t;
)

write_chr_files_pattern($1, device_t, polaris_sm_nim_adpt_device_t)
read_chr_files_pattern($1, device_t, polaris_sm_nim_adpt_device_t)
allow $1 polaris_sm_nim_adpt_device_t:chr_file map;
)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/dio-*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_dio_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_dio_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_dio_device_t)
 read_chr_files_pattern($1, device_t, polaris_dio_device_t)
 allow $1 polaris_dio_device_t:chr_file map;
)

```

```
#####
```

```

<summary>
Read /dev/dio-*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_dio_dev_read`,`
 gen_require(`
 type device_t;
 type polaris_dio_device_t;
 `)
 read_chr_files_pattern($1, device_t, polaris_dio_device_t)
)

```

```
#####
```



```

<summary>
Work (read, write, ioctl) with /dev/ttyNMEA* and /dev/ttyTunNMEA*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tty_NMEA_dev_use',`
 gen_require(`
 type device_t;
 type polaris_tty_NMEA_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_tty_NMEA_device_t)
 read_chr_files_pattern($1, device_t, polaris_tty_NMEA_device_t)
 allow $1 polaris_tty_NMEA_device_t:chr_file map;
)

```

```
#####
```

```

<summary>
Read /dev/ttyNMEA* and /dev/ttyTunNMEA*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tty_NMEA_dev_read',`
 gen_require(`
 type device_t;
 type polaris_tty_NMEA_device_t;
 `)
 read_chr_files_pattern($1, device_t, polaris_tty_NMEA_device_t)
)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/nim_phy
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_nim_phy_dev_use',`

```

```
gen_require(`
type device_t;
type polaris_nim_phy_device_t;
`)
rw_chr_files_pattern($1, device_t, polaris_nim_phy_device_t)
allow $1 polaris_nim_phy_device_t:chr_file map;
`)
```

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dnl July 2020, Victor Kamensky

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dnl c8kv Platform Max Bay Limits

max\_bay\_map\_set(`rp', `per\_bay', 0)

max\_bay\_map\_set(`cc', `per\_bay', 3)

max\_bay\_map\_set(`fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`rp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`cc', `per\_bay', 3)

max\_bay\_ripc\_map\_set(`fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`rp', `global', 0)

max\_bay\_ripc\_map\_set(`cc', `global', 3)

max\_bay\_ripc\_map\_set(`fp', `global', 0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/c8kvmaps.m4

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#

# August 2017, Victor Kamensky

#

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#

# /bootflash labels

/bootflash(/.\*)? gen\_context(system\_u:object\_r:polaris\_disk\_bootflash\_t,s0)

/bootflash/.ssh(/.\*)? gen\_context(system\_u:object\_r:ssh\_home\_t,s0)

/bootflash/.ssh/ssh\_host.\*\_key\pub gen\_context(system\_u:object\_r:ssh\_key\_t,s0)

/bootflash/.ssh/ssh\_host.\*\_key gen\_context(system\_u:object\_r:ssh\_key\_t,s0)

/bootflash/tracelogs(/.\*)? gen\_context(system\_u:object\_r:polaris\_btrace\_data\_t,s0)

```
/bootflash/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/bootflash/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/bootflash/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
```

```
/objstore/.swtam for hybrid TAM access
```

```
/objstore(/.*)? gen_context(system_u:object_r:polaris_disk_objstore_t,s0)
```

```
/csl_p_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
```

```
/csl_p_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
```

```
/csl_s_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
```

```
/csl_s_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
```

```
/obfl(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)
```

```
not really a license file stored by iosd during platform resource config command
```

```
/csl_p_0/vcpu_template.txt gen_context(system_u:object_r:polaris_iosd_vcpu_t,s0)
```

```
nvram devices
```

```
/dev/bootflash2 -b gen_context(system_u:object_r:polaris_nvram_file_t,s0)
```

```
/dev/bootflash3 -b gen_context(system_u:object_r:polaris_nvram_file_t,s0)
```

```
/dev/sda2 -b gen_context(system_u:object_r:polaris_nvram_file_t,s0)
```

```
/dev/sda3 -b gen_context(system_u:object_r:polaris_nvram_file_t,s0)
```

```
/dev/linux-user-bde -c gen_context(system_u:object_r:polaris_bde_device_t,s0)
```

```
/dev/linux-kernel-bde -c gen_context(system_u:object_r:polaris_bde_device_t,s0)
```

```
/dev/dash_fpga -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/dash_fpga_cc0 -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/dash_fpga_cc1 -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/dash_fpga_cc2 -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/dash_fpga_cc3 -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/dash_fpga_nios -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
```

```
/dev/huron_fpga -c gen_context(system_u:object_r:polaris_huron_device_t,s0)
```

```
/dev/dplr_sumatra -c gen_context(system_u:object_r:polaris_sumatra_doppler_device_t,s0)
```

```
/dev/nios -c gen_context(system_u:object_r:polaris_nios_device_t,s0)
```

```
/dev/qaе_mem -c gen_context(system_u:object_r:polaris_qae_device_t,s0)
```

```
/dev/icp_adf_gige_wd -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
/dev/icp_dev0_csr -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
/dev/icp_dev0_ring -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
/dev/icp_dev_mem -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
/dev/icp_dev_mem_page -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
moka fpga
```

```
/dev/moka_fpga -c gen_context(system_u:object_r:polaris_mokafpga_device_t,s0)
```

```

/dev/moka_fpga_cc -c gen_context(system_u:object_r:polaris_mokafpga_device_t,s0)

for load usbnet module
/usr/bin/os/conf/load_usbnet.sh -- gen_context(system_u:object_r:polaris_load_usbnet_exec_t,s0)

/dev/nim_dm -c gen_context(system_u:object_r:polaris_nim_dm_device_t,s0)
/dev/nim_dm_0_1 -c gen_context(system_u:object_r:polaris_nim_dm_device_t,s0)

/dev/nim_phy -c gen_context(system_u:object_r:polaris_nim_phy_device_t,s0)

file-system on blackheart/sparrow
/crashinfo is symbolic link to /flash1
/crashinfo gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)

/flash is symbolic link to /flash1
/flash gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

/flash0 NVRAM
/flash0(/.*)? gen_context(system_u:object_r:polaris_nvram_file_t,s0)

/flash1 Bootflash
/flash1(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/flash1/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/flash1/.geo(/.*)? gen_context(system_u:object_r:polaris_geodb_files_t,s0)
/flash1/.USWAP(/.*)? gen_context(system_u:object_r:polaris_uswap_files_t,s0)
/flash1/.dbpersist(/.*)? gen_context(system_u:object_r:polaris_disk_dbm_t,s0)
/flash1/debug.conf -- gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/flash1/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
/flash1/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/flash1.rollback_timer(/.*)? gen_context(system_u:object_r:polaris_rbtimer_bootflash_t,s0)
/flash1/installer(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)
/flash1/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/flash1/.ssh/ssh_host.*_key,pub gen_context(system_u:object_r:ssh_key_t,s0)
/flash1/.ssh/ssh_host.*_key gen_context(system_u:object_r:ssh_key_t,s0)

/flash3 OBFL
/flash3(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)
/flash3/OBFL(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

#harddisk
/vol/harddisk(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
/mnt/msata(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)

for usage by IOx
/vol/usb1(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)

/dev/shm/sem\._dev_i2c_0 gen_context(system_u:object_r:polaris_cm_cc_tmpfs_t,s0)
/dev/shm/sem\._dev_i2c_1 gen_context(system_u:object_r:polaris_cm_cc_tmpfs_t,s0)

```

```

/dev/shm/sem\._dev_i2c_2 gen_context(system_u:object_r:polaris_cm_cc_tmpfs_t,s0)

/tmp/udev/etc/udev/msata/udev-info gen_context(system_u:object_r:polaris_udev_tmp_files_t,s0)

Nvram symlink on Aventus platform
/aventus_config/nvram gen_context(system_u:object_r:polaris_nvram_file_t,s0)

Nvram symlink on Cabo platform
/cabo_config/nvram gen_context(system_u:object_r:polaris_nvram_file_t,s0)

Device applicable to Betelgeuse platform
/dev/sirius_fpga gen_context(system_u:object_r:polaris_siriusfpga_device_t,s0)

Device applicable to Nanook platform
/dev/bp_async -c gen_context(system_u:object_r:polaris_bp_async_device_t,s0)

Device applicable to Sparrow platform
/dev/remap_mem0 -c gen_context(system_u:object_r:polaris_remap_mem_device_t,s0)
/dev/sparrow_psu -c gen_context(system_u:object_r:polaris_sparrow_psu_device_t,s0)
/dev/dio-upstream -c gen_context(system_u:object_r:polaris_dio_device_t,s0)
/dev/dio-[1-4] -c gen_context(system_u:object_r:polaris_dio_device_t,s0)
/dev/ttyNMEA[0-1] -c gen_context(system_u:object_r:polaris_tty_NMEA_device_t,s0)
/dev/ttyTunNMEA[0-1] -c gen_context(system_u:object_r:polaris_tty_NMEA_device_t,s0)

Device applicable to Nutella platform
/dev/nutella_fpga -c gen_context(system_u:object_r:polaris_nutella_fpga_device_t,s0)

#Only qcqmi0 and qcqmi1 are generated for Telit/SWI modems
/dev/qcqmi0 -c gen_context(system_u:object_r:qcqmi_device_t,s0)
/dev/qcqmi1 -c gen_context(system_u:object_r:qcqmi_device_t,s0)

#SM NIM Adpater Switzer-CC device files
/dev/sm_nim_adpt_fpga_1 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)
/dev/sm_nim_adpt_nim_oir_1_0 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)
/dev/sm_nim_adpt_nim_oir_1_1 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)
/dev/sm_nim_adpt_fpga_2 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)
/dev/sm_nim_adpt_nim_oir_2_0 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)
/dev/sm_nim_adpt_nim_oir_2_1 -c gen_context(system_u:object_r:polaris_sm_nim_adpt_device_t,s0)

CLI: show platform hardware msata
/usr/binos/bin/msata_info.sh -- gen_context(system_u:object_r:polaris_msata_info_exec_t,s0)
/tmp/sata_status -- gen_context(system_u:object_r:polaris_sata_status_tmp_t,s0)

Memory blocks and gpp for Nutella platform
/dev/mmcblk0gp0p1 gen_context(system_u:object_r:polaris_nutella_gp0_t,s0)
/gpp gen_context(system_u:object_r:polaris_nutella_gpp_t,s0)

```

```
CLI: show platform hardware slot p[x] fan eeprom
/usr/bin/os/mcp_fan_eeprom_cmd.sh -- gen_context(system_u:object_r:polaris_smart_fan_exec_t,s0)

/var/run/cwan_ezmanage_cwan_server -- gen_context(system_u:object_r:polaris_cwan_svr_var_run_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscrankshaft.fc
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```

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polariscmfp, 1.0);
```

```
gen_require(
 type polaris_cm_fp_t;
)
```

```
polaris_btrace_data_manage(polaris_cm_fp_t)
polaris_crft_data_manage(polaris_cm_fp_t)
polaris_chasfs_manage(polaris_cm_fp_t)
polaris_tdlresolve_read(polaris_cm_fp_t)
polaris_tdlldb_list_dirs(polaris_cm_fp_t)
polaris_cpld_read(polaris_cm_fp_t)
polaris_flashlib_read(polaris_cm_fp_t)
```

```
polaris_rpc_sman_ui_serv_connect(polaris_cm_fp_t)
```

```
polaris_cpld_dev_use(polaris_cm_fp_t)
polaris_proc_rmonbifo_read(polaris_cm_fp_t)
polaris_obfl_data_read(polaris_cm_fp_t)
polaris_persistent_list_dirs(polaris_cm_fp_t)
polaris_chasync_files_manage(polaris_cm_fp_t)
```

```
cman_fp creates /tmp/cpp_anon_db file, instead of adding it to polaris_cpp_domain
let us just grant access to cpp tmp files
polaris_cpp_tmp_files_use(polaris_cm_fp_t, "cpp_anon_db")
on 1ng works with /dev/cpp
polaris_cpp_dev_use(polaris_cm_fp_t)
```

```
work with /dev/i2c devices
polaris_i2c_use(polaris_cm_fp_t)
```

```
on ultra read eeprom through i2c
```

```

type=AVC msg=audit(1479556298.842:11): avc: denied { getattr } for pid=5464 comm="cman_fp"
path="/sys/devices/i2c-0/i2c-1/1-0056/EEPROM" dev="sysfs" ino=25556
scontext=system_u:system_r:polaris_cm_fp_t:s0 tcontext=system_u:object_r:sysfs_t:s0 tclass=file
type=AVC msg=audit(1479556298.842:12): avc: denied { read write } for pid=5464 comm="cman_fp"
name="EEPROM" dev="sysfs" ino=25556 scontext=system_u:system_r:polaris_cm_fp_t:s0
tcontext=system_u:object_r:sysfs_t:s0 tclass=file
dev_rw_sysfs(polaris_cm_fp_t)

polaris_icc_broken_relocations(polaris_cm_fp_t)

allow polaris_cm_fp_t self:udp_socket { create ioctl };

cman_fp can start dyncfg_setup.sh, allow its transition to dyncfg_t type
polaris_dyncfg_domtrans(polaris_cm_fp_t)

on 1ng cman_fp write into /bootflash/crypto/octeon_pci_console_dev0_20170723_075412.log
polaris_bootflash_manage(polaris_cm_fp_t)

polaris_disk_hddisk_read_lnk(polaris_cm_fp_t)

write to devices like this /proc/bus/pci/04/00.0
kernel_read_system_state(polaris_cm_fp_t)
kernel_write_proc_files(polaris_cm_fp_t)

cm_fp tmp files like /tmp/octeon-remote-lock-pci:0
type polaris_cm_fp_tmp_t;
files_tmp_file(polaris_cm_fp_tmp_t)
polaris_cm_fp_tmp_filetrans(polaris_cm_fp_t)
polaris_cm_fp_tmp_manage(polaris_cm_fp_t)
besides /tmp/octeon-remote-lock-pci:0 all other files in /tmp
are ours
files_tmp_filetrans(polaris_cm_fp_t, polaris_cm_fp_tmp_t, file)

LOOK AT ME: raw memory write access
#ifdef(^mcp_family',`
polaris_dev_mem_use(polaris_cm_fp_t)
`)

LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh55517)
#ifdef(^crankshaft_family',`
polaris_dev_mem_use(polaris_cm_fp_t)
`)

LOOK AT ME: raw memory access in dopler SDK remove after
CSCvm34516 is fixed using CSCvm34630
#ifdef(^starfleet_platform',`
polaris_dev_mem_use(polaris_cm_fp_t)
`

```

```

)

"show platform hardware slot F0 eobc interface standby rmon" leads to
ioctl() call from cmlib_get_eobc_drv_info().
kernel_request_load_module(polaris_cm_fp_t)

needed for "show platform hardware slot F0 eobc interface standby rmon"
kernel_read_network_state(polaris_cm_fp_t)

on RP2/RP3 linecard cyan init happens within cm
#ifdef(^mcp_family',`
polaris_dyncfg_setup(polaris_cm_fp_t)
')

allow polaris_cm_fp_t self:capability dac_override;

polaris_obfl_data_manage(polaris_cm_fp_t)

allow polaris_cm_fp_t self:netlink_route_socket rw_netlink_socket_perms;

#ifdef(^ngwc_family',`
cmfp_asic_mmap_func() function in cmfp module uses
/dev/chdrvmmmap for asic memory mapping
polaris_chdrvmmmap_dev_use(polaris_cm_fp_t)

on macallan cman_fp needs access to /dev/cisco/dplriomem
for mappin dplr io memory to application space.
polaris_dplr_iomem_mmapdrv_dev_use(polaris_cm_fp_t);

on macallan iomd needs access to /dev/cisco/fpga_iomem
for mapping FPGA io memory to application space.
polaris_fpga_iomem_mmapfpga_dev_use(polaris_cm_fp_t);
')

optional_policy(`
Allow /dev/dmammmap access
polaris_dmammmap_dev_use(polaris_cm_fp_t)
')

on starfleet need access to
/sys/device/platform/cpld/reg_fan_control
polaris_cpld_write(polaris_cm_fp_t)

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_cm_fp_t)
')

```



```
logging_send_syslog_msg(polaris_cm_fp_t)

/dev/epactrlN on qwlc
optional_policy(`
polaris_epa_dev_use(polaris_cm_fp_t)
`)

/dev/astro on qwlc
optional_policy(`
polaris_astro_dev_use(polaris_cm_fp_t)
`)

/dev/cpp_il on qwlc
optional_policy(`
polaris_cpp_il_dev_use(polaris_cm_fp_t)
`)

on radium need to get model info
optional_policy(`
polaris_dash_dev_use(polaris_cm_fp_t)
`)

on neptune, cavium library in o2_cavm_mem_map wants access to
/sys/devices/pci0000:00/0000:00:01.0/0000:01:00.0/resource0
optional_policy(`
polaris_cpp_cavium_dma_map(polaris_cm_fp_t)
`)

/dev/aikido access
polaris_aikido_dev_use(polaris_cm_fp_t)

optional_policy(`
betelgeuse need access to /dev/sirius_fpga
polaris_sirius_fpga_dev_use(polaris_cm_fp_t)
`)

access SERDES /tmp/serdes_asic_key_dir/*
optional_policy(`
polaris_serdes_asic_key_tmp_manage(polaris_cm_fp_t)
`)

type polaris_hkp_device_t;
dev_node(polaris_hkp_device_t)

access /dev/iocp0
optional_policy(`
polaris_spa_dev_use(polaris_cm_fp_t)
`)
```

```
optional_policy(`
access /dev/hkp
polaris_hkp_dev_use(polaris_cm_fp_t)

polaris_n2_dev_use(polaris_cm_fp_t)
polaris_cy2213_dev_use(polaris_cm_fp_t)
polaris_ddr_dev_use(polaris_cm_fp_t)
polaris_vega_dev_use(polaris_cm_fp_t)
`)

polaris_firmware_read(polaris_cm_fp_t)

allow access to /csl_p_0/vcpu_template.txt
polaris_iosd_vcpu_read(polaris_cm_fp_t)

allow Cabo access to i2c semaphores
ifdef(`cabo_platform',`
polaris_i2c_sem_manage(polaris_cm_fp_t)
`)

ifdef(`sumatra_platform',`
access huron fpga on sumatra
polaris_huron_dev_use(polaris_cm_fp_t)
`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscmfp.te
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```

```
#
December 2018, Victor Kamensky
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#
```

```
polarisezmancc file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisezmancc.fc
No license file was found, but licenses were detected in source scan.
```

```
#
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```

#

policy\_module(polarisripc, 1.0);

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisripc.te

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#

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#

# polarisripc file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisripc.fc

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

divert(-1)

include(`polaris\_process.m4')

include(`polaris\_process\_fc.m4')

include(`polaris\_ipc\_mqipc.m4')

include(`polaris\_ipc\_mqipc\_fc.m4')

include(`polaris\_ipc\_ripc.m4')

include(`polaris\_ipc\_ripc\_fc.m4')

include(`polaris\_ipc\_lipc.m4')

include(`polaris\_ipc\_lipc\_fc.m4')

dnl Stub out non existent one

define(`polaris\_websocket\_service\_server',`')

define(`polaris\_cipc\_service\_server',`')

include(`polaris\_max\_scope.m4')

divert(0)dnl

```
#
This is a generated file! Instead of modifying this file,
modify proper platform TDL file.
#
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_fc.m4
No license file was found, but licenses were detected in source scan.
```

```
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#
```

```
policy_module(polarisstorage, 1.0);
```

```
#####
Persistent storage policy
#####
attribute polaris_disk;
```

```
Default disk types
```

```
type polaris_disk_bootflash_t;
polaris_disk_type(polaris_disk_bootflash_t)
```

```
type polaris_disk_varied_t;
polaris_disk_type(polaris_disk_varied_t)
```

```
type polaris_disk_harddisk_t;
polaris_disk_type(polaris_disk_harddisk_t)
```

```
type polaris_disk_csl_p_t;
polaris_disk_type(polaris_disk_csl_p_t)
```

```
type polaris_disk_csl_s_t;
polaris_disk_type(polaris_disk_csl_s_t)
```

```
type polaris_disk_objstore_t;
polaris_disk_type(polaris_disk_objstore_t)
```

```
type polaris_disk_crashinfo_t;
polaris_disk_type(polaris_disk_crashinfo_t)
```

```
type polaris_disk_license_t;
polaris_disk_type(polaris_disk_license_t)
```

```

type polaris_disk_ucose_t;
polaris_disk_type(polaris_disk_ucose_t)

type polaris_disk_recovery_t;
polaris_disk_type(polaris_disk_recovery_t)

type polaris_disk_config_t;
polaris_disk_type(polaris_disk_config_t)

Persistent files types
type polaris_system_report_t;
polaris_pfile_type(polaris_system_report_t)

type polaris_core_file_t;
polaris_pfile_type(polaris_core_file_t)

type polaris_debug_conf_t;
polaris_pfile_type(polaris_debug_conf_t)

type polaris_packages_conf_t;
polaris_pfile_type(polaris_packages_conf_t)

type polaris_grub_efi_t;
polaris_pfile_type(polaris_grub_efi_t)

we label .ssh files residing on persistent storage as ssh_home_t
and sshd_key_t
#
below statement could/should be moved into ssh te file?
gen_require(
 type ssh_home_t;
 type sshd_key_t;
)
polaris_disk_type(ssh_home_t)
polaris_disk_type(sshd_key_t)

handling /bootflash directory - created by systemd unit, note normally
something will be mounted on top of it, but in some cases like RP2 line
cards it will be ramfs directory.
gen_require(
 type root_t;
 type unconfined_service_t;
)
filetrans_pattern(unconfined_service_t, root_t, polaris_disk_bootflash_t, dir, "bootflash")

nfsd accesses different persistent storage directories and it needs getattr
gen_require(

```

```

 type nfsd_t;
)
polaris_persistent_getattr(nfsd_t)

on qwlc /misc/scratch symbolic link created by systemd-tmpfile, but then
removed and recreated by harddisk mount systemd unit
gen_require(
 type unconfined_service_t;
 type mnt_t;
)
filetrans_pattern(unconfined_service_t, mnt_t, polaris_disk_bootflash_t, lnk_file, "scratch")

gen_require(
 type polaris_confd_t;
 type tmp_t;
)
filetrans_pattern(polaris_confd_t, tmp_t, polaris_packages_conf_t, file, "packages.conf")

first time creation of /bootflash/core directory
gen_require(
 type initrc_t;
 type init_t;
)
filetrans_pattern({initrc_t init_t unconfined_service_t}, {polaris_disk_bootflash_t polaris_disk_harddisk_t} ,
polaris_core_file_t, dir, "core")

gen_require(
 type init_t;
)
files_tmp_filetrans(init_t, polaris_packages_conf_t, file, "packages.conf")

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisstorage.te

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```

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#

```

```

/usr/binos/conf/run_ioxn_gs_ha.sh -- gen_context(system_u:object_r:polaris_gsd_rp_exec_t,s0)

```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisgsdrp.fc

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```
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#

/usr/cpp/bin/cpp_sp_svr -- gen_context(system_u:object_r:polaris_cpp_sp_exec_t,s0)
/usr/cpp/bin/cpp_sp_svr_ledp -- gen_context(system_u:object_r:polaris_cpp_sp_exec_t,s0)
/usr/cpp/bin/cpp_sp_svr_us_ledp -- gen_context(system_u:object_r:polaris_cpp_sp_exec_t,s0)
/usr/cpp/bin/cpp_sp_svr_vwlc -- gen_context(system_u:object_r:polaris_cpp_sp_exec_t,s0)
/usr/cpp/bin/cpp_sp_svr_vwlc_ledp -- gen_context(system_u:object_r:polaris_cpp_sp_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppsp.fc

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```
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#
```

## <summary>Polaris Btrace Policy Rules.</summary>

#####

# Btrace policy

#####

#####

## <summary>

## Manage btrace auxiliary files

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

## <rolebase/>

#

interface(`polaris\_btrace\_data\_manage',`

gen\_require(`

type polaris\_btrace\_base\_t;

type polaris\_btrace\_tmpfs\_t;

type tmpfs\_t;

')

```

manage_dirs_pattern($1, polaris_btrace_base_t, polaris_btrace_base_t)

work with cache files and dirs under /tmp/tmppub, like /tmp/tmppub/libs_cache
polaris_btrace_tmppub_manage($1)

fs_tmpfs_filetrans($1, polaris_btrace_tmpfs_t, file, "oper_uid_shm")
manage_files_pattern($1, tmpfs_t, polaris_btrace_tmpfs_t)
allow $1 polaris_btrace_tmpfs_t:file map;
)

#####
<summary>
Manage temporary (not yet persistent) btrace files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_data_manage_all`,`

 polaris_btrace_data_manage($1)

gen_require(`
 attribute polaris_btrace_data_domain;
 type polaris_btrace_base_t;
`)

manage_files_pattern($1, polaris_btrace_base_t, polaris_btrace_data_domain)
manage_lnk_files_pattern($1, polaris_btrace_base_t, polaris_btrace_data_domain)
allow $1 polaris_btrace_data_domain:file map;

create temporary files in trace directory
manage_files_pattern($1, polaris_btrace_base_t, polaris_btrace_base_t)
manage_lnk_files_pattern($1, polaris_btrace_base_t, polaris_btrace_base_t)

watch btrace data directory for changes
allow $1 polaris_btrace_base_t:dir watch;
)

#####
<summary>
Manage btrace persitent files
</summary>
<param name="domain">
<summary>

```



```

Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_persistent_data_manage`,`
gen_require(`
type polaris_btrace_data_t;
`)

manage_dirs_pattern($1, polaris_btrace_data_t, polaris_btrace_data_t)
manage_files_pattern($1, polaris_btrace_data_t, polaris_btrace_data_t)
`)

```

```
#####
```

```

<summary>
Read btrace persitent files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_persistent_data_read`,`
gen_require(`
type polaris_btrace_data_t;
`)

search_dirs_pattern($1, polaris_btrace_data_t, polaris_btrace_data_t)
read_files_pattern($1, polaris_btrace_data_t, polaris_btrace_data_t)
`)

```

```
#####
```

```

<summary>
Search btrace persitent files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_persistent_data_search`,`
gen_require(`
type polaris_btrace_data_t;

```

```

)

search_dirs_pattern($1, polaris_btrace_data_t, polaris_btrace_data_t)
)

#####
<summary>
Search tracelogs directions in bootflash, harddisk or crashinfo
directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_search_tracelogs',`
gen_require(`
type polaris_disk_harddisk_t;
type polaris_disk_bootflash_t;
type polaris_disk_crashinfo_t;
)

search_dirs_pattern($1, polaris_disk_harddisk_t, polaris_btrace_data_t)
search_dirs_pattern($1, polaris_disk_bootflash_t, polaris_btrace_data_t)
search_dirs_pattern($1, polaris_disk_crashinfo_t, polaris_btrace_data_t)
)

#####
<summary>
Manage btrace boot level config files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_lvl_config_manage',`
gen_require(`
type polaris_btrace_lvl_config_t;
type polaris_btrace_data_t;
)

manage_dirs_pattern($1, polaris_btrace_lvl_config_t, polaris_btrace_lvl_config_t)
manage_files_pattern($1, polaris_btrace_lvl_config_t, polaris_btrace_lvl_config_t)

```

```

filetrans_pattern($1, polaris_btrace_data_t, polaris_btrace_lvl_config_t, dir, "level_config")

polaris_btrace_search_tracelogs($1)

polaris_disk_bootflash_read_lnk($1)
polaris_disk_harddisk_read_lnk($1)
polaris_disk_crashinfo_read_lnk($1)
)

#####
<summary>
Read ldb_tmp btrace meta data files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_ldb_tmp_read`,`
gen_require(`
type polaris_ldb_tmp_t;
)

read_files_pattern($1, polaris_ldb_tmp_t, polaris_ldb_tmp_t)
)

#####
<summary>
Read and write all btrace or pman fifo file, used as
standard input/output.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_use_btrace_fifo`,`
gen_require(`
type polaris_fifo_stdout_t;
)

allow $1 polaris_fifo_stdout_t:fifo_file { rw_term_perms lock append create unlink getattr };

```

```
For pmanlite, allow pmans grand-children to be able to operate on
pipe created by pman.
polaris_use_pman_fifo($1)
')
```

```
#####
```

```
<summary>
Execute create_luid_file_db in the its domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
```

```
#
interface(`polaris_create_ldb_domtrans`,`
 gen_require(`
 type polaris_create_ldb_t, polaris_create_ldb_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_create_ldb_exec_t, polaris_create_ldb_t)
')
```

```
#####
```

```
<summary>
Make the specified type usable as btrace data file type.
</summary>
<param name="type">
<summary>
Type to be used for files.
</summary>
</param>
```

```
#
interface(`polaris_btrace_data_type`,`
 files_type($1)
 gen_require(`
 attribute polaris_btrace_data_domain;
 `)
 typeattribute $1 polaris_btrace_data_domain;
')
```

```
#####
```

```
<summary>
Process to manage its own btrace files
</summary>
<param name="domain">
<summary>
```

```

Domain allowed access.
</summary>
</param>
<param name="file_type">
<summary>
File type of btrace that corresponds to given domain.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_data_client`,`
gen_require(`
type polaris_btrace_base_t;
`)

manage_files_pattern($1, polaris_btrace_base_t, $2)
manage_lnk_files_pattern($1, polaris_btrace_base_t, $2)
filetrans_pattern($1, polaris_btrace_base_t, $2, { file lnk_file })

all clients check for /tmp/rp/trace/publish/timed/enabled control
file presense, created by btman, may need its own type
gen_require(`
type polaris_btman_bt_t;
`)
getattr_files_pattern($1, polaris_btrace_base_t, polaris_btman_bt_t)

allow $1 $2:file map;
`)

#####
<summary>
Process to manage its own btrace files
</summary>
<param name="domain_stem">
<summary>
Steam of domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_data_client_template`,`
gen_require(`
attribute polaris_btrace_data_domain;
type polaris_btrace_base_t;
`)

type polaris_$1_bt_t;
polaris_btrace_data_type(polaris_$1_bt_t)

```

```

 polaris_btrace_data_client(polaris_$1_t, polaris_$1_bt_t)
)

#####
<summary>
Execute mcp_trace_request.sh in its domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_trace_request_domtrans`,`
 gen_require(`
 type polaris_trace_request_t, polaris_trace_request_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_trace_request_exec_t, polaris_trace_request_t)
)

#####
<summary>
Watch btrace directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_btrace_data_watch`,`
 gen_require(`
 type polaris_btrace_base_t;
 type polaris_btrace_data_t;
 `)

 allow $1 polaris_btrace_base_t:dir watch;
 allow $1 polaris_btrace_data_t:dir watch;
)

```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtrace.if

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```

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#

policy_module(polaristamsrp, 1.0);

gen_require(
 type polaris_tams_rp_t;
)

polaris_btrace_data_manage(polaris_tams_rp_t)
polaris_crft_data_manage(polaris_tams_rp_t)
polaris_chasfs_manage(polaris_tams_rp_t)
polaris_tdlresolve_read(polaris_tams_rp_t)
polaris_tdlldb_list_dirs(polaris_tams_rp_t)
polaris_flashlib_read(polaris_tams_rp_t)
polaris_cpld_read(polaris_tams_rp_t)

polaris_ripc_sman_ui_serv_connect(polaris_tams_rp_t)

tams_tamc_tipc_listener_init function create tipc socket
allow polaris_tams_rp_t self:socket { bind create listen accept getattr read write };

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* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristamsrp.te
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#

policy_module(polaris_iomd, 1.0);

gen_require(
 type polaris_iomd_t;
)

polaris_btrace_data_manage(polaris_iomd_t)
polaris_crft_data_manage(polaris_iomd_t)
polaris_chasfs_manage(polaris_iomd_t)
polaris_tdlresolve_read(polaris_iomd_t)
polaris_tdlldb_list_dirs(polaris_iomd_t)

```

```

polaris_cpld_read(polaris_iomd_t)
polaris_flashlib_read(polaris_iomd_t)

polaris_ripc_sman_ui_serv_connect(polaris_iomd_t)

polaris_db_tdlldb_dir_use(polaris_iomd_t)

polaris_dyncfg_tmp_read(polaris_iomd_t)
optional_policy(`
polaris_spa_dev_use(polaris_iomd_t)
')

allow objstore access
polaris_disk_objstore_read(polaris_iomd_t)

polaris_ngio_dev_use(polaris_iomd_t)

deals with /dev/shm files semaphors; like uuid_sem semaphore
created by btrace_get_uuid function
type polaris_iomd_tmpfs_t;
files_tmpfs_file(polaris_iomd_tmpfs_t)
fs_tmpfs_filetrans(polaris_iomd_t, polaris_iomd_tmpfs_t, file)
manage_files_pattern(polaris_iomd_t, tmpfs_t, polaris_iomd_tmpfs_t)
sem_open through where_is_shmfs does stat on /dev/shm
fs_getattr_tmpfs(polaris_iomd_t)

#allow /dev/i2c device file
polaris_i2c_use(polaris_iomd_t)

#ifdef(`ngwc_family',`
On Macallan platforms the following api call from iomd process,
ngmodslot_is_upper_sup_present() does a read access of /dev/cpld
polaris_cpld_dev_read(polaris_iomd_t)
polaris_cpld_dev_use(polaris_iomd_t)

#allow cpp tmp file
polaris_cpp_tmp_files_use(polaris_iomd_t)

In Macallan cards which use Doppler ASIC,
IOMD module uses ngmod_doppler_mmap() api to get hold of
MMapped Asic address. As part of the operation it uses
/dev/chdrvmmmap device.
polaris_chdrvmmmap_dev_use(polaris_iomd_t)

IOMD module invokes ASIC Scan functionality
and calls asic_register_intr_handler () , which
needs to access the doppler MSI devices
/dev/msi/Slot[0-9]*/Doppler[0-9]/Group[0-9]

```



```

polaris_dplr_dev_use(polaris_iomd_t)
but above still not enough at some point
device like /dev/msi/Slot8/Doppler0/Group0 still
considered as device_t, not clear need to look a bit more
dev_rw_generic_chr_files(polaris_iomd_t)

on macallan iomd needs access to /dev/cisco/dplriomem
for mapping dplr io memory to application space.
polaris_dplr_iomem_mmapdrv_dev_use(polaris_iomd_t);

IOMD calls ngmod_obfl_errmssg_app_init() to initialize
OBFL.
polaris_obfl_data_manage(polaris_iomd_t)

IOMD fast path code invokes ngmod_fastpath_thread_func(),
which increases the scheduler priority.
allow polaris_iomd_t self:capability sys_nice;
allow polaris_iomd_t self:process setsched;

on macallan iomd needs access to /dev/cisco/fpga_iomem
for mapping FPGA io memory to application space.
polaris_fpga_iomem_mmapfpga_dev_use(polaris_iomd_t);

optional_policy(`
ASIC related mmap code in IOMD needs to acces PCI scan related
rescan shm mutex
polaris_cm_cc_tmpfs_manage(polaris_iomd_t)
')
')

both utah and macallan text relocations in libcpp_common_os.so
ifdef(`crankshaft_family',`
polaris_icc_broken_relocations(polaris_iomd_t)
Nightwatch switch module needs to access the doppler devices
polaris_dplr_dev_use(polaris_iomd_t)
dev_rw_generic_chr_files(polaris_iomd_t)
allow polaris_iomd_t self:capability sys_nice;
allow polaris_iomd_t self:process setsched;
')

optional_policy(`
Allow /dev/dmammmap access
polaris_dmammmap_dev_use(polaris_iomd_t)
')

optional_policy(`
on starfleet access gettysburg_fpga
polaris_gettysburg_fpga_dev_use(polaris_iomd_t)

```

```

')

type polaris_iomd_tmp_t;
files_tmp_file(polaris_iomd_tmp_t)
manage_dirs_pattern(polaris_iomd_t, polaris_iomd_tmp_t, polaris_iomd_tmp_t)
manage_files_pattern(polaris_iomd_t, polaris_iomd_tmp_t, polaris_iomd_tmp_t)
manage_fifo_files_pattern(polaris_iomd_t, polaris_iomd_tmp_t, polaris_iomd_tmp_t)

on macallan MRVL88X5113_DRV_PRINT macro outputs into /tmp/mrvl88x5113.log file
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, file, "mrvl88x5113.log")

logging_send_syslog_msg(polaris_iomd_t)

#ifdef(^ngwc_family',`
from in115050_test_app_thread_create in
drivers/userspace/inphi/dev_ephy_in115050/src/dev_ephy_in115050.c
For macallan in115025_test_app_thread_create in
drivers/userspace/inphi/dev_ephy_in115025/src/dev_ephy_in115025.c
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, dir, "test_inphi")

In case of starfleet fixed the following module creates folder in /tmp
/drivers/userspace/mrvl_phy/dev_ephy_mrvl88ec808/src/dev_ephy_m88ec808.c
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, dir, "test_mrvlphy")

#allow access to /tmp/serdes_asic_key_dir as this path is used both by
#cman_fp for programming DPP serdes and IOMD for programming n/w serdes
optional_policy(`
polaris_serdes_asic_key_tmp_manage(polaris_iomd_t)
')

#Doppler E mac creates lockfiles with names following
#the pattern /tmp/nug_asic_key_dir/nug_asic_key_[0-9]_[0-9]_[0-9]
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, dir, "nug_asic_key_dir")

#Doppler ES mac creates lockfiles with names following
#the pattern /tmp/rmt_asic_key_dir/rmt_asic_key_[0-9]_[0-9]_[0-9]
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, dir, "rmt_asic_key_dir")

from etopus_spawn_serdes_tool_thread in
binos/platforms/ngwc/doppler_sdk/drivers/serdes/Vendor/src/etopus_serdes.c
files_tmp_filetrans(polaris_iomd_t, polaris_iomd_tmp_t, dir, "test_etp")

#on starfleet access /dev/cpld, in iomd_starfleet_create_mmap()
polaris_cpld_dev_use(polaris_iomd_t)
')

optional_policy(`
polaris_ngwc_itfpo_manage(polaris_iomd_t)

```

)

# ngio device

type polaris\_ngio\_device\_t;

dev\_node(polaris\_ngio\_device\_t)

#For NGIO modules iomd uses netlink socket (via backplane switch)

allow polaris\_iomd\_t self:netlink\_socket { bind create };

ifdef(^sumatra\_platform',`

#on Sumatra access /dev/cpld from iomd

polaris\_cpld\_dev\_use(polaris\_iomd\_t)

# LOOK AT ME: After direct usage of /dev/mem is removed (CSCvw80796)

polaris\_dev\_mem\_use(polaris\_iomd\_t)

polaris\_sumatra\_doppler\_dev\_use(polaris\_iomd\_t)

#access SERDES /tmp/serdes\_asic\_key\_dir/\*

polaris\_serdes\_asic\_key\_tmp\_manage(polaris\_iomd\_t)

# access /dev/huron\_fpga

polaris\_huron\_dev\_use(polaris\_iomd\_t)

# manage "sysctrl\_i2c.lck"

gen\_require(`

type polaris\_cm\_rp\_tmp\_t;

)

files\_tmp\_filetrans(polaris\_iomd\_t, polaris\_cm\_rp\_tmp\_t, file, "sysctrl\_i2c.lck")

polaris\_cm\_rp\_tmp\_manage(polaris\_iomd\_t)

# comm="iomd" kmod="netdev-bp246"

kernel\_request\_load\_module(polaris\_iomd\_t)

# work with /sys/devices/i2c-15/15-0076/...

dev\_rw\_sysfs(polaris\_iomd\_t)

)

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dnl

dnl April 2018, Victor Kamensky

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dnl

define(^polaris\_lipc\_service\_server\_many',

`ifndef(\$3, `

```

 polaris_lipc_create_name(dollarone, $1, "$2"),
 polaris_lipc_create_name(dollarone, $1, "$2-b$3")
 `ifelse($3, 0, `polaris_lipc_create_name(dollarone, $1, "$2"), `polaris_lipc_service_server_many($1, $2,
eval($3 - 1))')')

```

```

define(`polaris_lipc_service_server_aux',`dnl
#####
<summary>
Create $2 lipc chanell.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<infoflow type="none"/>
#
interface(`polaris_lipc_$1_create_name",`
gen_require(
 type $2;
)
 $3
")

```

```

#####
<summary>
Write $2 lipc chanell.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="server">
<summary>
Domain of owner of lipc channel.
</summary>
</param>
<infoflow type="none"/>
#
interface(`polaris_lipc_$1_write",`
gen_require(
 type $2;
)

 polaris_lipc_write(dollarone, $2, dollarstwo)
)
)

```

```
define(`polaris_lipc_service_server',`dnl
polaris_lipc_service_server_aux(lipc_stem($1), lipc_label($1),
 polaris_lipc_service_server_many(lipc_label($1), $5, max_scope_map($3, $4, $2)))')

```

```
define(`polaris_lipc_service_client',`')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_lipc\_if.m4

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```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisncd, 1.0);
```

```
gen_require(`
 type polaris_ncd_t;
')
```

```
allow sntp transition in its own domain when started by ncd
ntp_domtrans_ntpdate(polaris_ncd_t)
```

```
corecmd_exec_bin(polaris_ncd_t)
corecmd_exec_shell(polaris_ncd_t)
```

```
run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_ncd_t)
```

```
allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_ncd_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_ncd_t)
```

```
work with /tmp files (/tmp/ncd)
type polaris_ncd_tmp_t;
files_tmp_file(polaris_ncd_tmp_t)
manage_dirs_pattern(polaris_ncd_t, tmp_t, polaris_ncd_tmp_t)
manage_files_pattern(polaris_ncd_t, tmp_t, polaris_ncd_tmp_t)
manage_fifo_files_pattern(polaris_ncd_t, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
files_tmp_filetrans(polaris_ncd_t, polaris_ncd_tmp_t, file)
```

```
create /tmp/ncd and /tmp/etc/ncd_work_dir directories
```

```

gen_require(
 type polaris_etc_t;
)
manage_dirs_pattern(polaris_ncd_t, { tmp_t polaris_etc_t }, polaris_ncd_tmp_t)
files_tmp_filetrans(polaris_ncd_t, polaris_ncd_tmp_t, dir, "ncd")
/tmp/etc/ncd_work_dir
filetrans_pattern(polaris_ncd_t, polaris_etc_t, polaris_ncd_tmp_t, dir, "ncd_work_dir")

work with /tmp/ncd/inot_fifo
files_tmp_filetrans(polaris_ncd_t, polaris_ncd_tmp_t, fifo_file, "inot_fifo")
manage_fifo_files_pattern(polaris_ncd_t, tmp_t, polaris_ncd_tmp_t)

allow snmp to read out fifo file
gen_require(
 type ntpd_t;
)
read_fifo_files_pattern(ntpd_t, polaris_ncd_tmp_t, polaris_ncd_tmp_t)

work with /tmp/ufs directory. the ufs directory can be created
by both polaris_ncd_t and udev_t subjects (depending upon platform
logic)
gen_require(
 type udev_t;
 type unconfined_service_t;
)
files_tmp_filetrans({ polaris_ncd_t udev_t unconfined_service_t }, polaris_ncd_tmp_t, dir, "ufs")

polaris_btrace_data_manage(polaris_ncd_t)
polaris_chasfs_manage(polaris_ncd_t)
polaris_cpld_read(polaris_ncd_t)
polaris_proc_rmonbifo_read(polaris_ncd_t)
polaris_rmonbifo_tmp_read(polaris_ncd_t)
polaris_boot_tmp_read(polaris_ncd_t)
polaris_disk_crashinfo_getattr(polaris_ncd_t)
polaris_disk_bootflash_read_lnk(polaris_ncd_t)
polaris_flashlib_lock(polaris_ncd_t)
polaris_flashlib_read(polaris_ncd_t)
polaris_read_debug_conf(polaris_ncd_t)
polaris_read_packages_conf(polaris_ncd_t)

brctl_domtrans(polaris_ncd_t)
sysnet_domtrans_ifconfig(polaris_ncd_t)

ncd.sh invokes ifup which in turn is calling dhclient
sysnet_domtrans_dhpcp(polaris_ncd_t)

type polaris_ncd_etc_t;
files_config_file(polaris_ncd_etc_t)

```

```

gen_require(
 attribute domain;
)
files_etc_filetrans(domain, polaris_ncd_etc_t, file, "mount_data")
manage_dirs_pattern(polaris_ncd_t, polaris_ncd_etc_t, polaris_ncd_etc_t)
manage_files_pattern(polaris_ncd_t, polaris_ncd_etc_t, polaris_ncd_etc_t)

runs exportsfs command
rpc_read_exports(polaris_ncd_t)
rpc_write_exports(polaris_ncd_t)
rpc_manage_nfs_state_data_dir(polaris_ncd_t)
rpc_manage_nfs_state_data(polaris_ncd_t)
fs_rw_nfsd_fs(polaris_ncd_t)
kernel_rw_rpc_sysctls(polaris_ncd_t)
fs_getattr_xattr_fs(polaris_ncd_t)

reloads xinetd@/tmp/etc/xinetd.conf.consolidated.service and
systemctl reload xinetd_brelay@eobc.service
systemd_exec_systemctl(polaris_ncd_t)
systemd_reload_all_services(polaris_ncd_t)
systemd_status_all_unit_files(polaris_ncd_t)

polaris_chvrf_domtrans(polaris_ncd_t)
ncd process calls ifconfig and route and mcp_chvrf
gen_require(
 type polaris_chvrf_t;
)
sysnet_domtrans_ifconfig(polaris_chvrf_t)
allow polaris_chvrf_t self:capability net_admin;
allow polaris_chvrf_t self:udp_socket { create ioctl };
allow polaris_ncd_t self:process setpgid;

polaris_persistent_getattr(polaris_ncd_t)

access to /etc/sysconfig/network-scripts
sysnet_read_config(polaris_ncd_t)

fs_getattr_tmpfs(polaris_ncd_t)

manage file under /tmp/etc/ncd_work_dir
gen_require(
 type initrc_tmp_t;
 type initrc_t;
)
filetrans_pattern(polaris_ncd_t, initrc_tmp_t, polaris_ncd_tmp_t, dir,"ncd_work_dir")
polaris_ncd_tmp_manage(polaris_ncd_t)
/tmp/root/loopback is created by initrc_t,but managed by ncd.sh.
dynamic label directory "/tmp/root/loopback" as polaris_ncd_tmp_t

```

```

files_tmp_filetrans(initrc_t, polaris_ncd_tmp_t, dir, "loopback")
flashutil has wrong file permission
allow polaris_ncd_t self:capability { dac_override sys_resource };

access to /tmp/etc/xinetd.conf.consolidated
init_read_script_tmp_files(polaris_ncd_t)

allow polaris_ncd_t self:capability net_admin;

search/getattr of /tmp/udev/etc/udev
polaris_udev_tmp_list_dirs(polaris_ncd_t)

ncd calls mount to handle nfs directories
mount_domtrans(polaris_ncd_t)

#rsync_exec(polaris_ncd_t)
gen_require(`
 type rsync_t;
 type rsync_tmp_t;
`)
rsync_entry_domtrans(polaris_ncd_t, rsync_t)
allow rsync_t polaris_ncd_t:process sigchld;
file descriptor leak when rsync is called
allow rsync_t polaris_ncd_t:fifo_file write;
PLEASE LOOK AT ME: probably /tmp/rp/active_epoch deserves its own type
/tmp/rp/active_epoch on its way to /tmp/chassis/local/rp/chasfs/rp/0/0/epoch
manage_files_pattern(polaris_ncd_t, rsync_tmp_t, rsync_tmp_t)

creates files under /tmp/udev/etc/udev/
polaris_udev_tmp_manage(polaris_ncd_t)
allow polaris_ncd_t self:process setfscreate;

run /sbin/hwclock in its own domain
clock_domtrans(polaris_ncd_t)
stdin file descriptor leak when hwclock started
gen_require(`
 type hwclock_t;
`)
allow hwclock_t polaris_ncd_tmp_t:fifo_file read;

#ifdef(`ngwc_family',`
polaris_getattr_filesystem_disk_ucode(polaris_ncd_t)
`)

update /tmp/etc/xinetd.conf.consolidated file
polaris_etc_append(polaris_ncd_t)

ncd.sh adds entries to /etc/exports file

```



```

gen_require(
 type etc_t;
)
append_files_pattern(polaris_ncd_t, etc_t, etc_t)

create and write into /tmp/unifiedfs/unifiedfs_log
manage_files_pattern(polaris_ncd_t, polaris_ufs_tmp_t, polaris_ufs_tmp_t)

polaris_ncd_rpcinfo_net(polaris_ncd_t)

accessing /mnt/usb0
fs_search_removable(polaris_ncd_t)
polaris_getattr_removable(polaris_ncd_t)
polaris_getattr_removable(polaris_ufs_helper_t)

ncd.sh calls ps command
ps needs access to /sys/devices/system/cpu/online
write/create to "/sys/module/nfs/parameters/nfs4_unique_id"
dev_rw_sysfs(polaris_ncd_t)
dev_manage_sysfs_dirs(polaris_ncd_t)
gen_require(
 type sysfs_t;
)
create_files_pattern(polaris_ncd_t, sysfs_t, sysfs_t)

ps needs access to proc_t
kernel_read_system_state(polaris_ncd_t)
ps needs access to state of all domains
domain_read_all_domains_state(polaris_ncd_t)

send signal to ntpd
ntp_signal(polaris_ncd_t)

ncd.sh executes hostname
hostname_exec(polaris_ncd_t)

ncd.sh runs mcp_trace_request.sh
polaris_trace_request_domtrans(polaris_ncd_t)

handling /usr/binos/conf/iosd_console_attach.sh

polaris_utility_domain_template(console_attach)

polaris_bexecute_domain(polaris_console_attach_t, polaris_console_attach_exec_t)

corecmd_exec_bin(polaris_console_attach_t)
auth_use_nsswitch(polaris_console_attach_t)

```

```

execute ping over liin: usr/binos/conf/mcp_chvrf.sh liin /bin/ping -c 1 -w 300 192.168.1.6
polaris_chvrf_domtrans(polaris_console_attach_t)
from chvrf.sh code executes ping command
gen_require(
 type polaris_chvrf_t;
)
netutils_domtrans_ping(polaris_chvrf_t)
send sigchld when it is done
gen_require(
 type ping_t;
)
allow ping_t polaris_console_attach_t:process sigchld;

polaris_boot_tmp_read(polaris_console_attach_t)
polaris_btrace_data_manage(polaris_console_attach_t)
polaris_chasfs_read(polaris_console_attach_t)
polaris_cpld_read(polaris_console_attach_t)
polaris_disk_bootflash_search(polaris_console_attach_t)
polaris_disk_crashinfo_getattr(polaris_console_attach_t)
polaris_ncd_tmp_read(polaris_console_attach_t)
polaris_read_debug_conf(polaris_console_attach_t)
polaris_rmonbifo_tmp_read(polaris_console_attach_t)
polaris_use_btrace_fifo(polaris_console_attach_t)

read /proc/cmdline
kernel_read_system_state(polaris_console_attach_t)

read /tmp/myhostname file
polaris_hm_tmp_read(polaris_console_attach_t)

telnet_use_ptys(polaris_console_attach_t)

allow polaris_console_attach_t self:capability sys_resource;
allow polaris_console_attach_t self:process setrlimit;

getty starts /usr/binos/conf/iosd_console_attach.sh through breelay
gen_require(
 type getty_t;
)
polaris_bconsole_domtrans(getty_t)

console_attach.sh start btelnet.sh over chvrf and bexecute
gen_require(
 type polaris_bexecute_t;
)
allow polaris_bexecute_t polaris_console_attach_t:process sigchld;
corenet_tcp_connect_telnetd_port(polaris_bexecute_t)

```

```

handling /usr/binos/conf/unifiedfs/unifiedfs_helper.sh

polaris_utility_domain_template(ufs_helper)

corecmd_exec_bin(polaris_ufs_helper_t)
auth_use_nsswitch(polaris_ufs_helper_t)

rsync calls unifiedfs_helper.sh
gen_require(
 type rsync_t;
)
polaris_ufs_helper_domtrans(rsync_t);

unifiedfs_helper.sh calls mount to handle nfs directories
mount_domtrans(polaris_ufs_helper_t)

creates files under /tmp/udev/etc/udev/
polaris_udev_tmp_manage(polaris_ufs_helper_t)

polaris_disk_bootflash_search(polaris_ufs_helper_t)
polaris_ncd_tmp_manage(polaris_ufs_helper_t)
polaris_ncd_etc_read(polaris_ufs_helper_t)

stat over /tmp/ufs/crashinfo/10.1.1.1
polaris_disk_crashinfo_getattr(polaris_ufs_helper_t)

unifiedfs_helper.sh creates /tmp/unifiedfs and manages underlying dirs
type polaris_ufs_tmp_t;
files_tmp_file(polaris_ufs_tmp_t)
files_tmp_filetrans(polaris_ufs_helper_t, polaris_ufs_tmp_t, { file dir })
manage_dirs_pattern(polaris_ufs_helper_t, polaris_ufs_tmp_t, polaris_ufs_tmp_t)
manage_files_pattern(polaris_ufs_helper_t, polaris_ufs_tmp_t, polaris_ufs_tmp_t)
manage_lnk_files_pattern(polaris_ufs_helper_t, polaris_ufs_tmp_t, polaris_ufs_tmp_t)

Required for /tmp/unifiedfs access on vWLC
ifdef(^vwlc_platform',`
files_tmp_filetrans(unconfined_service_t, polaris_ufs_tmp_t, dir, "unifiedfs")
`)

polaris_ncd_rpcinfo_net(polaris_ufs_helper_t)

polaris_persistent_getattr(polaris_ufs_helper_t)

rm from coreutils-8.30 wants to know filesystem type
fs_getattr_tmpfs(polaris_ufs_helper_t)

ncd.sh read,search,open, creates, add_name and writes to /proc/hanet/tun_local_ip
gen_require(

```

```
type polaris_hanet_proc_t;
type proc_t;
')
manage_files_pattern(polaris_ncd_t, polaris_hanet_proc_t, polaris_hanet_proc_t)
allow polaris_hanet_proc_t proc_t:filesystem associate;

allow polaris_ufs_helper_t self:capability sys_resource;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisncd.te
```

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dnl

dnl May 2018, Manohar Hungund

dnl

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dnl

dnl Starfleet Platform Max Bay Limits

```
max_bay_map_set(rp, `per_bay', 0)
```

```
max_bay_map_set(cc, `per_bay', 5)
```

```
max_bay_map_set(fp, `per_bay', 5)
```

```
min_bay_ripc_map_set(rp, `per_bay', 0)
```

```
min_bay_ripc_map_set(cc, `per_bay', 1)
```

```
min_bay_ripc_map_set(fp, `per_bay', 0)
```

```
max_bay_ripc_map_set(rp, `per_bay', 2)
```

```
max_bay_ripc_map_set(cc, `per_bay', 6)
```

```
max_bay_ripc_map_set(fp, `per_bay', 1)
```

```
min_bay_ripc_map_set(rp, `global', 0)
```

```
min_bay_ripc_map_set(cc, `global', 1)
```

```
min_bay_ripc_map_set(fp, `global', 0)
```

```
max_bay_ripc_map_set(rp, `global', 2)
```

```
max_bay_ripc_map_set(cc, `global', 6)
```

```
max_bay_ripc_map_set(fp, `global', 1)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(rp, `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(cc, `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(fp, `elasitic', BPROC_ODM, 0)
```

```
max_elastic_map_set(rp, `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(cc, `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(fp, `elastic', BPROC_WNCD, 0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/starfleetmaps.m4

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#

# November 2020, Christine Hwang

#

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#

# Map BBU TTY to correct device context

/dev/ttyS2 -c gen\_context(system\_u:object\_r:polaris\_bbu\_device\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbbu.fc

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#

# February 2018, Manohar Hungund

#

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#

## <summary>Polaris ACT2 Chip Device Access Policy Rules.</summary>

#####

# ACT2 Chip Driver policy

#####

#####

## <summary>

## Work (read, write, ioctl) with /dev/act2

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_act2\_dev\_use`,`

gen\_require(`

type device\_t;

type polaris\_act2\_device\_t;

`)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_act2\_device\_t)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_act2\_device\_t)

)

#####

```
<summary>
Create /tmp/hw_entropy file. Certain platforms save
entropy from main board ACT-2 chip in this file.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_hw_entropy_create`,`
```

```
 gen_require(`
```

```
 type polaris_hw_entropy_t;
```

```
 type tmp_t;
```

```
 `)
```

```
 files_tmp_filetrans($1, polaris_hw_entropy_t, file, "hw_entropy")
```

```
 manage_files_pattern($1, tmp_t, polaris_hw_entropy_t)
```

```
)
```

#####

```
<summary>
```

```
Use /tmp/hw_entropy file. For some reason, iosd opens file in rw mode,
not clear why it couldn't just read it.
```

```
Certain platforms save entropy from main board ACT-2 chip in this file.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_hw_entropy_use`,`
```

```
 gen_require(`
```

```
 type polaris_hw_entropy_t;
```

```
 type tmp_t;
```

```
 `)
```

```
 rw_files_pattern($1, tmp_t, polaris_hw_entropy_t)
```

```
)
```

#####

```
<summary>
```

```
Read /tmp/hw_entropy file.
```

```
Certain platforms save entropy from main board ACT-2 chip in this file.
```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_hw_entropy_read`,`
 gen_require(`
 type polaris_hw_entropy_t;
 `)

 read_files_pattern($1, tmp_t, polaris_hw_entropy_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisact2.if

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```

#
April 2017, Victor Kamensky
#
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#

policy_module(polarisdmindbmand, 1.0);

gen_require(`
 type polaris_dmi_ndbmand_t;
`)

polaris_btrace_data_manage(polaris_dmi_ndbmand_t)
polaris_crft_data_manage(polaris_dmi_ndbmand_t)
polaris_chasfs_manage(polaris_dmi_ndbmand_t)
polaris_tdlresolve_read(polaris_dmi_ndbmand_t)
polaris_tdlldb_list_dirs(polaris_dmi_ndbmand_t)
polaris_cpld_read(polaris_dmi_ndbmand_t)
polaris_flashlib_read(polaris_dmi_ndbmand_t)

polaris_ripc_sman_ui_serv_connect(polaris_dmi_ndbmand_t)

polaris_db_tdlldb_dir_use(polaris_dmi_ndbmand_t)

work with NDBLOAD_LOCK_PATH
type polaris_dmi_ndbutil_lock_t;
files_tmp_file(polaris_dmi_ndbutil_lock_t)
polaris_ndbload_lock_use(polaris_dmi_ndbmand_t)

```

```

optional_policy(`
deals with /dev/shm/confd setup (schema and pid)
polaris_confd_shm_setup(polaris_dmi_ndbmand_t)
and allow read shared schema
polaris_confd_shared_schema_read(polaris_dmi_ndbmand_t)
read /proc/confd_pid/exe file
polaris_confd_read(polaris_dmi_ndbmand_t)
`)

allow polaris_dmi_ndbmand_t self:capability { dac_override dac_read_search sys_resource };

logging_send_syslog_msg(polaris_dmi_ndbmand_t)

create ndbutil directory under /var/lock
polaris_confd_ndbutil_create(polaris_dmi_ndbmand_t)

polaris_ndbutil_lock_template(polaris_dmi_ndbmand_t, ndbmand, ".l.schema_use.ndbmand")

polaris_confd_shared_schema_watch(polaris_dmi_ndbmand_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmindbmand.te
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#
February 2020, Victor Kamensky
#
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#

policy_module(polarisomp, 1.0);

gen_require(`
 type polaris_omp_t;
`)
polaris_chasfs_manage(polaris_omp_t)
polaris_cpld_read(polaris_omp_t)
polaris_flashlib_read(polaris_omp_t)
polaris_tdlresolve_read(polaris_omp_t)

polaris_ripc_sman_ui_serv_connect(polaris_omp_t)

polaris_db_tdlb_dir_use(polaris_omp_t)

logging_send_syslog_msg(polaris_omp_t)

```



```

vconfd_load_shared_schemas
polaris_confd_shared_schema_read(polaris_omp_t)

omp_daemon_init calls posix_sysconf
dev_read_sysfs(polaris_omp_t)

reads /sys/fs/cgroup/cpuset/iosxe_control_processes/cpuset.cpus
fs_read_cgroup_files(polaris_omp_t)

vip_util_set_fd_limits set files limits
allow polaris_omp_t self:process setrlimit;

omp connects to omp listener tcp port 17900
corenet_tcp_connect_polaris_omp_port(polaris_omp_t)
vip_util_reset_ns opens /proc/1/ns/net
polaris_cedge_reset_ns(polaris_omp_t)
vip_util_set_ns opens /var/run/netns/*
polaris_cedge_set_ns(polaris_omp_t)

#omp_peer_active_connect() binds to OMP address
corenet_tcp_bind_generic_node(polaris_omp_t)
allow polaris_omp_t self:tcp_socket { bind connect create getopt setopt };

omp starts worker thread under CPU affinity
allow polaris_omp_t self:process setsched;

connects to ttm unix domain socket in msgq_connect_timer
polaris_ttm_var_sock_write(polaris_omp_t)
connects to ftm unix domain socket in msgq_connect_timer
polaris_ftm_var_sock_write(polaris_omp_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisomp.te

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```

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July 2020, Victor Kamensky
#
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#

```

## <summary>Polaris htx Policy Rules.</summary>

#####

## <summary>

## Manage polaris\_htx\_iox\_tmp\_t in /tmp/HTX-IOX.

## </summary>

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_htx_iox_tmp_manage`,`
 gen_require(`
 type polaris_htx_iox_tmp_t;

 `)
 manage_files_pattern($1, polaris_htx_iox_tmp_t, polaris_htx_iox_tmp_t)
 manage_sock_files_pattern($1, polaris_htx_iox_tmp_t, polaris_htx_iox_tmp_t)
 manage_dirs_pattern($1, polaris_htx_iox_tmp_t, polaris_htx_iox_tmp_t)

 allow $1 polaris_htx_iox_tmp_t:dir watch;

 allow $1 polaris_htx_iox_tmp_t:file map;
)

```

```
#####
```

```

<summary>
Send messages to htx unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_htx_dgram_send`,`
 gen_require(`
 type polaris_htx_t;
 `)

 allow $1 polaris_htx_t:unix_dgram_socket sendto;
)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/sppi_memif device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_spپی_memif_dev_use`,`

```

```

gen_require(
 type device_t;
 type polaris_sppi_memif_device_t;
)
write_chr_files_pattern($1, device_t, polaris_sppi_memif_device_t)
read_chr_files_pattern($1, device_t, polaris_sppi_memif_device_t)
)

```

```
#####
```

```

<summary>
Work with /tmp/HTX-IOX/.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_htx_use_client_socket`,`
 gen_require(
 type polaris_htx_t;
)
 allow $1 polaris_htx_t:unix_stream_socket connectto;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarishtx.if

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```

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#

```

```
policy_module(polarisesgtamcfg, 1.0);
```

```

gen_require(
 type polaris_esg_tam_cfg_t;
)

```

```

polaris_btrace_data_manage(polaris_esg_tam_cfg_t)
polaris_chasfs_manage(polaris_esg_tam_cfg_t)
polaris_tdlresolve_read(polaris_esg_tam_cfg_t)
polaris_tdlldb_list_dirs(polaris_esg_tam_cfg_t)
polaris_flashlib_read(polaris_esg_tam_cfg_t)

```

```

polaris_cpld_read(polaris_esg_tam_cfg_t)
allow polaris_esg_tam_cfg_t self:capability net_admin;

handle /tmp/tam_cfg_done
type polaris_tam_tmp_t;
files_tmp_file(polaris_tam_tmp_t)
files_tmp_filetrans(polaris_esg_tam_cfg_t, polaris_tam_tmp_t, dir, "tam_cfg_done")
manage_files_pattern(polaris_esg_tam_cfg_t, polaris_tam_tmp_t, polaris_tam_tmp_t)
gen_require(
 type tmp_t;
)
manage_dirs_pattern(polaris_esg_tam_cfg_t, tmp_t, polaris_tam_tmp_t)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisesgtamcfg.te
```

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```

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#

```

```
policy_module(polarisfmanfp, 1.0);
```

```

gen_require(
 type polaris_fman_fp_t;
)

```

```

polaris_btrace_data_manage(polaris_fman_fp_t)
polaris_crft_data_manage(polaris_fman_fp_t)
polaris_chasfs_manage(polaris_fman_fp_t)
polaris_tdlresolve_read(polaris_fman_fp_t)
polaris_tdlldb_list_dirs(polaris_fman_fp_t)
polaris_cpld_read(polaris_fman_fp_t)
polaris_lua_read(polaris_fman_fp_t)
polaris_flashlib_read(polaris_fman_fp_t)

```

```
polaris_ripc_sman_ui_serv_connect(polaris_fman_fp_t)
```

```

allow to send message to /dev/log
logging_send_syslog_msg(polaris_fman_fp_t)

```

```

#####
mqipc manual, one that missing in platform tdl file
#####

```

```
mq.-iosd-thr-fmanrp-R0:0
mq.-iosd-thr-fmanrp-1:R0:0
type polaris_iosd_thr_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_iosd_thr_fmanrp_mqipc_t)
```

```
mq.-mobilityd-thr-fmanrp-1:R0:0
type polaris_mobilityd_thr_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_mobilityd_thr_fmanrp_mqipc_t)
```

```
mq.-smd-thr-fmanrp-1:R0:0
type polaris_smd_thr_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_smd_thr_fmanrp_mqipc_t)
```

```
mq.-wncd_0-thr-fmanrp-1:R0:0
type polaris_wncd_thr_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_wncd_thr_fmanrp_mqipc_t)
```

```
mq.-wncmgrp_0-thr-fmanrp-1:R0:0
type polaris_wncmgrp_thr_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_wncmgrp_thr_fmanrp_mqipc_t)
```

```
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-3:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-4:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-5:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-6:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-7:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-8:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-1:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-2:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-3:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-4:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-5:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-6:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-7:R1:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_iosd_thr_fmanrp_mqipc_t, iosd-thr-fmanrp-8:R1:0)
```

```
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_mobilityd_thr_fmanrp_mqipc_t, mobilityd-thr-fmanrp-
R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_mobilityd_thr_fmanrp_mqipc_t, mobilityd-thr-fmanrp-
1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_mobilityd_thr_fmanrp_mqipc_t, mobilityd-thr-fmanrp-
2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_mobilityd_thr_fmanrp_mqipc_t, mobilityd-thr-fmanrp-
3:R0:0)
```



```
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-3:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-4:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-5:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-6:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-7:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-8:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_0-thr-fmanrp-R1:0)
```

```
optional_policy(`
```

```
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_1-thr-fmanrp-R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_1-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_1-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_2-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_2-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_3-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_3-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_4-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_4-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_5-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_5-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_6-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_6-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_7-thr-fmanrp-1:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_7-thr-fmanrp-2:R0:0)
polaris_mqipc_create_name(polaris_fman_fp_t, polaris_wncd_thr_fmanrp_mqipc_t, wncd_1-thr-fmanrp-R1:0)
```

```
')
```

```
polaris_cpld_dev_use(polaris_fman_fp_t)
```

```
cpp bleeds into switching platforms through fman_fp and fed
```

```
apparently even on nyquist fed creates /tmp/cpp_anon_db
```

```
polaris_cpp_process(polaris_fman_fp_t)
```

```
polaris_cpp_tmp_files_use(polaris_fman_fp_t)
```

```
optional_policy(`
```

```
polaris_cpp_dev_use(polaris_fman_fp_t)
```

```
polaris_cpp_cavium_sdk_ipc_use(polaris_fman_fp_t)
```

```
')
```

```
polaris_persistent_manage(polaris_fman_fp_t)
```

```
polaris_icc_broken_relocations(polaris_fman_fp_t)
```

```
allow polaris_fman_fp_t self:capability dac_override;
```

```
allow polaris_fman_fp_t self:capability2 block_suspend;
```

```
when /bootflash or /harddisk are 100% full
```

```
allow polaris_fman_fp_t self:capability sys_resource;
```

```
write to devices like this /proc/bus/pci/04/00.0
```

```

kernel_read_system_state(polaris_fman_fp_t)
kernel_write_proc_files(polaris_fman_fp_t)

#ifdef(^mcp_family',`
polaris_cm_fp_tmp_filetrans(polaris_fman_fp_t)
polaris_cm_fp_tmp_manage(polaris_fman_fp_t)
`)

LOOK AT ME: raw memory write access
#ifdef(^mcp_family',`
polaris_dev_mem_use(polaris_fman_fp_t)
`)

LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh58515)
#ifdef(^crankshaft_family',`
polaris_dev_mem_use(polaris_fman_fp_t)
`)

polaris_dyncfg_tmp_read(polaris_fman_fp_t)

/dev/qaе_mem device access on overlord
optional_policy(`
polaris_qae_dev_use(polaris_fman_fp_t)
`)

access to /dev/icp_XXX device on crankshaft platforms
optional_policy(`
 polaris_icp_dev_use(polaris_fman_fp_t)
`)

on qwlc work with /tmp/octeon-remote-lock-pci:0
#ifdef(^qwlc_platform',`
polaris_cm_fp_tmp_manage(polaris_fman_fp_t)
`)

#ifdef(^katar_platform',`
polaris_cm_fp_tmp_manage(polaris_fman_fp_t)
`)

optional_policy(`
#fman-fp creates tmp files in acl-mgmt workflow.
polaris_fman_acl_iptbl_tmp_file(polaris_fman_fp_t)
`)

polaris_iosd_vcpu_read(polaris_fman_fp_t)

allow open/read/search cgroup files like /sys/fs/cgroup/cpu,cpuacct/machine

```



```
fs_read_cgroup_files(polaris_fman_fp_t)
fs_search_cgroup_dirs(polaris_fman_fp_t)
```

```
optional_policy(`
Access /dev/cbdma
polaris_cbdma_dev_use(polaris_fman_fp_t)

Access /dev/n2_device
polaris_n2_dev_use(polaris_fman_fp_t)
`)
polaris_cpp_tmpfs_manage(polaris_fman_fp_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfmanfp.te

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```
#
August 2017, Shawn Lu
#
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#

<summary>Polaris wncmgrd Policy Rules.</summary>
```

```
#####
<summary>
Read access to /bootflash/NACert.pem
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_read_icap_cert_file`,`
 gen_require(`
 type polaris_icap_cert_t;
 `)
 allow $1 polaris_icap_cert_t:file read_file_perms;
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswncmgrd.if

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```
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March 2017, Victor Kamensky
```

```
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polariskeyman file contexts place holder

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariskeyman.fc
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```

```
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#
```

```
polarisnvrn file contexts place holder
```

```
Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnvrn.fc
No license file was found, but licenses were detected in source scan.
```

```
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#
```

```
/3pa staff
/3pa/usr/(.*)?lib64/(.*)? -- gen_context(system_u:object_r:lib_t,s0)
/3pa/usr/(.*)?lib/(.*)? -- gen_context(system_u:object_r:lib_t,s0)
/3pa/(.*)?lib64/(.*)? -- gen_context(system_u:object_r:lib_t,s0)
/3pa/(.*)?lib/(.*)? -- gen_context(system_u:object_r:lib_t,s0)
/3pa/usr/(.*)?sbin/(.*)? -- gen_context(system_u:object_r:bin_t,s0)
/3pa/usr/(.*)?bin/(.*)? -- gen_context(system_u:object_r:bin_t,s0)
/3pa/usr/sbin/libvirt_lxc -- gen_context(system_u:object_r:virt_lxc_exec_t,s0)
/usr/lib/libvirt/libvirt_lxc -- gen_context(system_u:object_r:virt_lxc_exec_t,s0)
/usr/sbin/libvirt_lxc -- gen_context(system_u:object_r:virt_lxc_exec_t,s0)
/3pa/usr/sbin/libvirt -- gen_context(system_u:object_r:virt_exec_t,s0)
/3pa/usr/sbin/virtlogd -- gen_context(system_u:object_r:virtlogd_exec_t,s0)
/3pa/usr/bin/virsh -- gen_context(system_u:object_r:virsh_exec_t,s0)
/3pa/usr/bin/qemu.* -- gen_context(system_u:object_r:qemu_exec_t,s0)
/usr/binos/conf/libvirt.sh -- gen_context(system_u:object_r:virt_initrc_exec_t,s0)
/3pa/etc/libvirt/(.*)? -- gen_context(system_u:object_r:virt_etc_t,s0)
/3pa/etc/logrotate.d/(.*)? -- gen_context(system_u:object_r:etc_t,s0)
```

```

should go into contrib/telnet.fc?
/usr/bin/os/sbin/in.telnetd -- gen_context(system_u:object_r:telnetd_exec_t,s0)

load_crash_kernel.sh loads crash kernel - it should be executable
/crashkernel/load_crash_kernel.sh -- gen_context(system_u:object_r:bin_t,s0)

/etc/lablogin.sh is executed during telnet login over management port
it should be executable. Also having shell_exec_t label will allow it
to transition into unconfined domain
/etc/lablogin.sh -- gen_context(system_u:object_r:shell_exec_t,s0)

/etc/init.d/*functions files should be actually in bin_t domain, the same
as /etc/init.d/functions. Note using /etc/rc.d/init.d/ instead of
/etc/init.d/ because we have substitution rule in file_contexts.subs_dist
/etc/rc.d/init.d/binos_functions -- gen_context(system_u:object_r:bin_t,s0)
/etc/rc.d/init.d/binos_functions-pd -- gen_context(system_u:object_r:bin_t,s0)
/etc/rc.d/init.d/chasxml_functions -- gen_context(system_u:object_r:bin_t,s0)
/etc/rc.d/init.d/common-utility-functions -- gen_context(system_u:object_r:bin_t,s0)
/etc/rc.d/init.d/rh-functions -- gen_context(system_u:object_r:bin_t,s0)

tftp directories
/tftp -d gen_context(system_u:object_r:tftpd_dir_rw_t,s0)
/tftp/.* gen_context(system_u:object_r:tftpd_dir_rw_t,s0)

/tmp/sw
/tmp/sw -d gen_context(system_u:object_r:tmp_t,s0)
/tmp/rp -d gen_context(system_u:object_r:tmp_t,s0)
/tmp/fp -d gen_context(system_u:object_r:tmp_t,s0)
/tmp/cc -d gen_context(system_u:object_r:tmp_t,s0)

/tmp/etc
/tmp/etc -d gen_context(system_u:object_r:polaris_etc_t,s0)

/tmp/sv
/tmp/sv -d gen_context(system_u:object_r:polaris_sv_tmp_t,s0)

firmware files
/firmware(/.*)? gen_context(system_u:object_r:polaris_firmware_t,s0)
/upgrade(/.*)? gen_context(system_u:object_r:polaris_firmware_t,s0)
/golden(/.*)? gen_context(system_u:object_r:polaris_firmware_t,s0)
CC card fpd files mark it as usr_t for now
/fpd(/.*)? -- gen_context(system_u:object_r:polaris_firmware_t,s0)

/tmp/debug/conf -l gen_context(system_u:object_r:polaris_debug_conf_t,s0)

/var/ODM/ios_core.p7b -- gen_context(system_u:object_r:etc_t,s0)

```

```

/dev/DDR -c gen_context(system_u:object_r:polaris_DDR_device_t,s0)
/dev/i2c-[0-9]* -c gen_context(system_u:object_r:polaris_i2c_device_t,s0)

/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/bin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/wbin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/lib/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/lib64/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/bin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/sbin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/lib/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/lib64/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/binos/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/binos/bin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/binos/sbin/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/binos/lib/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/usr/binos/lib64/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)
/opt/confd/lib/confd/lib/core/confd/priv/(.*)?\ebf/(.*)? gen_context(system_u:object_r:polaris_ebf_t,s0)

interpreter for CRDL 32bit IOSD setup proper memory map
/usr/binos/bin/crdl_mini_loader gen_context(system_u:object_r:ld_so_t,s0)

#firmware package mount point on asr1k platforms
/mnt/firmware/(.*)? gen_context(system_u:object_r:polaris_firmware_t,s0)

/bootflash/.USWAP/(.*)? gen_context(system_u:object_r:polaris_uswap_files_t,s0)

#Nutella EFI folder
/bootflash/EFI/(.*)? gen_context(system_u:object_r:polaris_efi_files_t,s0)

#for cat9k platform
/mnt/sd3/user/.USWAP/(.*)? gen_context(system_u:object_r:polaris_uswap_files_t,s0)

/tmp/rsync_log_dir/(.*)? gen_context(system_u:object_r:polaris_rsync_tmp_t,s0)

#for wlc awips feature
/bootflash/awips.json gen_context(system_u:object_r:polaris_awips_signature_file_t,s0)

for wlc iot-gw feature to access /bootflash/certs dir
/bootflash/certs -d gen_context(system_u:object_r:polaris_ap_cert_file_t,s0)

#for curl - and allowing ip netns exec X curl
/usr/bin/curl -- gen_context(system_u:object_r:polaris_curl_exec_t,s0)

Katar WLC needs access to /tmp/ldwm_envelope
/tmp/ldwm_envelope -- gen_context(system_u:object_r:polaris_ldwm_envelope_tmp_t,s0)

```

```
CLI: show platform software tech-support
/usr/bin/os/conf/platform_tech_support.sh -- gen_context(system_u:object_r:polaris_tech_support_exec_t,s0)

Tamlib debug file
/bootflash/tamlib_dbg_log -- gen_context(system_u:object_r:polaris_tamlib_dbg_file_t,s0)

cryptsetup - some platforms copy cryptsetup in /bin
/bin/cryptsetup -- gen_context(system_u:object_r:lvm_exec_t,s0)
/usr/bin/cryptsetup -- gen_context(system_u:object_r:lvm_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscommon.fc
No license file was found, but licenses were detected in source scan.
```

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
define(`polaris_process', `')dnl
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_process_if.m4
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisiptbl, 1.0);
```

```
#####
iptbl.sh manual
#####
```

```
polaris_process_domain_template(iptbl)
```

```
corecmd_exec_bin(polaris_iptbl_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_iptbl_t)
```

```
allow read of /etc/passwd
auth_use_nsswitch(polaris_iptbl_t)
```

```

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_iptbl_t)

work with /tmp files
type polaris_iptbl_tmp_t;
files_tmp_file(polaris_iptbl_tmp_t)
manage_dirs_pattern(polaris_iptbl_t, tmp_t, polaris_iptbl_tmp_t)
manage_files_pattern(polaris_iptbl_t, polaris_iptbl_tmp_t, polaris_iptbl_tmp_t)
manage_fifo_files_pattern(polaris_iptbl_t, polaris_iptbl_tmp_t, polaris_iptbl_tmp_t)
files_tmp_filetrans(polaris_iptbl_t, polaris_iptbl_tmp_t, { file dir })

allow polaris_iptbl_t self:capability sys_resource;
allow polaris_iptbl_t self:process setpgid;

polaris_btrace_data_manage(polaris_iptbl_t)
polaris_cpld_read(polaris_iptbl_t)
polaris_chasfs_manage(polaris_iptbl_t)
polaris_boot_tmp_read(polaris_iptbl_t)
polaris_rmonbifo_tmp_read(polaris_iptbl_t)
polaris_proc_rmonbifo_getattr(polaris_iptbl_t)
polaris_proc_rmonbifo_read(polaris_iptbl_t)
polaris_disk_crashinfo_getattr(polaris_iptbl_t)

execute /etc/init.d/iptables in its own domain
iptables_initrc_domtrans(polaris_iptbl_t)

LOOK AT ME iptbl.sh puts symbolic links into /sbin directory
need to fix manifest instead, so it will be static
gen_require(
 type bin_t;
)
manage_lnk_files_pattern(polaris_iptbl_t, bin_t, bin_t)

modutils_domtrans_insmod(polaris_iptbl_t)
iptables_domtrans(polaris_iptbl_t)

iptbl.sh calls /etc/init.d/iptables restart and that needs
read /proc/pid/net/ip_tables_names file
kernel_read_network_state(polaris_iptbl_t)
creates /var/lock/subsys/iptables
type polaris_iptables_lock_t;
files_lock_file(polaris_iptables_lock_t)
manage_files_pattern(polaris_iptbl_t, polaris_iptables_lock_t, polaris_iptables_lock_t)
files_lock_filetrans(polaris_iptbl_t, polaris_iptables_lock_t, file)

needs access to /run/netns as part of chvrf invocation
fs_read_nsfs_files(polaris_iptbl_t)

```

```
iptbl.sh invokes iptable command which runs in iptables_t label and needs
access to meta files created by iptbl.sh with label polaris_iptbl_tmp_t
allow iptables_t polaris_iptbl_tmp_t:fifo_file read_file_perms;
allow iptables_t polaris_iptbl_tmp_t:file read_file_perms;
```

```
Allow /tmp/ufs/bootflash & /tmp/ufs/harddisk read access
ifdef(`vwlc_platform',`
optional_policy(`
polaris_ncd_tmp_read(polaris_iptbl_t)
')
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiptbl.te
No license file was found, but licenses were detected in source scan.
```

```
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#
```

```
/usr/bin/bhytoolsd -- gen_context(system_u:object_r:polaris_bhytoolsd_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbhytoolsd.fc
No license file was found, but licenses were detected in source scan.
```

```
#
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#
```

```
policy_module(polarisautoupgrade, 1.0);
```

```
gen_require(`
 type polaris_autoupgrade_t;
')
```

```
corecmd_exec_bin(polaris_autoupgrade_t)
corecmd_exec_shell(polaris_autoupgrade_t)
```

```
run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_autoupgrade_t)
```

```

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_autoupgrade_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_autoupgrade_t)

allow polaris_autoupgrade_t self:capability { sys_resource dac_override };
allow polaris_autoupgrade_t self:process setpgid;

polaris_tdldb_list_dirs(polaris_autoupgrade_t)

polaris_btrace_data_manage(polaris_autoupgrade_t)
polaris_chasfs_manage(polaris_autoupgrade_t)
polaris_cpld_read(polaris_autoupgrade_t)
polaris_proc_rmonbifo_read(polaris_autoupgrade_t)
polaris_rmonbifo_tmp_read(polaris_autoupgrade_t)
polaris_boot_tmp_manage(polaris_autoupgrade_t)
polaris_read_debug_conf(polaris_autoupgrade_t)
polaris_disk_crashinfo_getattr(polaris_autoupgrade_t)

type polaris_autoupgrade_tmp_t;
files_tmp_file(polaris_autoupgrade_tmp_t)
/tmp/etc/installer
gen_require(
 type polaris_etc_t;
)
filetrans_pattern(polaris_autoupgrade_t, polaris_etc_t, polaris_autoupgrade_tmp_t, dir, "installer")
manage_fifo_files_pattern(polaris_autoupgrade_t, polaris_autoupgrade_tmp_t, polaris_autoupgrade_tmp_t)
manage_dirs_pattern(polaris_autoupgrade_t, polaris_etc_t, polaris_autoupgrade_tmp_t)
manage_files_pattern(polaris_autoupgrade_t, polaris_autoupgrade_tmp_t, polaris_autoupgrade_tmp_t)

Allow access to bootflash
polaris_bootflash_read(polaris_autoupgrade_t)

Allow access to packages.conf
polaris_read_packages_conf(polaris_autoupgrade_t)

needs to run pidof
dev_read_sysfs(polaris_autoupgrade_t)
kernel_read_system_state(polaris_autoupgrade_t)
domain_read_all_domains_state(polaris_autoupgrade_t)

send syslog
logging_send_syslog_msg(polaris_autoupgrade_t)

script starts rsync with mcp_chvrf.sh
polaris_chvrf_domtrans(polaris_autoupgrade_t)
gen_require(

```



```

 type rsync_t;
)
allow rsync_t polaris_autoupgrade_t:process sigchld;

/tmp/ufs/crashinfo access
optional_policy(
polaris_ncd_tmp_read(polaris_autoupgrade_t)
)

autoupgrade script in case of HA setup invokes breelay to trigger install of stand-by
polaris_bexecute_domtrans(polaris_autoupgrade_t)

polaris_flashlib_lock(polaris_autoupgrade_t)
polaris_flashlib_read(polaris_autoupgrade_t)
polaris_disk_install_read(polaris_autoupgrade_t)
polaris_install_engine_domtrans(polaris_autoupgrade_t)

#add transition to create /var/installer by autoupgrade
type polaris_autoupgrade_var_t;
files_tmp_file(polaris_autoupgrade_var_t)
files_var_filetrans(polaris_autoupgrade_t, polaris_autoupgrade_var_t, {file dir})
gen_require(
 type polaris_autoupgrade_exec_t;
)

#add transition to create /var/installer/auto_upgrade_helper.sh by autoupgrade
filetrans_pattern(polaris_autoupgrade_t,polaris_autoupgrade_var_t, polaris_autoupgrade_exec_t, file,
"auto_upgrade_helper.sh")
manage_files_pattern(polaris_autoupgrade_t, polaris_autoupgrade_var_t, polaris_autoupgrade_var_t)
manage_dirs_pattern(polaris_autoupgrade_t, polaris_autoupgrade_var_t, polaris_autoupgrade_var_t)

#add transition to create files/dir in /tmp
files_tmp_filetrans(polaris_autoupgrade_t, polaris_autoupgrade_tmp_t, {file dir})

access to /tmp/installer
polaris_install_tmp_manage(polaris_autoupgrade_t)

fs_getattr_tmpfs(polaris_autoupgrade_t)

access to /tmp/rsync_log_dir
polaris_manage_rsync_tmplog_dir(polaris_autoupgrade_t)

access to /harddisk link (accessed by flashutil and rotee call)
polaris_disk_harddisk_read_lnk(polaris_autoupgrade_t)

rsync_entry_domtrans(polaris_chvrf_t, rsync_t)

gen_require(

```

```

 type polaris_autoupgrade_t;
 type polaris_autoupgrade_exec_t;
)
rsync_entry_domtrans(polaris_autoupgrade_t, rsync_t)
polaris_bexecute_domain(polaris_autoupgrade_t, polaris_autoupgrade_exec_t)

fs_getattr_xattr_fs(polaris_autoupgrade_t)

auto_upgrade_helper.sh creates /var/installer/auto_upgrade_helper.sh
allow polaris_autoupgrade_t polaris_autoupgrade_exec_t:file { create setattr write };

rsync operations for members and standby rps on autoupgrade
gen_require(
 type rsync_port_t;
)
allow polaris_autoupgrade_t rsync_port_t:tcp_socket name_connect;

rsync requires to relabel /var/installer/auto_upgrade_helper.sh on standby
gen_require(
 type var_t;
)
allow rsync_t var_t:file relabelfrom;
allow rsync_t polaris_autoupgrade_exec_t:file relabelto;

access to /vol/harddisk/*.pkg
polaris_getattr_file_harddisk(polaris_autoupgrade_t)

access to /cdrom0/ when *ova image is booted during
first instance of vwlc on ucs server
polaris_removable_read(polaris_autoupgrade_t)

polaris_getattr_file_harddisk(polaris_autoupgrade_t)

auto_upgrade_client.sh access to "/tmp/sw/rp/0/0/rp_base/mount/bin/cut"
polaris_issu_tmp_files_read(polaris_autoupgrade_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisautoupgrade.te
No license file was found, but licenses were detected in source scan.

#
June 2017, Victor Kamensky
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#

/usr/binos/conf/run_ioxn_caf.sh -- gen_context(system_u:object_r:polaris_caf_exec_t,s0)

```

```

/usr/binos/conf/iox_reset.sh -- gen_context(system_u:object_r:polaris_caf_exec_t,s0)

ifdef(`nyquist_platform',`
/usr/binos/conf/standby_ioxcfg.sh -- gen_context(system_u:object_r:polaris_sioxcd_rp_exec_t,s0)
/tmp/app_host(/.*)? gen_context(system_u:object_r:polaris_sioxcd_rp_tmp_t,s0)
/mnt/sd3/iox_alt_hdd.dsk gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir(/.*)? gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/guest_share(/.*)?
gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/mnt/sd3/user/gscript/sss(/.*)? gen_context(system_u:object_r:polaris_iox_ss_disk_t,s0)
')

ifdef(`passport_platform',`
/flash1/iox_alt_hdd.dsk gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/flash1/iox_alt_hdd_mount_dir(/.*)? gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/flash1/iox_alt_hdd_mount_dir/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox_alt_hdd_mount_dir/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/flash1/iox_alt_hdd_mount_dir/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox_alt_hdd_mount_dir/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox_alt_hdd_mount_dir/guest_share(/.*)?
gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/flash1/user/gscript/sss(/.*)? gen_context(system_u:object_r:polaris_iox_ss_disk_t,s0)
/usr/binos/conf/standby_ioxcfg.sh gen_context(system_u:object_r:polaris_sioxcd_rp_exec_t,s0)
/tmp/app_host(/.*)? gen_context(system_u:object_r:polaris_sioxcd_rp_tmp_t,s0)
')

#All possible accesses from /bootflash/iox_alt_hdd_mount_dir (iox_polaris.conf)
/bootflash/iox_alt_hdd.dsk gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir(/.*)?
gen_context(system_u:object_r:polaris_iox_alt_hdd_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir/iox_host_data_share(/.*)?
gen_context(system_u:object_r:polaris_iox_files_t,s0)
/bootflash/iox_alt_hdd_mount_dir/guest_share(/.*)?
gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/bootflash/user/gscript/sss(/.*)? gen_context(system_u:object_r:polaris_iox_ss_disk_t,s0)

#All the possible IOX guestshell_dir from iox_polaris.conf
/guestshell(/.*)?(.*)\.sh gen_context(system_u:object_r:polaris_guestshell_exec_t,s0)
/guestshell(/.*)? gen_context(system_u:object_r:polaris_guestshell_t,s0)

#All the possible IOX flash_dir/harddisk_dir from iox_polaris.conf

```

```

/bootflash/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash11/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/harddisk/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/disk0/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/usb1/iox(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)

/bootflash/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash11/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/harddisk/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/disk0/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/usb1/iox_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)

/bootflash/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/mnt/sd3/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash1/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/flash11/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/harddisk/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/disk0/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)
/vol/usb1/iox_host_data_share(/.*)? gen_context(system_u:object_r:polaris_iox_files_t,s0)

/opt/cisco/caf/scripts(/.*)?(.*)\,sh gen_context(system_u:object_r:polaris_caf_exec_t,s0)
/opt/cisco/caf(/.*)?(.*) gen_context(system_u:object_r:polaris_caf_files_t,s0)
/opt/cisco/caf -d gen_context(system_u:object_r:polaris_caf_files_t,s0)

/var/log/caf(/.*)? gen_context(system_u:object_r:polaris_caf_log_t,s0)

/etc/guestshell_rsa_key\,pub gen_context(system_u:object_r:polaris_guestshell_ssh_key_t,s0)
/etc/guestshell_rsa_key gen_context(system_u:object_r:polaris_guestshell_ssh_key_t,s0)

/tmp/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/bootflash/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/mnt/sd3/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/flash1/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/flash11/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/vol/harddisk/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/vol/disk0/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)
/vol/usb1/caf(/.*)? gen_context(system_u:object_r:polaris_caf_tmp_files_t,s0)

/var/run/netns/guestshell gen_context(system_u:object_r:polaris_guestshell_var_run_t,s0)
/var/run/cisco_cli(/.*)? gen_context(system_u:object_r:polaris_caf_var_run_t,s0)

/tmp/ttyF(/.*)/(.*) gen_context(system_u:object_r:fifo_var_run_t,s0)

```

```
All the possible IOX bootflash/guest-share directory. This directory is shared between IOS and IOX
/bootflash/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/mnt/sd3/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/flash1/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/flash11/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/vol/harddisk/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/vol/disk0/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
/vol/usb1/guest-share(/.*)? gen_context(system_u:object_r:polaris_iox_shared_files_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscaf.fc
```

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```
#
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#
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#
```

```
polarisfnfagg file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfnfagg.fc
```

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```
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```

```
<summary>Polaris cmm Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscmm.if
```

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```
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#
```

```
polarisplogd file contexts place holder
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplogd.fc

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

divert(-1)

include(`polaris\_process.m4')

include(`polaris\_process\_if.m4')

include(`polaris\_ipc\_mqipc.m4')

include(`polaris\_ipc\_mqipc\_if.m4')

include(`polaris\_ipc\_ripc.m4')

include(`polaris\_ipc\_ripc\_if.m4')

include(`polaris\_ipc\_lipc.m4')

include(`polaris\_ipc\_lipc\_if.m4')

dnl Stub out non existent one

define(`polaris\_websocket\_service\_server',`')

define(`polaris\_cipc\_service\_server',`')

include(`polaris\_max\_scope.m4')

divert(0)dnl

#

# This is a generated file! Instead of modifying this file,

# modify proper platform TDL file.

#

## <summary>Polaris Platform IPC Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_if.m4

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#

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#

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#

```
/tmp/.l.ndbutil-load gen_context(system_u:object_r:polaris_dmi_ndbutil_lock_t,s0)
/tmp/.l.ndbutil-use gen_context(system_u:object_r:polaris_dmi_ndbutil_lock_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmindbmand.fc
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```

```
#
```

```
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```

```
#
```

```
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```
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```

```
#
```

```
/dev/cpp_vxe_rsrc -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
/dev/cpp_dev_info -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
/dev/cpp -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
/dev/cpp_kipc -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
on 1ng box
```

```
/dev/octeon_device -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
/dev/cpp_pdma -c gen_context(system_u:object_r:polaris_cpp_device_t,s0)
```

```
/dev/i95_[0-9]* -c gen_context(system_u:object_r:polaris_i95_device_t,s0)
```

```
/dev/shm/cpp_.* -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/dev/shm/sem\,cpp_.* -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/dev/shm/sem\,CPP_.* -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/dev/shm/sem\,CGM_SHM_SEM -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/dev/shm/cpp_ucode_dram -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/dev/shm/cpp_sbs_shm -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/mnt/huge/cpp_ucode_dram -- gen_context(system_u:object_r:polaris_cpp_tmpfs_t,s0)
```

```
/tmp/cpp_ifdev_rep -p gen_context(system_u:object_r:polaris_cpp_tmp_t,s0)
```

```
/tmp/cpp_ifdev_req -p gen_context(system_u:object_r:polaris_cpp_tmp_t,s0)
```

```
/tmp/cpp_anon_db -- gen_context(system_u:object_r:polaris_cpp_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscpp.fc
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```

```
#
```

```
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```

```
#
```

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```

```
#
```

```
policy_module(polarisservicemgr, 1.0);
```

```
gen_require(
 type polaris_service_mgr_t;
)

polaris_btrace_data_manage(polaris_service_mgr_t)
polaris_crft_data_manage(polaris_service_mgr_t)
polaris_chasfs_manage(polaris_service_mgr_t)
polaris_cpld_read(polaris_service_mgr_t)
polaris_flashlib_read(polaris_service_mgr_t)
polaris_lua_read(polaris_service_mgr_t)
polaris_tdlresolve_read(polaris_service_mgr_t)

polaris_ripc_sman_ui_serv_connect(polaris_service_mgr_t)

polaris_db_tdlldb_dir_use(polaris_service_mgr_t)

Use REPM MQIPC for replication
polaris_repm_peer_mqipc_manage(polaris_service_mgr_t)

#watches of /tmp/[rp|fp|cc]/pvp/process_state directory
polaris_process_state_watch(polaris_service_mgr_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaris servicemgr.te
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policy_module(polarispvp, 1.0);

polaris_process_domain_template(pvp)

transition to pman domain, once pman is invoked by pvp
polaris_pman_domtrans(polaris_pvp_t)

corecmd_exec_bin(polaris_pvp_t)
corecmd_exec_shell(polaris_pvp_t)
can execute hostname in pvp domain
hostname_exec(polaris_pvp_t)
can execute process in polaris domain
polaris_exec(polaris_pvp_t)
```



```

allow to read /proc/meminfo
kernel_read_system_state(polaris_pvp_t)

allow to get getattr of /proc file system during find over it
kernel_getattr_proc(polaris_pvp_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_pvp_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_pvp_t)

all to read sysctl files in /proc directory
kernel_read_all_sysctls(polaris_pvp_t)

work with /tmp files
type polaris_pvp_tmp_t;
files_tmp_file(polaris_pvp_tmp_t)
manage_dirs_pattern(polaris_pvp_t, tmp_t, polaris_pvp_tmp_t)
manage_files_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
manage_fifo_files_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
files_tmp_filetrans(polaris_pvp_t, polaris_pvp_tmp_t, { file dir })
filetrans_pattern(domain, tmp_t, polaris_pvp_tmp_t, dir, "pvp")

/tmp/silent_roll_select.log handling on Macallan
filetrans_pattern(domain, tmp_t, polaris_pvp_tmp_t, file, "silent_roll_select.log")

work with /tmp/[rp|fp|cc]/pvp/process_state files
type polaris_process_state_t;
files_tmp_file(polaris_process_state_t)
manage_dirs_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_process_state_t)
manage_files_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_process_state_t)
filetrans_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_process_state_t, dir, "process_state")

LOOK AT ME now all polaris process can change each other process
state. Need to fix it with more process specific labels in case
when polaris_domain_process becomes template.
gen_require(
 attribute polaris_domain;
)
polaris_pvp_manage_process_state_files(polaris_domain)

allow polaris_pvp_t self:capability sys_resource;

readlink access to /proc/<pid>/fd/0 triggers sys_ptrace capability need
allow polaris_pvp_t self:capability { sys_ptrace };

dmidecode_domtrans(polaris_pvp_t)

```

```

#on some ngwc pvp has to code-sign-verify silent roll packages
ifdef(`ngwc_family',`
polaris_code_verify_domtrans(polaris_pvp_t)
')

polaris_btrace_data_manage_all(polaris_pvp_t)
polaris_chasfs_manage(polaris_pvp_t)
polaris_cpld_read(polaris_pvp_t)
polaris_cpld_write(polaris_pvp_t)
polaris_proc_rmonbifo_read(polaris_pvp_t)
polaris_rmonbifo_tmp_read(polaris_pvp_t)
polaris_tdldb_list_dirs(polaris_pvp_t)
polaris_boot_tmp_read(polaris_pvp_t)
polaris_read_debug_conf(polaris_pvp_t)

LOOK AT ME pvp.sh runs find over /proc. Needs access
to state of all processes
domain_read_all_domains_state(polaris_pvp_t)

pvp.sh can call logger command
logging_send_syslog_msg(polaris_pvp_t)

should it not be moved to dmidecode module or better
change script to call dmidecode with stdin redirected
from /dev/null (i.e dmidecode < /dev/null)
gen_require(`
 type dmidecode_t;
')
polaris_pvp_stdin_read(dmidecode_t)

read pman tmp files
polaris_pman_read_tmp_files(polaris_pvp_t)

#allow polaris_pvp_t polaris_udev_tmp_files_t:dir { getattr search };
polaris_udev_tmp_list_dirs(polaris_pvp_t)

gen_require(`
 type initrc_t;
 type init_t;
')
#init_script_tmp_filetrans(initrc_t, polaris_pvp_tmp_t, file, "iosd_memory_share")
files_tmp_filetrans({ initrc_t init_t }, polaris_pvp_tmp_t, file, "iosd_memory_share")

polaris_systemd_tmpfiles_tmp_filetrans(polaris_pvp_tmp_t, dir, "max_elastic_bays")

direct access to serial TTY devices like /dev/ttyS1
term_write_unallocated_ttys(polaris_pvp_t)

```

```

For Cabo, allow access to GNSS device
ifdef(`cabo_platform',`
polaris_cabo_gnss_dev_use(polaris_pvp_t)
')

on ultra pvp calls hv_ttyprobe utility to figure out what terminal
to use as console, and this one need read access to terminal. There is
no separate macro for read only. But since we granting write to everyone
let use 'use' which means read/write
ifdef(`vxe_family',`
term_use_unallocated_ttys(polaris_pvp_t)
')
ifdef(`wlc_family',`
term_use_unallocated_ttys(polaris_pvp_t)
')
pvp's linux_iosd_image_env.sh will check /dev/ttyUSB* ports with hv_ttyprobe too.
term_use_usb_ttys(polaris_pvp_t)

allow access and modify files in /tftp directory, cannot use tftp_manage_rw_content
since it does not cover link files
gen_require(`
 type tftpd_dir_rw_t;
')
manage_dirs_pattern(polaris_pvp_t, tftpd_dir_rw_t, tftpd_dir_rw_t)
manage_files_pattern(polaris_pvp_t, tftpd_dir_rw_t, tftpd_dir_rw_t)
manage_lnk_files_pattern(polaris_pvp_t, tftpd_dir_rw_t, tftpd_dir_rw_t)

ASR1K modular platforms create /tftp/inv/inventory_(fru)(slot).bin
/tftp/inv is not a softlink but a directory for asr1k Modular platforms.
So it needs a file transition to polaris_chasfs_t for accessing it.
ifdef(`mcp_family',`
filetrans_pattern(domain, tftpd_dir_rw_t, polaris_chasfs_t, dir, "inv")
')
on ultra platform hv_ttyprobe utility that runs under polaris_pvp_t label
checks for existence of /boot/ttyS0_ignore file; and since /boot is symlink
to /varied it need dir search permission over polaris_disk_varied_t
ifdef(`vxe_family',`
polaris_disk_varied_search(polaris_pvp_t)
')
ifdef(`wlc_family',`
polaris_disk_varied_search(polaris_pvp_t)
')

pvp.sh calls cp utility with -a option that should preserve files
attributes as result cp needs to perform set_process_security_ctx call
which in turns calls setfscreatecon
allow polaris_pvp_t self:process setfscreate;

```

```

pvp.sh calls pidof utility and it needs read access to sysfs_t
#
When resetting a partner, pvp writes to the PCIe switch global
reset register using the i2c driver, which is also sysfs_t
LOOK AT ME should we create a new type for the PCIe switch reg
dev_rw_sysfs(polaris_pvp_t)

wants to execute /bin/dmesg
dmesg_domtrans(polaris_pvp_t)

wants to read from /tmp/rp/pvp/work/inot_fifo
gen_require(
 type dmesg_t;
)
rw_fifo_files_pattern(dmesg_t, polaris_pvp_tmp_t, polaris_pvp_tmp_t)

wants to write into /bootflash/.prst_sync
polaris_persistent_manage(polaris_pvp_t)

pvp tried to find all except hman polaris process with
'find /tmp/rp/process -name *.pid ! -name *hman* -printf %p' command
should be able to read pman tmp files
polaris_pman_read_tmp_files(polaris_pvp_t)

on way down pvp.sh call 'workon.sh rp 0 rotate force' so we
need to transition and run it in btrace_rotate domain
polaris_btrace_rotate_domtrans(polaris_pvp_t)

on way down pvp.sh checks for *.TEMP_IN_PROGRESS in /misc/scratch/core
need to be able read /misc/scratch link
polaris_disk_bootflash_read_lnk(polaris_pvp_t)

implode.sh things, should we run them in its own domain?

removes /etc/exports, create a new empty one and runs 'exportfs -ua'
this action also needs kernel_rw_rpc_sysctls to flush
files_manage_etc_files(polaris_pvp_t)
gen_require(
 type exports_t;
)
allow polaris_pvp_t exports_t:file delete_file_perms;
rpc_write_exports(polaris_pvp_t)
rpc_manage_nfs_state_data(polaris_pvp_t)
kernel_rw_rpc_sysctls(polaris_pvp_t)

calls 'systemctl reboot'
systemd_start_power_services(polaris_pvp_t)

```

```

pvp on 1ng attempts to rm readonly fpd firmware file, not sure why
polaris_firmware_getattr(polaris_pvp_t)

pvp reads /tmp/iosd_level
polaris_lm_tmp_read(polaris_pvp_t)
allow polaris_pvp_t self:capability dac_override;

in some image pvp needs to monut /tmp/rp/tlddb, in other images
it got mount by chasfs_boottime.sh systemd unit
polaris_tlddb_manage_dirs(polaris_pvp_t)
mount_domtrans(polaris_pvp_t)

in some cases pvp script creates /tmp/xx/process directory
polaris_pman_tmp_filetrans(polaris_pvp_t, dir, "process")
polaris_pman_manage_tmp_files(polaris_pvp_t)

on ngwc pvp creates /flash1/NVRAM directory
gen_require(
 type polaris_nvram_file_t;
 type root_t;
)
filetrans_pattern(polaris_pvp_t, root_t, polaris_nvram_file_t, dir, "flash1")
manage_dirs_pattern(polaris_pvp_t, polaris_nvram_file_t, polaris_nvram_file_t)

obtain access to rommon vars which live in flashlib
polaris_flashlib_read(polaris_pvp_t)
polaris_flashlib_write(polaris_pvp_t)

on ngwc platforms pvp creates a /obfl_cc directory and soft links it
to the correct vbd device
ifdef(^ngwc_family';`
gen_require(
 type polaris_obfl_data_t;
 type root_t;
)
filetrans_pattern(polaris_pvp_t, root_t, polaris_obfl_data_t, dir, "obfl_cc")
)

on ngwc platforms pvp needs to be able to determine if the the vbd devices
exist. The types may be slightly different depending on whether the cc's
device node is managed by udev or not
ifdef(^ngwc_family';`
dev_getattr_generic_blk_files(polaris_pvp_t)
storage_getattr_fixed_disk_dev(polaris_pvp_t)
udev_read_db(polaris_pvp_t)
)

on ngwc platforms pvp soft links the /tmp/sw/cc_srdriver/<slot> directory

```

```

to the correct silent roll software package via vbd_sr_app_init()
ifdef(`ngwc_family',`
polaris_sw_data_manage(polaris_pvp_t)
')

on blackheart pvp creates /blackheart_config directory
ifdef(`blackheart_platform',`
gen_require(`
 type polaris_nvram_file_t;
 type root_t;
')
filetrans_pattern(polaris_pvp_t, root_t, polaris_nvram_file_t, dir, "blackheart_config")
manage_dirs_pattern(polaris_pvp_t, polaris_nvram_file_t, polaris_nvram_file_t)
')

on sparrow pvp creates /sparrow_config directory
ifdef(`sparrow_platform',`
gen_require(`
 type polaris_nvram_file_t;
 type root_t;
')
filetrans_pattern(polaris_pvp_t, root_t, polaris_nvram_file_t, dir, "sparrow_config")
manage_dirs_pattern(polaris_pvp_t, polaris_nvram_file_t, polaris_nvram_file_t)
')

on Aventus pvp creates /aventus_config directory
ifdef(`aventus_platform',`
gen_require(`
 type polaris_nvram_file_t;
 type root_t;
')
filetrans_pattern(polaris_pvp_t, root_t, polaris_nvram_file_t, dir, "aventus_config")
manage_dirs_pattern(polaris_pvp_t, polaris_nvram_file_t, polaris_nvram_file_t)
fs_manage_configfs_files(polaris_pvp_t)
')

on utah for cc and on 1ng cyan_init.sh is executed by pvp
polaris_dyncfg_domtrans(polaris_pvp_t)
should it not be moved to cyan module or better
change script to call cyan_init.sh with stdin redirected
from /dev/null (i.e cyan_init.sh < /dev/null)
gen_require(`
 type polaris_dyncfg_t;
')
polaris_pvp_stdin_read(polaris_dyncfg_t)

mktmpfd checks /tmp file system attributes
fs_getattr_tmpfs(polaris_pvp_t)

```

```

optional_policy(
pvp on nyquist ls /tmp/ufs/crashinfo
polaris_ncd_tmp_read(polaris_pvp_t)
')

transition to polaris_load_usbnet_t, once load_usbnet.sh is invoked by pvp
crankshaft platforms need access to configfs
ifdef(^crankshaft_family',`
polaris_load_usbnet_domtrans(polaris_pvp_t)
gen_require(
 type configfs_t;
)
allow polaris_pvp_t configfs_t:dir getattr;
)

runs rsync -ptgoDLq /bootflash/.installer/issu_crash/fru_crash rsync://rp0-0/bootflash/.installer/...
rsync_entry_type(polaris_pvp_t)

ifdef(^ngwc_family',`
polaris_chvrf_domtrans(polaris_pvp_t)
gen_require(
 type rsync_t;
)
allow rsync_t polaris_pvp_t:process sigchld;

pvp_tmp file descriptor leaks into mcp_chvrf.sh
gen_require(
 type polaris_chvrf_t;
 type polaris_pvp_tmp_t;
)
allow polaris_chvrf_t polaris_pvp_tmp_t:fifo_file { ioctl read };
)

statfs64 over /tmp
fs_getattr_xattr_fs(polaris_pvp_t)

polaris_tdlresolve_read(polaris_pvp_t)

corenet_tcp_connect_rsync_port(polaris_pvp_t)

#runs over /proc/<pid>/net/arp
kernel_read_network_state(polaris_pvp_t)

#runs over /proc/
kernel_read_network_state_symlinks(polaris_pvp_t)

work with mounts

```

```

mount_domtrans(polaris_pvp_t)

optional_policy(
pvp.sh may mark or clear bits in /proc/exiting_bays
polaris_rw_exiting_bays(polaris_pvp_t)
')

optional_policy(
container_runtime_domtrans(polaris_pvp_t)
')

LOOK AT ME /usr/binos/conf/dockerd_env.sh not only sets environment
it also does quite a bit of action in context of pvp when it got
sourced before dockerd start
optional_policy(
fs_getattr_all_fs(polaris_pvp_t)
files_getattr_all_dirs(polaris_pvp_t)
fs_read_nsf_files(polaris_pvp_t)
container_manage_config_files(polaris_pvp_t)
polaris_caf_files_read(polaris_pvp_t)
creates /var/log/docker/docker.log
logging_manage_generic_logs(polaris_pvp_t)
gen_require(
 type var_log_t;
)
allow polaris_pvp_t var_log_t:dir create;
)

support uswap feature.
pvp script create and deletes
the /bootflash./uswap/... folder.
type polaris_uswap_files_t;
files_type(polaris_uswap_files_t)
polaris_pfile_type(polaris_uswap_files_t)
filetrans_pattern(polaris_pvp_t, polaris_disk_bootflash_t, polaris_uswap_files_t, dir, ".USWAP")
manage_dirs_pattern(polaris_pvp_t, polaris_uswap_files_t, polaris_uswap_files_t)
manage_files_pattern(polaris_pvp_t, polaris_uswap_files_t, polaris_uswap_files_t)
manage_lnk_files_pattern(polaris_pvp_t, polaris_uswap_files_t, polaris_uswap_files_t)

support for pvp to create /harddisk/.CRFT directory
filetrans_pattern(polaris_pvp_t, polaris_disk_bootflash_t, polaris_crft_data_t, dir, ".CRFT")

Support SAI
type polaris_pvp_sai_t;
files_tmp_file(polaris_pvp_sai_t)
filetrans_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_pvp_sai_t, dir, "sai_process")
manage_dirs_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_pvp_sai_t)
manage_files_pattern(polaris_pvp_t, polaris_pvp_tmp_t, polaris_pvp_sai_t)

```



```

all processes controlled by pchort require access to sai files
gen_require(
 attribute polaris_domain;
)
polaris_pvp_read_sai_files(polaris_domain)

ifdef(`ngwc_family',`
ngmod_vbd_handle_mount@.service started by pvp on macallan
systemd_config_generic_services(polaris_pvp_t)
)

type polaris_pvp_var_run_t;
files_pid_file(polaris_pvp_var_run_t)
gen_require(
 type var_run_t;
)
manage_files_pattern(polaris_pvp_t, var_run_t, polaris_pvp_var_run_t)
files_pid_filetrans(polaris_pvp_t, polaris_pvp_var_run_t, file, ".uswap_clr_rp")
files_pid_filetrans(polaris_pvp_t, polaris_pvp_var_run_t, file, ".uswap_clr_fp")
files_pid_filetrans(polaris_pvp_t, polaris_pvp_var_run_t, file, ".uswap_clr_cc")

watch over /tmp/rp/pvp/control
allow polaris_pvp_t polaris_pvp_tmp_t:dir watch;

permissions required during shutdown

implode.sh 'systemctl reboot' uses dbus
dbus_system_bus_client(polaris_pvp_t)

and checks reboot.target
systemd_status_power_services(polaris_pvp_t)

writes sysctrl_i2c.lck file
gen_require(
 type polaris_cm_rp_tmp_t;
)
files_tmp_filetrans(polaris_pvp_t, polaris_cm_rp_tmp_t, file, "sysctrl_i2c.lck")
polaris_cm_rp_tmp_manage(polaris_pvp_t)

journalctl and ifconfig are used when gathering logs during a punt-inject
crash
journalctl_domtrans(polaris_pvp_t)
sysnet_domtrans_ifconfig(polaris_pvp_t)
and allow it to write to our shutdownlog
gen_require(
 type ifconfig_t;
)
polaris_btrace_data_manage_all(ifconfig_t)

```

```

implode.sh checks ip interfaces before ifconfig
polaris_socketat_nsfs_read(polaris_pvp_t)

cedge uses logrotate
polaris_ripc_confd_ipc_connect(polaris_pvp_t)
logrotate perms
polaris_confd_var_log_manage(polaris_pvp_t)
allow polaris_pvp_t self:capability { chown fowner };
var_lib stuff
files_manage_urandom_seed(polaris_pvp_t)

vconfd_script_admin_tech.sh is invoked by pvp.sh. This requires a domain
transition from pvp to admin tech context.
polaris_admin_tech_domtrans(polaris_pvp_t)

systemreport related permissions
pd_info collection when triggering systemreport
fdisk permissions
storage_raw_read_fixed_disk(polaris_pvp_t);
fstools_manage_entry_files(polaris_pvp_t);
fstools_exec(polaris_pvp_t);
polaris_rommon_device_read(polaris_pvp_t)
dmesg writes to pd_info path
write_files_pattern(dmesg_t, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
gen_require(
 type admin_home_t;
)
top creates/writes dir /.config
allow polaris_pvp_t admin_home_t:dir { add_name create write };
drop-caches
kernel_rw_vm_sysctls(polaris_pvp_t);

systemreport collection reads all sorts of files
but also deletes those files afterwards...
logging_manage_audit_log(polaris_pvp_t)

report collects maroon data
polaris_maroon_data_manage_all(polaris_pvp_t);
polaris_tdlresolve_manage(polaris_pvp_t);

collect udev log
polaris_udev_tmp_manage(polaris_pvp_t)

init_status(polaris_pvp_t);

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispvp.te

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

```
define(`ripc_stem', `translit(patsubst($1, `-rip$', ``), `-', `_''))
```

```
define(`ripc_label', `format(`polaris_%s_rip_port_t', ripc_stem($1))')
```

dnl Ripc Type Map: track that type declations unique

```
define(`ripc_type_map', `defn(format(`ripc_type_map[%s]', `$1'))')
```

```
define(`ripc_type_map_set', `define(format(`ripc_type_map[%s]', `$1'), `$2')')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_rip.m4

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#

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#

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#

```
policy_module(polarisquack, 1.0);
```

```
#####
```

```
Quack Driver policy
```

```
#####
```

```
type polaris_quack_device_t;
```

```
dev_node(polaris_quack_device_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisquack.te

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#

```
Polaris lua files
/lu/(.*)?(.*)\.lua -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
/usr/binos/conf/(.*)?(.*)\.lua -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
/lu/(.*)?(.*)\.so -- gen_context(system_u:object_r:lib_t,s0)
/lu/(.*)?(.*) -d gen_context(system_u:object_r:usr_t,s0)
/lu -d gen_context(system_u:object_r:usr_t,s0)
```

```
#Polaris nginx lua files
/var/scripts/lu/(.*)? -d gen_context(system_u:object_r:polaris_lua_file_t,s0)
/var/scripts/lu/(.*)? -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
```

# why did we put .so libraries in /var directory?

```
/var/LibLua/LuaXML_lib\.so -- gen_context(system_u:object_r:lib_t,s0)
/var/LibLua/cjson\.so -- gen_context(system_u:object_r:lib_t,s0)
/var/LibLua/(.*)\.lua -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
```

```
#/lua -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
/lu/(.*)? -- gen_context(system_u:object_r:polaris_lua_file_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislua.fc
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```

```
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#
```

```
/tmp/sw/cfg/(.*)? gen_context(system_u:object_r:polaris_cfg_data_t,s0)
/usr/binos/conf/cfg_sync.sh -- gen_context(system_u:object_r:polaris_cfg_sync_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscfg.fc
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```

```
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#
```

```
/var/log/dmi/(.*)? gen_context(system_u:object_r:polaris_dmi_var_log_t,s0)
/tmp/stream-parsers/(.*)? gen_context(system_u:object_r:polaris_dmi_parser_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmiopdatamgrd.fc

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```
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#

<summary>Polaris container Policy Rules.</summary>

#####

<summary>
Creates types and rules for a basic
polaris container process domain.
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_container_t
</summary>
</param>
#
template(`polaris_container_domain_template`,`
gen_require(`
 type svirt_sandbox_file_t;
 type virt_lxc_var_run_t;
 attribute sandbox_net_domain;
 attribute svirt_sandbox_domain;
 bool virt_sandbox_use_sys_admin;
 bool virt_sandbox_use_mknod;
 bool virt_sandbox_use_all_caps;
 bool virt_sandbox_use_netlink;
`)

type polaris_$1_container_t, svirt_sandbox_domain;
domain_type(polaris_$1_container_t)
domain_user_exemption_target(polaris_$1_container_t)
mls_rangetrans_target(polaris_$1_container_t)
mcs_constrained(polaris_$1_container_t)
role system_r types polaris_$1_container_t;

logging_send_syslog_msg(polaris_$1_container_t)

kernel_read_system_state(polaris_$1_container_t)
kernel_read_all_proc(polaris_$1_container_t)
```

```

virt_default_capabilities(polaris_${1}_container_t)
typeattribute polaris_${1}_container_t sandbox_net_domain;
dontaudit polaris_${1}_container_t self:capability fsetid;
dontaudit polaris_${1}_container_t self:capability2 block_suspend ;
allow polaris_${1}_container_t self:process { execstack execmem };
manage_chr_files_pattern(polaris_${1}_container_t, svirt_sandbox_file_t, svirt_sandbox_file_t)
kernel_load_module(polaris_${1}_container_t)

tunable_policy(`virt_sandbox_use_sys_admin`,`
 allow polaris_${1}_container_t self:capability sys_admin;
`)

tunable_policy(`virt_sandbox_use_mknod`,`
 allow polaris_${1}_container_t self:capability mknod;
`)

tunable_policy(`virt_sandbox_use_all_caps`,`
 allow polaris_${1}_container_t self:capability all_capability_perms;
 allow polaris_${1}_container_t self:capability2 all_capability2_perms;
`)

tunable_policy(`virt_sandbox_use_netlink`,`
 allow polaris_${1}_container_t self:netlink_socket create_socket_perms;
 allow polaris_${1}_container_t self:netlink_tcpdiag_socket create_netlink_socket_perms;
 allow polaris_${1}_container_t self:netlink_kobject_uevent_socket create_socket_perms;
`,`
 logging_dontaudit_send_audit_msgs(polaris_${1}_container_t)
`)

allow polaris_${1}_container_t virt_lxc_var_run_t:dir list_dir_perms;
allow polaris_${1}_container_t virt_lxc_var_run_t:file read_file_perms;

kernel_read_irq_sysctls(polaris_${1}_container_t)
kernel_read_messages(polaris_${1}_container_t)

dev_read_sysfs(polaris_${1}_container_t)
dev_read_mtrr(polaris_${1}_container_t)
dev_read_rand(polaris_${1}_container_t)
dev_read_urand(polaris_${1}_container_t)

files_read_kernel_modules(polaris_${1}_container_t)

Do we actually need these?
fs_mount_cgroup(polaris_${1}_container_t)
fs_manage_cgroup_dirs(polaris_${1}_container_t)
fs_manage_cgroup_files(polaris_${1}_container_t)
Needed for docker
fs_unmount_xattr_fs(polaris_${1}_container_t)

```

```

auth_use_nsswitch(polaris_${1}_container_t)

optional_policy(
rpm_read_db(polaris_${1}_container_t)
)

logging_send_syslog_msg(polaris_${1}_container_t)

tunable_policy(`virt_sandbox_use_audit`,`
logging_send_audit_msgs(polaris_${1}_container_t)
)

userdom_use_user_ptys(polaris_${1}_container_t)

optional_policy(
allow vman to kill lxc container process
on shutdown where vman destroys container-related
stuff after a timeout period
polaris_vman_kill_process(polaris_${1}_container_t)
)

copied from polariscommon.if. If the label is added in
in permissive map, the below interface will make permissive
ifelse(permissive_domain(polaris_${1}_container_t), polaris_${1}_container_t,
`polaris_permissive_domain_setup(polaris_${1}_container_t)',
confined_domain(polaris_${1}_container_t), polaris_${1}_container_t, `,
`polaris_domain_maybe_unconfined(polaris_${1}_container_t)')

)

#####
<summary>
Creates types and rules for a basic
polaris KVM container process domain.
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_container_t
</summary>
</param>
#
template(`polaris_kvm_domain_template`,`
gen_require(
attribute virt_domain;
type svirt_image_t;
)

```

```

for now, things are same as polaris_container_domain_template
polaris_container_domain_template($1)

typeattribute polaris_$1_container_t virt_domain;
allow {map} of svirt_image_t needed by VWAAS similar to svirt
allow polaris_$1_container_t svirt_image_t:{ file blk_file } map;
)
#####
<summary>
Read Sandbox Files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sandbox_file_read`,`
 gen_require(`
 type svirt_sandbox_file_t;
 `)
 read_files_pattern($1, svirt_sandbox_file_t, svirt_sandbox_file_t)
 read_lnk_files_pattern($1, svirt_sandbox_file_t, svirt_sandbox_file_t)
 list_dirs_pattern($1, svirt_sandbox_file_t, svirt_sandbox_file_t)
)
#####
<summary>
Read Sandbox Files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sandbox_file_dir_list`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type svirt_sandbox_file_t;
 `)
 list_dirs_pattern($1, { svirt_sandbox_file_t polaris_disk_bootflash_t polaris_disk_harddisk_t },
svirt_sandbox_file_t)
 optional_policy(`
 gen_require(`
 type polaris_iox_alt_hdd_files_t;
 `)
 `)
)

```



```

 list_dirs_pattern($1, polaris_iox_alt_hdd_files_t , svirt_sandbox_file_t)
)

)

#####
<summary>
Getattr of Sandbox Files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sandbox_file_getattr`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type svirt_sandbox_file_t;
 `)
 setattr_files_pattern($1, { svirt_sandbox_file_t polaris_disk_bootflash_t polaris_disk_harddisk_t },
svirt_sandbox_file_t)
 optional_policy(`
 gen_require(`
 type polaris_iox_alt_hdd_files_t;
 `)
 setattr_files_pattern($1, polaris_iox_alt_hdd_files_t, svirt_sandbox_file_t)
 `)

)

#####
<summary>
Normal restricted permission to execute utd (snort) container
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_utd_container`,`
 allow $1 self:netlink_generic_socket client_stream_socket_perms;
)

#####

```

```

<summary>
Allow domain transition
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_container_domtrans`,`
 gen_require(`
 type polaris_iox_container_t;
 type container_file_t;
 `)
 domain_transition_pattern($1, container_file_t, polaris_iox_container_t)
`)

```

```

#####
<summary>
Allow watch on container files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_container_watch`,`
 gen_require(`
 type tmpfs_t;
 type container_file_t;
 `)
 allow $1 container_file_t:{ dir file lnk_file} watch;
 allow $1 tmpfs_t:{ dir file lnk_file} watch;
`)

```

```

#####
<summary>
Send messages to utdl container unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_utdl_container_dgram_send`,`
 gen_require(`

```

```

 type polaris_utdl_container_t;
)
 allow $1 polaris_utdl_container_t:unix_dgram_socket sendto;
)

#####
<summary>
Allow unix stream socket connect
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_waas_stream_connect`,
 gen_require(`
 type polaris_waas_container_t;
 `)
 allow $1 polaris_waas_container_t:unix_stream_socket connectto;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscontainer.if

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```

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March 2017, Victor Kamensky
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#

```

```

/tmp/.flashlock -- gen_context(system_u:object_r:polaris_flashlib_lock_t,s0)
/tmp/flashdev.log -- gen_context(system_u:object_r:polaris_flashlib_log_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisflashlib.fc

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```

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Oct 2020, Xin Xiang
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#

```

```

dma map devices
/dev/dmammap -c gen_context(system_u:object_r:polaris_dmammap_device_t,s0)

/dev/dma_nw is introduced by Nightwatch switch module on ESG routing platform
/dev/dma_nw -c gen_context(system_u:object_r:polaris_dmammap_device_t,s0)

dplr interrupt devices
/dev/dplr_intrpt -c gen_context(system_u:object_r:polaris_dplr_device_t,s0)

/dev/dplr_nw is introduced by Nightwatch switch module on ESG routing platform
/dev/dplr_nw -c gen_context(system_u:object_r:polaris_dplr_device_t,s0)

e.g., /dev/msi/Slot8/Doppler0/Group0
/dev/msi/Slot[0-9]*/Doppler[0-9]* -c gen_context(system_u:object_r:polaris_dplr_device_t,s0)
/dev/msi/Slot[0-9]*/Doppler[0-9]*(/*)? -c gen_context(system_u:object_r:polaris_dplr_device_t,s0)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdoppler.fc
```

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#

<summary>Polaris ncd Policy Rules.</summary>

#####

<summary>
Make the specified domain able to manage tmp file created by
ncd.sh like /tmp/etc/ncd_work_dir
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ncd_tmp_manage',`
 gen_require(`
 type polaris_ncd_tmp_t;
 `)
 manage_dirs_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
 manage_files_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
 manage_lnk_files_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
)

```

```
#####
<summary>
Make the specified domain able to read tmp file created by
ncd.sh like /tmp/ufs/crashinfo
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ncd_tmp_read`,`
 gen_require(`
 type polaris_ncd_tmp_t;
 `)
 list_dirs_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
 read_files_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
 read_lnk_files_pattern($1, polaris_ncd_tmp_t, polaris_ncd_tmp_t)
`)
```

```
#####
<summary>
Make the specified domain able to read etc file created by
ncd.sh like /etc/conf/unifiedfs/mount_data
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ncd_etc_read`,`
 gen_require(`
 type polaris_ncd_etc_t;
 `)
 read_files_pattern($1, polaris_ncd_etc_t, polaris_ncd_etc_t)
`)
```

```
#####
<summary>
Execute a domain transition to run ncd.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
```

```

#
interface(`polaris_ncd_domtrans',`
 gen_require(`
 type polaris_ncd_t, polaris_ncd_exec_t;
 ')

 domtrans_pattern($1, polaris_ncd_exec_t, polaris_ncd_t)
')

#####
<summary>
Execute a domain transition to run unifiedfs_helper.sh.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_ufs_helper_domtrans',`
 gen_require(`
 type polaris_ufs_helper_t, polaris_ufs_helper_exec_t;
 ')

 domtrans_pattern($1, polaris_ufs_helper_exec_t, polaris_ufs_helper_t)
')

#####
<summary>
Run rpcinfo in a domain, grant proper network permissions.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_ncd_rpcinfo_net',`
 corenet_tcp_bind_generic_node($1)
 corenet_tcp_bind_all_rpc_ports($1)
 corenet_tcp_connect_all_rpc_ports($1)
 corenet_tcp_connect_unreserved_ports($1)
 allow $1 self:tcp_socket { bind connect create getattr getopt setopt };

 corenet_udp_bind_generic_node($1)
 corenet_udp_bind_all_rpc_ports($1)
 allow $1 self:udp_socket { bind create getattr getopt setopt };

```

```

corenet_tcp_connect_portmap_port($1)

ifdef(`passport_platform',`
 # invoked rpcinfo which connects to port 2049 (nfs server)
 # port is incorrectly labelled due to falling in range of TDL define
 # of IOSd gold rpc service
 polaris_ripc_iosd_gold_connect($1)
`)

ifdef(`starfleet_platform',`
 # invoked rpcinfo which connects to port 2049 (nfs server)
 # port is incorrectly labelled due to falling in range of TDL define
 # of IOSd gold rpc service
 polaris_ripc_iosd_gold_connect($1)
`)

ifdef(`bigbang_platform',`
 #nfs server port 2049 is labelled as rpc-emd_ui_port_t based on TDL define
 polaris_ripc_emd_ui_connect($1)
`)

`)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisncd.if
```

No license file was found, but licenses were detected in source scan.

```

#
July 2017, Victor Kamensky
#
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#

```

```
policy_module(polariscppcdm, 1.0);
```

```

gen_require(`
 type polaris_cpp_cdm_t;
`)

```

```

polaris_btrace_data_manage(polaris_cpp_cdm_t)
polaris_crft_data_manage(polaris_cpp_cdm_t)
polaris_chasfs_manage(polaris_cpp_cdm_t)
polaris_tdlresolve_read(polaris_cpp_cdm_t)
polaris_tdlldb_list_dirs(polaris_cpp_cdm_t)
polaris_cpld_read(polaris_cpp_cdm_t)
polaris_flashlib_read(polaris_cpp_cdm_t)

```

```

polaris_cpp_tmp_files_use(polaris_cpp_cdm_t)
works with /dev/cpp_dev_info and /dev/cpp_kipc
polaris_cpp_dev_use(polaris_cpp_cdm_t)
polaris_cpp_tmpfs_ifdev_rw(polaris_cpp_cdm_t)

polaris_icc_broken_relocations(polaris_cpp_cdm_t)

allow polaris_cpp_cdm_t self:capability net_admin;

get attributes of /dev/shm from glibc where_is_shmfs function
fs_getattr_tmpfs(polaris_cpp_cdm_t)

polaris_cpp_cavium_sdk_ipc_use(polaris_cpp_cdm_t)

LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh58515)
ifdef(`crankshaft_family',`
polaris_dev_mem_use(polaris_cpp_cdm_t)
')

overlord/neptune access /sys/bus/pci/devices/0000:01:00.0/resource0
when initializing the CPP DMAP library.
optional_policy(`
polaris_cpp_cavium_dma_map(polaris_cpp_cdm_t)
')

optional_policy(`
polaris_cbdma_dev_use(polaris_cpp_cdm_t)
')
polaris_cpld_dev_use(polaris_cpp_cdm_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppcdm.te
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August 2017, Victor Kamensky
#
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#

<summary>Polaris bsm Policy Rules.</summary>

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbsm.if

```



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```

March 2017, Victor Kamensky

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#
```

```
/obfl -l gen_context(system_u:object_r:polaris_obfl_data_t,s0)
/obfl0 -l gen_context(system_u:object_r:polaris_obfl_data_t,s0)
```

```
/tmp/obfl(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisobfl.fc
```

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```

March 2017, Victor Kamensky

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#
```

```
/dev/cpld -c gen_context(system_u:object_r:polaris_cpld_device_t,s0)
/dev/cpld-ha -c gen_context(system_u:object_r:polaris_cpld_device_t,s0)
/dev/cpld-misc-int -c gen_context(system_u:object_r:polaris_cpld_device_t,s0)
/dev/cpld-virtual-fp -c gen_context(system_u:object_r:polaris_cpld_device_t,s0)
/dev/cpld-virtual-cc -c gen_context(system_u:object_r:polaris_cpld_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscpld.fc
```

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```
dnl
dnl January 2021, Vaibhav Lade
dnl
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dnl All rights reserved
dnl
dnl VPCGW Platform Max Bay Limits
max_bay_map_set(rp, `per_bay', 0)
max_bay_map_set(cc, `per_bay', 0)
max_bay_map_set(fp, `per_bay', 0)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(rp, `elastic', BPROC_UEMGR, 7)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_UEMGR, 7)
max_elastic_map_set(`fp', `elastic', BPROC_UEMGR, 7)
```

```
max_elastic_ripc_map_set(`rp', `elastic', BPROC_UEMGR, 7)
max_elastic_ripc_map_set(`cc', `elastic', BPROC_UEMGR, 7)
max_elastic_ripc_map_set(`fp', `elastic', BPROC_UEMGR, 7)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/vpcgwmaps.m4
No license file was found, but licenses were detected in source scan.
```

```
#
July 2017, Victor Kamensky
#
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#
```

```
<summary>Polaris gsd_rp Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisgsdrp.if
No license file was found, but licenses were detected in source scan.
```

```
#
January 2018, Manohar Hungund
#
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#
```

```
policy_module(polarisoctdplogrp, 1.0);
```

```
gen_require(`
 type polaris_oct_dp_log_rp_t;
`)
```

```
polaris_btrace_data_manage(polaris_oct_dp_log_rp_t)
polaris_chasfs_manage(polaris_oct_dp_log_rp_t)
polaris_tdlresolve_read(polaris_oct_dp_log_rp_t)
polaris_tdlldb_list_dirs(polaris_oct_dp_log_rp_t)
polaris_cpuld_read(polaris_oct_dp_log_rp_t)
polaris_flashlib_read(polaris_oct_dp_log_rp_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_oct_dp_log_rp_t)
```

```
direct access to serial TTY devices
(octeon_dp_logger needs to acces /dev/ttyDASH7)
```

term\_open\_unallocated\_ttys(polaris\_oct\_dp\_log\_rp\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisoctdplogrp.te

No license file was found, but licenses were detected in source scan.

#

# June 2020, Manu Roy

#

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#

## <summary>Polaris iotswitch Policy Rules.</summary>

#

#

#####

## <summary>

## Work (read, write, ioctl) with /dev/petra-fpga device

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_iots\_fpga\_dev\_use`,`

gen\_require(`

type device\_t;

type polaris\_iots\_fpga\_device\_t;

`)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_iots\_fpga\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_iots\_fpga\_device\_t)

allow \$1 polaris\_iots\_fpga\_device\_t:chr\_file map;

')

#####

## <summary>

## Work (read, write, ioctl) with /dev/tm

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_iots\_tm\_dev\_use`,`

gen\_require(`

```

 type device_t;
 type polaris_iots_tm_device_t;
)
write_chr_files_pattern($1, device_t, polaris_iots_tm_device_t)
read_chr_files_pattern($1, device_t, polaris_iots_tm_device_t)
allow $1 polaris_iots_tm_device_t:chr_file map;
)

#####
<summary>
Allow access to semaphore with type polaris_cm_rp_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_rp_sem_use',`
 gen_require(`
 type polaris_cm_rp_t;
 `)
 allow $1 polaris_cm_rp_t:sem rw_sem_perms;
)

#####
<summary>
Allow access to semaphore with type polaris_iots_mvDmaDrv_device_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_mvDmaDrv_dev_use',`
 gen_require(`
 type device_t;
 type polaris_iots_mvDmaDrv_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_iots_mvDmaDrv_device_t)
 read_chr_files_pattern($1, device_t, polaris_iots_mvDmaDrv_device_t)
 allow $1 polaris_iots_mvDmaDrv_device_t:chr_file map;
)

#####
<summary>
Allow access to semaphore with type polaris_iots_mvIntDrv_device_t

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_mvIntDrv_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_iots_mvIntDrv_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_iots_mvIntDrv_device_t)
 read_chr_files_pattern($1, device_t, polaris_iots_mvIntDrv_device_t)
`)

#####
<summary>
Manage iots swipedrive files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_swipedrive_file_manage`,`
 gen_require(`
 type polaris_iots_swipedrive_file_t;
 `)
 manage_files_pattern($1, polaris_iots_swipedrive_file_t, polaris_iots_swipedrive_file_t)
 manage_lnk_files_pattern($1, polaris_iots_swipedrive_file_t, polaris_iots_swipedrive_file_t)
 manage_dirs_pattern($1, polaris_iots_swipedrive_file_t, polaris_iots_swipedrive_file_t)
`)

#####
<summary>
Get the attributes of an swipe drive
filesystem.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_swipedrive`,`
 gen_require(`

```

```

 type polaris_iots_swipedrive_file_t;
)

 allow $1 polaris_iots_swipedrive_file_t:filesystem getattr;
)

#####
<summary>
Allow access to semaphore with type polaris_iots_led_device_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_led_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_iots_led_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_iots_led_device_t)
 read_chr_files_pattern($1, device_t, polaris_iots_led_device_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisiotswitch.if

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```

#
December 2019, Victor Kamensky
#
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#

```

```

<summary>Polaris fnf_agg Policy Rules.</summary>

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfnfagg.if

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```

#
March 2017, Victor Kamensky
#
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#

```

```
<summary>Polaris TDLResolve Policy Rules.</summary>
```

```
#####
```

```
TDLresolve policy
```

```
#####
```

```
#####
```

```
<summary>
```

```
Open tdlresolve files
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<rolebase/>
```

```
#
```

```
interface(`polaris_tdlresolve_read`,`
```

```
 gen_require(`
```

```
 type polaris_tdlresolve_t;
```

```
 `)
```

```
 read_files_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
```

```
 read_lnk_files_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
```

```
 list_dirs_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
```

```
 allow $1 polaris_tdlresolve_t:file map;
```

```
 gen_require(`
```

```
 type polaris_global_service_t;
```

```
 `)
```

```
 read_files_pattern($1, polaris_global_service_t, polaris_global_service_t)
```

```
 allow $1 polaris_global_service_t:file map;
```

```
 `)
```

```
#####
```

```
<summary>
```

```
Manage tdlresolve files
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<rolebase/>
```

```
#
```

```
interface(`polaris_tdlresolve_manage`,`
```

```
 gen_require(`
```

```
 type polaris_tdlresolve_t;
```

```
 `)
```

```

 manage_files_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
 manage_lnk_files_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
 manage_dirs_pattern($1, polaris_tdlresolve_t, polaris_tdlresolve_t)
 allow $1 polaris_tdlresolve_t:file map;
gen_require(`
type polaris_global_service_t;
`)
 manage_files_pattern($1, polaris_global_service_t, polaris_global_service_t)
 allow $1 polaris_global_service_t:file map;
`)

```

```
#####
```

```

<summary>
Watch tdlresolve directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_tdlresolve_watch`,`
 gen_require(`
 type polaris_tdlresolve_t;
 `)
 allow $1 polaris_tdlresolve_t:dir watch;
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristdlresolve.if

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```

#
September 2018, Anubha Balani
#
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#

```

```

/tmp/maroon_stats -d gen_context(system_u:object_r:polaris_maroon_base_t,s0)
zram devices
/dev/zram[0-9]* -b gen_context(system_u:object_r:polaris_zram_device_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismemory.fc

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```

#
July 2020, Victor Kamensky
#
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#

policy_module(polarishtx, 1.0);

gen_require(
 type polaris_htx_t;
)
polaris_chasfs_read(polaris_htx_t)
polaris_cpld_read(polaris_htx_t)
polaris_tdlresolve_read(polaris_htx_t)

polaris_ripc_sman_ui_serv_connect(polaris_htx_t)

logging_send_syslog_msg(polaris_htx_t)

LOOK AT ME uses shell and mkdir just to create /tmp/HTX-IOX directory
should be single mkdir system call, in fact even this may not
be needed since it is created by system-tempfiles
corecmd_exec_shell(polaris_htx_t)
corecmd_exec_bin(polaris_htx_t)
auth_use_nsswitch(polaris_htx_t)

call posix_sysconf that opens /sys/devices/system/cpu/online
dev_read_sysfs(polaris_htx_t)

create threads
allow polaris_htx_t self:process setsched;
allow polaris_htx_t self:capability sys_nice;

optional_policy(
 polaris_qfp_dgram_send(polaris_htx_t)
)

vconfd_load_shared_schemas
polaris_conf_d_shared_schema_read(polaris_htx_t)

type polaris_htx_iox_tmp_t;
files_tmp_file(polaris_htx_iox_tmp_t)
polaris_htx_iox_tmp_manage(polaris_htx_t)

htx logs files like /tmp/nwaas_log_sslproxy.log
type polaris_htx_tmp_t;
files_tmp_file(polaris_htx_tmp_t)

```

```

files_tmp_filetrans(polaris_htx_t, polaris_htx_tmp_t, file)
manage_files_pattern(polaris_htx_t, polaris_htx_tmp_t, polaris_htx_tmp_t)

handle /dev/shm/tcpproxy_debug_shm
type polaris_htx_tmpfs_t;
files_tmpfs_file(polaris_htx_tmpfs_t)
fs_tmpfs_filetrans(polaris_htx_t, polaris_htx_tmpfs_t, file)
fs_getattr_tmpfs(polaris_htx_t)
gen_require(
 type tmpfs_t;

)
manage_files_pattern(polaris_htx_t, tmpfs_t, polaris_htx_tmpfs_t)
allow polaris_htx_t polaris_htx_tmpfs_t:file map;

work with /tmp/memif
optional_policy(
 polaris_qfp_memif_manage(polaris_htx_t)
)

sppi_memif
type polaris_sppi_memif_device_t;
dev_node(polaris_sppi_memif_device_t)
polaris_sppi_memif_dev_use(polaris_htx_t)

packet_socket uinet_if_sppi_channel_init
allow polaris_htx_t self:packet_socket { create_socket_perms recv_msg send_msg};
allow polaris_htx_t self:capability net_raw;

read and write /bootflash/cacert-ssl.pem
polaris_bootflash_manage(polaris_htx_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarishtx.te

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```

#
March 2017, Victor Kamensky
#
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#

<summary>Polaris nginx Policy Rules.</summary>

#####
<summary>
Allow domain to be started by nginx with

```

```

transition into specific service domain.
</summary>
<param name="domain">
<summary>
Type to be used to run utility.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
interface(`polaris_nginx_exec_domain`,`
gen_require(`
type polaris_nginx_t;
`)

domtrans_pattern(polaris_nginx_t, $2, $1)
`)

#####
<summary>
Execute mcp_trace_filter script in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_trace_filter_domtrans`,`
gen_require(`
type polaris_trace_filter_t, polaris_trace_filter_exec_t;
`)

domtrans_pattern($1, polaris_trace_filter_exec_t, polaris_trace_filter_t)
`)

#####
<summary>
Execute file transfer client in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#

```

```

interface(`polaris_file_transfer_client_domtrans`,`
 gen_require(`
 type polaris_file_transfer_client_t, polaris_file_transfer_client_exec_t;
 `)

 domtrans_pattern($1, polaris_file_transfer_client_exec_t, polaris_file_transfer_client_t)
)

```

```
#####
```

```

<summary>
Allow others to perform pipe operations on nginx files
</summary>
<param name="domain">
<summary>
Domain allowed to perform the operation
</summary>
</param>
#

```

```

interface(`polaris_nginx_manage_fifo_files`,`
 gen_require(`
 type polaris_nginx_t;
 type $1;
 `)

 manage_fifo_files_pattern($1, polaris_nginx_t, polaris_nginx_t)
)

```

```
#####
```

```

<summary>
Allow the specified domain to manage polaris_nginx_tmp_t files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_nginx_tmp_manage`,`
 gen_require(`
 type polaris_nginx_tmp_t;
 `)

 manage_files_pattern($1, polaris_nginx_tmp_t, polaris_nginx_tmp_t)
 files_tmp_filetrans($1, polaris_nginx_tmp_t, file, "ca.cert")
)

```

```
#####
```

```
<summary>
```

```

Manage polaris_fts_client_tmp_t in /tmp/fts_client.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_fts_client_tmp_manage`,`
 gen_require(`
 type polaris_fts_client_tmp_t;

 `)
 manage_files_pattern($1, polaris_fts_client_tmp_t, polaris_fts_client_tmp_t)
 manage_dirs_pattern($1, polaris_fts_client_tmp_t, polaris_fts_client_tmp_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisnginx.if

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```

#
February 2020, Victor Kamensky
#
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#
<summary>Polaris cedgetanman Policy Rules.</summary>

```

```

#####
<summary>
Read cedge tanman files and fifo_file. I.e
/tmp/tan/tan_evt_fifo
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cedge_tanman_tmp_manage`,`
 gen_require(`
 type polaris_cedge_tanman_tmp_t;

 `)
 read_files_pattern($1, polaris_cedge_tanman_tmp_t, polaris_cedge_tanman_tmp_t)
 read_fifo_files_pattern($1, polaris_cedge_tanman_tmp_t, polaris_cedge_tanman_tmp_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscdgetanman.if

No license file was found, but licenses were detected in source scan.

#

# November 2017, Victor Kamensky

#

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#

# polarisgnmib file contexts place holder

/flash1/gNOI\_iosxe\_.\* gen\_context(system\_u:object\_r:polaris\_gnmib\_gnoi\_images\_t,s0)

/bootflash/gNOI\_iosxe\_.\* gen\_context(system\_u:object\_r:polaris\_gnmib\_gnoi\_images\_t,s0)

/mnt/sd3/user/gNOI\_iosxe\_.\* gen\_context(system\_u:object\_r:polaris\_gnmib\_gnoi\_images\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisgnmib.fc

No license file was found, but licenses were detected in source scan.

#

# November 2020, Christine Hwang

#

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#

## <summary>Polaris bbu Policy Rules.</summary>

#####

## <summary>

## Work (read, write, ioctl) with /dev/ttyS2

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_bbu\_dev\_use`,`

gen\_require(`

type device\_t;

type polaris\_bbu\_device\_t;

`)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_bbu\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_bbu\_device\_t)

allow \$1 polaris\_bbu\_device\_t:chr\_file map;

')

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbbu.if

No license file was found, but licenses were detected in source scan.

#

# March 2017, Victor Kamensky

#

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#

## <summary>Polaris polarisrollbacktimer Policy Rules.</summary>

#####

## <summary>

## Manage rbtimer file on bootflash (i.e /bootflash/.rollback\_timer)

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_rbtimer\_bootflash\_manage',`

gen\_require(`

type polaris\_disk\_bootflash\_t;

type polaris\_rbtimer\_bootflash\_t;

`)

manage\_dirs\_pattern(\$1, polaris\_disk\_bootflash\_t, polaris\_rbtimer\_bootflash\_t)

manage\_files\_pattern(\$1, polaris\_rbtimer\_bootflash\_t, polaris\_rbtimer\_bootflash\_t)

filetrans\_pattern(\$1, polaris\_disk\_bootflash\_t, polaris\_rbtimer\_bootflash\_t, dir, ".rollback\_timer")

')

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrollbacktimer.if

No license file was found, but licenses were detected in source scan.

#

# March 2017, Victor Kamensky

#

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#

## <summary>Polaris keyman Policy Rules.</summary>

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariskeyman.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2016-2019 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
<summary>Polaris polarisoom Policy Rules.</summary>
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisoom.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
July 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2017-2021 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
/usr/binos/conf/install_engine.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/install_assist.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/install_helper.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/sw_pload_svc.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/provision.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/issu_helper.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/issu/issu_check.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/packtool.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/install_boottime.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/bin/vconfd_script_upgrade\sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/issu_client_comp.py -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/install_selinux.sh -- gen_context(system_u:object_r:polaris_install_selinux_exec_t,s0)
```

```
/usr/binos/conf/install_show.sh -- gen_context(system_u:object_r:polaris_install_show_exec_t,s0)
```

```
/usr/binos/conf/install_issu_show.py -- gen_context(system_u:object_r:polaris_install_show_exec_t,s0)
```

```
/usr/bin/vconfd_script_show_installerfs.sh -- gen_context(system_u:object_r:polaris_install_show_exec_t,s0)
```

```
/usr/binos/conf/calcsha.sh -- gen_context(system_u:object_r:polaris_install_engine_exec_t,s0)
```

```
/usr/binos/conf/C9800-Wireless_startup_script.sh --
```

```
gen_context(system_u:object_r:polaris_install_wireless_exec_t,s0)
```

```
/usr/binos/conf/C9800-Wireless_stop_script.sh --
```



```

gen_context(system_u:object_r:polaris_install_wireless_exec_t,s0)

/bootflash/.issu_loc_lock gen_context(system_u:object_r:polaris_issu_files_t,s0)
/tmp/issu(/.*)? gen_context(system_u:object_r:polaris_issu_tmp_files_t,s0)

/bootflash/.installer(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)
/bootflash/.images(/.*)? gen_context(system_u:object_r:polaris_install_images_t,s0)
/tmp/installer_tmplog(/.*)? gen_context(system_u:object_r:polaris_install_tmp_log_t,s0)
/tmp/installer(/.*)? gen_context(system_u:object_r:polaris_install_tmp_t,s0)
/bootflash/.sdwaninstaller(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)
/flash1/.sdwaninstaller(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)

/tmp/install_all_trans_log gen_context(system_u:object_r:polaris_install_tmp_t,s0)
/tmp/show_install_output.txt gen_context(system_u:object_r:polaris_install_show_tmp_t,s0)

/tmp/sw/rp(/.*)? gen_context(system_u:object_r:polaris_sw_data_t,s0)
/tmp/sw/fp(/.*)? gen_context(system_u:object_r:polaris_sw_data_t,s0)
/tmp/sw/cc(/.*)? gen_context(system_u:object_r:polaris_sw_data_t,s0)
/tmp/sw/mount(/.*)? gen_context(system_u:object_r:polaris_sw_data_t,s0)

/tmp/patch gen_context(system_u:object_r:polaris_patch_data_t,s0)
/tmp/patch/rp(/.*)? gen_context(system_u:object_r:polaris_patch_data_t,s0)
/tmp/patch/fp(/.*)? gen_context(system_u:object_r:polaris_patch_data_t,s0)
/tmp/patch/cc(/.*)? gen_context(system_u:object_r:polaris_patch_data_t,s0)
/tmp/patch/smus(/.*)? gen_context(system_u:object_r:polaris_patch_data_t,s0)

The following labels are specific to hot patch a SMUs shared objects
using .so files). For cold patch files, the patch is subset of a package
(it has the same structure) and therefore regular labeling rules will
be in effect.
#
The SMU hot patch directory hierarchy should look as follows:
#
/RP.<ARCH>/<process>/patch(s)
/FP.<ARCH>/<process>/patch(s)
/CC.<ARCH>/<process>/patch(s)
#
/RP\[^\]/\[^\]/(.*)? gen_context(system_u:object_r:lib_t,s0)
/FP\[^\]/\[^\]/(.*)? gen_context(system_u:object_r:lib_t,s0)
/CP\[^\]/\[^\]/(.*)? gen_context(system_u:object_r:lib_t,s0)

bundlee image/subpkg labeling
/packages.conf -- gen_context(system_u:object_r:polaris_packages_conf_t,s0)
\.\pkginfo -- gen_context(system_u:object_r:polaris_sw_data_t,s0)
/(.*)\.\pkg -- gen_context(system_u:object_r:polaris_sw_data_t,s0)

/tmp/pkg_cs_debug(/.*)? gen_context(system_u:object_r:polaris_pkg_cs_debug_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisinstall.fc

No license file was found, but licenses were detected in source scan.

#

# March 2017, Victor Kamensky

#

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#

policy\_module(polarisepcwsliaison, 1.0);

gen\_require(^

    type polaris\_epc\_ws\_liaison\_t;

')

polaris\_btrace\_data\_manage(polaris\_epc\_ws\_liaison\_t)

polaris\_crft\_data\_manage(polaris\_epc\_ws\_liaison\_t)

polaris\_chasfs\_manage(polaris\_epc\_ws\_liaison\_t)

polaris\_tdlresolve\_read(polaris\_epc\_ws\_liaison\_t)

polaris\_tdlldb\_list\_dirs(polaris\_epc\_ws\_liaison\_t)

polaris\_cpld\_read(polaris\_epc\_ws\_liaison\_t)

polaris\_flashlib\_read(polaris\_epc\_ws\_liaison\_t)

polaris\_ripc\_sman\_ui\_serv\_connect(polaris\_epc\_ws\_liaison\_t)

allow polaris\_epc\_ws\_liaison\_t self:capability { dac\_override };

# tshark invoked by epc\_ws\_liaison needs to map /etc/passwd file.

auth\_map\_passwd(polaris\_epc\_ws\_liaison\_t)

# access to execute /sbin/tshark

corecmd\_exec\_bin(polaris\_epc\_ws\_liaison\_t)

# dumpcap needs access to net dir in sysfs

dev\_read\_sysfs(polaris\_epc\_ws\_liaison\_t)

# comm="dumpcap" kmod="net-pf-16-proto-12"

kernel\_dontaudit\_request\_load\_module(polaris\_epc\_ws\_liaison\_t)

# write pcap files to /bootflash

polaris\_bootflash\_manage(polaris\_epc\_ws\_liaison\_t)

# epc\_ws\_liaison and ngwc-fed pipe interaction

polaris\_fed\_shm\_file\_read(polaris\_epc\_ws\_liaison\_t)

# for pluggable FS, allow epc liaison to access files on them.

```

polaris_removable_manage(polaris_epc_ws_liaison_t)

tshark and dumpcap runtime requirements
allow polaris_epc_ws_liaison_t self:capability { net_raw setgid setuid };
allow polaris_epc_ws_liaison_t self:netlink_netfilter_socket create;
allow polaris_epc_ws_liaison_t self:netlink_route_socket { bind create getattr nlmsg_read };
allow polaris_epc_ws_liaison_t self:packet_socket { bind create getopt ioctl map setopt };
allow polaris_epc_ws_liaison_t self:process setcap;
allow polaris_epc_ws_liaison_t self:unix_dgram_socket { create ioctl };
allow polaris_epc_ws_liaison_t self:udp_socket { create ioctl };

/tmp/lstn.log and /tmp/epc_ws (WS_TMP_FOLDER)
type polaris_epc_ws_liaison_tmp_t;
files_tmp_file(polaris_epc_ws_liaison_tmp_t)
files_tmp_filetrans(polaris_epc_ws_liaison_t, polaris_epc_ws_liaison_tmp_t, { file dir })
manage_dirs_pattern(polaris_epc_ws_liaison_t, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
manage_files_pattern(polaris_epc_ws_liaison_t, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
manage_fifo_files_pattern(polaris_epc_ws_liaison_t, polaris_epc_ws_liaison_tmp_t,
polaris_epc_ws_liaison_tmp_t)

#####
CLI: show platform software wireshark show
#####
polaris_utility_domain_template(wireshark_show)
polaris_bexecute_domain(polaris_wireshark_show_t, polaris_wireshark_show_exec_t)

polaris_chasfs_manage(polaris_wireshark_show_t)
corecmd_exec_bin(polaris_wireshark_show_t)

map /etc/passwd
auth_map_passwd(polaris_wireshark_show_t)

open, read, getattr pcap files
polaris_bootflash_read(polaris_wireshark_show_t)

write into pipe that smand created for us with popen
polaris_smand_use_fifo(polaris_wireshark_show_t)

corecmd_exec_shell(polaris_wireshark_show_t)

sys file /sys/devices/system/cpu/online
dev_read_sysfs(polaris_wireshark_show_t)

tshark and dumpcap runtime requirements
allow polaris_wireshark_show_t self:capability { setgid setuid net_admin };
allow polaris_wireshark_show_t self:netlink_netfilter_socket create;
allow polaris_wireshark_show_t self:netlink_route_socket { bind create getattr nlmsg_read };
allow polaris_wireshark_show_t self:process setcap;

```

```

allow polaris_wireshark_show_t self:udp_socket { create ioctl };
allow polaris_wireshark_show_t self:unix_dgram_socket { create ioctl };

#dumpcap needs access "/tmp/epc_ws/wif_to_ts_pipe" fifo file
polaris_epc_ws_liaison_fifo_read(polaris_wireshark_show_t)

comm="dumpcap" kmod="net-pf-16-proto-12"
kernel_request_load_module(polaris_wireshark_show_t)

/tmp/*.pcapng
type polaris_wireshark_show_tmp_t;
files_tmp_file(polaris_wireshark_show_tmp_t)
files_tmp_filetrans(polaris_wireshark_show_t, polaris_wireshark_show_tmp_t, file)
polaris_wireshark_show_tmp_manage(polaris_wireshark_show_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisepcwsliasion.te
No license file was found, but licenses were detected in source scan.

#
June 2020 , Manu Roy
#
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#

policy_module(polarisiotswitch, 1.0);

petra fpga device (/dev/petra-fpga)
type polaris_iots_fpga_device_t;
dev_node(polaris_iots_fpga_device_t)

petra DMA ASIC driver (/dev/mvDmaDrv)
type polaris_iots_mvDmaDrv_device_t;
dev_node(polaris_iots_mvDmaDrv_device_t)

petra Interrupt Asic driver (/dev/mvIntDrv)
type polaris_iots_mvIntDrv_device_t;
dev_node(polaris_iots_mvIntDrv_device_t)

petra tm device (/dev/tm)
type polaris_iots_tm_device_t;
dev_node(polaris_iots_tm_device_t)

petra tm device (/dev/mmcbk1p1)
type polaris_iots_swipedrive_device_t;
dev_node(polaris_iots_swipedrive_device_t)

```

```
type polaris_iots_swipedrive_file_t;
files_type(polaris_iots_swipedrive_file_t)
dev_associate(polaris_iots_swipedrive_file_t)
```

```
LED device (/dev//dev/spidev0.0)
type polaris_iots_led_device_t;
dev_node(polaris_iots_led_device_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisiotsswitch.te

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
<summary>Polaris psd Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Read polaris_restconf_t files, effectively files
under /tmp/restconf
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_restconf_read`,`
```

```
gen_require(`
```

```
type polaris_restconf_t;
```

```
`)
```

```
read_files_pattern($1, polaris_restconf_t, polaris_restconf_t)
```

```
read_lnk_files_pattern($1, polaris_restconf_t, polaris_restconf_t)
```

```
list_dirs_pattern($1, polaris_restconf_t, polaris_restconf_t)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Manage polaris_restconf_t files, effectively files
```

```
under /tmp/restconf
```

```
</summary>
```

```
<param name="domain">
```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_restconf_manage',`
 gen_require(`
 type polaris_restconf_t;
 ')
 manage_files_pattern($1, polaris_restconf_t, polaris_restconf_t)
 manage_lnk_files_pattern($1, polaris_restconf_t, polaris_restconf_t)
 manage_dirs_pattern($1, polaris_restconf_t, polaris_restconf_t)
')

#####
<summary>
Manage polaris_ncsshd_keys_t files, effectively files
under /tmp/.ncsshd_authorized_keys
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ncsshd_keys_manage',`
 gen_require(`
 type polaris_ncsshd_keys_t;
 ')
 manage_files_pattern($1, polaris_ncsshd_keys_t, polaris_ncsshd_keys_t)
 manage_lnk_files_pattern($1, polaris_ncsshd_keys_t, polaris_ncsshd_keys_t)
 manage_dirs_pattern($1, polaris_ncsshd_keys_t, polaris_ncsshd_keys_t)
')

#####
<summary>
Read polaris_psd_tmp_t files, effectively access
/tmp/dmi.ds_config created by psd and read by confd startup
script
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_psd_tmp_read',`
 gen_require(`

```

```
 type polaris_psd_tmp_t;
)
 read_files_pattern($1, polaris_psd_tmp_t, polaris_psd_tmp_t)
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispsd.if
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
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#
<summary>Polaris smd Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissmd.if
No license file was found, but licenses were detected in source scan.
```

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
define(^ polaris_process_aux_full,``
polaris_process_domain_template($1)
")

define(^ polaris_process_aux,`
ifelse(process_type_map($1), `', `polaris_process_aux_full($1)')
process_type_map_set($1, 1)
')

define(^ polaris_process,`
polaris_process_aux(process_stem($1))

')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_process_te.m4
No license file was found, but licenses were detected in source scan.
```

```
#
April 2017, Victor Kamensky
```

```

#
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#

policy_module(polarisdmincshdmgmt, 1.0);

gen_require(
 type polaris_dmi_ncsshd_mgmt_t;
)

polaris_btrace_data_manage(polaris_dmi_ncsshd_mgmt_t)
polaris_chasfs_manage(polaris_dmi_ncsshd_mgmt_t)
polaris_tdlresolve_read(polaris_dmi_ncsshd_mgmt_t)
polaris_tdlldb_list_dirs(polaris_dmi_ncsshd_mgmt_t)
polaris_flashlib_read(polaris_dmi_ncsshd_mgmt_t)

corenet_tcp_bind_generic_node(polaris_dmi_ncsshd_mgmt_t)
allow polaris_dmi_ncsshd_mgmt_t self:tcp_socket { getattr getopt setopt bind create listen accept connect read write
};
allow polaris_dmi_ncsshd_mgmt_t self:udp_socket { getattr create connect read write };
allow polaris_dmi_ncsshd_mgmt_t self:cap_userns { sys_admin net_bind_service };

type polaris_dmi_ncsshd_mgmt_var_run_t;
files_pid_file(polaris_dmi_ncsshd_mgmt_var_run_t)
manage_dirs_pattern(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_run_t,
polaris_dmi_ncsshd_mgmt_var_run_t)
manage_files_pattern(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_run_t,
polaris_dmi_ncsshd_mgmt_var_run_t)
files_pid_filetrans(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_run_t, { file dir })

access /var/log/lastlog, /var/log/btmp
type polaris_dmi_ncsshd_mgmt_var_log_t;
logging_log_file(polaris_dmi_ncsshd_mgmt_var_log_t)
manage_files_pattern(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_log_t,
polaris_dmi_ncsshd_mgmt_var_log_t)
logging_log_filetrans(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_log_t, file, "lastlog")
logging_log_filetrans(polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_var_log_t, file, "btmp")

polaris_dmi_ncsshd_fwd_dgram_send(polaris_dmi_ncsshd_mgmt_t)

corenet_tcp_bind_polaris_dmi_ncsshd_mgmt_port(polaris_dmi_ncsshd_mgmt_t)
ncssh allows user-defined port with: netconf-yang ssh port <port_no>
corenet_tcp_bind_all_ports(polaris_dmi_ncsshd_mgmt_t)

auth_use_nsswitch(polaris_dmi_ncsshd_mgmt_t)
assign following capabilities needed by sshd
allow polaris_dmi_ncsshd_mgmt_t self:capability { net_admin setgid sys_resource setuid sys_chroot kill};

```



```

allow polaris_dmi_ncsshd_mgmt_t self:process setrlimit;

ncsshd requests pseudo terminal when netconf session is set up without
explicitly specifying the subsystem name, such as netconf.
allow polaris_dmi_ncsshd_mgmt_t self:capability { chown fowner fsetid };
term_setattr_generic_ptys(polaris_dmi_ncsshd_mgmt_t)
term_getattr_pty_fs(polaris_dmi_ncsshd_mgmt_t)
term_use_generic_ptys(polaris_dmi_ncsshd_mgmt_t)
term_use_ptmx(polaris_dmi_ncsshd_mgmt_t)

#enable to read cpld file "/sys/devices/platform/cpld/board_vtype"
polaris_cpld_read(polaris_dmi_ncsshd_mgmt_t)
#for sshd needs access network interface resource
allow polaris_dmi_ncsshd_mgmt_t self:netlink_route_socket r_netlink_socket_perms;

calls socketat server_listen at mgmt/dmi/ncsshd/src/sshd.c
polaris_socketat_nsfs_read(polaris_dmi_ncsshd_mgmt_t)
polaris_lfts_dev_use(polaris_dmi_ncsshd_mgmt_t)

corecmd_exec_bin(polaris_dmi_ncsshd_mgmt_t)

logging_send_syslog_msg(polaris_dmi_ncsshd_mgmt_t)
TODO : revisit below statement when addressing initrc_exec_t denial
polaris_rmonbifo_tmp_read(polaris_dmi_ncsshd_mgmt_t)

allow access to /tmp/sw/cfg and /tmp/sw/boot
polaris_boot_tmp_read(polaris_dmi_ncsshd_mgmt_t)
polaris_cfg_data_manage(polaris_dmi_ncsshd_mgmt_t)

polaris_dmi_dmiauthd_dgram_send(polaris_dmi_ncsshd_mgmt_t)

corenet_tcp_connect_polaris_netconf_interceptor_port(polaris_dmi_ncsshd_mgmt_t);
This fixes runin.sh related denials. Refer to auth.c file which invokes bshell.
polaris_bexecute_domtrans(polaris_dmi_ncsshd_mgmt_t);

This fixes authorized keys access related denials.
polaris_ncsshd_authorized_keys_read(polaris_dmi_ncsshd_mgmt_t);

This fixes denials related to interceptor files.
polaris_interceptor_manage(polaris_dmi_ncsshd_mgmt_t);

This fixes denials related to netconf_callhome executable
gen_require(^
 type polaris_confid_t;
)
allow polaris_dmi_ncsshd_mgmt_t polaris_confid_t:tcp_socket { getattr getopt setopt };

This fixes denials related to route, scp, chvrf command executables

```

```

{ read open getattr } operations are allowed on route command
{ search open } operations are allowed on scp command
{ read open execute execute_no_trans } operations are allowed on chvrf command
kernel_read_network_state(polaris_dmi_ncsshd_mgmt_t)

optional_policy(
allows access to /tmp/xml/Intf dir and files
polaris_cedge_tmp_manage(polaris_dmi_ncsshd_mgmt_t)
polaris_cedge_xml_tmp_manage(polaris_dmi_ncsshd_mgmt_t)
)
This fixes denials related to ifconfig executable
{ execute read open execute_no_trans map getattr } operations are allowed
sysnet_domtrans_ifconfig(polaris_dmi_ncsshd_mgmt_t)

This fixes access denials related to confd checking ncsshd_mgmt proc info
/proc/<ncsshd pid>/
read_files_pattern(polaris_confid_t, polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_t)
read_lnk_files_pattern(polaris_confid_t, polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_t)

allows access for admin-tech generation from vManage
polaris_admin_tech_data_manage(polaris_dmi_ncsshd_mgmt_t)
polaris_bootflash_manage(polaris_dmi_ncsshd_mgmt_t)

allow access to polaris_cfg_data_t
polaris_cfg_data_manage(polaris_dmi_ncsshd_mgmt_t)

allow access to polaris_boot_tmp_t
polaris_boot_tmp_read(polaris_dmi_ncsshd_mgmt_t)

allow to watch /var/run/netns and list dir
polaris_watch_netns(polaris_dmi_ncsshd_mgmt_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmincsshdmgmt.te
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#
March 2017, Victor Kamensky
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#

<summary>Polaris polarispman Policy Rules.</summary>

#####
<summary>
Make the specified program domain accessible

```

```

from the pman.
</summary>
<param name="domain">
<summary>
The type of the process to transition to.
</summary>
</param>
<param name="entrypoint">
<summary>
The type of the file used as an entrypoint to this domain.
</summary>
</param>
#
interface(`polaris_pman_entry`,`
 gen_require(`
 type polaris_pman_t;
 type polaris_gdb_t;
 `)

 domtrans_pattern(polaris_pman_t, $2, $1)
 domtrans_pattern(polaris_gdb_t, $2, $1)

 allow polaris_gdb_t $1:process { ptrace signal sigstop };
)

#####
<summary>
Execute a domain transition to run pman.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_pman_domtrans`,`
 gen_require(`
 type polaris_pman_t, polaris_pman_exec_t;
 `)

 domtrans_pattern($1, polaris_pman_exec_t, polaris_pman_t)
)

#####
<summary>
Read pman temporary files and directories in /tmp.
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pman_read_tmp_files`,`
 gen_require(`
 type polaris_pman_tmp_t;
 `)

 read_files_pattern($1, polaris_pman_tmp_t, polaris_pman_tmp_t)
 list_dirs_pattern($1, polaris_pman_tmp_t, polaris_pman_tmp_t)
`)

#####
<summary>
Manage pman temporary files and directories in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pman_manage_tmp_files`,`
 gen_require(`
 type polaris_pman_tmp_t;
 `)

 manage_files_pattern($1, polaris_pman_tmp_t, polaris_pman_tmp_t)
 manage_dirs_pattern($1, polaris_pman_tmp_t, polaris_pman_tmp_t)
`)

#####
<summary>
Create an object in the polaris_pman_tmp directories.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">

```

```

<summary>
The name of the object being created.
</summary>
</param>
#
interface(`polaris_pman_tmp_filetrans`,`
gen_require(`
type polaris_pman_tmp_t;
`)

files_tmp_filetrans($1, polaris_pman_tmp_t, $2, $3)
`)

#####
<summary>
Check existence (getattr) of pman btrace file (i.e
polaris_pman_bt_t)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pman_bt_getattr`,`
gen_require(`
type polaris_pman_bt_t;
type polaris_btrace_base_t;
`)
getattr_files_pattern($1, polaris_btrace_base_t, polaris_pman_bt_t)
`)

#####
<summary>
Read and write to pmanlite fifo file, used as
stdout/stderr.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_use_pman_fifo`,`
gen_require(`
type polaris_pman_t;
`)

```

```
allow $1 polaris_pman_t:fifo_file { rw_fifo_file_perms };
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispman.if
```

No license file was found, but licenses were detected in source scan.

```
#
```

```
August 2017, Shawn Lu
```

```
#
```

```
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```

```
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```

```
#
```

```
policy_module(polariswncmgrp, 1.0);
```

```
gen_require(^
```

```
 type polaris_wncmgrp_t;
```

```
')
```

```
polaris_btrace_data_manage(polaris_wncmgrp_t)
```

```
polaris_chasfs_manage(polaris_wncmgrp_t)
```

```
polaris_tdlresolve_read(polaris_wncmgrp_t)
```

```
polaris_tdlldb_list_dirs(polaris_wncmgrp_t)
```

```
polaris_cpld_read(polaris_wncmgrp_t)
```

```
polaris_lua_read(polaris_wncmgrp_t)
```

```
polaris_flashlib_read(polaris_wncmgrp_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_wncmgrp_t)
```

```
polaris_db_tdlldb_dir_use(polaris_wncmgrp_t)
```

```
#allow setrlimit
```

```
allow polaris_wncmgrp_t self:process setrlimit;
```

```
allow polaris_wncmgrp_t self:capability sys_resource;
```

```
allow polaris_wncmgrp_t self:capability dac_override;
```

```
allow polaris_wncmgrp_t self:tcp_socket { shutdown };
```

```
#allow wncmgrp UDP socket operations
```

```
allow polaris_wncmgrp_t self:udp_socket { bind getattr setopt };
```

```
corenet_udp_bind_generic_node(polaris_wncmgrp_t)
```

```
#allow wncmgrp module to do ioctl,open,read,write operations on char file
```

```
polaris_lfts_dev_use(polaris_wncmgrp_t)
```

```
it use tcp port 9090 and9091(polaris_wnc_mgrd_port)
```

```
corenet_tcp_bind_polaris_wnc_mgrd_port(polaris_wncmgrp_t)
```

```

#####
For ewlc, wncd and wncmgrd needs access to files under /mnt/images/...these
are related to AccessPoint images
#####
wncmgrd calls ewlc_get_ap_sw_version() to open/read
/tmp/sw/rp/0/0/rp_wlc/mount/mnt/images/ap.pri/version.info
call-chain: main -> ewlc_app_context_init -> wncd_evlib_app_init_cb ->
ewlc_capwapac_lib_init -> capwapac_init_default_config -> ewlc_get_ap_sw_version
polaris_wlc_ap_images_read(polaris_wncmgrd_t)

polaris_odm_clnt2svr_mqipc_create(polaris_wncmgrd_t)

polaris_tdlbpbersist_setup(polaris_wncmgrd_t)

polaris_tmp_tdlb_persist_setup(polaris_wncmgrd_t)

logging_send_syslog_msg(polaris_wncmgrd_t)

bind CAPWAP control and data
corenet_udp_bind_polaris_capwap_ctr_port(polaris_wncmgrd_t)
corenet_udp_bind_polaris_capwap_data_port(polaris_wncmgrd_t)

wncmgrd accessing NA certificate to push to AP
type polaris_icap_cert_t;
polaris_pfile_type(polaris_icap_cert_t)

#wncmgrd receives the certificate file from IOSd via IPC
#and writes to /bootflash for ICap feature
#and hence requires access.
gen_require(
type polaris_icap_cert_t;
)
filetrans_pattern(polaris_wncmgrd_t, polaris_disk_bootflash_t, polaris_icap_cert_t, file, "NACert.pem")
allow polaris_wncmgrd_t polaris_icap_cert_t:file { write create read open getattr unlink };

#allow tcp connection from http port for awips file download
#from DNAC
corenet_tcp_connect_http_port(polaris_wncmgrd_t)

#allow read/write/mmap access to awips file
gen_require(
type polaris_awips_signature_file_t;
)
filetrans_pattern(polaris_wncmgrd_t, polaris_disk_bootflash_t, polaris_awips_signature_file_t, file, "awips.json")
allow polaris_wncmgrd_t polaris_awips_signature_file_t:file { map write create read open getattr unlink };

#allow read access to resolv.conf

```

```
sysnet_read_config(polaris_wncmgrd_t)
```

```
#ewlc_capwap_dgram_srvr_create_raw_send_socket () creates a socket
```

```
#creates sll.sll_family = AF_PACKET;
```

```
#sll.sll_ifindex = dgram_io_desc->lfts_ifindex;
```

```
#sll.sll_protocol = htons(ETH_P_ALL);
```

```
allow polaris_wncmgrd_t self:packet_socket { create_socket_perms setopt };
```

```
allow polaris_wncmgrd_t self:rawip_socket { create_socket_perms setopt ioctl };
```

```
allow polaris_wncmgrd_t self:capability net_raw;
```

```
corenet_raw_bind_generic_node(polaris_wncmgrd_t)
```

```
gen_require(
 type port_t;
```

```
)
```

```
allow polaris_wncmgrd_t port_t:rawip_socket name_bind;
```

```
allow tmp symlinks
```

```
fs_read_tmpfs_symlinks(polaris_wncmgrd_t)
```

```
allow tmp file read
```

```
polaris_install_tmp_read(polaris_wncmgrd_t)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswncmgrd.te
```

```
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```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

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```
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```

```
#
```

```
<summary>Polaris NVRAM Policy Rules.</summary>
```

```
#####
```

```
NVRAM policy
```

```
#####
```

```
#####
```

```
<summary>
```

```
Manage nvram files (location varies by platform)
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```



```

</param>
<rolebase/>
#
interface(`polaris_nvram_manage',`
gen_require(`
type polaris_nvram_file_t;
type device_t;
`)

manage_blk_files_pattern($1, device_t, polaris_nvram_file_t)
manage_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
manage_lnk_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
')

```

```
#####
```

```

<summary>
Read nvram files (location varies by platform)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_nvram_read',`
gen_require(`
type polaris_nvram_file_t;
type device_t;
`)

read_blk_files_pattern($1, device_t, polaris_nvram_file_t)
read_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
read_lnk_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
')

```

```
#####
```

```

<summary>
getattr for nvram files (location varies by platform)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_nvram_getattr',`

```

```
gen_require(`
 type polaris_nvram_file_t;
 type device_t;
 `)

 getattr_blk_files_pattern($1, device_t, polaris_nvram_file_t)
 getattr_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
 getattr_lnk_files_pattern($1, polaris_nvram_file_t, polaris_nvram_file_t)
`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnvram.if
No license file was found, but licenses were detected in source scan.
```

```
#
July 2017, Victor Kamensky
#
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#
```

```
/usr/cpp/bin/cpp_stats_svr -- gen_context(system_u:object_r:polaris_cpp_stats_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppstats.fc
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```

```
#
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#
```

```
policy_module(polarisoom, 1.0);
```

```
polaris_process_domain_template(oom)
```

```
corecmd_exec_bin(polaris_oom_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_oom_t)
```

```
allow read of /etc/passwd
auth_use_nsswitch(polaris_oom_t)
```

```
run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_oom_t)
```

```
allow polaris_oom_t self:capability sys_resource;
allow polaris_oom_t self:process setpgid;
```

```
polaris_btrace_data_manage(polaris_oom_t)
polaris_chasfs_manage(polaris_oom_t)
polaris_cpld_read(polaris_oom_t)
polaris_boot_tmp_read(polaris_oom_t)
polaris_read_debug_conf(polaris_oom_t)
polaris_disk_crashinfo_getattr(polaris_oom_t)
polaris_rmonbifo_tmp_read(polaris_oom_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisoom.te
```

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
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#

/mnt/sd1 edison and nyquist
/mnt/sd1(/.*)? gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)
/mnt/sd1/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/mnt/sd1/system-report_*.tar.gz gen_context(system_u:object_r:polaris_system_report_t,s0)

/mnt/sd3 edison and nyquist
/mnt/sd3(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/mnt/sd3/user/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/mnt/sd3/user/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/mnt/sd3/user/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/mnt/sd3/user/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/mnt/sd3/user/.ssh/ssh_host.*_key*.pub gen_context(system_u:object_r:sshd_key_t,s0)
/mnt/sd3/user/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)
/mnt/sd3/user/nvram_config -- gen_context(system_u:object_r:polaris_nvram_file_t,s0)
/mnt/sd3/user/debug.conf -- gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/mnt/sd3/user/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
/mnt/sd3/user/.dbpersist(/.*)? gen_context(system_u:object_r:polaris_disk_dbm_t,s0)
/mnt/sd3/user/.installer(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)
/mnt/sd3/user/.rollback_timer(/.*)? gen_context(system_u:object_r:polaris_rbtimer_bootflash_t,s0)
/mnt/sd3/user/kernel/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/mnt/sd3/user/sys_report(/.*)? gen_context(system_u:object_r:polaris_chasync_files_t,s0)

/mnt/sd4 nyquist
/mnt/sd4(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)
```

```

/mnt/sd5 edison and nyquist
/mnt/sd5(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)

ifdef(`edison_platform',`
/mnt/sd6
/mnt/sd6(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)

/mnt/sd7
/mnt/sd7(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/mnt/sd8
/mnt/sd8(/.*)? gen_context(system_u:object_r:polaris_disk_ucose_t,s0)

/mnt/sd9
/mnt/sd9(/.*)? gen_context(system_u:object_r:polaris_disk_recovery_t,s0)
')

ifdef(`nyquist_platform',`
/mnt/sd6
/mnt/sd6(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/mnt/sd7
/mnt/sd7(/.*)? gen_context(system_u:object_r:polaris_disk_ucose_t,s0)
#unmount script used ny Nyquist platform
/bin/cat9k_ssd_unmount.sh gen_context(system_u:object_r:polaris_ssd_unmount_exec_t,s0)
')

ifdef(`quake_platform',`
/mnt/sd6
/mnt/sd6(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/mnt/sd7
/mnt/sd7(/.*)? gen_context(system_u:object_r:polaris_disk_ucose_t,s0)
')

/crashinfo is symbolic link to /mnt/sd1 created by systemd-tmpfiles
/crashinfo gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)
/flash is symbolic link to /mnt/sd3/user
/flash gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/lic0 is symbolic link to /mnt/sd4
/lic0 gen_context(system_u:object_r:polaris_disk_license_t,s0)
/lic1 is symbolic link to /mnt/sd5
/lic1 gen_context(system_u:object_r:polaris_disk_license_t,s0)
/ngwc_config/nvram is symbolic link to /mnt/sd3/user
/ngwc_config/nvram gen_context(system_u:object_r:polaris_nvram_file_t,s0)

/flash1 macallan
/flash1(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

```

```

/flash1/user/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/flash1/user/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/flash1/user/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/flash1/user/.ssh/ssh_host.*_key\,pub gen_context(system_u:object_r:sshd_key_t,s0)
/flash1/user/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)
/flash1/user/nvram_config -- gen_context(system_u:object_r:polaris_nvram_file_t,s0)
/flash1/user/debug.conf -- gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/flash1/user/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
/flash1/user/kernel/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/flash1/user/.rollback_timer(/.*)? gen_context(system_u:object_r:polaris_rbtimer_bootflash_t,s0)
/flash1/user/.installer(/.*)? gen_context(system_u:object_r:polaris_disk_install_t,s0)
/flash1/user/.dbpersist(/.*)? gen_context(system_u:object_r:polaris_disk_dbm_t,s0)
/flash1/user/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/flash1/user/sys_report(/.*)? gen_context(system_u:object_r:polaris_chasync_files_t,s0)
/flash1/TEMPLATE(/.*)? gen_context(system_u:object_r:polaris_chasync_files_t,s0)

/flash2 macallan 9500h
/flash2(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
/flash2/CRASH(/.*)? gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)
/flash2/CRASH/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)

/flash3 macallan
/flash3(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/flash4 macallan
/flash4(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)

/flash5 macallan
/flash5(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)

/flash6 macallan, used for silent roll in macallan
/flash6(/.*)? gen_context(system_u:object_r:polaris_disk_ucode_t,s0)

/flash7 macallan, silent roll
/flash7(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

macallan silent roll link
/cc_srdv gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

macallan /ngmod_config/nvram link will be labeled by systemd-tmpfiles
/ngmod_config gen_context(system_u:object_r:polaris_nvram_file_t,s0)
/ngmod_config/nvram gen_context(system_u:object_r:polaris_nvram_file_t,s0)

remap_mem0 device
/dev/remap_mem0 -c gen_context(system_u:object_r:polaris_remap_mem_device_t,s0)

chdrvmmmap device (MMAP Driver for ASIC Memory mapping)
/dev/chdrvmmmap -c gen_context(system_u:object_r:polaris_chdrvmmmap_device_t,s0)

```

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gettysburg_dev1 device
/dev/gettysburg_dev[0-9]* -c gen_context(system_u:object_r:polaris_gettysburg_fpga_device_t,s0)

types that might be packages label by other policy
ifdef(`nyquist_platform',`
/usr/binos/bin/flash_check.sh -- gen_context(system_u:object_r:polaris_flashcheck_exec_t,s0)
/usr/binos/bin/cman_fp -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)
/usr/binos/bin/cmcc -- gen_context(system_u:object_r:polaris_cm_cc_exec_t,s0)
`)
ifdef(`passport_platform',`
/usr/binos/bin/platform_mgr -- gen_context(system_u:object_r:polaris_ngwc_plfm_mgr_exec_t,s0)
/usr/binos/bin/xcvr_test -- gen_context(system_u:object_r:polaris_xcvr_test_exec_t,s0)
/usr/binos/bin/sif_mgr -- gen_context(system_u:object_r:polaris_sif_mgr_exec_t,s0)
/usr/binos/bin/cmm -- gen_context(system_u:object_r:polaris_cmm_exec_t,s0)
/usr/binos/bin/bt_logger -- gen_context(system_u:object_r:polaris_bt_logger_exec_t,s0)
/usr/binos/bin/torchd -- gen_context(system_u:object_r:polaris_torch_exec_t,s0)
/usr/binos/bin/swift_sampled -- gen_context(system_u:object_r:polaris_faked_exec_t,s0)
`)

PLEASE LOOK AT ME: why this file in /etc/init.d?
/etc/rc.d/init.d/cat9k_fpgahelper_funcs.sh -- gen_context(system_u:object_r:bin_t,s0)
/etc/rc.d/init.d/cat9k_kr_helper.sh -- gen_context(system_u:object_r:bin_t,s0)

symbolic links in /platform-specific directory
/platform-specific/gryphon -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/gryphon_lite -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/prometheus -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/skyfox -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/vulcan -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/intrepid -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/martion -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/farscape -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/borg -l gen_context(system_u:object_r:root_t,s0)
/platform-specific/scorpion -l gen_context(system_u:object_r:root_t,s0)

/dev/cisco/dplriomem device, Generic Memory map driver for mapping doppler IO memory to userspace
/dev/cisco/dplriomem -c gen_context(system_u:object_r:polaris_dplr_iomem_mmapdrv_device_t,s0)

/vol/disk0(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/appstore_hd is symbolic link to /vol/disk0
/appstore_hd -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/appstore_flash is symbolic link to /flash1
/appstore_flash -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/rp_srdrv is symbolic link to /flash6/DPU
/rp_srdrv -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/init is symbolic link to /lib/systemd/systemd
/init -l gen_context(system_u:object_r:init_exec_t,s0)

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/install is symbolic link to /flash1/INSTALL
/install -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/disk0 is symbolic link to /vol/disk0
/disk0 -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

provide relabeling rules for /platform-specific/personality file
otherwise, they cause conflicting specifications error during relabeling
/platform-specific/bigbang/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/nyquist/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/passport/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/starfleet/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/intrepid/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/martian/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/farscape/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/borg/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/scorpion/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/imperial/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)
/platform-specific/jura/lib/modules(/.*)? gen_context(system_u:object_r:modules_object_t,s0)

/platform-specific/bigbang/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/nyquist/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/passport/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/starfleet/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/intrepid/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/martian/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/farscape/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/borg/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/scorpion/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/imperial/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/jura/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/quake1/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)
/platform-specific/quake2/lib/systemd/system(/.*)? gen_context(system_u:object_r:systemd_unit_file_t,s0)

/platform-specific/bigbang/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/nyquist/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/passport/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/starfleet/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/intrepid/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/martian/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/farscape/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/borg/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/scorpion/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/imperial/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)
/platform-specific/jura/usr/binos/conf(/.*)? gen_context(system_u:object_r:usr_t,s0)

/platform-specific/bigbang/usr/binos/bin(/.*)? gen_context(system_u:object_r:bin_t,s0)
/platform-specific/nyquist/usr/binos/bin(/.*)? gen_context(system_u:object_r:bin_t,s0)
/platform-specific/passport/usr/binos/bin(/.*)? gen_context(system_u:object_r:bin_t,s0)

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/platform-specific/starfleet/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/intrepid/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/martian/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/farscape/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/borg/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/scorpion/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/imperial/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/jura/usr/binos/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)

/platform-specific/bigbang/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/nyquist/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/passport/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/starfleet/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/intrepid/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/martian/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/farscape/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/borg/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/scorpion/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/imperial/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)  
/platform-specific/jura/bin(/.\*)? gen\_context(system\_u:object\_r:bin\_t,s0)

/platform-specific/bigbang/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/nyquist/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/passport/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/starfleet/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/intrepid/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/martian/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/farscape/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/borg/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/scorpion/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/imperial/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/jura/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/quake1/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)  
/platform-specific/quake2/etc/selinux(/.\*)? gen\_context(system\_u:object\_r:selinux\_config\_t,s0)

# /objstore/.swtam for hybrid TAM access

/objstore(/.\*)? gen\_context(system\_u:object\_r:polaris\_disk\_objstore\_t,s0)

/platform-specific/bigbang/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/nyquist/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/passport/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/starfleet/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/intrepid/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/martian/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/farscape/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)  
/platform-specific/borg/etc/selinux/([^\s]\*)?contexts(/.\*)? gen\_context(system\_u:object\_r:default\_context\_t,s0)



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/platform-specific/scorpion/etc/selinux/([^\s]*)?contexts(/.*)? gen_context(system_u:object_r:default_context_t,s0)
/platform-specific/imperial/etc/selinux/([^\s]*)?contexts(/.*)? gen_context(system_u:object_r:default_context_t,s0)
/platform-specific/jura/etc/selinux/([^\s]*)?contexts(/.*)? gen_context(system_u:object_r:default_context_t,s0)
/platform-specific/quake1/etc/selinux/([^\s]*)?contexts(/.*)? gen_context(system_u:object_r:default_context_t,s0)
/platform-specific/quake2/etc/selinux/([^\s]*)?contexts(/.*)? gen_context(system_u:object_r:default_context_t,s0)

/platform-specific/bigbang/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/nyquist/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/passport/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/starfleet/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/intrepid/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/martian/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/farscape/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/borg/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/scorpion/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/imperial/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)
/platform-specific/jura/etc/hosts[^]* -- gen_context(system_u:object_r:net_conf_t,s0)

/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/bigbang/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/nyquist/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/passport/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/starfleet/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/intrepid/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/martian/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/farscape/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/borg/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/scorpion/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/imperial/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)
/platform-specific/jura/verify_packages.sh -- gen_context(system_u:object_r:bin_t,s0)

/platform-specific/bigbang/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/nyquist/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/passport/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/starfleet/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/intrepid/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/martian/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/farscape/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/borg/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/scorpion/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/imperial/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)
/platform-specific/jura/etc/udev/rules.d(/.*)? gen_context(system_u:object_r:udev_rules_t,s0)

/dev/shm/sem\i2c_sem000 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\i2c_sem001 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\i2c_sem002 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\i2c_sem003 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\i2c_sem004 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)

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/dev/shm/sem\.i2c_sem005 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\.i2c_sem006 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\.i2c_sem007 gen_context(system_u:object_r:polaris_quake_i2c_t,s0)
/dev/shm/sem\.io_expander_semaphore gen_context(system_u:object_r:polaris_quake_i2c_t,s0)

on pangea/bigbang platforms /dev/NVRAM block device is accessed
by flashlib in iosd. It stores rommon vars
ifdef(`bigbang_platform',`
/dev/NVRAM -b gen_context(system_u:object_r:polaris_flashlib_device_t)
/mnt/sd6
/mnt/sd6(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)
`)

/vol/usb1(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)

/mnt/vbd[a-j]2(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/tmp/fpga_upgrade gen_context(system_u:object_r:polaris_fpga_upgrade_tmp_t,s0)

#/unicode0 9300 silent roll
/unicode0(/.*)? gen_context(system_u:object_r:polaris_disk_unicode0_t,s0)

#/dev/cisco/fpga_iomem device, Generic Memory map driver for mapping FPGA IO memory to userspace
/dev/cisco/fpga_iomem -c gen_context(system_u:object_r:polaris_fpga_iomem_mmapfpga_device_t,s0)

nplum-power file is located in /bootflash and needs to be accessed by cman-rp/IOSd
/flash1/user/nplum-power gen_context(system_u:object_r:polaris_nplum_power_file_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwc.fc
No license file was found, but licenses were detected in source scan.

#
June 2020, Cuiyan Ma
#
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#

/usr/bin/os/conf/issu_comp_check.sh -- gen_context(system_u:object_r:polaris_issu_comp_check_exec_t,s0)
/tmp/boottime_comp_check_tree_other_rp -d gen_context(system_u:object_r:polaris_issu_comp_check_tmp_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissucompcheck.fc
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#
March 2017, Victor Kamensky

```

```

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#

<summary>Polaris repm Policy Rules.</summary>

#####
<summary>
Manage /tmp/replications files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_repm_tmp_manage`,`
 gen_require(`
 type polaris_repm_tmp_t;
 `)
 manage_files_pattern($1, polaris_repm_tmp_t, polaris_repm_tmp_t)
 manage_dirs_pattern($1, polaris_repm_tmp_t, polaris_repm_tmp_t)
)

#####
<summary>
Manage /dev/shm/mq.-repm_peer_mq/ files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_repm_peer_mqipc_manage`,`
 gen_require(`
 type polaris_repm_peer_mqipc_t;
 `)
 manage_files_pattern($1, polaris_repm_peer_mqipc_t, polaris_repm_peer_mqipc_t)
 allow $1 polaris_repm_peer_mqipc_t:file map;
 polaris_mqipc_create_name_dir($1, polaris_repm_peer_mqipc_t, repm_peer_mq)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrepm.if

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```

dnl
dnl April 2018, Victor Kamensky
dnl
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dnl
define(`mqipc_interface_map', `defn(format(`mqipc_interface_map[%s]', ` $1'))')
define(`mqipc_interface_map_set', `define(format(`mqipc_interface_map[%s]', ` $1'), ` $2'))

define(`polaris_mqipc_service_server_many',
 `ifelse($3, `,
 polaris_mqipc_create_name(dollarone, $1, $2),
 polaris_mqipc_create_name(dollarone, $1, $2-b$3)
 `ifelse($3, 0, `polaris_mqipc_create_name(dollarone, $1, $2)', `polaris_mqipc_service_server_many($1, $2,
eval($3 - 1))')')')

define(`polaris_mqipc_service_server_aux_full', `dnl
#####
<summary>
Create $2 mqipc chanell.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<infoflow type="none"/>
#
interface(`polaris_mqipc_$1_create_name",`
 gen_require(`
 type $2;
 `)
 $3
`)

#####
<summary>
Use $2 mqipc chanell.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<infoflow type="none"/>
#
interface(`polaris_mqipc_$1_use",`

```

```

gen_require(`
 type $2;
`)

 polaris_mqipc_use(dollarsone, $2)
")
')

define(`polaris_mqipc_service_server_aux',`
ifelse(mqipc_interface_map($1), `', `polaris_mqipc_service_server_aux_full($1, $2, $3)')
mqipc_interface_map_set($1, 1)
`)

define(`polaris_mqipc_service_server',`dnl
polaris_mqipc_service_server_aux(mqipc_stem($1), mqipc_label($1),
 polaris_mqipc_service_server_many(mqipc_label($1), $5, max_scope_map($3, $4, $2)))')

define(`polaris_mqipc_service_client',`)

define(`polaris_mqipc_service_server_elastic_client',`dnl
polaris_mqipc_service_server_aux(mqipc_stem($1), mqipc_label($1),
 polaris_mqipc_service_server_many(mqipc_label($1), $5, max_scope_map($4, elastic, $3)))')

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_mqipc\_if.m4

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```

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#

```

```

/dev/lsmapi -c gen_context(system_u:object_r:polaris_lsmapi_device_t,s0)
/dev/lsmapi_app0 -c gen_context(system_u:object_r:polaris_lsmapi_device_t,s0)
/dev/lsmapi_app1 -c gen_context(system_u:object_r:polaris_lsmapi_device_t,s0)
/dev/lsmapi_app2 -c gen_context(system_u:object_r:polaris_lsmapi_device_t,s0)

/tmp/pi(/.*)? gen_context(system_u:object_r:polaris_pi_uds_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislsmapi.fc

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```

#
November 2020, Christine Hwang
#

```

```
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#

policy_module(polarisbbu, 1.0);

gen_require(
 type polaris_bbu_t;
)

polaris_btrace_data_manage(polaris_bbu_t)
polaris_chasfs_manage(polaris_bbu_t)
polaris_tdlresolve_read(polaris_bbu_t)
polaris_cpld_read(polaris_bbu_t)

polaris_ripc_sman_ui_serv_connect(polaris_bbu_t)

Allow I2C Usage
polaris_i2c_use(polaris_bbu_t)
polaris_i2c_sem_manage(polaris_bbu_t)

Allow sysfs read for platform ID
dev_list_sysfs(polaris_bbu_t)

Allow bbu to access NVRAM for /flash0/bbu
fs_getattr_tmpfs(polaris_bbu_t)
polaris_nvram_manage(polaris_bbu_t)

Allow logger which is used for syslog messages
allow polaris_bbu_t self:unix_dgram_socket { connect create };
logging_send_syslog_msg(polaris_bbu_t)

tty BBU device
type polaris_bbu_device_t;
dev_node(polaris_bbu_device_t)

polaris_bbu_dev_use(polaris_bbu_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbbu.te
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#
February 2020, Victor Kamensky
#
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#
```

```
<summary>Polaris dmi_ports_fetch Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Execute a domain transition to run dmi_ports_fetch.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed to transition.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_dmi_ports_fetch_domtrans`,`
```

```
gen_require(`
```

```
type polaris_dmi_ports_fetch_t, polaris_dmi_ports_fetch_exec_t;
```

```
`)
```

```
domtrans_pattern($1, polaris_dmi_ports_fetch_exec_t, polaris_dmi_ports_fetch_t)
```

```
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmiportsfetch.if

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```
#
```

```
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```

```
#
```

```
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```
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```

```
#
```

```
policy_module(polariscliagent, 1.0);
```

```
gen_require(`
```

```
type polaris_cli_agent_t;
```

```
`)
```

```
polaris_btrace_data_manage(polaris_cli_agent_t)
```

```
polaris_crft_data_manage(polaris_cli_agent_t)
```

```
polaris_chasfs_manage(polaris_cli_agent_t)
```

```
polaris_tdlresolve_read(polaris_cli_agent_t)
```

```
polaris_tdlldb_list_dirs(polaris_cli_agent_t)
```

```
polaris_cpld_read(polaris_cli_agent_t)
```

```
polaris_flashlib_read(polaris_cli_agent_t)
```

```
polaris_rpc_sman_ui_serv_connect(polaris_cli_agent_t)
```

```
polaris_db_tdlldb_dir_use(polaris_cli_agent_t)
```

```
polaris_libeiutil_build_config_directory(polaris_cli_agent_t)
```

```
cli_agent /var/run pid file
```

```
type polaris_cli_agent_var_run_t;
```

```
files_pid_file(polaris_cli_agent_var_run_t)
```

```
manage_files_pattern(polaris_cli_agent_t, polaris_cli_agent_var_run_t, polaris_cli_agent_var_run_t)
```

```
manage_dirs_pattern(polaris_cli_agent_t, polaris_cli_agent_var_run_t, polaris_cli_agent_var_run_t)
```

```
files_pid_filetrans(polaris_cli_agent_t, polaris_cli_agent_var_run_t, { file dir })
```

```
polaris_cfg_data_manage(polaris_cli_agent_t)
```

```
Provide sys_resource capability as well for sys_pipe calls
```

```
allow polaris_cli_agent_t self:capability { dac_override sys_resource };
```

```
logging_send_syslog_msg(polaris_cli_agent_t)
```

```
#DB persistence
```

```
polaris_tdlldbpersist_setup(polaris_cli_agent_t)
```

```
polaris_tmp_tdlldb_persist_setup(polaris_cli_agent_t)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscliagent.te
```

```
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```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
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```

```
#
```

```
policy_module(polarisflashlib, 1.0);
```

```
#####
```

```
Flashlib policy (infra/flashlib)
```

```
#####
```

```
type polaris_flashlib_lock_t;
```

```
files_type(polaris_flashlib_lock_t)
```

```
gen_require(`
```

```
 attribute polaris_extended_domain;
```

```
`)
```

```
/tmp/.flashlock file is used as flashlib lock
```

```
gen_require(`
```

```
 type init_t;
```



```

')
files_tmp_filetrans({ init_t polaris_extended_domain }, polaris_flashlib_lock_t, file, ".flashlock")

type polaris_flashlib_log_t;
files_type(polaris_flashlib_log_t)

gen_require(
 attribute polaris_extended_domain;
)

/tmp/flashdev.log file is used as flashlib to log
files_tmp_filetrans(polaris_extended_domain, polaris_flashlib_log_t, file, "flashdev.log")

/dev/shm/flash_shm shared memory
type polaris_flash_shm_t;
files_type(polaris_flash_shm_t)

gen_require(
 attribute polaris_domain;
 type tmpfs_t;
)
filetrans_pattern(polaris_domain, tmpfs_t, polaris_flash_shm_t, file, "flash_shm")

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisflashlib.te

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```

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#

```

## <summary>Polaris CPLD Policy Rules.</summary>

```

#####
Quack Driver policy
#####

```

```

#####
<summary>
Work (read, write, ioctl) with /dev/quack
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>

```

```
</param>
#
interface(`polaris_quack_dev_use',`
gen_require(
 type device_t;
 type polaris_quack_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_quack_device_t)
 read_chr_files_pattern($1, device_t, polaris_quack_device_t)
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisquack.if

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```
#
October 2017, Victor Kamensky
#
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#
```

```
<summary>Polaris wstatsd Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswstatsd.if

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```
dnl
dnl Mar 2020, Manu Roy
dnl
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dnl
dnl Petra Platform Max Bay Limits
max_bay_map_set(`rp', `per_bay', 0)
max_bay_map_set(`cc', `per_bay', 0)
max_bay_map_set(`fp', `per_bay', 0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/petramaps.m4

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```
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#
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```

```

#

policy_module(polariswstatsd, 1.0);

gen_require(
 type polaris_wstatsd_t;
)

polaris_btrace_data_manage(polaris_wstatsd_t)
polaris_crft_data_manage(polaris_wstatsd_t)
polaris_chasfs_manage(polaris_wstatsd_t)
polaris_tdlresolve_read(polaris_wstatsd_t)
polaris_tdlldb_list_dirs(polaris_wstatsd_t)
polaris_cpld_read(polaris_wstatsd_t)
polaris_lua_read(polaris_wstatsd_t)
polaris_flashlib_read(polaris_wstatsd_t)

polaris_ripc_sman_ui_serv_connect(polaris_wstatsd_t)

polaris_db_tdlldb_dir_use(polaris_wstatsd_t)

allow polaris_wstatsd_t self:capability dac_override;
allow polaris_wstatsd_t self:udp_socket { bind setopt getattr };
corenet_udp_bind_generic_node(polaris_wstatsd_t)
corenet_udp_bind_polaris_capwap_data_port(polaris_wstatsd_t)
polaris_socketat_nsfs_read(polaris_wstatsd_t)
polaris_lfts_dev_use(polaris_wstatsd_t)

polaris_tdlldbpersist_setup(polaris_wstatsd_t)

polaris_tmp_tdlldb_persist_setup(polaris_wstatsd_t)

logging_send_syslog_msg(polaris_wstatsd_t)

#allow to read /etc/passwd
auth_use_nsswitch(polaris_wstatsd_t)

#this is being given for process to execute tar
corecmd_exec_bin(polaris_wstatsd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswstatsd.te
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December 2019, Victor Kamensky
#
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```

```

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#

policy_module(polarisfnfagg, 1.0);

gen_require(
 type polaris_fnf_agg_t;
)

polaris_btrace_data_manage(polaris_fnf_agg_t)
polaris_crft_data_manage(polaris_fnf_agg_t)
polaris_chasfs_read(polaris_fnf_agg_t)
polaris_tdlresolve_read(polaris_fnf_agg_t)
polaris_lua_read(polaris_fnf_agg_t)
polaris_flashlib_read(polaris_fnf_agg_t)
polaris_cpld_read(polaris_fnf_agg_t)

polaris_ripc_sman_ui_serv_connect(polaris_fnf_agg_t)

polaris_db_tdlldb_dir_use(polaris_fnf_agg_t)

allow polaris_fnf_agg_t self:capability { dac_override dac_read_search };

type polaris_fnf_agg_tmp_t;
files_tmp_file(polaris_fnf_agg_tmp_t)
files_tmp_filetrans(polaris_fnf_agg_t, polaris_fnf_agg_tmp_t, dir, "fnf_agg")
manage_files_pattern(polaris_fnf_agg_t, polaris_fnf_agg_tmp_t, polaris_fnf_agg_tmp_t)
manage_dirs_pattern(polaris_fnf_agg_t, polaris_fnf_agg_tmp_t, polaris_fnf_agg_tmp_t)

allow sending files over HTTP
corenet_tcp_connect_http_port(polaris_fnf_agg_t)
sysnet_read_config(polaris_fnf_agg_t)

allow UDP connection for punting fnf records
allow polaris_fnf_agg_t self:udp_socket { create_socket_perms recv_msg };
corenet_udp_bind_generic_node(polaris_fnf_agg_t)

allow punting on routers/ewlc where lfts is being used
polaris_lfts_dev_use(polaris_fnf_agg_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfnfagg.te
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#
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```

```

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#

<summary>Polaris VXE Platform Policy Rules.</summary>

interface(`polaris_objstore_sem_use`,`
 gen_require(`
 type polaris_objstore_sem_t;
 `)
 allow $1 polaris_objstore_sem_t:sem rw_sem_perms;
 mmap_files_pattern($1, polaris_objstore_sem_t, polaris_objstore_sem_t)
 manage_files_pattern($1, polaris_objstore_sem_t, polaris_objstore_sem_t)
`)

#####
<summary>
Work (read, write, ioctl) with /dev/vda1 device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_grub_efi_use`,`
 gen_require(`
 type polaris_grub_efi_t;
 `)
 write_chr_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
 read_chr_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
`)

#####
<summary>
Search /dev/vda1 device the efi partition
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_grub_efi_search`,`
 gen_require(`
 type polaris_grub_efi_t;
 `)
 search_dirs_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
`)

```

```
#####
<summary>
Read VXE install info files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vxeinstall_info_read`,`
gen_require(
type polaris_vxeinstall_info_t;
`)
read_files_pattern($1, polaris_vxeinstall_info_t, polaris_vxeinstall_info_t)
list_dirs_pattern($1, polaris_vxeinstall_info_t, polaris_vxeinstall_info_t)
`)

```

```
#####
<summary>
Read /dev/vda1 device the efi partition
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_grub_info_read`,`
gen_require(
type polaris_grubver_t;
type polaris_grub_bios_t;
type polaris_grub_efi_t;
`)
read_files_pattern($1, polaris_grubver_t, polaris_grubver_t)
read_files_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
read_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
list_dirs_pattern($1, polaris_grubver_t, polaris_grubver_t)
list_dirs_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
list_dirs_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
`)

```

```
#####
<summary>
Manage /dev/vda1 device the efi partition
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_grubcfg_manage',`
gen_require(
type polaris_grub_bios_t;
type polaris_grub_efi_t;
')
manage_files_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
manage_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
manage_dirs_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
manage_dirs_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
')

```

```

#####
<summary>
Manage regular files/directories under /varied/grub
CSR manages files in legacy grub disk location
also allow run readlink -f /dev/bootflash
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_legacy_grub_manage',`
gen_require(
type boot_t;
type fixed_disk_device_t;
')
manage_files_pattern($1, boot_t, boot_t)
manage_dirs_pattern($1, boot_t, boot_t)
storage_getattr_fixed_disk_dev($1)
')

```

```

#####
<summary>
Work (read, write, ioctl) with /dev/hanet
hanet driver used by vpcgw platform of VXE family
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```
#
ifdef(`vpcgw_platform',`
interface(`polaris_hanet_dev_use',`
gen_require(`
 type device_t;
 type polaris_hanet_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_hanet_device_t)
 read_chr_files_pattern($1, device_t, polaris_hanet_device_t)
`)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisvxe.if

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```
#
March 2017, Victor Kamensky
#
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#
```

```
/usr/binos/conf/pman.sh -- gen_context(system_u:object_r:polaris_pman_exec_t,s0)
/usr/bin/pman -- gen_context(system_u:object_r:polaris_pman_exec_t,s0)
/bin/gdbserver -- gen_context(system_u:object_r:polaris_gdb_exec_t,s0)
/usr/bin/gdbserver -- gen_context(system_u:object_r:polaris_gdb_exec_t,s0)
/tmp/pman_ports(/.*)? gen_context(system_u:object_r:polaris_pman_tmp_t,s0)

/tmp/fp/process(/.*)? gen_context(system_u:object_r:polaris_pman_tmp_t,s0)
/tmp/rp/process(/.*)? gen_context(system_u:object_r:polaris_pman_tmp_t,s0)

/tmp/vxe_ucose_image gen_context(system_u:object_r:polaris_pman_tmp_t,s0)
/tmp/wlc_ucose_image gen_context(system_u:object_r:polaris_pman_tmp_t,s0)
/tmp/utah_ucose_image gen_context(system_u:object_r:polaris_pman_tmp_t,s0)
/tmp/fugazi_ucose_image gen_context(system_u:object_r:polaris_pman_tmp_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispman.fc

No license file was found, but licenses were detected in source scan.

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
dnl Macallan Platform Max Bay Limits
```



```
max_bay_map_set(rp, `per_bay', 0)
max_bay_map_set(cc, `per_bay', 9)
max_bay_map_set(fp, `per_bay', 9)
```

```
min_bay_ripc_map_set(rp, `per_bay', 0)
min_bay_ripc_map_set(cc, `per_bay', 1)
min_bay_ripc_map_set(fp, `per_bay', 0)
```

```
max_bay_ripc_map_set(rp, `per_bay', 2)
max_bay_ripc_map_set(cc, `per_bay', 10)
max_bay_ripc_map_set(fp, `per_bay', 1)
```

```
min_bay_ripc_map_set(rp, `global', 0)
min_bay_ripc_map_set(cc, `global', 1)
min_bay_ripc_map_set(fp, `global', 0)
```

```
max_bay_ripc_map_set(rp, `global', 2)
max_bay_ripc_map_set(cc, `global', 10)
max_bay_ripc_map_set(fp, `global', 1)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(rp, `elastic', BPROC_ODM, 0)
max_elastic_map_set(cc, `elastic', BPROC_ODM, 0)
max_elastic_map_set(fp, `elasite', BPROC_ODM, 0)
```

```
max_elastic_map_set(rp, `elastic', BPROC_WNCD, 0)
max_elastic_map_set(cc, `elastic', BPROC_WNCD, 0)
max_elastic_map_set(fp, `elastic', BPROC_WNCD, 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/macallanmaps.m4
```

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisissustack, 1.0);
```

```
gen_require(
 type polaris_issu_stack_t;
)
```

```
corecmd_exec_bin(polaris_issu_stack_t)
corecmd_exec_shell(polaris_issu_stack_t)
```

```

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_issu_stack_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_issu_stack_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_issu_stack_t)

work with /tmp files (/tmp/issu_stk)
type polaris_issu_stack_tmp_t;
files_tmp_file(polaris_issu_stack_tmp_t)
manage_dirs_pattern(polaris_issu_stack_t, tmp_t, polaris_issu_stack_tmp_t)
manage_files_pattern(polaris_issu_stack_t, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)
manage_fifo_files_pattern(polaris_issu_stack_t, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)
files_tmp_filetrans(polaris_issu_stack_t, polaris_issu_stack_tmp_t, file)
files_tmp_filetrans(polaris_issu_stack_t, polaris_issu_stack_tmp_t, dir, "issu_stk")

allow polaris_issu_stack_t self:capability sys_resource;

polaris_btrace_data_manage(polaris_issu_stack_t)
polaris_chasfs_manage(polaris_issu_stack_t)
polaris_cpld_read(polaris_issu_stack_t)
polaris_proc_rmonbifo_read(polaris_issu_stack_t)
polaris_rmonbifo_tmp_read(polaris_issu_stack_t)
polaris_boot_tmp_read(polaris_issu_stack_t)
polaris_tdlresolve_read(polaris_issu_stack_t)
polaris_disk_crashinfo_getattr(polaris_issu_stack_t)

allow polaris_issu_stack_t self:capability dac_override;

polaris_read_debug_conf(polaris_issu_stack_t)

polaris_flashlib_read(polaris_issu_stack_t)

allow polaris_issu_stack_t self:process setpgid;

modify tdlresolve epoch
polaris_tdlresolve_manage(polaris_issu_stack_t)

#rsync_exec(polaris_issu_stack_t)
gen_require(
 type rsync_t;
)
rsync_entry_domtrans(polaris_issu_stack_t, rsync_t)
allow rsync_t polaris_issu_stack_t:process sigchld;

```

```

execute rsync over over eobc: /usr/binos/conf/mcp_chvrf.sh eobc rsync
polaris_chvrf_domtrans(polaris_issu_stack_t)
from chvrf.sh code executes rsync command
gen_require(
 type polaris_chvrf_t;
)
rsync_entry_domtrans(polaris_chvrf_t, rsync_t)
LOOK AT ME: issu_stack.sh leaks fd of /tmp/issu_stk/chassis_state_evt_fifo
for now grant access, since changing script may not be trivial
manage_fifo_files_pattern(polaris_chvrf_t, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)
write_files_pattern(polaris_chvrf_t, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)

polaris_install_engine_domtrans(polaris_issu_stack_t)
LOOK AT ME: isse_stack.sh leak fd of /tmp/issu_stk/chassis_state_evt_fifo
for now grant access, since changing script may not be trivial
gen_require(
 type polaris_install_engine_t;
)
read_fifo_files_pattern(polaris_install_engine_t, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)

polaris_install_tmp_read(polaris_issu_stack_t)

access /bootflash/.installer/install_issu_state
polaris_disk_install_read(polaris_issu_stack_t)

rm from coreutils-8.30 wants to know filesystem type
fs_getattr_tmpfs(polaris_issu_stack_t)

reads /tmp/remote_sw_verinfo.txt
gen_require(
 type rsync_tmp_t;
)
read_files_pattern(polaris_issu_stack_t, rsync_tmp_t, rsync_tmp_t)

watch over /tmp/tldresolve/work
polaris_tldresolve_watch(polaris_issu_stack_t)

#issu_stack.sh access to epoch_merge.lua,epoch_endpoint_update.lua
polaris_lua_read(polaris_issu_stack_t)

#issu_stack.sh access to /tmp/rsync_log_dir
polaris_manage_rsync_tmplog_dir(polaris_issu_stack_t)

#issu_stack.sh access to epoch_merge.lua which merges epoch files, local.epoch and inyterchassis/.epciob file
#luajit/usr/binos/conf/epoch_merge.lua--base-file/tmp/tldresolve/epoch_dir/local.epoch
#--merge-file/tmp/tldresolve/work/inter
allow polaris_issu_stack_t self:process execmem;

```

```
#access to /tmp/installer/
polaris_install_tmp_manage(polaris_issu_stack_t)
```

```
#access to /tmp/ufs/harddisk
polaris_ncd_tmp_read(polaris_issu_stack_t)
```

```
use of errmsg.sh
polaris_script_errmsg_use(polaris_issu_stack_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissustack.te
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarislsmpi, 1.0);
```

```
#####
Polaris lsmpi
#####
```

```
type polaris_lsmpi_device_t;
dev_node(polaris_lsmpi_device_t)
```

```
note polaris_sysfs_contdev_t is defined in kernel/devices.te, since genfscon statements
could be only in base policy
```

```
punt/inject working through unix domain sockets
type polaris_pi_uds_t;
files_tmp_file(polaris_pi_uds_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislsmpi.te
No license file was found, but licenses were detected in source scan.
```

```
#
May 2017, Victor Kamensky
#
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#
```

```
<summary>Polaris mdt_pubd Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismdtpubd.if
```

No license file was found, but licenses were detected in source scan.

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
All rights reserved
```

```
#
```

```
policy_module(polarisemd, 1.0);
```

```
gen_require(
 type polaris_emd_t;
)
```

```
polaris_btrace_data_manage(polaris_emd_t)
```

```
polaris_crft_data_manage(polaris_emd_t)
```

```
polaris_chasfs_manage(polaris_emd_t)
```

```
polaris_tdlresolve_read(polaris_emd_t)
```

```
polaris_tdlldb_list_dirs(polaris_emd_t)
```

```
polaris_cpld_read(polaris_emd_t)
```

```
polaris_flashlib_read(polaris_emd_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_emd_t)
```

```
polaris_cpld_dev_use(polaris_emd_t)
```

```
dev_read_sysfs(polaris_emd_t)
```

```
polaris_obfl_data_manage(polaris_emd_t)
```

```
polaris_persistent_read(polaris_emd_t)
```

```
allow polaris_emd_t self:capability dac_override;
```

```
ifdef(^mcp_family',`
```

```
polaris_scooby_dev_use(polaris_emd_t)
```

```
read/write /sys/bus/i2c/drivers/pca9544/2-0077/reg_control and others
```

```
dev_getattr_sysfs_fs(polaris_emd_t)
```

```
dev_rw_sysfs(polaris_emd_t)
```

```
`)
```

```
logging_send_syslog_msg(polaris_emd_t)
```

```
ifdef(^qwlc_platform',`
```

```
on qwlc read eeprom through i2c like /sys/devices/i2c-12/12-0050/eeprom
```

```
dev_rw_sysfs(polaris_emd_t)
```

```

dev_getattr_sysfs_fs(polaris_emd_t)
')

#sparrow needs access to /dev/i2c*
#ifdef(`sparrow_platform',`
gen_require(`
 type polaris_cm_cc_tmpfs_t;
')
polaris_i2c_use(polaris_emd_t)
polaris_i2c_sem_manage(polaris_emd_t)
mmap_files_pattern(polaris_emd_t, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
')
```

```

#ifdef(`katar_platform',`
dev_rw_sysfs(polaris_emd_t)
dev_getattr_sysfs_fs(polaris_emd_t)
')
```

```

emd creates udp socket
allow polaris_emd_t self:udp_socket create_socket_perms;
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisemd.te

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```

#
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#
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#
```

## <summary>Polaris polarisdroputil Policy Rules.</summary>

#####

```

<summary>
Manage droputils temporary files and directories in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```

interface(`polaris_droputil_manage_tmp_files',`
 gen_require(`
 type polaris_droputil_tmp_t;
 ')
')
```

```
manage_files_pattern($1, polaris_droputil_tmp_t, polaris_droputil_tmp_t)
read_lnk_files_pattern($1, polaris_droputil_tmp_t, polaris_droputil_tmp_t)
')
```

```
#####
```

```
<summary>
Watch droputil_tmp directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_droputil_tmp_watch`,`
gen_require(`
type polaris_droputil_tmp_t;
`)
allow $1 polaris_droputil_tmp_t:dir watch;
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdroputil.if

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
/tmp/iosd_level -- gen_context(system_u:object_r:polaris_lm_tmp_t,s0)
/tmp/stack_apcount -- gen_context(system_u:object_r:polaris_lm_tmp_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislm.fc

No license file was found, but licenses were detected in source scan.

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
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dnl
dnl define(`polaris_ripc_service_server`,`')
```

```
define(`polaris_ripc_service_client',`')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_ripc_if.m4
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_ripc_fc.m4
```

No license file was found, but licenses were detected in source scan.

dnl

dnl December 2018, Victor Kamensky

dnl

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dnl

dnl Nyquist Platform Max Bay Limits

```
max_bay_map_set(`rp', `per_bay', 0)
```

```
max_bay_map_set(`cc', `per_bay', 0)
```

```
max_bay_map_set(`fp', `per_bay', 0)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(`rp', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`fp', `elasitic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`rp', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`fp', `elastic', BPROC_WNCD, 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/quake1maps.m4
```

No license file was found, but licenses were detected in source scan.

#

# Sep 2020, Sridhar C

#

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#

```
policy_module(polaristlsd, 1.0);
```

```
gen_require(`
```

```
 type polaris_tlsd_t;
```

```
 type net_conf_t;
```

```
`)
```

```
polaris_btrace_data_manage(polaris_tlsd_t)
```

```
polaris_chasfs_manage(polaris_tlsd_t)
```

```
polaris_tdlresolve_read(polaris_tlsd_t)
```



```

polaris_tdldb_list_dirs(polaris_tlscd_t)
polaris_lua_read(polaris_tlscd_t)
polaris_flashlib_read(polaris_tlscd_t)
polaris_chasfs_read(polaris_tlscd_t)
polaris_cpld_read(polaris_tlscd_t)
polaris_db_tdldb_dir_use(polaris_tlscd_t)

Related to vrf support of the socket
polaris_lfts_dev_use(polaris_tlscd_t)
polaris_socketat_nsfs_read(polaris_tlscd_t)
polaris_vrf_shm_manage(polaris_tlscd_t)

TLSCd reads TCP/UDP ports open in VRF_GLOBAL for packet forwarding
to IOSd or BinOS applications.
kernel_read_net_sysctls(polaris_tlscd_t)
kernel_read_network_state(polaris_tlscd_t)
kernel_search_network_sysctl(polaris_tlscd_t)
allow polaris_tlscd_t net_conf_t:dir search;
allow polaris_tlscd_t net_conf_t:file { getattr open read watch };

UDS related sockets are:
/tmp/tlscd/iosd_to_tlscd_0_socket
/tmp/tlscd/tlscd_to_iosd_0_socket
IOSd and TLSCd exchange packet over these UDS socket, allow create/bind
type polaris_tlscd_uds_t;
files_tmp_file(polaris_tlscd_uds_t)
polaris_tlscd_uds_manage(polaris_tlscd_t)
polaris_iosd_dgram_send(polaris_tlscd_t)
allow polaris_tlscd_t self:unix_dgram_socket { bind create };

Tunnel and TLS TCP connection related related
corenet_rw_tun_tap_dev(polaris_tlscd_t)
allow polaris_tlscd_t self:tun_socket create;
corenet_tcp_connect_all_ports(polaris_tlscd_t)

errmsg
logging_send_syslog_msg(polaris_tlscd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristlscd.te
No license file was found, but licenses were detected in source scan.

dnl
dnl April 2018, Victor Kamensky
dnl
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dnl All rights reserved
dnl

```

```
define(^polaris_database_aux',`dnl
type $1;
polaris_tdlldb_type($1)
')
```

```
define(^polaris_database',`dnl
polaris_database_aux(database_label($1))
')
```

```
define(^polaris_database_process_aux_full',`dnl
gen_require(`
 type $2;
")
polaris_db_tdlldb_$1_use($2)
')
```

```
define(^polaris_database_process_aux',`dnl
ifelse(database_use_map($1, $2), `', `polaris_database_process_aux_full($1, $2)')
database_use_map_set($1, $2, 1)
')
```

```
define(^polaris_database_process',`dnl
polaris_database_process_aux(database_stem($1), process_label($2))dnl
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_database\_db\_te.m4

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```
#
January 2021, Gabriel Lee, Shawn Liu
#
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#
```

```
<summary>Polaris ezmanage Policy Rules.</summary>
```

```
#####
```

```
<summary>
Transition to ezmanage
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
```

```

#
interface(`polaris_ezmanage_domtrans`,`
gen_require(`
type polaris_ezmanage_t, polaris_ezmanage_exec_t;
`)

domtrans_pattern($1, polaris_ezmanage_exec_t, polaris_ezmanage_t)
`)

#####
<summary>
Read files under polaris_ezmanage_file_t label
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_manage_ezmanage_files`,`
gen_require(`
type polaris_ezmanage_file_t;
`)

manage_files_pattern($1, polaris_ezmanage_file_t , polaris_ezmanage_file_t)
read_lnk_files_pattern($1, polaris_ezmanage_file_t, polaris_ezmanage_file_t)
manage_dirs_pattern($1, polaris_ezmanage_file_t , polaris_ezmanage_file_t)
`)

#####
<summary>
Manage files under polaris_ezmanage_var_run_t label
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_manage_ezmanage_var_run_files`,`
gen_require(`
type polaris_ezmanage_var_run_t;
`)

manage_sock_files_pattern($1, polaris_ezmanage_var_run_t, polaris_ezmanage_var_run_t);
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisezmanage.if

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#

# February 2020, Victor Kamensky

#

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#

policy\_module(polariscedge, 1.0);

# /tmp/xml handling

type polaris\_cedge\_xml\_tmp\_t;

files\_tmp\_file(polaris\_cedge\_xml\_tmp\_t)

# PLEASE LOOK AT ME very strange choice of directory name

# /tmp/tmp/ handling

type polaris\_cedge\_tmp\_t;

files\_tmp\_file(polaris\_cedge\_tmp\_t)

# /etc/viptela handling

type polaris\_cedge\_etc\_t;

files\_config\_file(polaris\_cedge\_etc\_t)

# /dev/shm handling

type polaris\_cedge\_tmpfs\_t;

files\_tmpfs\_file(polaris\_cedge\_tmpfs\_t)

# /tmp/.econfd2sysmgr-ipc handling

type polaris\_econfd2sysmgr\_tmp\_t;

files\_tmp\_file(polaris\_econfd2sysmgr\_tmp\_t)

# vconfd\_script\_reboot.sh policy

polaris\_vconfd\_domain\_template(vconfd\_reboot)

# vconfd\_script\_if\_reset.sh policy

polaris\_vconfd\_domain\_template(vconfd\_ifreset)

# vconfd\_script\_get\_config.sh policy

polaris\_vconfd\_domain\_template(vconfd\_cfg)

#####

# vconfd\_script\_\*\_stats policy

polaris\_vconfd\_domain\_template(vconfd\_history)

corecmd\_exec\_bin(polaris\_vconfd\_history\_t)

```

performs 'rm /tmp/xml/Pfr/Pfr-1600801323.xml.gz'....but, do not know where
polaris_cedge_tmp_manage(polaris_vconfd_history_t)

performs 'ls -rt /tmp/xml/UtdUrf-IOX' etc.
polaris_cedge_xml_tmp_manage(polaris_vconfd_history_t)

vconfd_script_manage_list_stats.sh performs operations on
/tmp/vconfd/stats.XXXXXXX
polaris_vconfd_tmp_manage(polaris_vconfd_history_t)
#####
software policy
polaris_vconfd_domain_template(vconfd_software)

nms policy
polaris_vconfd_domain_template(vconfd_nms)

device policy
polaris_vconfd_domain_template(vconfd_device)

internal policy
polaris_vconfd_domain_template(vconfd_reset)

cert policy
polaris_vconfd_domain_template(vconfd_cert)

#####
csr policy
polaris_vconfd_domain_template(vconfd_csr)

vconfd_script_show_csr.sh invokes vlog
/bin/sh vlog
vlog is implemented in viptela/utils/vlog using logger; that needs
- ceate/connect unix_dgram_socket
- read from devtmpfs of type devlog_t
- write to sock_file of type devlog_t
- sendto path="/run/systemd/journal/dev-log" of type unix_dgram_socket
logging_send_syslog_msg(polaris_vconfd_csr_t)
corecmd_exec_bin(polaris_vconfd_csr_t)

reads /usr/share/viptela/server.csr
polaris_bootflash_read(polaris_vconfd_csr_t)
#####
serial vsmart-upload vedge-upload policy
polaris_vconfd_domain_template(vconfd_serialnum)

crash policy
polaris_vconfd_domain_template(vconfd_crash)

```

```

aaa policy
polaris_vconfd_domain_template(vconfd_aaa)

container policy
polaris_vconfd_domain_template(vconfd_contr)

iox policy
polaris_vconfd_domain_template(vconfd_iox)

utd policy
polaris_vconfd_domain_template(vconfd_utd)

geo policy
polaris_vconfd_domain_template(vconfd_geo)

vconfd_script_vnping.sh, vconfd_script_vping.sh, vconfd_script_vtraceroute.sh
scripts policy
polaris_vconfd_domain_template(vconfd_net)

runs ip command
sysnet_domtrans_ifconfig(polaris_vconfd_net_t)
runs confd_cmd
corecmd_exec_bin(polaris_vconfd_net_t)

polaris_conf_d_connect(polaris_vconfd_net_t)

/tmp/ polaris_vconfd_cert_t handling
type polaris_vconfd_cert_tmp_t;
files_tmp_file(polaris_vconfd_cert_tmp_t)
files_tmp_filetrans(polaris_vconfd_cert_t, polaris_vconfd_cert_tmp_t, { file dir })
polaris_vconfd_cert_tmp_manage(polaris_vconfd_cert_t)

permit access to polaris_vconfd_cert_t
allow polaris_vconfd_cert_t self:capability { chown dac_override };

logging_send_syslog_msg(polaris_vconfd_cert_t)

corecmd_sbin_entry_type(polaris_vconfd_cert_t)
corecmd_shell_entry_type(polaris_vconfd_cert_t)

fs_read_nsfs_files(polaris_vconfd_cert_t)
logging_create_devlog_dev(polaris_vconfd_cert_t)

to access the /bootflash: as the cert is stored in /bootflash:
IOS cert related CLIs can create/store the certs in /bootflash with any
file name(s), so allow generic access to bootflash.
polaris_bootflash_manage(polaris_vconfd_cert_t)

```

```

manage /etc/viptela
polaris_cedge_etc_manage(polaris_vconfd_cert_t)
polaris_cedge_reset_ns(polaris_vconfd_cert_t)

needed for accessing /tmp/chassis/local/rp/chasfs/midplane/chassis_model
polaris_chasfs_read(polaris_vconfd_cert_t)

#access to /etc/viptela
gen_require(
 type polaris_nginx_t;
)
polaris_cedge_etc_manage(polaris_nginx_t)

For "confd_cmd", allow polaris_vconfd_cert_t, which is not a Binos process,
to access polaris_confd_ipc_ripc_port_t.
polaris_ripc_confd_ipc_connect(polaris_vconfd_cert_t)

permit to access /var/run/netns/default
sysnet_manage_ifconfig_run(polaris_vconfd_cert_t)

vconfd_script_show_root_ca_cert.sh performs operations on
/tmp/vconfd/root_cert.XXXXXXX
polaris_vconfd_tmp_manage(polaris_vconfd_cert_t)
fs_getattr_tmpfs(polaris_vconfd_cert_t)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscedge.te
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```

```

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#
<summary>Polaris CPLD Policy Rules.</summary>

```

```

#####
CPLD Driver policy
#####

```

```

#####
<summary>
Read cpld files in /sys directory
</summary>
<param name="domain">
<summary>

```

```

Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpld_read`,`
gen_require(`
type polaris_sysfs_cpld_t;
type sysfs_t;
`)
read_files_pattern($1, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)
genfscon statement specifically excludes symbolic links from
genfscon path specific entries. To workaround, let us allow
to follow sysfs_t symbolic links
allow $1 sysfs_t:lnk_file { read getattr };
list_dirs_pattern($1, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)
`)

#####
<summary>
Write cpld files in /sys directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpld_write`,`
gen_require(`
type polaris_sysfs_cpld_t;
type sysfs_t;
`)
manage_files_pattern($1, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)
manage_dirs_pattern($1, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)
genfscon statement specifically excludes symbolic links from
genfscon path specific entries. To workaround, let us allow
to follow sysfs_t symbolic links
allow $1 sysfs_t:lnk_file { read getattr };
`)

#####
<summary>
Work (read, write, ioctl) with /dev/cpld
</summary>
<param name="domain">
<summary>
Domain allowed access.

```



```

</summary>
</param>
#
interface(`polaris_cpld_dev_use`,`
gen_require(`
 type device_t;
 type polaris_cpld_device_t;
`)
write_chr_files_pattern($1, device_t, polaris_cpld_device_t)
read_chr_files_pattern($1, device_t, polaris_cpld_device_t)
allow $1 polaris_cpld_device_t:chr_file map;
`)

```

```
#####
```

```

<summary>
Work (read,iocctl) with /dev/cpld
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_cpld_dev_read`,`
gen_require(`
 type device_t;
 type polaris_cpld_device_t;
`)
read_chr_files_pattern($1, device_t, polaris_cpld_device_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscpld.if

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```

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#

```

```
policy_module(polariscrankshaft, 1.0);
```

```

spa devices i.e sys_platform_module_1ng
type polaris_spa_device_t;
dev_node(polaris_spa_device_t)

```

```
htdp device
type polaris_htdp_device_t;
dev_node(polaris_htdp_device_t)

bde device (/dev/linux-user-bde)
type polaris_bde_device_t;
dev_node(polaris_bde_device_t)

dash fpga device (/dev/dash_fpga)
type polaris_dash_device_t;
dev_node(polaris_dash_device_t)

nios device (/dev/nios)
type polaris_nios_device_t;
dev_node(polaris_nios_device_t)

qae device (/dev/qae_mem)
type polaris_qae_device_t;
dev_node(polaris_qae_device_t)

moka fpga device (/dev/moka_fpga)
type polaris_mokafpga_device_t;
dev_node(polaris_mokafpga_device_t)

sirius fpga device (/dev/sirius_fpga)
type polaris_siriusfpga_device_t;
dev_node(polaris_siriusfpga_device_t);

moka nim device (/dev/nim_dm*)
type polaris_nim_dm_device_t;
dev_node(polaris_nim_dm_device_t)

/dev/bp_async device on nanook platform
type polaris_bp_async_device_t;
dev_node(polaris_bp_async_device_t)

/dev/sparrow_psu device on sparrow platform
type polaris_sparrow_psu_device_t;
dev_node(polaris_sparrow_psu_device_t)

/dev/nutella_fpga device on nutella platform
type polaris_nutella_fpga_device_t;
dev_node(polaris_nutella_fpga_device_t)

/dev/huron_fpga on Sumatra platform
type polaris_huron_device_t;
dev_node(polaris_huron_device_t)
```

```

/dev/dplr_sumatra on Sumatra platform
type polaris_sumatra_doppler_device_t;
dev_node(polaris_sumatra_doppler_device_t)

/tmp/sata_status for mSATA
type polaris_sata_status_tmp_t;
files_tmp_file(polaris_sata_status_tmp_t)

TSN tsn_platform.tdl for IPCs and processes definition and it uses
crankshaft_platform.tdl for databases definition. Unfortunately they are
out of sync wrt BPROC_NGWC_FED - crankshaft_platform.tdl refers it but
tsn_platform.tdl does not contain such definition.
ifdef(^tsn_platform',`
type polaris_ngwc_fed_t;
`)

Supernova supernova_platform.tdl for IPCs and processes definition and it uses
crankshaft_platform.tdl for databases definition. Unfortunately they are
out of sync wrt BPROC_FM_RP - crankshaft_platform.tdl refers it but
supernova_platform.tdl does not contain such definition.
ifdef(^supernova_platform',`
type polaris_fman_rp_t;
`)

Nanook
The Nanook platform does not support SDWAN and so the SDWAN processes are not
defined in the nanook_platform.tdl. However, it uses the database_def's from
the crankshaft_platform.tdl, which do have the SDWAN databases. So we need to
add the processes to the SELinux policy
ifdef(^nanook_platform',`
type polaris_cfgmgr_t;
type polaris_cxp_t;
type polaris_dbgd_t;
type polaris_fpm_t;
type polaris_ftm_t;
type polaris_omp_t;
type polaris_sdavc_proxy_t;
type polaris_ttm_t;
type polaris_vdaemon_t;
type polaris_htx_t;
`)

#####
load_usbnet policies start
#####
/usr/bin/conf/load_usbnet.sh is invoked to load usb network driver module
kernel/drivers/net/usb/usbnet.ko for TSN.

```

```

#####

polaris_process_domain_template(load_usbnet)

allow polaris_load_usbnet_t access to execute programs in system bin dirs, load
usbnet.ko for USB network interface for TSN and allow read access
to /sys/class/net and /proc/cmdline
LOOK AT ME: /tmp/rp/pvp/work/inot_fifo inotifywait fd leak to child
corecmd_exec_bin(polaris_load_usbnet_t)
modutils_exec_insmodule(polaris_load_usbnet_t)
modutils_list_module_config(polaris_load_usbnet_t)
modutils_read_module_config(polaris_load_usbnet_t)
sysnet_manage_config_dirs(polaris_load_usbnet_t)
polaris_pvp_stdin_read(polaris_load_usbnet_t)
files_read_kernel_modules(polaris_load_usbnet_t)
dev_rw_sysfs(polaris_load_usbnet_t)
kernel_read_system_state(polaris_load_usbnet_t)

stdout inherited from unconfined_service that might call it
polaris_unconfined_service_fifo_file_manage(polaris_load_usbnet_t)

handle /tmp/load_usbnet_intf
type polaris_load_usbnet_tmp_t;
files_tmp_file(polaris_load_usbnet_tmp_t)
files_tmp_filetrans(polaris_load_usbnet_t, polaris_load_usbnet_tmp_t, file)
manage_files_pattern(polaris_load_usbnet_t, polaris_load_usbnet_tmp_t, polaris_load_usbnet_tmp_t)

allow read of /etc/passwd
allow map permission
passwd_file_t:file { getattr open read };
auth_map_passwd(polaris_load_usbnet_t)

#####
load_usbnet policies end
#####

#####
CLI: show platform hardware msata <status/info>
#####
ifdef(^crankshaft_family',`
gen_require(
 type polaris_sysfs_ggpio_t;
 type polaris_msata_info_t;
)

polaris_utility_domain_template(msata_info)
polaris_bexecute_domain(polaris_msata_info_t, polaris_msata_info_exec_t)
need write for pipes like "pipe:[70623]"

```

```

corecmd_exec_bin(polaris_msata_info_t)
need write/getattr for pipes like "pipe:[71322]"
polaris_cmrp_use_fifo(polaris_msata_info_t)
fstools_domtrans(polaris_msata_info_t)
allow use of mSATA device
polaris_nvram_manage(polaris_msata_info_t)
allow self
allow polaris_msata_info_t self:capability sys_rawio;
allow polaris_msata_info_t self:process setfscreate;
allow /usr/sbin/smartctl to access /sys/devices/platform/cpn-110-master/
cpn-110-master:config-space/f2540000.sata/ata2/host1/scsi_host/host1/proc_name and
/sys/devices/platform/cpn-110-master/cpn-110-master:config-space/f2540000.sata/
ata2/host1/target1:0:0
read_files_pattern(polaris_msata_info_t, polaris_sysfs_ggpio_t, polaris_sysfs_ggpio_t)
dev_list_sysfs(polaris_msata_info_t)
allow smartctl to access to /dev/sda to determine its lifetime
storage_raw_read_fixed_disk(polaris_msata_info_t)

CLI: show platform hardware slot p[x] fan eeprom
polaris_utility_domain_template(smart_fan)
polaris_bexecute_domain(polaris_smart_fan_t, polaris_smart_fan_exec_t)
allow /ls command
corecmd_exec_bin(polaris_smart_fan_t)
allow read of /etc/passwd
auth_map_passwd(polaris_smart_fan_t)
allow read of /sys/devices/platform/nios/*
dev_read_sysfs(polaris_smart_fan_t)
need write/getattr access for pipes like "pipe:[86004]"
polaris_cmrp_use_fifo(polaris_smart_fan_t)

sumatra and sparrow platforms need map access for "show platform hardware msata status | lifetime"
auth_map_passwd(polaris_msata_info_t)
')

ifdef(^sumatra_platform',`
During "show platform hardware msata status | lifetime" - msata_info.sh accesses /tmp/sata_status
files_tmp_filetrans(polaris_msata_info_t, polaris_sata_status_tmp_t, file)
manage_files_pattern(polaris_msata_info_t, polaris_sata_status_tmp_t, polaris_sata_status_tmp_t)
`)

#####
show platform hardware msata end
#####

#type for /dev/qcqmIX
type qcqmi_device_t;
dev_node(qcqmi_device_t);

```

```
sm_nim_adpt device (/dev/sm_nim_adpt_XXX)
type polaris_sm_nim_adpt_device_t;
dev_node(polaris_sm_nim_adpt_device_t)
```

```
dio device
type polaris_dio_device_t;
dev_node(polaris_dio_device_t)
```

```
tty NMEA device
type polaris_tty_NMEA_device_t;
dev_node(polaris_tty_NMEA_device_t)
```

```
memory blocks and gpp on Nutella-XE platform
type polaris_nutella_memory_block_p7_t;
dev_node(polaris_nutella_memory_block_p7_t)
```

```
type polaris_nutella_memory_block_p1_t;
dev_node(polaris_nutella_memory_block_p1_t)
```

```
type polaris_nutella_memory_block_boot_t;
dev_node(polaris_nutella_memory_block_boot_t)
```

```
type polaris_nutella_gp0_t;
dev_node(polaris_nutella_gp0_t)
```

```
type polaris_nutella_gpp_t;
dev_node(polaris_nutella_gpp_t)
```

```
nim device (/dev/nim_phy)
type polaris_nim_phy_device_t;
dev_node(polaris_nim_phy_device_t)
```

```
type polaris_cwan_svr_var_run_t;
files_pid_file(polaris_cwan_svr_var_run_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscrankshaft.te

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```
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#
```

```
<summary>Polaris epc_ws_liaison Policy Rules.</summary>
```

```

interface(`polaris_epc_ws_liaison_tmp_read`,`
 gen_require(`
 type polaris_epc_ws_liaison_tmp_t;
 `)
 read_files_pattern($1, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
`)

#####
<summary>
Allow to open, write, add_name and write /tmp/epc_ws/fed_to_wif_pipe file.
Allow to create and write /tmp/epc_ws dir.
</summary>
<param name="domain">
<summary>
epc_ws_liaison and ngwc-fed fifo_file interaction.
</summary>
</param>
#
interface(`polaris_epc_ws_liaison_fifo_manage`,`
 gen_require(`
 type polaris_epc_ws_liaison_tmp_t;
 `)
 manage_dirs_pattern($1, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
 manage_fifo_files_pattern($1, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
`)

#####
<summary>
Allow to open, read "/tmp/epc_ws/wif_to_ts_pipe" fifo file.
##
</summary>
<param name="domain">
<summary>
epc_ws_liaison and dumpcap fifo_file interaction.
</summary>
</param>
#
interface(`polaris_epc_ws_liaison_fifo_read`,`
 gen_require(`
 type polaris_epc_ws_liaison_tmp_t;
 `)
 read_fifo_files_pattern($1, polaris_epc_ws_liaison_tmp_t, polaris_epc_ws_liaison_tmp_t)
`)

#####
<summary>
Allow to write, create, unlink "/tmp/*.pcapng" temporary files.
##

```

```

</summary>
<param name="domain">
<summary>
polaris_wireshark_show fifo_file interaction.
</summary>
</param>
#
interface(`polaris_wireshark_show_tmp_manage`,`
 gen_require(`
 type polaris_wireshark_show_tmp_t;
 `)
 manage_files_pattern($1, polaris_wireshark_show_tmp_t, polaris_wireshark_show_tmp_t)
`)
#####
<summary>
Create, read, and write temporary files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_epc_ws_liaison_tmp_file`,`
 gen_require(`
 type polaris_epc_ws_liaison_tmp_t;
 `)
 files_tmp_filetrans($1, polaris_epc_ws_liaison_tmp_t, dir, "epc_ws")
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisepcwsliasion.if

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```

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#

```

```
policy_module(polariscxp, 1.0);
```

```

gen_require(`
 type polaris_cxp_t;
`)
polaris_chasfs_read(polaris_cxp_t)
polaris_cpld_read(polaris_cxp_t)

```



```
logging_send_syslog_msg(polaris_cxp_t)

vconfd_load_shared_schemas
polaris_confd_shared_schema_read(polaris_cxp_t)

corecmd_exec_bin(polaris_cxp_t)
corecmd_exec_shell(polaris_cxp_t)
auth_use_nsswitch(polaris_cxp_t)

work with /tmp/xml
polaris_cedge_xml_tmp_manage(polaris_cxp_t)

work with /tmp/tmp
polaris_cedge_tmp_manage(polaris_cxp_t)

/var/run/cxp dir and pid
type polaris_cxp_var_run_t;
files_pid_file(polaris_cxp_var_run_t)
manage_files_pattern(polaris_cxp_t, polaris_cxp_var_run_t, polaris_cxp_var_run_t)
manage_dirs_pattern(polaris_cxp_t, polaris_cxp_var_run_t, polaris_cxp_var_run_t)
manage_sock_files_pattern(polaris_cxp_t, polaris_cxp_var_run_t, polaris_cxp_var_run_t)
files_pid_filetrans(polaris_cxp_t, polaris_cxp_var_run_t, { file dir sock_file })

polaris_ttm_var_sock_write(polaris_cxp_t)

vip_execute_nowait uses setpgid
allow polaris_cxp_t self:process setpgid;

cxp may create vrf-based netns on demand
polaris_vrf_netns_manage(polaris_cxp_t)

Allow /usr//cxpd manages /usr/binos/conf/global.service.conf and
/tmp/tldlresolve/
polaris_tldlresolve_manage(polaris_cxp_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscxp.te
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#

/usr/binos/conf/viptela-start.sh -- gen_context(system_u:object_r:polaris_cedge_start_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscedgestart.fc

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

divert(-1)

include(`polaris\_process.m4')

include(`polaris\_database\_db.m4')

include(`polaris\_database\_db\_te.m4')

include(`polaris\_max\_scope.m4')

divert(0)dnl

#

# This is a generated file! Instead of modifying this file,

# modify proper platform TDL file.

#

policy\_module(polarisplatformdbauto, 1.0);

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_database\_te.m4

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#

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#

## <summary>Polaris vman Policy Rules.</summary>

#####

## <summary>

## Read files of type polaris\_vman\_tmp\_t (e.g., /tmp/cgroup.log)

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

```

</param>
#
interface(`polaris_vman_tmp_read`,`
 gen_require(`
 type polaris_vman_tmp_t;
 `)
 read_files_pattern($1, polaris_vman_tmp_t, polaris_vman_tmp_t)
`)

#####
<summary>
Write files of type polaris_vman_tmp_t (e.g., /tmp/cgroup.log)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vman_tmp_write`,`
 gen_require(`
 type polaris_vman_tmp_t;
 `)
 write_files_pattern($1, polaris_vman_tmp_t, polaris_vman_tmp_t)
`)

#####
<summary>
Manage dir/files of type polaris_vman_tmp_t (e.g., /tmp/cgroup.log)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vman_tmp_manage`,`
 gen_require(`
 type polaris_vman_tmp_t;
 `)
 manage_files_pattern($1, polaris_vman_tmp_t, polaris_vman_tmp_t)
 manage_dirs_pattern($1, polaris_vman_tmp_t, polaris_vman_tmp_t)
`)

#####
<summary>
Read files of type polaris_disk_vman_t (e.g., /bootflash/virtual-instance/)

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_vman_read`,`
 gen_require(`
 type polaris_disk_vman_t;
 `)
 read_files_pattern($1, polaris_disk_vman_t, polaris_disk_vman_t)
 read_lnk_files_pattern($1, polaris_disk_vman_t, polaris_disk_vman_t)
 list_dirs_pattern($1, polaris_disk_vman_t, polaris_disk_vman_t)
`)

#####
<summary>
List files of type polaris_disk_vman_t (e.g., /bootflash/virtual-instance/)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_vman_dir_list`,`
 gen_require(`
 type polaris_disk_vman_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 `)
 list_dirs_pattern($1, { polaris_disk_vman_t polaris_disk_bootflash_t polaris_disk_harddisk_t },
polaris_disk_vman_t)
`)

#####
<summary>
Operate on @vman_domain_socket unix socket. Look at
vman_clnt_msg_transport_init function in vman_clnt_msg_uds.c
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vman_use_client_socket`,`

```

```

gen_require(
 type polaris_vman_t;
)
allow $1 polaris_vman_t:unix_stream_socket connectto;
)

#####
<summary>
Manage /tmp/xml/
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_vman_log_files_manage',`
optional_policy(
 gen_require(
 type polaris_vman_log_t;
)

 manage_files_pattern($1, polaris_vman_log_t,polaris_vman_log_t)
 manage_dirs_pattern($1, polaris_vman_log_t, polaris_vman_log_t)
)
)

#####
<summary>
Read files of type polaris_var_vman_t (e.g., /var/virtual-instance)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vman_var_read',`
 gen_require(
 type polaris_var_vman_t;
)
 list_dirs_pattern($1, polaris_var_vman_t, polaris_var_vman_t)
 read_files_pattern($1, polaris_var_vman_t, polaris_var_vman_t)
)

#####

```

```

<summary>
Write into fifo file created by vman, typical case when
vman starts script under popen in different domain.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_vman_use_fifo`,`
 gen_require(`
 type polaris_vman_t;
 `)

 read_fifo_files_pattern($1, polaris_vman_t, polaris_vman_t)
 write_fifo_files_pattern($1, polaris_vman_t, polaris_vman_t)
)

#####
<summary>
Check existence (getattr) of vman btrace file (i.e
polaris_vman_bt_t)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vman_bt_getattr`,`
 gen_require(`
 type polaris_vman_bt_t;
 type polaris_btrace_base_t;
 `)

 getattr_files_pattern($1, polaris_btrace_base_t, polaris_vman_bt_t)
)

#####
<summary>
Allow domain to write to pipes connected to virtlogd_t.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```

#
interface(`polaris_vman_virtlog_allow',`
 gen_require(`
 type virtlogd_t;
 `)

 #allow domain to write to pipes
 allow $1 virtlogd_t:fifo_file rw_inherited_fifo_file_perms;

 #allow virtlogd_t to search dirs /var/log/libvirt/qemu
 logging_search_logs(virtlogd_t)
)

```

```

#####
<summary>
Allow polaris_vman_t to kill process from domain.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```

#
interface(`polaris_vman_kill_process',`
 gen_require(`
 type polaris_vman_t;
 `)
 allow polaris_vman_t $1:process sigkill;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisvman.if

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```

#
August 2017, Victor Kamensky
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#

```

```

<summary>Polaris tws Policy Rules.</summary>

```

```

#####
<summary>
Allow the specified domain to manage KGV data files
I.e /tmp/package_biv_sums.
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_kgv_data_manage`,`
 gen_require(`
 type polaris_kgv_data_t;
 `)

 manage_files_pattern($1, polaris_kgv_data_t, polaris_kgv_data_t)
 allow $1 polaris_kgv_data_t:file map;
)

#####
<summary>
Execute a domain transition to run code_sign_verify
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_code_verify_domtrans`,`
 gen_require(`
 type polaris_code_verify_t, polaris_code_verify_exec_t;
 `)

 domtrans_pattern($1, polaris_code_verify_exec_t, polaris_code_verify_t)
)

#####
<summary>
Execute a domain transition to the polaris_hw_upgrade
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_hw_upgrade_domtrans`,`
 gen_require(`
 type polaris_hw_upgrade_t, polaris_hw_upgrade_exec_t;
 `)
)

```



```

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_hw_upgrade_exec_t, polaris_hw_upgrade_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/aikido device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_aikido_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_aikido_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_aikido_device_t)
 read_chr_files_pattern($1, device_t, polaris_aikido_device_t)
)

#####
<summary>
Execute a domain transition to the polaris_rom_upgrade
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_rom_upgrade_domtrans`,`
 gen_require(`
 type polaris_hw_upgrade_t, polaris_rom_upgrade_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_rom_upgrade_exec_t, polaris_rom_upgrade_t)
)

#####
<summary>
Write into fifo file created during rommon_upgrade
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_rom_upgrade_use_fifo`,`
gen_require(`
type polaris_rom_upgrade_t;
`)

write_fifo_files_pattern($1, polaris_rom_upgrade_t, polaris_rom_upgrade_t)
)
#####
<summary>
Work (read, write, ioctl) with /dev/scansta device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_scansta_dev_use`,`
gen_require(`
type device_t;
type polaris_scansta_device_t;
`)
write_chr_files_pattern($1, device_t, polaris_scansta_device_t)
read_chr_files_pattern($1, device_t, polaris_scansta_device_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristws.if

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```

#
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#

```

```
/tmp/./*/chasfs(/.*)? gen_context(system_u:object_r:polaris_chasfs_t,s0)
```

```
/tmp/chassis/local/./*/chasfs(/.*) gen_context(system_u:object_r:polaris_chasfs_t,s0)
```

```
/tmp/chassis gen_context(system_u:object_r:polaris_chasfs_t,s0)
```

```
/tmp/chassis(/.*) gen_context(system_u:object_r:polaris_chasfs_t,s0)
```

```
/tmp/./*/chasync(/.*)? gen_context(system_u:object_r:polaris_chasync_tmp_t,s0)
/vol/harddisk/sys_report(/.*)? gen_context(system_u:object_r:polaris_chasync_files_t,s0)
/vol/harddisk/fp_cc_crash(/.*)? gen_context(system_u:object_r:polaris_chasync_files_t,s0)
/var/log/chasync(/.*)? gen_context(system_u:object_r:polaris_chasync_log_t,s0)

/usr/binos/conf/chasync.sh -- gen_context(system_u:object_r:polaris_chasync_exec_t,s0)

real path is /etc/init.d/chasfs_boottime.sh but we need to add rc.d because
in file_contexts.subs_dist we have substitute rule for /etc/init.d/
/etc/rc.d/init.d/chasfs_boottime.sh -- gen_context(system_u:object_r:polaris_chasfs_boottime_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarischasfs.fc
```

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```
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#
```

```
/tmp/.CRDU_COMMAND_PIPE gen_context(system_u:object_r:polaris_crdu_pipe_tmp_t,s0)
/tmp/.CRDU_RESPONSE_PIPE gen_context(system_u:object_r:polaris_crdu_pipe_tmp_t,s0)
```

```
/usr/binos/conf/trans_ports_helper.sh -- gen_context(system_u:object_r:polaris_trans_ports_helper_exec_t,s0)
/usr/binos/conf/trans_stats_helper.sh -- gen_context(system_u:object_r:polaris_trans_stats_helper_exec_t,s0)
/usr/binos/conf/mcp_disk_oir.sh -- gen_context(system_u:object_r:polaris_disk_oir_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissmand.fc
```

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```
#
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#
```

```
policy_module(polarissmand, 1.0);
```

```
gen_require(
 type polaris_smand_t;
 type polaris_smand_exec_t;
)
```

```

polaris_btrace_data_manage(polaris_smand_t)
polaris_crft_data_manage(polaris_smand_t)
polaris_chasfs_manage(polaris_smand_t)
polaris_tdlresolve_read(polaris_smand_t)
polaris_tdldb_list_dirs(polaris_smand_t)
polaris_cpld_read(polaris_smand_t)
polaris_lua_read(polaris_smand_t)
polaris_flashlib_read(polaris_smand_t)

polaris_send_signal_to_bexecute(polaris_smand_t)

polaris_ripc_sman_ui_serv_connect(polaris_smand_t)

polaris_db_tdldb_dir_use(polaris_smand_t)

type polaris_crdu_pipe_tmp_t;
files_tmp_file(polaris_crdu_pipe_tmp_t)
files_tmp_filetrans(polaris_smand_t, polaris_crdu_pipe_tmp_t, fifo_file, ".CRDU_COMMAND_PIPE")
files_tmp_filetrans(polaris_smand_t, polaris_crdu_pipe_tmp_t, fifo_file, ".CRDU_RESPONSE_PIPE")
polaris_smand_crdu_pipe_manage(polaris_smand_t)

work with /tmp/sman files
type polaris_smand_tmp_t;
files_tmp_file(polaris_smand_tmp_t)
manage_dirs_pattern(polaris_smand_t, polaris_smand_tmp_t, polaris_smand_tmp_t)
manage_files_pattern(polaris_smand_t, polaris_smand_tmp_t, polaris_smand_tmp_t)
files_tmp_filetrans(polaris_smand_t, polaris_smand_tmp_t, { file dir })

allow read of /etc/group
auth_use_nsswitch(polaris_smand_t)

allow to send message to /dev/log
logging_send_syslog_msg(polaris_smand_t)

allow objstore access
polaris_disk_objstore_read(polaris_smand_t)

on edison smand shares sysv semaphore with iosd, why sem got initrc_t label
is not clear.
gen_require(
 type initrc_t;
)
allow polaris_smand_t initrc_t:sem { read write unix_write associate };

why smand needs all these capability?
allow polaris_smand_t self:capability { dac_override chown fsetid };
allow polaris_smand_t self:capability2 block_suspend;
allow polaris_smand_t self:capability sys_resource;

```

```

on edison smand wants to read /proc/mtd which is proc_t
type=AVC msg=audit(1478481219.216:6): avc: denied { read } for pid=5410 comm="smand" name="mtd"
dev="proc" ino=4026535811 scontext=system_u:system_r:polaris_smand_t:s0
tcontext=system_u:object_r:proc_t:s0 tclass=file
try to drop it latter
kernel_read_system_state(polaris_smand_t)

on edison silent roll package is still in iso format
type=AVC msg=audit(1478497356.229:7): avc: denied { getattr } for pid=5816 comm="smand"
path="/tmp/sw/mount/cat3k_caa-srdriver.2016-11-06_21.10_kamensky.SSA.pkg/usr/binos/lib64" dev="loop7"
ino=3456 scontext=system_u:system_r:polaris_smand_t:s0 tcontext=system_u:object_r:iso9660_t:s0 tclass=dir
gen_require(
 type iso9660_t;
)
allow polaris_smand_t iso9660_t:dir { search getattr };

polaris_dyncfg_tmp_read(polaris_smand_t)

corecmd_exec_shell(polaris_smand_t)

CLI "Show install issu history" invokes /usr/binos/conf/install_issu_show.py which
needs /usr/bin/python3(bin file) execution
corecmd_exec_bin(polaris_smand_t)

smand execute install_show.sh in its own domain need read results
polaris_install_show_tmp_read(polaris_smand_t)

during boot issu_boottime.sh calls smand to obtain some information
gen_require(
 type unconfined_service_t;
)
domtrans_pattern(unconfined_service_t, polaris_smand_exec_t, polaris_smand_t)

system_stats_periodic function from sman/src/fru_stats.c does
ioctl(fd, SIOCGIFADDR, &ifr); on "system" interface name, which normally
does not exist in Polaris platforms
kernel_dontaudit_request_load_module(polaris_smand_t)

system_stats_periodic function from sman/src/fru_stats.c does
statfs64 for /flash directory
fs_getattr_xattr_fs(polaris_smand_t)
polaris_disk_bootflash_read_lnk(polaris_smand_t)
polaris_disk_bootflash_search(polaris_smand_t)

gen_require(
 type rsysync_t;
)

```

```

upon exec rsync inherits smand's stdout/stderr fifo files
allow rsync_t polaris_smand_t:fifo_file write;

gen_require(`
 type polaris_bshell_t;
`)
polaris_chasfs_read(polaris_bshell_t)
polaris_tdlresolve_read(polaris_bshell_t)

bshell memory logs related
type polaris_memmon_tmp_files_t;
files_tmp_file(polaris_memmon_tmp_files_t)
files_tmp_filetrans(unconfined_service_t, polaris_memmon_tmp_files_t, dir, "memmon_logs")
give bshell permissions
manage_files_pattern(polaris_bshell_t, polaris_memmon_tmp_files_t, polaris_memmon_tmp_files_t)

sman needs to access gnmib gnoi images
optional_policy(`
polaris_gnmib_gnoi_images_read(polaris_smand_t)
`)

CLI "Show install issu history" access to "/bootflash/.installer/install_issu_history"
and "/tmp/show_install_output.txt"
polaris_install_engine_domtrans(polaris_smand_t)
polaris_install_show_domtrans(polaris_smand_t)

xcopy_script gets called for xcopy RPC data model
polaris_xcopy_script_domtrans(polaris_smand_t)

#
=====
=
"sh ip ports" CLI policies, execute trans_ports_helper.sh script
polaris_utility_domain_template(trans_ports_helper)
transit into the domain
domtrans_pattern(polaris_smand_t, polaris_trans_ports_helper_exec_t, polaris_trans_ports_helper_t)
#binary tracing fifo_file as standard output
polaris_use_btrace_fifo(polaris_trans_ports_helper_t)
execute "tail" command
corecmd_exec_bin(polaris_trans_ports_helper_t)
corecmd_exec_shell(polaris_trans_ports_helper_t)
polaris_proc_fd_all_getattr(polaris_trans_ports_helper_t)
getattr all polaris_domain
domain_getattr_all_domains(polaris_trans_ports_helper_t)
run mcp_chvrf.sh without transition
polaris_exec_chvrf(polaris_trans_ports_helper_t)
fs_read_nsfs_files(polaris_trans_ports_helper_t)

```

```

lsof options tcp reads /proc/net/raw
kernel_read_network_state(polaris_trans_ports_helper_t)
ls access to /proc/3792/fd/6 triggers sys_ptrace capability
allow polaris_trans_ports_helper_t self:capability { sys_ptrace };

allow file and directory read and execute permission checks
allow polaris_trans_ports_helper_t self:capability dac_read_search;

map /etc/passwd
auth_use_nsswitch(polaris_trans_ports_helper_t)

type polaris_trans_ports_tmp_t;
files_tmp_file(polaris_trans_ports_tmp_t)
create /tmp/trans_ports_tmp and /tmp/trans_ports_result
files_tmp_filetrans(polaris_trans_ports_helper_t, polaris_trans_ports_tmp_t, file, "show_ports_tmp")
files_tmp_filetrans(polaris_trans_ports_helper_t, polaris_trans_ports_tmp_t, file, "show_ports_result")
polaris_trans_ports_tmp_manage(polaris_trans_ports_helper_t)
smand open and unlinks /tmp/trans_ports_tmp
polaris_trans_ports_tmp_manage(polaris_smand_t)
#
=====
=
"show platform software kernel ..." CLI executes trans_stats_helper.sh. Need domain
transition
#
polaris_utility_domain_template(trans_stats_helper)
transit into the domain
domtrans_pattern(polaris_smand_t, polaris_trans_stats_helper_exec_t, polaris_trans_stats_helper_t)
#binary tracing fifo_file as standard output
polaris_use_btrace_fifo(polaris_trans_stats_helper_t)
#execute lsof in helper script
corecmd_exec_bin(polaris_trans_stats_helper_t)
corecmd_exec_shell(polaris_trans_stats_helper_t)
auth_use_nsswitch(polaris_trans_stats_helper_t)
lsof reads /proc/*/fd/* attributes
polaris_proc_fd_all_getattr(polaris_trans_stats_helper_t)

lsof options tcp reads /proc/net/raw
kernel_read_network_state(polaris_trans_stats_helper_t)

lsof reads /proc/locks
kernel_read_system_state(polaris_trans_stats_helper_t)

lsof readmnt
fs_read_nsfs_files(polaris_trans_stats_helper_t)

ls access to /proc/3792/fd/6 triggers sys_ptrace capability
and dac_read_search as well.

```

```

allow polaris_trans_stats_helper_t self:capability { sys_ptrace dac_read_search };

type polaris_trans_stats_tmp_t;
files_tmp_file(polaris_trans_stats_tmp_t)
create /tmp/trans_tmp and /tmp/trans_tmp.1 to store lsof output
files_tmp_filetrans(polaris_trans_stats_helper_t, polaris_trans_stats_tmp_t, file, "trans_tmp")
files_tmp_filetrans(polaris_trans_stats_helper_t, polaris_trans_stats_tmp_t, file, "trans_tmp.1")
polaris_trans_stats_tmp_manage(polaris_trans_stats_helper_t)
smand open and unlinks /tmp/trans_tmp
polaris_trans_stats_tmp_manage(polaris_smand_t)

run mcp_chvrf.sh without transition
polaris_exec_chvrf(polaris_trans_stats_helper_t)

#
=====
=====
CLI "request platform hardware filesystem harddisk: offline | online" which runs mcp_disk_oir.sh

polaris_utility_domain_template(disk_oir)
polaris_bexecute_domain(polaris_disk_oir_t, polaris_disk_oir_exec_t)

#execute lsof
corecmd_exec_bin(polaris_disk_oir_t)

This is a CLI script that access types and /proc/pid/fd/*
polaris_proc_fd_all_getattr(polaris_disk_oir_t)

access sysctl_rpc_t
kernel_read_rpc_sysctls(polaris_disk_oir_t)

reads /proc/net/*
kernel_read_network_state(polaris_disk_oir_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_disk_oir_t)

lsof readmnt
fs_read_nsfs_files(polaris_disk_oir_t)

#inherits stdin/stdout of pty opened by telnetd
telnet_use_ptys(polaris_disk_oir_t)

allow polaris_disk_oir_t self:capability { dac_read_search sys_nice sys_rawio };
allow polaris_disk_oir_t self:process { setfscreate setsched };

execute lvm commands
lvm_domtrans(polaris_disk_oir_t)

```



```

"ls -nP" read /dev/sda1 (/csl_p_0) and other operations when disk is destroyed.
storage_manage_fixed_disk(polaris_disk_oir_t)

access /tmp/chassis/cpld/chasfs
polaris_chasfs_read(polaris_disk_oir_t)

#cat /tmp/chassis/cpld/chasfs/platform_type'
polaris_cpdl_read(polaris_disk_oir_t)

#'/bin/rm -rf /tmp/udev/etc/udev/harddisk'
fs_getattr_tmpfs(polaris_disk_oir_t)

access /tmp/udev/etc/udev/harddisk'
polaris_udev_tmp_manage(polaris_disk_oir_t)

/bin/mkdir -p /tmp/udev_cache/harddisk
files_tmp_filetrans(polaris_disk_oir_t, polaris_udev_tmp_files_t, dir, "udev_cache")

systemctl start handle_mount@vol-harddisk.service, communicate with systemd
systemd_exec_systemctl(polaris_disk_oir_t)
mount /dev/harddisk1 /vol/harddisk
mount_domtrans(polaris_disk_oir_t)

read /proc/cmdline
kernel_read_all_proc(polaris_disk_oir_t)

system service start/stop: /lib/systemd/system/handle_mount@.service
systemd_config_generic_services(polaris_disk_oir_t)

#/sbin/hdparm -S 0 /dev/sdb, execute hdparm in its own domain
fstools_domtrans(polaris_disk_oir_t)

ifdef(^crankshaft_family',`
 gen_require(
 type device_t;
 type udev_t;
)
 filetrans_pattern({udev_t polaris_disk_oir_t}, device_t, fixed_disk_device_t, lnk_file, "harddisk")
 filetrans_pattern({udev_t polaris_disk_oir_t}, device_t, fixed_disk_device_t, lnk_file, "harddisk1")
 manage_lnk_files_pattern(polaris_disk_oir_t, fixed_disk_device_t, fixed_disk_device_t)
 # /dev/harddisk may be labeled with device_t. The "unlink" AVC denial will be fixed when it is labeled correctly

allow /bin/dd to access /dev/nvme in blk_file
dev_nvme_blk_files_manage(polaris_disk_oir_t)

allow /bin/cat to access /tmp/nim_xxd_present
gen_require(

```

```
 type polaris_cmrp_nim_xxd_tmp_t;
)
 read_files_pattern(polaris_disk_oir_t, polaris_cmrp_nim_xxd_tmp_t, polaris_cmrp_nim_xxd_tmp_t)
)
```

```
#watches of /tmp/[rp|fp|cc]/pvp/process_state directory
polaris_process_state_watch(polaris_smand_t)
```

```
ifdef(`petra_platform',`
#allow access to polaris_cm_rp sem
polaris_cm_rp_sem_use(polaris_smand_t)
#allow access to /flash12/moncfg/cfg.dat
polaris_swipedrive_file_manage(polaris_smand_t)
#allow access to /flash6/moncfg/cfg.dat
polaris_nvram_read(polaris_smand_t)
')
dmesg_domtrans(polaris_smand_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarissmand.te

No license file was found, but licenses were detected in source scan.

```
#
July 2017, Victor Kamensky
#
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#
```

```
pci rescan shm file
/dev/shm/rescan_shm gen_context(system_u:object_r:polaris_cm_cc_tmpfs_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismcc.fc

No license file was found, but licenses were detected in source scan.

```
#
August 2017, Shawn Lu
#
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#
```

```
<summary>Polaris mobilityd Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismobilityd.if

No license file was found, but licenses were detected in source scan.

```

September 2018, Anubha Balani

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#
```

```
policy_module(polarismemory, 1.0);
```

```

Polaris memory: libmaroon and such
#####
```

```
attribute polaris_maroon_data_domain;
```

```
type polaris_maroon_base_t;
files_type(polaris_maroon_base_t)
```

```
typeattribute polaris_maroon_base_t polaris_maroon_data_domain;
```

```
gen_require(
 attribute polaris_extended_domain;
)
```

```
files_tmp_filetrans(polaris_extended_domain, polaris_maroon_base_t, dir, "maroon_stats")
```

```
type polaris_zram_device_t;
dev_node(polaris_zram_device_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismemory.te

No license file was found, but licenses were detected in source scan.

```

March 2017, Victor Kamensky

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#
```

```
polarisemd file contexts place holder
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisemd.fc

No license file was found, but licenses were detected in source scan.

```

#
March 2017, Victor Kamensky
#
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#

<summary>Polaris nif_mgr Policy Rules.</summary>

#####
<summary>
Use /tmp/sv directory and files. Currently this acts as a
chasfs root for information shared between the nif manager
and the fed.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sv_tmp_use`,`
 gen_require(`
 type polaris_sv_tmp_t;
 type tmp_t;
 `)

 manage_dirs_pattern($1, tmp_t, polaris_sv_tmp_t)
 manage_files_pattern($1, polaris_sv_tmp_t, polaris_sv_tmp_t)
 allow $1 polaris_sv_tmp_t:dir watch;
)

#####
<summary>
This is to allow creation and write to
doppler_sesa file under proc
##
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_proc_sesa_create_write`,`
 gen_require(`
 type polaris_proc_sesa_t;
 `)
)

```

```
setattr_files_pattern($1, polaris_proc_sesa_t, polaris_proc_sesa_t)
rw_files_pattern($1, polaris_proc_sesa_t, polaris_proc_sesa_t)
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnifmgr.if
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
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#
```

```
/usr/binos/conf/btdecode -- gen_context(system_u:object_r:polaris_btdecode_exec_t,s0)
/usr/binos/conf/bttail -- gen_context(system_u:object_r:polaris_btdecode_exec_t,s0)
/usr/binos/conf/mcp_trace_filter.sh -- gen_context(system_u:object_r:polaris_trace_filter_exec_t,s0)
/usr/binos/conf/mcp_trace_request.sh -- gen_context(system_u:object_r:polaris_trace_request_exec_t,s0)
```

```
/usr/binos/bin/create_luid_file_db -- gen_context(system_u:object_r:polaris_create_ldb_exec_t,s0)
/tmp/btrace_luids_file.cdb.tmp -- gen_context(system_u:object_r:polaris_ldb_tmp_t,s0)
/tmp/btrace_luids_file.cdb -- gen_context(system_u:object_r:polaris_ldb_tmp_t,s0)
```

```
/tmp/cc/0/trace(/.*)? gen_context(system_u:object_r:polaris_btrace_base_t,s0)
/tmp/cc/0/trace/fifo(/.*)? gen_context(system_u:object_r:polaris_fifo_stdout_base_t,s0)
/tmp/fp/trace(/.*)? gen_context(system_u:object_r:polaris_btrace_base_t,s0)
/tmp/fp/trace/fifo gen_context(system_u:object_r:polaris_fifo_stdout_base_t,s0)
/tmp/fp/trace/fifo(/.*)? gen_context(system_u:object_r:polaris_fifo_stdout_t,s0)
/tmp/rp/trace(/.*)? gen_context(system_u:object_r:polaris_btrace_base_t,s0)
/tmp/rp/trace/fifo gen_context(system_u:object_r:polaris_fifo_stdout_base_t,s0)
/tmp/rp/trace/fifo(/.*)? gen_context(system_u:object_r:polaris_fifo_stdout_t,s0)
```

```
/dev/shm/sem\uuid_sem gen_context(system_u:object_r:polaris_btrace_tmpfs_t,s0)
/dev/shm/oper_uuid_shm gen_context(system_u:object_r:polaris_btrace_tmpfs_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbtrace.fc
No license file was found, but licenses were detected in source scan.
```

```
#
September 2017, Victor Kamensky
#
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#
```

# polarisunconfined file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisunconfined.fc

No license file was found, but licenses were detected in source scan.

#

# February 2020, Victor Kamensky

#

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#

policy\_module(polarisdbgd, 1.0);

gen\_require(`

type polaris\_dbg\_d\_t;

`)

polaris\_chasfs\_read(polaris\_dbg\_d\_t)

polaris\_tdlresolve\_read(polaris\_dbg\_d\_t)

polaris\_cpld\_read(polaris\_dbg\_d\_t)

logging\_send\_syslog\_msg(polaris\_dbg\_d\_t)

# vconfd\_load\_shared\_schemas

polaris\_confd\_shared\_schema\_read(polaris\_dbg\_d\_t)

# /var/run/.dbg\_d socket and pid

type polaris\_dbg\_d\_var\_run\_t;

files\_pid\_file(polaris\_dbg\_d\_var\_run\_t)

manage\_files\_pattern(polaris\_dbg\_d\_t, polaris\_dbg\_d\_var\_run\_t, polaris\_dbg\_d\_var\_run\_t)

manage\_sock\_files\_pattern(polaris\_dbg\_d\_t, polaris\_dbg\_d\_var\_run\_t, polaris\_dbg\_d\_var\_run\_t)

files\_pid\_filetrans(polaris\_dbg\_d\_t, polaris\_dbg\_d\_var\_run\_t, { file sock\_file })

polaris\_vdaemon\_var\_sock\_write(polaris\_dbg\_d\_t)

# dbg\_d may create vrf-based netns on demand

polaris\_vrf\_netns\_manage(polaris\_dbg\_d\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdbgd.te

No license file was found, but licenses were detected in source scan.

#

# March 2020, Victor Kamensky

#

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#

## <summary>Polaris JVM Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisjvm.if

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Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisinstall.te

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristws.te

No license file was found, but licenses were detected in source scan.

#

# December 2018, Victor Kamensky

#

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#

policy\_module(polarisezmancc, 1.0);

gen\_require(^

    type polaris\_ezman\_cc\_t;

')

polaris\_chasfs\_read(polaris\_ezman\_cc\_t)

polaris\_cpld\_read(polaris\_ezman\_cc\_t)

polaris\_tdlresolve\_read(polaris\_ezman\_cc\_t)

polaris\_ripc\_sman\_ui\_serv\_connect(polaris\_ezman\_cc\_t)

allow polaris\_ezman\_cc\_t self:capability dac\_override;

polaris\_oob\_evfc\_dev\_use(polaris\_ezman\_cc\_t)

# LOOK AT ME by some reason relabeling of /dev/ezlk

# device files does not work

dev\_rw\_generic\_chr\_files(polaris\_ezman\_cc\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisezmancc.te

No license file was found, but licenses were detected in source scan.

#

# Oct 2020, Xin Xiang

#

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#

policy\_module(polarisdoppler, 1.0);

# doppler interrupt device

type polaris\_dplr\_device\_t;

dev\_node(polaris\_dplr\_device\_t)

# dma mmap device

type polaris\_dmammap\_device\_t;

dev\_node(polaris\_dmammap\_device\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdoppler.te

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#

# Nov 2020, Swati Kumari

#

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#

## <summary>Polaris PTPD Policy Rules.</summary>

#####

## <summary>

## Work (read, write, ioctl) with /dev/blzi\_fpga

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_blzi\_dev\_use`,

gen\_require(`

type device\_t;

type polaris\_blzi\_device\_t;

`)

write\_chr\_files\_pattern(\$1, device\_t, polaris\_blzi\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_blzi\_device\_t)

allow \$1 polaris\_blzi\_device\_t:chr\_file map;

`)

Found in path(s):



```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisptpdrp.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
All rights reserved
```

```
#
```

```
<summary>Polaris cpp_cp Policy Rules.</summary>
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppcp.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
All rights reserved
```

```
#
```

```
policy_module(polariscppdriver, 1.0);
```

```
gen_require(^
```

```
 type polaris_cpp_driver_t;
```

```
')
```

```
polaris_btrace_data_manage(polaris_cpp_driver_t)
```

```
polaris_crft_data_manage(polaris_cpp_driver_t)
```

```
polaris_chasfs_manage(polaris_cpp_driver_t)
```

```
polaris_tdlresolve_read(polaris_cpp_driver_t)
```

```
polaris_tdlldb_list_dirs(polaris_cpp_driver_t)
```

```
polaris_cpld_read(polaris_cpp_driver_t)
```

```
polaris_flashlib_read(polaris_cpp_driver_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_cpp_driver_t)
```

```
polaris_cpp_process(polaris_cpp_driver_t)
```

```
polaris_cpp_dev_use(polaris_cpp_driver_t)
```

```
allow read variety of system information from sysfs
```

```
type=AVC msg=audit(1479601620.503:19): avc: denied { open } for pid=22839 comm="cpp_driver"
```

```
path="/sys/devices/system/node/node0/meminfo" dev="sysfs" ino=805
```

```
scontext=system_u:system_r:polaris_cpp_driver_t:s0 tcontext=system_u:object_r:sysfs_t:s0 tclass=file
```

```
dev_read_sysfs(polaris_cpp_driver_t)
```

```

optional_policy(
cpp_driver reads qfp executable to look at .stabs sections that
contains qfp code fixups, then this fixup data is passed to kernel
module to modify qfp code.
gen_require(
 type bin_t;
 type polaris_qfp_exec_t;
)
read_files_pattern(polaris_cpp_driver_t, bin_t, polaris_qfp_exec_t)
)

polaris_icc_broken_relocations(polaris_cpp_driver_t)

work with /dev/i2c devices
polaris_i2c_use(polaris_cpp_driver_t)

polaris_cpp_cavium_sdk_ipc_use(polaris_cpp_driver_t)

logging_send_syslog_msg(polaris_cpp_driver_t)

LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh58515)
#ifdef(^crankshaft_family',`
polaris_dev_mem_use(polaris_cpp_driver_t)
)

allow access to /tmp/octeon-remote-lock-pci***
This is required as part of cpp_driver access of octeon chip.
As part of the init, call is made to octeon_remote_lock()
which requires access to the /tmp file.
#ifdef(^crankshaft_family',`
polaris_cm_fp_tmp_filetrans(polaris_cpp_driver_t)
polaris_cm_fp_tmp_manage(polaris_cpp_driver_t)
)

LOOK AT ME on overloard cpp_driver needs access to /dev/cavium_e
and /dev/pcie0 devices, on lng cpp_driver needs access to
/dev/yoda0_tree2, etc
dev_rw_generic_chr_files(polaris_cpp_driver_t)

/dev/cpp_il on qwlc
optional_policy(
polaris_cpp_il_dev_use(polaris_cpp_driver_t)
)

#ifdef(^qwlc_platform',`
polaris_cpld_dev_use(polaris_cpp_driver_t)
)

```

```
ifdef(`katar_platform',`
polaris_cpld_dev_use(polaris_cpp_driver_t)
`)

ifdef(`mcp_family',`
polaris_cpld_dev_use(polaris_cpp_driver_t)
`)

optional_policy(`
polaris_cpp_htdp_dev_use(polaris_cpp_driver_t)
polaris_cbdma_dev_use(polaris_cpp_driver_t)
polaris_cpp_htdp_dev_use(polaris_cpp_driver_t)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppdriver.te

No license file was found, but licenses were detected in source scan.

```
#
August 2017, Shawn Lu
#
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#
```

```
<summary>Polaris odm_proxy Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisodmproxy.if

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisbtrace, 1.0);
```

```
#####
Btrace policy
#####
```

```
gen_require(`
 attribute domain;
 attribute polaris_extended_domain;
 attribute unconfined_domain_type;
```

```

')

persistent btrace files stored under btrace_data
type polaris_btrace_data_t;
files_type(polaris_btrace_data_t)

allow btrace data file reside on persistent storage
polaris_pfile_type(polaris_btrace_data_t)

type polaris_fifo_stdout_t;
files_type(polaris_fifo_stdout_t)

type polaris_fifo_stdout_base_t;
files_type(polaris_fifo_stdout_base_t)

attribute polaris_btrace_data_domain;

type polaris_btrace_base_t;
files_type(polaris_btrace_base_t)

typeattribute polaris_btrace_base_t polaris_btrace_data_domain;
typeattribute polaris_btrace_data_t polaris_btrace_data_domain;

is "trace" in tmp_t specific enough? Maybe we would need to change it in polaris
files_tmp_filetrans(polaris_extended_domain, polaris_btrace_base_t, dir, "trace")
udev -> cat9k-ssd.mount -> unifiedfs_rsync_udev.sh -> btrace.sh might also create this dir
files_tmp_filetrans(udev_t, polaris_btrace_base_t, dir, "trace")

gen_require(
 attribute polaris_extended_domain;
 type polaris_pvp_tmp_t;
)
filetrans_pattern(polaris_extended_domain, polaris_pvp_tmp_t, polaris_btrace_base_t, dir, "trace")

filetrans_pattern(polaris_extended_domain, polaris_btrace_base_t, polaris_fifo_stdout_base_t, dir, "fifo")
filetrans_pattern(domain, polaris_btrace_base_t, polaris_fifo_stdout_base_t, dir, "fifo")
filetrans_pattern(domain, polaris_fifo_stdout_base_t, polaris_fifo_stdout_t, fifo_file)
manage_dirs_pattern(polaris_extended_domain, polaris_btrace_base_t, polaris_fifo_stdout_base_t)

polaris_utility_domain_template(btdecode)

any polaris process except iosd can execve btdecode utility to decode its own traces
gen_require(
 attribute polaris_domain;
 type polaris_iosd_t;
)
domtrans_pattern(polaris_domain - polaris_iosd_t, polaris_btdecode_exec_t, polaris_btdecode_t)

```

```
corecmd_check_exec_shell(polaris_domain - polaris_iosd_t)

btdecode not only reads btrace files, but also creates copy of the file
polaris_btrace_data_manage_all(polaris_btdecode_t)
polaris_btrace_persistent_data_manage(polaris_btdecode_t)

polaris_use_btrace_fifo(polaris_btdecode_t)
polaris_tdlresolve_read(polaris_btdecode_t)
polaris_boot_tmp_read(polaris_btdecode_t)
polaris_lua_read(polaris_btdecode_t)
polaris_chasfs_read(polaris_btdecode_t)
polaris_cpld_read(polaris_btdecode_t)
polaris_bootflash_manage(polaris_btdecode_t)

lua files need to read executables to retrieve btrace meta informations
files_mmap_all_files(polaris_btdecode_t)

could be called on trace files on persistent storage
polaris_persistent_read(polaris_btdecode_t)

need to read executables to retrieve btrace meta informations
polaris_read_exec_domain(polaris_btdecode_t)

corecmd_exec_bin(polaris_btdecode_t)
corecmd_exec_shell(polaris_btdecode_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_btdecode_t)

executes luajit
allow polaris_btdecode_t self:process execmem;

tmp files created by /lua/btdecode.lua in /tmp
type polaris_btdecode_tmp_t;
files_tmp_file(polaris_btdecode_tmp_t)
files_tmp_filetrans(polaris_btdecode_t, polaris_btdecode_tmp_t, file)
manage_files_pattern(polaris_btdecode_t, polaris_btdecode_tmp_t, polaris_btdecode_tmp_t)

/lua/btdecode.lua may call create_luid_file_db on demand
polaris_create_ldb_domtrans(polaris_btdecode_t)

in some cases it runs with telnet /dev/ptyN as stdin/stdout
example when executed on other node, or "monitor log profile"
command
telnet_use_ptys(polaris_btdecode_t)

Allow btdecode to read/write /dev/pts/*
term_use_generic_ptys(polaris_btdecode_t)
```

```

polaris_btrace_ldb_tmp_read(polaris_btdecode_t)

Allow btdecode to watch over /bootflash/tracelogs, /vol/harddisk/tracelogs and /flash2/CRASH/tracelogs
polaris_btrace_data_watch(polaris_btdecode_t)

Allow btdecode to watch over /usr/binos/conf
files_watch_usr_dirs(polaris_btdecode_t)

#Allow btdecode to access UFS mounted directories for other members
optional_policy(
polaris_ncd_tmp_read(polaris_btdecode_t)
')

btrace_rotate calls ftw function through create_luid_file_db utility
that walks whole file tree in order to create btrace_luids_file.cdb
let's have separate domain for this utility
polaris_utility_domain_template(create_ldb)

files_read_all_files(polaris_create_ldb_t)
files_getattr_all_dirs(polaris_create_ldb_t)
files_read_all_symlinks(polaris_create_ldb_t)
files_list_non_security(polaris_create_ldb_t)
files_dontaudit_list_security_dirs(polaris_create_ldb_t)
files_mmap_all_files(polaris_create_ldb_t)

allow luid database scripts to read/write /dev/pts/*
term_use_generic_ptys(polaris_create_ldb_t)

creates files like btrace_luids_file.cdb_20170907160108.tmp, btrace_luids_file.cdb
type polaris_ldb_tmp_t;
files_tmp_file(polaris_ldb_tmp_t)
files_tmp_filetrans(polaris_create_ldb_t, polaris_ldb_tmp_t, file)
files_tmp_filetrans(polaris_btdecode_t, polaris_ldb_tmp_t, file, "btrace_luids_file.cdb")
manage_files_pattern(polaris_create_ldb_t, polaris_ldb_tmp_t, polaris_ldb_tmp_t)
mmap_files_pattern(polaris_create_ldb_t, polaris_create_ldb_t, polaris_create_ldb_t)
polaris_use_btrace_fifo(polaris_create_ldb_t)

in some cases it runs with telnet /dev/ptyN as stdin/stdout
example when executed on other node, or "monitor log profile"
command
telnet_use_ptys(polaris_create_ldb_t)

Allowing permission to read/open/getattr/ on
/tmp/sw/mount/*universalk9.*.SSA.pkg/usr/binos/sbin/in.telnetd
gen_require(
 type telnetd_exec_t;
)

```

```

allow polaris_btdecode_t telnetd_exec_t:file { getattr open read };

#####
CLI: show platform software trace filter-binary wired
invokes.../bin/sh /usr/binos/conf/mcp_trace_filter.sh --binary wired
#####

polaris_utility_domain_template(trace_filter)

polaris_bexecute_domtrans(polaris_trace_filter_t)
polaris_bexecute_domain(polaris_trace_filter_t, polaris_trace_filter_exec_t)
mcp_trace_filter.sh runs with telnet /dev/ptyN as
stdin/stdout if on standby
telnet_use_ptys(polaris_trace_filter_t)

script starts rsync with mcp_chvrf.sh
polaris_chvrf_domtrans(polaris_trace_filter_t)

allow polaris_trace_filter_t self:capability { dac_override sys_resource };

access /tmp/sw/boot/pkginfo
awk -v what=^.BuildPath: $pkginfo_file ~ what { print $2 } /tmp/sw/boot/pkginfo
polaris_boot_tmp_read(polaris_trace_filter_t)

polaris_chasfs_read(polaris_trace_filter_t)
polaris_disk_bootflash_read_lnk(polaris_trace_filter_t)
polaris_disk_crashinfo_getattr(polaris_trace_filter_t)
polaris_bootflash_manage(polaris_trace_filter_t)
polaris_use_btman_fifo(polaris_trace_filter_t)
polaris_use_btrace_fifo(polaris_trace_filter_t)
polaris_smand_use_fifo(polaris_trace_filter_t)
polaris_cpld_read(polaris_trace_filter_t)
polaris_tdldb_list_dirs(polaris_trace_filter_t)
polaris_disk_harddisk_read_lnk(polaris_trace_filter_t)
kernel_read_system_state(polaris_trace_filter_t)

read /proc/rmonbifo files such as env_var.sh
polaris_rmonbifo_tmp_read(polaris_trace_filter_t)

df on "/" needs fs_t:filesystem getattr
fs_getattr_xattr_fs(polaris_trace_filter_t)

#Allow mcp_trace_request.sh to access UFS mounted directories for other members
optional_policy(`
polaris_ncd_tmp_read(polaris_trace_filter_t)
`)

allow creation/access of temporary files created by bash such as

```

```

/tmp/sh-thd-1499428203 etc
type polaris_trace_filter_tmp_t;
files_tmp_file(polaris_trace_filter_tmp_t)
files_tmp_filetrans(polaris_trace_filter_t, polaris_trace_filter_tmp_t, file)
manage_files_pattern(polaris_trace_filter_t, polaris_trace_filter_tmp_t, polaris_trace_filter_tmp_t)

mcp_trace_filter.sh invokes: "df /tmp/rp/tlddb" and "df /dev/shm"
fs_getattr_tmpfs(polaris_trace_filter_t)

allow accesses to polaris lua files
polaris_lua_read(polaris_trace_filter_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_trace_filter_t)

corecmd_exec_bin(polaris_trace_filter_t)

why does btrace show command needs to write into btrace state?
polaris_btrace_data_manage_all(polaris_trace_filter_t)
polaris_btrace_persistent_data_manage(polaris_trace_filter_t)

Allow mcp_trace_request.sh to access NFS mounted directories for other members
such as /tmp/ufs/harddisk/10.130.1.0
fs_getattr_nfs(polaris_trace_filter_t)

#####
CLI: monitor log profile <iwan | wireless | wired ..>
invokes.../bin/sh /usr/binos/conf/mcp_trace_request.sh --operation monitor
#####

polaris_utility_domain_template(trace_request)

polaris_bexecute_domtrans(polaris_trace_request_t)
polaris_bexecute_domain(polaris_trace_request_t, polaris_trace_request_exec_t)

Provide sys_resource capability for sys_pipe calls
allow polaris_trace_request_t self:capability sys_resource;

polaris_cpld_read(polaris_trace_request_t)
polaris_disk_crashinfo_getattr(polaris_trace_request_t)
polaris_disk_bootflash_read_Ink(polaris_trace_request_t)
polaris_disk_harddisk_read_Ink(polaris_trace_request_t)
polaris_chasfs_manage(polaris_trace_request_t)

fs_getattr_xattr_fs(polaris_trace_request_t)

can execute hostname
hostname_exec(polaris_trace_request_t)

```



```

can execute dmesg
dmesg_domtrans(polaris_trace_request_t)

creates archives under /crashinfo
polaris_disk_crashinfo_manage(polaris_trace_request_t)

can tar logs to persistent all file systems (including removable file systems)
polaris_persistent_manage(polaris_trace_request_t)
polaris_removable_manage(polaris_trace_request_t)

read and write all btrace fifo file as standard input/output.
polaris_use_btrace_fifo(polaris_trace_request_t)

read /proc/rmbonbifo files such as env_var.sh
polaris_rmonbifo_tmp_read(polaris_trace_request_t)

copies /tmp/silent_roll_select.log into /crashinfo so that it can be tar'd into an
archive
polaris_pvp_read_tmp_files(polaris_trace_request_t)

read /tmp/sw/boot/base_pkg
polaris_boot_tmp_read(polaris_trace_request_t)

in some cases mcp_trace_request.sh runs with telnet /dev/ptyN as
stdin/stdout
telnet_use_ptys(polaris_trace_request_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_trace_request_t)

read /proc/cmdline
kernel_read_system_state(polaris_trace_request_t)

corecmd_exec_bin(polaris_trace_request_t)

#ifdef(^ngwc_family',`
optional_policy(`
polaris_ncd_tmp_read(polaris_trace_request_t)
`)
`)

mcp_trace_request.sh can read all btrace files both in temp storage
as well as in persistent storage
polaris_btrace_data_manage_all(polaris_trace_request_t)
polaris_btrace_persistent_data_manage(polaris_trace_request_t)

Allow mcp_trace_request.sh to create and manage temporary files under /tmp

```

```

such as /tmp/mtr_cntrl
type polaris_trace_request_tmp_t;
files_tmp_file(polaris_trace_request_tmp_t)
files_tmp_filetrans(polaris_trace_request_t, polaris_trace_request_tmp_t, file)
manage_files_pattern(polaris_trace_request_t, polaris_trace_request_tmp_t, polaris_trace_request_tmp_t)

Allow mcp_trace_request.sh to access NFS mounted directories for other members
such as /tmp/ufs/crashinfo/10.1.1.1
fs_getattr_nfs(polaris_trace_request_t)

mcp_trace_request.sh invokes dmesg, which runs in dmesg_t domain needs access
to btrace data store
gen_require(
 type dmesg_t;
)
polaris_btrace_persistent_data_manage(dmesg_t)
dmesg invocation in case of disk being full,
results in writing to area of disk that
requires the sys_resource capability.
allow dmesg_t self:capability sys_resource;

Set /tmp/udev_ng4k.vbd.log to be under polaris_udev_tmp_files_t label
gen_require(
 type udev_t;
 type polaris_udev_tmp_files_t;
 type init_t;
)
files_tmp_filetrans(udev_t, polaris_udev_tmp_files_t, file, "udev_ng4k.vbd.log")
fs_tmpfs_filetrans(udev_t, polaris_udev_tmp_files_t, file, "udev_ng4k.vbd.log")
files_tmp_filetrans(init_t, polaris_udev_tmp_files_t, file, "udev_ng4k.vbd.log")
fs_tmpfs_filetrans(init_t, polaris_udev_tmp_files_t, file, "udev_ng4k.vbd.log")

Add permission for mcp_trace_request to access polaris_udev_tmp_files_t files
polaris_udev_tmp_manage(polaris_trace_request_t)

Allow ls /tmp/ufs/harddisk
optional_policy(
polaris_ncd_tmp_read(polaris_trace_request_t)
)

#Allow mcp_trace_request to get tmpfs attributes
fs_getattr_tmpfs(polaris_trace_request_t)

#allow mcp_trace_request to execute tar
allow polaris_trace_request_t self:capability { chown fowner fsetid };

#####

```

```

type polaris_btrace_tmpfs_t;
files_tmpfs_file(polaris_btrace_tmpfs_t)

btrace semaphore created by systemd-tmpfiles needs map permission
gen_require(^
 type systemd_tmpfiles_t;
)
mmap_files_pattern(systemd_tmpfiles_t, polaris_btrace_tmpfs_t, polaris_btrace_tmpfs_t)

Allow polaris processes to manage level config files in tracelogs persistent
directory like /bootflash/tracelogs/level_config
type polaris_btrace_lvl_config_t;
files_type(polaris_btrace_lvl_config_t)
gen_require(^
 attribute polaris_domain;
)
polaris_btrace_lvl_config_manage(polaris_domain)

optional_policy(^
 polaris_cedge_tanman_tmp_manage(polaris_btdecode_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtrace.te

No license file was found, but licenses were detected in source scan.

```

#
March 2017, Victor Kamensky
#
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#

/usr/binos/conf/psvp.sh -- gen_context(system_u:object_r:polaris_psvp_exec_t,s0)

/tmp/rp/psvp -d gen_context(system_u:object_r:polaris_psvp_tmp_t,s0)
/tmp/rp/psvp/inot_fifo -p gen_context(system_u:object_r:polaris_psvp_tmp_t,s0)
/tmp/rp/psvp/pvp\pid -- gen_context(system_u:object_r:polaris_psvp_tmp_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispsvp.fc

No license file was found, but licenses were detected in source scan.

```

#
July 2017, Victor Kamensky
#
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All rights reserved

```

```

#

policy_module(polarisbexecute, 1.0);

polaris_utility_domain_template(bexecute)

polaris_utility_domain_template(chvrf)

polaris_bexecute_domtrans(polaris_chvrf_t)
polaris_chvrf_domtrans(polaris_bexecute_t)
polaris_ngio_module_session_domtrans(polaris_bexecute_t)

polaris_rom_upgrade_use_fifo(polaris_chvrf_t)

#####
bexecute
#####
corecmd_exec_bin(polaris_bexecute_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_bexecute_t)

dev_setattr_null_dev(polaris_bexecute_t)

polaris_btrace_data_manage(polaris_bexecute_t)
polaris_crft_data_manage(polaris_bexecute_t)
polaris_chasfs_manage(polaris_bexecute_t)
polaris_cpld_read(polaris_bexecute_t)
polaris_boot_tmp_read(polaris_bexecute_t)
polaris_rmonbifo_tmp_read(polaris_bexecute_t)
polaris_proc_rmonbifo_read(polaris_bexecute_t)
polaris_dyncfg_tmp_read(polaris_bexecute_t)
polaris_read_debug_conf(polaris_bexecute_t)
polaris_tdlld_list_dirs(polaris_bexecute_t)
polaris_disk_bootflash_read_Ink(polaris_bexecute_t)
polaris_disk_harddisk_read_Ink(polaris_bexecute_t)

open/read /tmp/sw/rp/max_elastic_bays
polaris_pvp_read_tmp_files(polaris_bexecute_t)

search/getattr of /tmp/udev/etc/udev
polaris_udev_tmp_list_dirs(polaris_bexecute_t)

manage files in /tmp/pman_ports
polaris_pman_manage_tmp_files(polaris_bexecute_t)

brelay.sh does rm -rf of "/tmp/pman_ports/gdbport/9910"
This checks tmpfs file system attributes

```

```

#
Denial is observed after "show platform software audit summary"
which uses breloy to trigger corresponding audit_log.sh script
fs_getattr_tmpfs(polaris_bexecute_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_bexecute_t)

follow /tftp/inv symlink to /tmp/chassis/local/rp/chasfs/inventory
gen_require(
 type tftpd_dir_rw_t;
)
read_in_files_pattern(polaris_bexecute_t, tftpd_dir_rw_t, tftpd_dir_rw_t)

tries to do mkdir -p /tmp/rp/lipc, but it should exist already so
getattr should be sufficient
polaris_lipc_getattr(polaris_bexecute_t)

read /proc/cmdline
kernel_read_system_state(polaris_bexecute_t)

binary tracing fifo_file as standard output
polaris_use_btrace_fifo(polaris_bexecute_t)

write into pipe that smand created for us with popen
polaris_smand_use_fifo(polaris_bexecute_t)

allow polaris_bexecute_t self:capability { chown setgid setuid fowner net_admin };
allow polaris_bexecute_t self:process { setpgid setcap };

temporary files created by bexecute like /tmp/get_status_type_pkg_list.rp-1-0-0.20170707094059.out.log
type polaris_bexecute_tmp_t;
files_tmp_file(polaris_bexecute_tmp_t)
files_tmp_filetrans(polaris_bexecute_t, polaris_bexecute_tmp_t, file)
manage_files_pattern(polaris_bexecute_t, polaris_bexecute_tmp_t, polaris_bexecute_tmp_t)

smand calls many commands through bexec.sh
polaris_smand_domain(polaris_bexecute_t, polaris_bexecute_exec_t)

hman invokes cpp_shm_mgr_info_show.sh which in turn invokes "mktemp -p /tmp/tmppub..."
polaris_btrace_tmppub_manage(polaris_bexecute_t)

#ifdef(^nyquist_platform',`
term_use_unallocated_ttys(polaris_bexecute_t)
term_setattr_unallocated_ttys(polaris_bexecute_t)
`)

#ifdef(^radium_platform',`

```

```

polaris_load_usbnet_domtrans(polaris_bexecute_t)

allow /usr/binos/conf/bexecute.sh for tcp_socket access
due to "/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc
/usr/binos/conf/bexecute.sh -c /usr/binos/conf/module_direct.py
0 bp0 PROMETHIUM-L"
gen_require(
 type polaris_cm_rp_t;
)
allow polaris_chvrf_t polaris_cm_rp_t:tcp_socket ioctl;

allow /usr/binos/conf/bexecute.sh for tcp_socket access
due to "/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc
/usr/binos/conf/bexecute.sh -c /bin/mcp_pkg_wrap rp_daemons
/usr/binos/conf/execute_co"
gen_require(
 type polaris_dmi_ncsshd_fwd_t;
)
allow polaris_chvrf_t polaris_dmi_ncsshd_fwd_t:tcp_socket ioctl;
)

ifdef(^sumatra_platform',`
polaris_load_usbnet_domtrans(polaris_bexecute_t)
)

ifdef(^nanook_platform',`
polaris_load_usbnet_domtrans(polaris_bexecute_t)
)

ifdef(^supernova_platform',`
polaris_load_usbnet_domtrans(polaris_bexecute_t)
)
polaris_issu_tmp_files_manage(polaris_bexecute_t)

Unlike other platforms, quake platform has runin_exec_proc.sh script,
which is started by xinetd in inetd_t domain,
and needs to switch to bexecute domain.
In turn, runin_exec_proc.sh then starts in.telnetd process which needs
to run in telnetd_t domain, for the existing policies to do the rest.
ifdef(^quake_platform',`
gen_require(
 type inetd_t;
 type telnetd_t;
 type telnetd_exec_t;
)
polaris_bexecute_domtrans(inetd_t)
polaris_bexecute_domain(telnetd_t, telnetd_exec_t)
)

```

```

#####
chvrf
#####
corecmd_exec_bin(polaris_chvrf_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_chvrf_t)

read polaris vrf net namespace file(s) /var/run/netns/0
fs_read_nsfs_files(polaris_chvrf_t)

write into pipe that various binos processes created for us with popen
polaris_smand_use_fifo(polaris_chvrf_t)
polaris_hman_use_fifo(polaris_chvrf_t)
polaris_dmiauthd_use_fifo(polaris_chvrf_t)
optional_policy(`
 polaris_cmrp_use_fifo(polaris_chvrf_t)
`)
optional_policy(`
 polaris_dmi_ncsshd_fwd_use_fifo(polaris_chvrf_t)
`)

mcp_chvrf.sh may run into files created by bexecute
manage_files_pattern(polaris_chvrf_t, polaris_bexecute_tmp_t, polaris_bexecute_tmp_t)

init may transition to polaris_chvrf_t - certain systemd units use
mcp_chvrf.sh to start services
gen_require(`
 type init_t;
`)
polaris_chvrf_domtrans(init_t)

mcp_chvrf.sh used to start xinetd services
gen_require(`
 type inetd_t;
 type inetd_exec_t;
`)
domtrans_pattern(polaris_chvrf_t, inetd_exec_t, inetd_t)

in some cases mcp_chvrf needs to write into someone fifo stdout
file, i.e when called from ncd.sh script
polaris_use_btrace_fifo(polaris_chvrf_t)

sysnet_domtrans_ifconfig(polaris_chvrf_t)

during some execve calls chvrf needs list /tmp/etc

```

```

polaris_etc_list(polaris_chvrf_t)

ifdef(`ngwc_family',`
/tmp/rsync_log_dir/rsync_log_XXX is stdout when mcp_chvrf.sh with rsync is called
also /tmp/etc/installer/inot_fifo file descriptor is leaked from the script
polaris_manage_rsync_tmplog_dir(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_bexecute_t)
')

ifdef(`mcp_family',`
/tmp/rsync_log_dir/rsync_log_XXX is stdout when mcp_chvrf.sh with rsync is called
also /tmp/etc/installer/inot_fifo file descriptor is leaked from the script
polaris_manage_rsync_tmplog_dir(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_bexecute_t)
')

ifdef(`wlc_family',`
/tmp/rsync_log_dir/rsync_log_XXX is stdout when mcp_chvrf.sh with rsync is called
also /tmp/etc/installer/inot_fifo file descriptor is leaked from the script
polaris_manage_rsync_tmplog_dir(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_chvrf_t)
polaris_autoupgrade_tmp_manage(polaris_bexecute_t)
')

For "request platform software system shell" CLI, we have:
/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc /usr/binos/conf/bexecute.sh
-c /usr/binos/conf/mcp_record_shell.sh
mcp_chvrf.sh needs read/write access to /dev/pts/1:
allow polaris_chvrf_t telnetd_devpts_t:chr_file { read write };
telnet_use_ptys(polaris_chvrf_t)

ifdef(`nyquist_platform',`
term_use_unallocated_ttys(polaris_chvrf_t)
')

some times run with unix_stream_socket as stdin
init_ioctl_stream_sockets(polaris_chvrf_t)

#####
bexecute and mcp_chvrf.sh called from install_show.sh
#####

polaris_install_show_tmp_write(polaris_bexecute_t)
polaris_install_show_tmp_write(polaris_chvrf_t)

#####

```



```

install_engine.sh uses brelay to re-launch install_engine in all FRUs.
So, op_rp_switch_to_remote_loc_in_parallel() outputs to install tmp log file;
check invocation-point for comms_run_on_remote_fru.
#####
polaris_install_tmp_log_write(polaris_bexecute_t)
polaris_install_tmp_log_write(polaris_chvrf_t)

#####
CLI: show platform hardware cpp active infrastructure shared-memory all
this results in hman invoking following chain of shell scrips.
/bin/sh /usr/binos/conf/bexec.sh -c /usr/binos/conf/cpp_shm_mgr_info_show.sh
/bin/bash /usr/binos/conf/bexecute.sh -c /usr/binos/conf/cpp_shm_mgr_info_show.sh
/bin/sh /usr/binos/conf/cpp_shm_mgr_info_show.sh
/bin/bash /usr/binos/conf/bshell.sh -S -c "show platform hardware qfp active \
infrastructure shared-memory process cpp-control-process"
All these are executed in polaris_bexecute_t domain and write access to following lipc
is needed: /tmp/rp/lipc/shell_mgr_bshell_serv_socket
#####
polaris_sman_bshell_serv_lipc_write(polaris_bexecute_t)
polaris_tdlresolve_read(polaris_bexecute_t)
#####
This block is policies for "sh pla so process memory r0 name iosd maps" CLI

polaris_utility_domain_template(process_maps)

polaris_bexecute_domain(polaris_process_maps_t, polaris_process_maps_exec_t)

needs to read maps files.
domain_read_all_domains_state(polaris_process_maps_t)

"ps" needs read access to /sys/devices/system/cpu/online
"ps" needs read access to /proc/uptime
dev_read_sysfs(polaris_process_maps_t)
kernel_read_system_state(polaris_process_maps_t)

need write/ioctl/getattr access for pipes like "pipe:[118396]"
polaris_hman_use_fifo(polaris_process_maps_t)

corecmd_exec_bin(polaris_process_maps_t)
#####
This block is policies for "request platform software system shell" CLI.
Eventually, mcp_record_shell.sh is invoked. That needs its own domain.

polaris_utility_domain_template(platform_shell)

polaris_bexecute_domain(polaris_platform_shell_t, polaris_platform_shell_exec_t)
corecmd_exec_bin(polaris_platform_shell_t)
auth_use_nsswitch(polaris_platform_shell_t)

```

```

polaris_btrace_persistent_data_manage(polaris_platform_shell_t)
polaris_cpld_read(polaris_platform_shell_t)

cyan libraries access /tmp/sw/boot/rmonbifo/boardsubtype
polaris_rmonbifo_tmp_read(polaris_platform_shell_t)

pglobals.sh accesses /tmp/ufs//crashinfo on cat9k platforms
optional_policy(
polaris_ncd_tmp_read(polaris_platform_shell_t)
')

mcp_record_shell.sh needs read access to chasfs
polaris_chasfs_read(polaris_platform_shell_t)

mcp_record_shell.sh needs read access to /dev/pts/0 (telnetd_devpts_t)
telnet_use_ptys(polaris_platform_shell_t)

rsync /tmp/system_shell_access_logs/$system_shell_access_log_file
rsync://rp0-0/chasfs/etc/system_shell_access_logs/.
gen_require(
 type rsync_t;
)
rsync_entry_domtrans(polaris_platform_shell_t, rsync_t)
allow rsync_t polaris_platform_shell_t:process sigchld;
telnet_use_ptys(rsync_t)

logging_send_syslog_msg(polaris_platform_shell_t)
init_list_pid_dirs(polaris_platform_shell_t)

#when reload command is issued, needs "kill" capability
allow polaris_platform_shell_t self:capability kill;

brelay started from telnetd as result it inherits stdin/stdout of pty opened
by telnetd
telnet_use_ptys(polaris_bexecute_t)
gen_require(
 type telnetd_devpts_t;
)
allow polaris_bexecute_t telnetd_devpts_t:chr_file setattr_chr_file_perms;
allow polaris_bexecute_t self:capability fsetid;

mcp_record_shell.sh invokes:
/usr/bin/script -q /harddisk/tracelogs/system_shell_R0*
- needs access to /root/.bash_history
- performs chmod on /dev/pts/2 (needs fsetid on self)
- ioctl/open/read/write on /dev/ptmx
- needs read/search access to /harddisk/tracelogs

```

```

type polaris_bash_tmp_t;
files_type(polaris_bash_tmp_t)
filetrans_pattern(domain, user_home_dir_t, polaris_bash_tmp_t, file, ".bash_history")
polaris_bash_tmp_manage(polaris_platform_shell_t)
allow polaris_platform_shell_t self:capability fsetid;
term_use_generic_ptys(polaris_platform_shell_t)
term_setattr_generic_ptys(polaris_platform_shell_t)
term_getattr_pty_fs(polaris_platform_shell_t)
term_use_ptmx(polaris_platform_shell_t)
polaris_disk_bootflash_read_lnk(polaris_platform_shell_t)
polaris_disk_harddisk_read_lnk(polaris_platform_shell_t)

mcp_record_shell.sh invokes:
mkdir /tmp/system_shell_access_logs
create /tmp/system_shell_access_logs/SHELL_ACCESSED_*
type polaris_platform_shell_tmp_t;
files_tmp_file(polaris_platform_shell_tmp_t)
files_tmp_filetrans(polaris_platform_shell_t, polaris_platform_shell_tmp_t, dir, "system_shell_access_logs")
files_tmp_filetrans(polaris_platform_shell_t, polaris_platform_shell_tmp_t, file)
manage_dirs_pattern(polaris_platform_shell_t, polaris_platform_shell_tmp_t, polaris_platform_shell_tmp_t)
manage_files_pattern(polaris_platform_shell_t, polaris_platform_shell_tmp_t, polaris_platform_shell_tmp_t)

read /proc/cmdline
kernel_read_system_state(polaris_platform_shell_t)

read /tmp/sw/boot/base_pkg
polaris_boot_tmp_read(polaris_platform_shell_t)

polaris_disk_crashinfo_getattr(polaris_platform_shell_t)
#####

polaris_utility_domain_template(shell)

term_use_generic_ptys(polaris_shell_t)

domtrans_pattern(polaris_platform_shell_t, polaris_shell_exec_t, polaris_shell_t)

reload command needs the following policies to send signal
polaris_send_signal_to_bexecute(polaris_platform_shell_t)
polaris_send_signal_to_shell(polaris_platform_shell_t)

<desc>
<p>
Polaris "request platform system shell" drops into unconfined shell
</p>
</desc>
gen_tunable(polaris_dev_shell, true)

```

```

tunable_policy(`polaris_dev_shell`,`
 polaris_unconfined_domain(polaris_shell_t)
`)
polaris_domain_storage_unconfined_type(polaris_shell_t)

PLEASE LOOK AT ME do we have to many ports open
btelnet runs under bexecute in case of guest shell console access
command like app-hosting connect appid guestshell console
allow polaris_bexecute_t self:tcp_socket { connect create setopt };
corenet_tcp_connect_unreserved_ports(polaris_bexecute_t)
sysnet_read_config(polaris_bexecute_t)

brelay.sh does ls /tmp/ufs//crashinfo on cat9k
allow polaris_bexecute_t self:capability dac_override;
polaris_disk_crashinfo_getattr(polaris_bexecute_t)
optional_policy(`
polaris_ncd_tmp_read(polaris_bexecute_t)
`)

polaris_utility_domain_template(bconsole)

polaris_boot_tmp_read(polaris_bconsole_t)
polaris_btrace_data_manage(polaris_bconsole_t)
polaris_chasfs_read(polaris_bconsole_t)
polaris_cpld_read(polaris_bconsole_t)
polaris_proc_rmonbifo_read(polaris_bconsole_t)
polaris_rmonbifo_tmp_read(polaris_bconsole_t)
polaris_use_btrace_fifo(polaris_bconsole_t)
polaris_show_provision_temp_read(polaris_bconsole_t)

corecmd_exec_bin(polaris_bconsole_t)
polaris_bexecute_domtrans(polaris_bconsole_t)

allow polaris_bconsole_t self:process setrlimit;

handling /var/run/agetty-iosd.pid
type polaris_bconsole_var_run_t;
files_pid_file(polaris_bconsole_var_run_t)
manage_files_pattern(polaris_bconsole_t, polaris_bconsole_var_run_t, polaris_bconsole_var_run_t)
files_pid_filetrans(polaris_bconsole_t, polaris_bconsole_var_run_t, file, "agetty-iosd.pid")

access /dev/ttyS0
term_use_unallocated_ttys(polaris_bconsole_t)

auth_use_nsswitch(polaris_bconsole_t)

#####

```

```

This block is policies for
"request platform software console attach switch standby RO" CLI.
It invokes usr/binos/conf/mcp_console_attach.sh, eventually invoking
ioucon binary, to telnet to standby.

polaris_utility_domain_template(mcp_console_attach)
polaris_bexecute_domain(polaris_mcp_console_attach_t, polaris_mcp_console_attach_exec_t)
corecmd_exec_bin(polaris_mcp_console_attach_t)
polaris_bexecute_domtrans(polaris_mcp_console_attach_t)
allow polaris_mcp_console_attach_t self:process setpgid;
polaris_chasfs_read(polaris_mcp_console_attach_t)
telnet_use_ptys(polaris_mcp_console_attach_t)

working with ioucon binary, invoked by usr/binos/conf/mcp_console_attach.sh
polaris_utility_domain_template(ioucon)
polaris_bexecute_domain(polaris_ioucon_t, polaris_ioucon_exec_t)

allow polaris_ioucon_t self:unix_dgram_socket create_socket_perms;
polaris_iosd_dgram_send(polaris_ioucon_t)
polaris_iosd_tmp_file_use(polaris_ioucon_t)
telnet_use_ptys(polaris_ioucon_t)

"test platform hardware eobc ping" invokes eobc_ping.sh
send sigchld when it is done
gen_require(^
 type ping_t;
)
allow ping_t polaris_bexecute_t:process sigchld;
polaris_confd_domtrans(polaris_bexecute_t)

app-hosting connect appid <> console/session
Beluga/Meraki container
ifdef(^ms_platform',`
polaris_iox_container_domtrans(polaris_bexecute_t)
)

Bottlenose/Meraki container
ifdef(^bottlenose_platform',`
polaris_iox_container_domtrans(polaris_bexecute_t)
)

IOx downloads the application package using network protocol (e.g http)
gen_require(^
 type fifo_var_run_t;
)
allow polaris_bexecute_t fifo_var_run_t:fifo_file read;

on vxe platforms with MBRv2/MBRv4/GPTv1/GPTv3 partition layouts

```

```

/config is file system and export_mcp_environment tries to create it anyway
polaris_getattr_disk_config(polaris_bexecute_t)

#####
This block is policies for
"hw-module session <x/y>" CLI.
It invokes usr/binos/conf/ngio_module_session.sh, eventually invoking
open64.

polaris_utility_domain_template(ngio_module_session)
polaris_bexecute_domain(polaris_ngio_module_session_t, polaris_ngio_module_session_exec_t)
corecmd_exec_bin(polaris_ngio_module_session_t)
polaris_bexecute_domtrans(polaris_ngio_module_session_t)
term_use_unallocated_ttys(polaris_ngio_module_session_t)
dev_read_sysfs(polaris_ngio_module_session_t)
allow polaris_ngio_module_session_t self:process setsched;
auth_map_passwd(polaris_ngio_module_session_t)
polaris_chasfs_read(polaris_ngio_module_session_t)
polaris_cpld_read(polaris_ngio_module_session_t)
telnet_use_ptys(polaris_ngio_module_session_t)

work with /tmp files
type polaris_ngio_module_session_tmp_t;
files_tmp_file(polaris_ngio_module_session_tmp_t)
manage_dirs_pattern(polaris_ngio_module_session_t, tmp_t, polaris_ngio_module_session_tmp_t)
manage_files_pattern(polaris_ngio_module_session_t, polaris_ngio_module_session_tmp_t,
polaris_ngio_module_session_tmp_t)
manage_fifo_files_pattern(polaris_ngio_module_session_t, polaris_ngio_module_session_tmp_t,
polaris_ngio_module_session_tmp_t)
files_tmp_filetrans(polaris_ngio_module_session_t, polaris_ngio_module_session_tmp_t, { file dir })

CLI: show platform software tech-support
requires bshell execution
/bin/bash /usr/binos/conf/bshell.sh -S -P ---- __CMD__ ---- -f
/usr/binos/conf/mcp_tech_support_command_file.txt
gen_require(
 type polaris_bshell_t;
 type polaris_bshell_exec_t;
)
domtrans_pattern(polaris_bexecute_t, polaris_bshell_exec_t, polaris_bshell_t)
scripts stdin is set by hman and needs write/append access to pipes like pipe:[80159]
polaris_hman_use_fifo(polaris_bshell_t)
in case of ISR4k show tech input for bshell dynamically created
polaris_tech_support_tmp_read(polaris_bshell_t)

CLI: show software authenticity running
this results in hman invoking below command:
/bin/sh /usr/binos/conf/bexec.sh -c "/usr/bin/code_sign_verify show3 abcd "

```

```

polaris_code_verify_domtrans(polaris_bexecute_t)

stdin is inherited when bexecute calls fts_client
polaris_fts_client_tmp_manage(polaris_bexecute_t)

disk space full issue
allow polaris_platform_shell_t self:capability sys_resource;
#####
CLI: request platform software sdwan admin-tech

executes: /bin/sh vconfd_script_show_installerfs.sh
polaris_conf_unix_stream_stdio_use(polaris_bexecute_t)

executes: bash bshell.sh -S -P ---- __CMD__ ---- -f /tmp/sdwan_tech_support_command_file_out.txt
polaris_conf_unix_stream_stdio_use(polaris_bshell_t)
#####

write to /tmp/out_$(date "+%Y%m%d%H%M%S%N") for base version verification on smu install
polaris_install_tmp_write(polaris_bexecute_t)

Nutella-XE install image
#/bin/bash /usr/binos/conf/brelay.sh -E -f rp 0 16023 -c /usr/binos/conf/install_engine.sh --operation install_commit
--isremote
polaris_conf_tmp_use_fifo(polaris_bexecute_t)

#awk -v what=^.BuildPath: $pkginfo_file ~ what { print $2 } /tmp/sw/rp/0/0/rp_security/mount/.pkginfo
polaris_read_packages_conf(polaris_bexecute_t)

dev_read_rand(polaris_bexecute_t)

/usr/bin/python3 /usr/binos/conf/issu_client_comp.py compare -b /usr/binos/conf/base_clients.txt -n
/bootflash/installer/current_clients.txt
polaris_disk_install_read(polaris_bexecute_t)

allow "/usr/binos/conf/module_direct.py" (bexecute_t) to execute
"/usr/sbin/ethtool" (ifconfig_exec_t) when invoking CLI
"show platform1 hardware subslot <slot/card> backplane statistics"
sysnet_domtrans_ifconfig(polaris_bexecute_t)
Write into pipe created by stack_mgr
Parent Child Relation - stack_mgr -> mcp_trace_request -> brelay (to relay output to active)
optional_policy(
 polaris_use_stack_mgr_fifo(polaris_bexecute_t)
)

polaris_etc_list(polaris_bexecute_t)
#manage /tmp/existing_rommon_info file
polaris_manage_rommon_info(polaris_capsule_upgrade_t)

```

```
#Policies for "upgrade rom-monitor capsule primary switch 1 R0" CLI
#/usr/binos/conf/bexecute.sh -c /usr/binos/conf/cat9k-primary-capsule-upgrade.sh
#cat9k-primary-capsule-upgrade.sh have to run in its own domain
```

```
polaris_utility_domain_template(capsule_upgrade)
```

```
polaris_bootflash_manage(polaris_capsule_upgrade_t)
```

```
type polaris_capsule_upgrade_log_t;
polaris_pfile_type(polaris_capsule_upgrade_log_t)
```

```
polaris_capsule_upgrade_log_use(polaris_capsule_upgrade_t)
```

```
polaris_bexecute_domain(polaris_capsule_upgrade_t, polaris_capsule_upgrade_exec_t)
```

```
polaris_bexecute_domtrans(polaris_capsule_upgrade_t)
corecmd_exec_bin(polaris_capsule_upgrade_t)
auth_use_nsswitch(polaris_capsule_upgrade_t)
polaris_chasfs_manage(polaris_capsule_upgrade_t)
polaris_cpld_read(polaris_capsule_upgrade_t)
telnet_use_ptys(polaris_capsule_upgrade_t)
```

```
polaris_rommon_device_read(polaris_capsule_upgrade_t)
```

```
For "/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc
/usr/binos/conf/bexecute.sh -c /usr/binos/conf/install_engine.sh
--operation install_c",
uses unix stream socket created by confd as standard I/O.
polaris_conf_unix_stream_stdio_use(polaris_chvrf_t)
```

```
#####
mcp_dmesg_service
#####
polaris_utility_domain_template(mcp_dmesg)
```

```
polaris_bexecute_domain(polaris_mcp_dmesg_t, polaris_mcp_dmesg_exec_t)
polaris_bexecute_domtrans(polaris_mcp_dmesg_t)
dmesg_domtrans(polaris_mcp_dmesg_t)
corecmd_exec_bin(polaris_mcp_dmesg_t)
polaris_smand_use_fifo(polaris_mcp_dmesg_t)
auth_use_nsswitch(polaris_mcp_dmesg_t)
telnet_use_ptys(polaris_mcp_dmesg_t)
```

```
allow creation/access of temporary files like /tmp/sh-thd-1608024622
type polaris_mcp_dmesg_tmp_t;
files_type(polaris_mcp_dmesg_tmp_t)
files_tmp_file(polaris_mcp_dmesg_tmp_t)
```



```
files_tmp_filetrans(polaris_mcp_dmesg_t, polaris_mcp_dmesg_tmp_t, file)
manage_files_pattern(polaris_mcp_dmesg_t, polaris_mcp_dmesg_tmp_t, polaris_mcp_dmesg_tmp_t)
fs_getattr_tmpfs(polaris_mcp_dmesg_t)
```

```
allowing reload_fru.sh for doing systemctl list-jobs
systemd_config_generic_services(polaris_bexecute_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbexecute.te
No license file was found, but licenses were detected in source scan.
```

```
#
July 2017, Victor Kamensky
#
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#
```

```
/dev/quack -c gen_context(system_u:object_r:polaris_quack_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisquack.fc
No license file was found, but licenses were detected in source scan.
```

```
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#
```

```
policy_module(polarisdbm, 1.0);
```

```
gen_require(`
 type polaris_dbm_t;
`)
```

```
#####
mqipc manual, one that missing in platform tdl file
#####
```

```
ifdef(`nyquist_platform',`
gen_require(`
 type polaris_bt_logger_dbm_mqipc_t;
`)
dbm may start first and create this mqipc channel
polaris_mqipc_create_name(polaris_dbm_t, polaris_bt_logger_dbm_mqipc_t, bt_logger_dbm)
`)
```

```

polaris_btrace_data_manage(polaris_dbm_t)
polaris_crft_data_manage(polaris_dbm_t)
polaris_chasfs_manage(polaris_dbm_t)
polaris_tdlresolve_read(polaris_dbm_t)
polaris_tdlldb_list_dirs(polaris_dbm_t)
polaris_cpld_read(polaris_dbm_t)
polaris_flashlib_read(polaris_dbm_t)

polaris_ripc_sman_ui_serv_connect(polaris_dbm_t)

polaris_db_tdlldb_dir_use(polaris_dbm_t)

polaris_libeiutil_build_config_directory(polaris_dbm_t)

polaris_cfg_data_manage(polaris_dbm_t)

allow polaris_dbm_t self:capability { sys_resource };
allow polaris_dbm_t self:process setrlimit;

dbm listen on 9090 port; in case of ultra only in tcp6
corenet_tcp_bind_websm_port(polaris_dbm_t)

polaris_dyncfg_tmp_read(polaris_dbm_t)

allow polaris_dbm_t self:capability dac_override;

port 9090, is it exclusively wnc_mgrd port?
corenet_tcp_bind_polaris_wnc_mgrd_port(polaris_dbm_t)
allow polaris_dbm_t self:tcp_socket {shutdown};

working dbm persistent files in /bootflash/.dbpersist
type polaris_disk_dbm_t;
polaris_disk_type(polaris_disk_dbm_t)

polaris_tdlldbpersist_setup(polaris_dbm_t)

dbm on active syncs with /bootflash/.dbpersist on standby
related call dbm_persist_binary_cfg_sync_to_standby()
gen_require(
 type rsync_t;
)
rsync_entry_domtrans(polaris_dbm_t, rsync_t)

polaris_tmp_tdlldb_persist_setup(polaris_dbm_t)

logging_send_syslog_msg(polaris_dbm_t)

```

corecmd\_exec\_bin(polaris\_dbm\_t)

corecmd\_exec\_shell(polaris\_dbm\_t)

# dbm needs access to "/flash1/user/.installer/install\_issu\_state"

polaris\_disk\_install\_read(polaris\_dbm\_t)

# runs over /usr/bin/rsync

corenet\_tcp\_connect\_rsync\_port(polaris\_dbm\_t)

# tar invocation in dbm code necessitates this permission

auth\_map\_passwd(polaris\_dbm\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdbm.te

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#

# Sep 2020, Sridhar C

#

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#

/tmp/tlscd(/.\*)? gen\_context(system\_u:object\_r:polaris\_tlscd\_uds\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristlscd.fc

No license file was found, but licenses were detected in source scan.

#

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#

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#

/tmp/fp/lipc -d gen\_context(system\_u:object\_r:polaris\_lipc\_t,s0)

/tmp/rp/lipc -d gen\_context(system\_u:object\_r:polaris\_lipc\_t,s0)

/tmp/cc/lipc -d gen\_context(system\_u:object\_r:polaris\_lipc\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislipc.fc

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#

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#

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```

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#

policy_module(polarisdmincshdfwd, 1.0);

gen_require(
 type polaris_dmi_ncsshd_fwd_t;
)

polaris_btrace_data_manage(polaris_dmi_ncsshd_fwd_t)
polaris_chasfs_manage(polaris_dmi_ncsshd_fwd_t)
polaris_tdlresolve_read(polaris_dmi_ncsshd_fwd_t)
polaris_tdlldb_list_dirs(polaris_dmi_ncsshd_fwd_t)
polaris_cpld_read(polaris_dmi_ncsshd_fwd_t)
polaris_flashlib_read(polaris_dmi_ncsshd_fwd_t)

polaris_ripc_sman_ui_serv_connect(polaris_dmi_ncsshd_fwd_t)

allow polaris_dmi_ncsshd_fwd_t self:unix_stream_socket create_stream_socket_perms;

type polaris_dmi_ncsshd_log_t;
files_tmp_file(polaris_dmi_ncsshd_log_t)
manage_files_pattern(polaris_dmi_ncsshd_fwd_t, polaris_dmi_ncsshd_log_t, polaris_dmi_ncsshd_log_t)
manage_sock_files_pattern(polaris_dmi_ncsshd_fwd_t, polaris_dmi_ncsshd_log_t, polaris_dmi_ncsshd_log_t)
files_tmp_filetrans(polaris_dmi_ncsshd_fwd_t, polaris_dmi_ncsshd_log_t, { file sock_file })

logging_send_syslog_msg(polaris_dmi_ncsshd_fwd_t)

polaris_cpld_read(polaris_dmi_ncsshd_fwd_t)

allow to execute execute_confd_cli.sh under confd domain
polaris_confd_domtrans(polaris_dmi_ncsshd_fwd_t)

starts bexec.sh
polaris_bexecute_domtrans(polaris_dmi_ncsshd_fwd_t)
polaris_send_signal_to_bexecute(polaris_dmi_ncsshd_fwd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmincshdfwd.te
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#

```

```
/usr/binos/conf/cyan_init\sh -- gen_context(system_u:object_r:polaris_dynconf_exec_t,s0)
/usr/binos/conf/dynconf_setup\sh -- gen_context(system_u:object_r:polaris_dynconf_exec_t,s0)
```

```
temp files created by cyan_init.sh
```

```
/tmp/cyan/cyan.log gen_context(system_u:object_r:polaris_dynconf_log_t,s0)
/tmp/cyan/cyan_runtime.log gen_context(system_u:object_r:polaris_dynconf_log_t,s0)
```

```
/tmp/cyan(/.*)? gen_context(system_u:object_r:polaris_dynconf_tmp_t,s0)
/tmp/cyan\lock gen_context(system_u:object_r:polaris_dynconf_tmp_t,s0)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscyan.fc
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
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```

```
#
```

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```

```
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```

```
#
```

```
<summary>Polaris bexecute Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Execute bexecute in the polaris_bexecute domain.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed to transition.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_bexecute_domtrans`,`
```

```
gen_require(`
```

```
type polaris_bexecute_t, polaris_bexecute_exec_t;
```

```
`)
```

```
corecmd_search_bin($1)
```

```
domtrans_pattern($1, polaris_bexecute_exec_t, polaris_bexecute_t)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Allow domain to be started by bexecute with
```

```
transition into specific service domain.
```

```
</summary>
```

```
<param name="domain">
```

```

<summary>
Type to be used to run utility.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
interface(`polaris_bexecute_domain`,`
gen_require(`
type polaris_bexecute_t;
`)

domtrans_pattern(polaris_bexecute_t, $2, $1)
`)

```

```

#####
<summary>
Execute mcp_chvrf.sh in the polaris_chvrf domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_chvrf_domtrans`,`
gen_require(`
type polaris_chvrf_t, polaris_chvrf_exec_t;
`)

corecmd_search_bin($1)
domtrans_pattern($1, polaris_chvrf_exec_t, polaris_chvrf_t)
`)

```

```

#####
<summary>
Execute mcp_chvrf.sh in the caller domain.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_exec_chvrf`,`

```

```

gen_require(`
 type polaris_chvrf_exec_t;
`)

corecmd_search_bin($1)
can_exec($1, polaris_chvrf_exec_t)
`)

#####
<summary>
Execute ngio_module_session.sh in the polaris_ngio_module_session domain
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_ngio_module_session_domtrans`,`
gen_require(`
 type polaris_ngio_module_session_t, polaris_ngio_module_session_exec_t;
`)

corecmd_search_bin($1)
domtrans_pattern($1, polaris_ngio_module_session_exec_t, polaris_ngio_module_session_t)
`)

#####
#####
<summary>
Allow the specified domain to send signals to any
polaris process.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_send_signal_to_bexecute`,`
gen_require(`
 type polaris_bexecute_t;
`)

allow $1 polaris_bexecute_t:process signal_perms;
`)

#####

```

```

<summary>
Allow manage of polaris_bash_tmp_t.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_bash_tmp_manage`,`
 gen_require(`
 type user_home_dir_t;
 type polaris_bash_tmp_t;
 `)

 manage_dirs_pattern($1, user_home_dir_t, polaris_bash_tmp_t)
 manage_files_pattern($1, polaris_bash_tmp_t, polaris_bash_tmp_t)
)

```

```
#####
```

```

<summary>
Execute bexecute in the polaris_bexecute domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_bconsole_domtrans`,`
 gen_require(`
 type polaris_bconsole_t, polaris_bconsole_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_bconsole_exec_t, polaris_bconsole_t)
)

```

```
#####
```

```

<summary>
Send messages to ioucon unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```



```

interface(`polaris_ioucon_dgram_send',`
 gen_require(`
 type polaris_ioucon_t;
 ')

 allow $1 polaris_ioucon_t:unix_dgram_socket sendto;
')

#####
<summary>
Execute cat9k-primary-capsule-upgrade.sh , cat9k-capsule-upgrade.sh in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_capsule_upgrade_domtrans',`
 gen_require(`
 type polaris_capsule_upgrade_t, polaris_capsule_upgrade_exec_t;
 ')

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_capsule_upgrade_exec_t, polaris_capsule_upgrade_t)
')

#####
<summary>
Work(open,create,append,getattr) with /capsule-upgrade.log file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_capsule_upgrade_log_use',`
 gen_require(`
 type polaris_disk_bootflash_t;
 type polaris_capsule_upgrade_log_t;
 ')

 allow $1 polaris_capsule_upgrade_log_t:filesystem getattr;

 filetrans_pattern($1, polaris_disk_bootflash_t, polaris_capsule_upgrade_log_t, file, "capsule-upgrade.log")
 manage_files_pattern($1, polaris_capsule_upgrade_log_t, polaris_capsule_upgrade_log_t)
 create_files_pattern($1, polaris_capsule_upgrade_log_t, polaris_capsule_upgrade_log_t)
 getattr_files_pattern($1, polaris_capsule_upgrade_log_t, polaris_capsule_upgrade_log_t)

```

```
append_files_pattern($1, polaris_capsule_upgrade_log_t, polaris_capsule_upgrade_log_t)
allow $1 polaris_capsule_upgrade_log_t:file map;
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbexecute.if

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```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisobfl, 1.0);
```

```
#####
Obfl policy
#####
```

```
type polaris_obfl_data_t;
files_type(polaris_obfl_data_t)
```

```
gen_require(
 type init_t;
 type default_t;
 type tmp_t;
 attribute domain;
)
```

```
filetrans_pattern(domain, default_t, polaris_obfl_data_t, lnk_file, "obfl")
edison uses obfl0 name
filetrans_pattern(domain, default_t, polaris_obfl_data_t, lnk_file, "obfl0")
/tmp/obfl
files_tmp_filetrans(domain, polaris_obfl_data_t, dir, "obfl")
```

```
allow obfl data file reside on persistent storage
polaris_pfile_type(polaris_obfl_data_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisobfl.te

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```

```

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#

policy_module(polarisbtlogger, 1.0);

gen_require(
 type polaris_bt_logger_t;
)

polaris_btrace_data_manage(polaris_bt_logger_t)
polaris_crft_data_manage(polaris_bt_logger_t)
polaris_chasfs_manage(polaris_bt_logger_t)
polaris_tdlresolve_read(polaris_bt_logger_t)
polaris_tdlldb_list_dirs(polaris_bt_logger_t)
polaris_cpld_read(polaris_bt_logger_t)
polaris_flashlib_read(polaris_bt_logger_t)

polaris_ripc_sman_ui_serv_connect(polaris_bt_logger_t)

polaris_db_tdlldb_dir_use(polaris_bt_logger_t)

#####
mqipc manual, one that missing in platform tdl file
#####

mq.-bt_logger_dbm
type polaris_bt_logger_dbm_mqipc_t;
polaris_mqipc_type(polaris_bt_logger_dbm_mqipc_t)

mq.-bt_logger_fman-rp
type polaris_bt_logger_fman_rp_mqipc_t;
polaris_mqipc_type(polaris_bt_logger_fman_rp_mqipc_t)

mq.-bt_logger_iosd
type polaris_bt_logger_iosd_mqipc_t;
polaris_mqipc_type(polaris_bt_logger_iosd_mqipc_t)

mq.-bt_logger_smd
type polaris_bt_logger_smd_mqipc_t;
polaris_mqipc_type(polaris_bt_logger_smd_mqipc_t)

polaris_mqipc_create_name(polaris_bt_logger_t, polaris_bt_logger_dbm_mqipc_t, bt_logger_dbm)
polaris_mqipc_create_name(polaris_bt_logger_t, polaris_bt_logger_fman_rp_mqipc_t, bt_logger_fman-rp)
polaris_mqipc_create_name(polaris_bt_logger_t, polaris_bt_logger_iosd_mqipc_t, bt_logger_iosd)
polaris_mqipc_create_name(polaris_bt_logger_t, polaris_bt_logger_smd_mqipc_t, bt_logger_smd)

allow polaris_bt_logger_t self:capability { dac_override };

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtlogger.te

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```
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#

<summary>Polaris gnmib Policy Rules.</summary>

#####
<summary>
Create rule for ndbutils file ".l.schema_use.gnmib" under /var/lock/ndbutil
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_gnmib_ndbutil_lock`,`
 gen_require(`
 type polaris_confd_ndbutil_lock_t;
 type polaris_gnmib_ndbutil_t;
 `)

 filetrans_pattern($1, polaris_confd_ndbutil_lock_t, polaris_gnmib_ndbutil_t, file, $2)
 manage_files_pattern($1, polaris_confd_ndbutil_lock_t, polaris_gnmib_ndbutil_t)

 allow $1 polaris_gnmib_ndbutil_t:file { watch watch_reads };
)

#####
<summary>
Allow reading gnoi image files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_gnmib_gnoi_images_read`,`
 gen_require(`
 type polaris_gnmib_gnoi_images_t;
 `)

```

```

 ')

 read_files_pattern($1, polaris_gnmib_gnoi_images_t, polaris_gnmib_gnoi_images_t)
 mmap_files_pattern($1, polaris_gnmib_gnoi_images_t, polaris_gnmib_gnoi_images_t)
')

#####
<summary>
Allow manage gnoi image files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_gnmib_gnoi_images_manage`,`
 gen_require(`
 type polaris_gnmib_gnoi_images_t;
 `)

 manage_files_pattern($1, polaris_gnmib_gnoi_images_t, polaris_gnmib_gnoi_images_t)
 mmap_files_pattern($1, polaris_gnmib_gnoi_images_t, polaris_gnmib_gnoi_images_t)
')

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisgnmib.if
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```

```

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#

```

```

policy_module(polaristdldb, 1.0);

```

```

#####
Polaris tdldb (infra/tdllib)
#####
type polaris_tdldb_t;
polaris_tdldb_type(polaris_tdldb_t)

```

```

attribute polaris_tdldb;

```

```

any process creating tdldb in /tmp/rp/tdldb should transition into its domain
gen_require(`

```

```

 attribute domain;
)
files_tmp_filetrans(domain, polaris_tdlldb_t, dir, "tdldb")

DB_DIR database is not described in TDL
type polaris_dir_db_tdlldb_t;
polaris_tdlldb_type(polaris_dir_db_tdlldb_t)

type polaris_tdlldb_persist_t;
polaris_tdlldb_type(polaris_tdlldb_persist_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristdlldb.te
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#

policy_module(polarislfts, 1.0);

#####
Polaris lfts
#####

type polaris_lfts_device_t;
dev_node(polaris_lfts_device_t)

"ip netns add foo" commands mounts "foo" under "/var/run/netns"
gen_require(^
 type ifconfig_t;
 type var_run_t;
)
allow ifconfig_t var_run_t:dir mounton;

"ip netns exec 16 sysctl -w net.core.vrfid=16" commands mounts "16" to "/sys"
gen_require(^
 type ifconfig_t;
 type unlabeled_t;
)
allow ifconfig_t unlabeled_t:dir mounton;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislfts.te

```

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```
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#

/var/tmp/trace/nginx_access.log gen_context(system_u:object_r:httpd_log_t, s0)
/var/tmp/trace/nginx_error.log gen_context(system_u:object_r:httpd_log_t, s0)
/var/tmp/trace/nginx.pid gen_context(system_u:object_r:httpd_log_t, s0)
/var/tmp/trace/nginx.lock.accept gen_context(system_u:object_r:httpd_log_t, s0)
/var/tmp/trace/nginx.lock.cookie_tbl gen_context(system_u:object_r:httpd_log_t, s0)
/var/tmp/trace/nginx.lock.login_count gen_context(system_u:object_r:httpd_log_t, s0)
/tmp/nginx_aaa gen_context(system_u:object_r:polaris_nginx_tmp_t, s0)
/tmp/nginx_master gen_context(system_u:object_r:polaris_nginx_tmp_t, s0)
/tmp/nginx_session gen_context(system_u:object_r:polaris_nginx_tmp_t, s0)

#/tmp base folder for nginx apps to create temporary files.
/tmp/nginx_webui_tmp -d gen_context(system_u:object_r:polaris_nginx_tmp_t, s0)
/tmp/nginx -d gen_context(system_u:object_r:polaris_nginx_tmp_t, s0)

Polaris WebUI Aireos translator files
/usr/binos/conf/aireos_translate_helper.sh
gen_context(system_u:object_r:polaris_nginx_webui_aireos_translator_exec_t, s0)
/var/scripts/python/aireosConfigTranslator(/.*)? --
gen_context(system_u:object_r:polaris_aireos_translator_scripts_t,s0)

/var/scripts/webui_install.sh gen_context(system_u:object_r:polaris_nginx_webui_exec_t, s0)
/usr/binos/conf/webui_upgrade_helper.sh gen_context(system_u:object_r:polaris_nginx_webui_install_exec_t, s0)
/usr/binos/conf/webui_smu_helper.sh gen_context(system_u:object_r:polaris_nginx_webui_install_exec_t, s0)
/usr/binos/conf/ra_trace_webui_helper.sh
gen_context(system_u:object_r:polaris_nginx_webui_trace_filter_exec_t, s0)
/usr/binos/conf/nginx-conf gen_context(system_u:object_r:httpd_config_t, s0)
/usr/binos/conf/nginx-conf/servers gen_context(system_u:object_r:httpd_config_t, s0)

/tmp/fts_client gen_context(system_u:object_r:polaris_fts_client_tmp_t, s0)
/usr/binos/conf/nginx_helper.sh gen_context(system_u:object_r:polaris_nginx_helper_exec_t, s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnginx.fc
```

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```
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```

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#

policy_module(polarismdtpubd, 1.0);

gen_require(`
 type polaris_mdt_pubd_t;
`)

polaris_btrace_data_manage(polaris_mdt_pubd_t)
polaris_chasfs_manage(polaris_mdt_pubd_t)
polaris_tdlresolve_read(polaris_mdt_pubd_t)
polaris_tdlldb_list_dirs(polaris_mdt_pubd_t)
polaris_cpld_read(polaris_mdt_pubd_t)
polaris_lua_read(polaris_mdt_pubd_t)
polaris_flashlib_read(polaris_mdt_pubd_t)

polaris_ripc_sman_ui_serv_connect(polaris_mdt_pubd_t)

polaris_db_tdlldb_dir_use(polaris_mdt_pubd_t)

#For initializing capabilities DB cfg file
polaris_libeiutil_build_config_directory(polaris_mdt_pubd_t)
polaris_cfg_data_manage(polaris_mdt_pubd_t)

optional_policy(`
deals with /dev/shm/confd setup (schema and pid)
polaris_conf_d_shm_setup(polaris_mdt_pubd_t)
and allow read shared schema
polaris_conf_d_shared_schema_read(polaris_mdt_pubd_t)
read /proc/confd_pid/exe file
polaris_conf_d_read(polaris_mdt_pubd_t)
`)

pubd could be configured to connect any port on DNAC
please see cndp_setup_tcp_socket function
polaris_lfts_dev_use(polaris_mdt_pubd_t)
corenet_tcp_connect_all_ports(polaris_mdt_pubd_t)

polaris_ndbload_lock_use(polaris_mdt_pubd_t)

corenet_tcp_connect_polaris_pttcd_port(polaris_mdt_pubd_t)

corenet_tcp_bind_polaris_netconf_interceptor_port(polaris_mdt_pubd_t)
corenet_tcp_bind_all_unreserved_ports(polaris_mdt_pubd_t)

allow polaris_mdt_pubd_t self:capability { dac_override dac_read_search };

```



```

create ndbutil directory under /var/lock
polaris_confnd_ndbutil_create(polaris_mdt_pubd_t)

polaris_ndbutil_lock_template(polaris_mdt_pubd_t, pubd, ".l.schema_use.pubd")

grpc library through sysconf accesses /sys/devices/system/cpu
to get number of CPUs
dev_read_sysfs(polaris_mdt_pubd_t)

handling /tmp/rp/.telemetry and /tmp/rp/telemetry
type polaris_mdt_pubd_tmp_t;
files_tmp_file(polaris_mdt_pubd_tmp_t)
files_tmp_filetrans(polaris_mdt_pubd_t, polaris_mdt_pubd_tmp_t, dir, "telemetry")
files_tmp_filetrans(polaris_mdt_pubd_t, polaris_mdt_pubd_tmp_t, dir, ".telemetry")
gen_require(
 type tmp_t;
)
manage_dirs_pattern(polaris_mdt_pubd_t, { tmp_t polaris_mdt_pubd_tmp_t }, polaris_mdt_pubd_tmp_t)
manage_files_pattern(polaris_mdt_pubd_t, polaris_mdt_pubd_tmp_t, polaris_mdt_pubd_tmp_t)

from evconfd_dynamic_load
polaris_confnd_shared_schema_watch(polaris_mdt_pubd_t)

allow grpc library to shutdown socket
allow polaris_mdt_pubd_t self:tcp_socket create_socket_perms;

allow pubd to access logging facility
logging_send_syslog_msg(polaris_mdt_pubd_t)

enabling access to /etc/netns and /etc/hosts
polaris_namespace_set_netns_with_etc(polaris_mdt_pubd_t)
gen_require(
 type net_conf_t;
)
files_etc_filetrans(polaris_mdt_pubd_t, net_conf_t, file, "hosts")
files_etc_filetrans(polaris_mdt_pubd_t, net_conf_t, file, "resolv.conf")
files_etc_filetrans(polaris_mdt_pubd_t, net_conf_t, dir, "netns")

allow pubd to create, modify, delete system network config files/dir
sysnet_manage_config(polaris_mdt_pubd_t)
sysnet_manage_config_dirs(polaris_mdt_pubd_t)

allow pubd to connect socket
allow polaris_mdt_pubd_t self:udp_socket connect;

allow pubd (object net_conf_t) to watch /etc/netns/1/resolv.conf
allow polaris_mdt_pubd_t net_conf_t:{file dir} watch;

```

```
read access to /dev/random
dev_read_rand(polaris_mdt_pubd_t)
```

```
#DB persistence
polaris_tdlldbpersist_setup(polaris_mdt_pubd_t)
polaris_tmp_tdlldb_persist_setup(polaris_mdt_pubd_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismdtpubd.te
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```

```
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#
```

```
polarisstackmgr file contexts place holder
```

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```

```
dnl
dnl Mar 2020, Manu Roy
dnl
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dnl
dnl Hellcat Platform Max Bay Limits
max_bay_map_set(`rp', `per_bay', 0)
max_bay_map_set(`cc', `per_bay', 0)
max_bay_map_set(`fp', `per_bay', 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/hellcatmaps.m4
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```

```
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#
```

```
policy_module(polarisperiodic, 1.0);
```

```

gen_require(`
 type polaris_periodic_t;
`)

corecmd_exec_bin(polaris_periodic_t)
corecmd_exec_shell(polaris_periodic_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_periodic_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_periodic_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_periodic_t)

read /etc/init.d/common-utility-functions
init_read_script_files(polaris_periodic_t)

fs_getattr_all_fs(polaris_periodic_t)

work with /tmp files
type polaris_periodic_tmp_t;
files_tmp_file(polaris_periodic_tmp_t)
manage_files_pattern(polaris_periodic_t, tmp_t, polaris_periodic_tmp_t)
files_tmp_filetrans(polaris_periodic_t, polaris_periodic_tmp_t, file)

allow polaris_periodic_t self:capability sys_resource;

polaris_btrace_data_manage(polaris_periodic_t)
polaris_chasfs_manage(polaris_periodic_t)
polaris_cpuid_read(polaris_periodic_t)
polaris_proc_rmonbifo_read(polaris_periodic_t)
polaris_rmonbifo_tmp_read(polaris_periodic_t)
polaris_boot_tmp_read(polaris_periodic_t)
polaris_read_debug_conf(polaris_periodic_t)
polaris_persistent_manage(polaris_periodic_t)

reads /tmp/issu_proc
polaris_install_tmp_read(polaris_periodic_t)

optional_policy(`
polaris_ncd_tmp_read(polaris_periodic_t)
`)
"install add file" CLI triggers logger sending syslog messages
logging_send_syslog_msg(polaris_periodic_t)
"install add file" CLI triggers logger executing "pidof linux_iosd-image" which
read "/sys/devices/system/cpu/online"

```

```
dev_read_sysfs(polaris_periodic_t)
#
/usr/bin/conf/cleanup.sh do_cleanup does packages and other umount calls
mount_domtrans(polaris_periodic_t)
polaris_sw_data_manage(polaris_periodic_t)
```

```
determine if the installer is executing
domain_read_all_domains_state(polaris_periodic_t)
```

```
access to /cdrom0/ when *ova image is booted during
first instance of vwlc on ucs server
polaris_removable_read(polaris_periodic_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisperiodic.te
```

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```
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#
```

```
/tmp/pm_post_result -- gen_context(system_u:object_r:polaris_ngwc_plfm_mgr_tmp_t,s0)
/tmp/microcode_update(/.*)? gen_context(system_u:object_r:polaris_ngwc_plfm_mgr_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcplfmmgr.fc
```

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```
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#
```

```
policy_module(polarisfpm, 1.0);
```

```
gen_require(
 type polaris_fpm_t;
)
polaris_chasfs_manage(polaris_fpm_t)
polaris_cpld_read(polaris_fpm_t)
polaris_flashlib_read(polaris_fpm_t)
polaris_tdlresolve_read(polaris_fpm_t)
```

```

polaris_ripc_sman_ui_serv_connect(polaris_fpm_t)

polaris_db_tdlb_dir_use(polaris_fpm_t)

logging_send_syslog_msg(polaris_fpm_t)

vconfd_load_shared_schemas
polaris_confd_shared_schema_read(polaris_fpm_t)

/var/run/.fpm socket and pid
type polaris_fpm_var_run_t;
files_pid_file(polaris_fpm_var_run_t)
manage_files_pattern(polaris_fpm_t, polaris_fpm_var_run_t, polaris_fpm_var_run_t)
manage_sock_files_pattern(polaris_fpm_t, polaris_fpm_var_run_t, polaris_fpm_var_run_t)
files_pid_filetrans(polaris_fpm_t, polaris_fpm_var_run_t, { file sock_file })

polaris_ttm_var_sock_write(polaris_fpm_t)

fp_scaling_init calls posix_sysconf
dev_read_sysfs(polaris_fpm_t)

PLEASE LOOK AT ME: write access to /boot/hugepage.conf
which on ultra translates into /varied/hugepage.conf access
But no code in polaris uses it
polaris_disk_varied_manage(polaris_fpm_t)
files_manage_boot_files(polaris_fpm_t)

polaris_cedge_tmpfs_manage(polaris_fpm_t)

polaris_fm2fpm_mqipc_use(polaris_fpm_t)

manually create mqipc channel: missing in TDL
type polaris_fm2fpm_mqipc_t;
polaris_mqipc_type(polaris_fm2fpm_mqipc_t)
polaris_mqipc_create_name(polaris_fpm_t, polaris_fm2fpm_mqipc_t, fm2fpm_vulcan_mqipc)

fp_scaling_read_core_count accesses cgroups file at
/sys/fs/cgroup/cpuset/iosxe_control_processes/cpuset.cpus
fs_read_cgroup_files(polaris_fpm_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfpm.te

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

divert(-1)

include(`polaris\_process.m4')

include(`polaris\_process\_te.m4')

include(`polaris\_ipc\_mqipc.m4')

include(`polaris\_ipc\_mqipc\_te.m4')

include(`polaris\_ipc\_ripc.m4')

include(`polaris\_ipc\_ripc\_te.m4')

include(`polaris\_ipc\_lipc.m4')

include(`polaris\_ipc\_lipc\_te.m4')

dnl Stub out non existent one

define(`polaris\_websocket\_service\_server',`')

define(`polaris\_cipc\_service\_server',`')

include(`polaris\_max\_scope.m4')

divert(0)dnl

#

# This is a generated file! Instead of modifying this file,

# modify proper platform TDL file.

#

policy\_module(polarisplatformipcauto, 1.0);

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_te.m4

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#

## <summary>Polaris polarisbhytoolsd Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbhytoolsd.if

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#

# March 2017, Victor Kamensky

```
#
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#

/tmp/tdlresolve_tmp(/.*)? gen_context(system_u:object_r:polaris_tdlresolve_t,s0)
/tmp/tdlresolve(/.*)? gen_context(system_u:object_r:polaris_tdlresolve_t,s0)

/usr/binos/conf/global.service.conf -- gen_context(system_u:object_r:polaris_global_service_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristdlresolve.fc
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```

```
#
February 2020, Victor Kamensky
#
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#

<summary>Polaris ttm Policy Rules.</summary>
```

```
#####
```

```
<summary>
Write ttm /var/run socket file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ttm_var_sock_write',`
 gen_require(`
 type polaris_ttm_t;
 type polaris_ttm_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_ttm_var_run_t)
 allow $1 polaris_ttm_t:unix_stream_socket { connectto };
`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristtm.if
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```

```
#
```

```
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#
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#

<summary>Polaris CYAN Policy Rules.</summary>
```

```
#####
```

```
<summary>
Execute dyncfg in the dyncfg domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
```

```
interface(`polaris_dyncfg_domtrans`,`
gen_require(`
type polaris_dyncfg_t, polaris_dyncfg_exec_t;
`)

corecmd_search_bin($1)
domtrans_pattern($1, polaris_dyncfg_exec_t, polaris_dyncfg_t)
`)
```

```
#####
```

```
<summary>
Make the specified domain able to read tmp file created by
cyan_init.sh like /tmp/cyan/mono.cdb
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_dyncfg_tmp_read`,`
gen_require(`
type polaris_dyncfg_tmp_t;
type tmp_t;
`)

read_files_pattern($1, { tmp_t polaris_dyncfg_tmp_t }, polaris_dyncfg_tmp_t)
read_lnk_files_pattern($1, { tmp_t polaris_dyncfg_tmp_t }, polaris_dyncfg_tmp_t)
allow $1 polaris_dyncfg_tmp_t:file map;
```



```

 # need by shell that is called from luajit script
 auth_read_passwd($1)
)

#####
<summary>
Make the specified domain able to manage tmp file created by
cyan_init.sh like /tmp/cyan.lock
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dynconfg_tmp_manage`,`
 gen_require(`
 type polaris_dynconfg_tmp_t;
 type tmp_t;
 `)

 manage_files_pattern($1, { tmp_t polaris_dynconfg_tmp_t }, polaris_dynconfg_tmp_t)
 manage_lnk_files_pattern($1, { tmp_t polaris_dynconfg_tmp_t }, polaris_dynconfg_tmp_t)
 allow $1 polaris_dynconfg_tmp_t:file map;
)

#####
<summary>
Execute /tmp/dynconfg/N intialization within given domain.
##
Effectively one need this if it needs to run dynconfg_db_run_init_script,
dynconfg_db_init functions within domain context.
##
Note it involves lua execution that leads to execmem. Also lua script
may execve shell and some other simple bin processes like mkdir or ln.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dynconfg_setup`,`
 gen_require(`
 type polaris_dynconfg_tmp_t;
 type tmp_t;
 `)
)

```

```

files_tmp_filetrans($1, polaris_dyncfg_tmp_t, dir, "cyan")
manage_dirs_pattern($1, polaris_dyncfg_tmp_t, polaris_dyncfg_tmp_t)
manage_files_pattern($1, { tmp_t polaris_dyncfg_tmp_t }, polaris_dyncfg_tmp_t)
manage_lnk_files_pattern($1, { tmp_t polaris_dyncfg_tmp_t }, polaris_dyncfg_tmp_t)
allow $1 polaris_dyncfg_tmp_t:file map;

dyncfg_setup calls luajit and luajit needs execute JIT generated code
allow $1 self:process execmem;

LOOK AT ME lua initialization code still uses system function call do some
trivial things like mkdir. But because of that we need to grant shell and
bin access to all callers of
corecmd_exec_shell($1)
corecmd_exec_bin($1)

In chassis_attrs.lua method THIS.WIRELESS checks whether wireless package is installed
by opening (why open, not stat) wncmgrd binary.
optional_policy(
 gen_require(
 type polaris_wncmgrd_exec_t;
 type bin_t;
)
 read_files_pattern($1, bin_t, polaris_wncmgrd_exec_t)
)

lua code reads /tmp/sw/boot/rmonbifo/boardtype
polaris_rmonbifo_tmp_read($1)
)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscyan.if
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#
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#
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#

policy_module(polariscppcp, 1.0);

gen_require(
 type polaris_cpp_cp_t;
)

polaris_btrace_data_manage(polaris_cpp_cp_t)
polaris_crft_data_manage(polaris_cpp_cp_t)

```

```

polaris_chasfs_manage(polaris_cpp_cp_t)
polaris_tdlresolve_read(polaris_cpp_cp_t)
polaris_tdlldb_list_dirs(polaris_cpp_cp_t)
polaris_cpld_read(polaris_cpp_cp_t)
polaris_flashlib_read(polaris_cpp_cp_t)

polaris_ripc_sman_ui_serv_connect(polaris_cpp_cp_t)

polaris_db_tdlldb_dir_use(polaris_cpp_cp_t)

polaris_cpp_process(polaris_cpp_cp_t)
polaris_cpp_dev_use(polaris_cpp_cp_t)

polaris_icc_broken_relocations(polaris_cpp_cp_t)

logging_send_syslog_msg(polaris_cpp_cp_t)

polaris_cpp_cavium_sdk_ipc_use(polaris_cpp_cp_t)

LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh58515)
#ifdef(`crankshaft_family',`
polaris_dev_mem_use(polaris_cpp_cp_t)
')

cpp_palci_wallelock_time_ticks function reads /var/lock/subsys/sntp.offset
files_read_all_locks(polaris_cpp_cp_t)

allow objstore access
polaris_disk_objstore_read(polaris_cpp_cp_t)

optional_policy(`
polaris_spa_dev_use(polaris_cpp_cp_t)
')

handle geodb file access
polaris_geodb_files_manage(polaris_cpp_cp_t)

optional_policy(`
polaris_cbdma_dev_use(polaris_cpp_cp_t)

polaris_hkp_dev_use(polaris_cpp_cp_t)
Access /dev/astro
polaris_astro_dev_use(polaris_cpp_cp_t)
polaris_vega_dev_use(polaris_cpp_cp_t)
')
polaris_cpp_tmpfs_manage(polaris_cpp_cp_t)
polaris_cpld_dev_use(polaris_cpp_cp_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppcp.te

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#

# July 2017, Victor Kamensky

#

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#

policy\_module(polariscppstats, 1.0);

gen\_require(`

type polaris\_cpp\_stats\_t;

`)

polaris\_btrace\_data\_manage(polaris\_cpp\_stats\_t)

polaris\_crft\_data\_manage(polaris\_cpp\_stats\_t)

polaris\_chasfs\_manage(polaris\_cpp\_stats\_t)

polaris\_tdlresolve\_read(polaris\_cpp\_stats\_t)

polaris\_tdlldb\_list\_dirs(polaris\_cpp\_stats\_t)

polaris\_cpld\_read(polaris\_cpp\_stats\_t)

polaris\_flashlib\_read(polaris\_cpp\_stats\_t)

polaris\_rpc\_sman\_ui\_serv\_connect(polaris\_cpp\_stats\_t)

polaris\_cpp\_tmp\_files\_use(polaris\_cpp\_stats\_t)

# works with /dev/cpp\_dev\_info, /dev/cpp and /dev/cpp\_kipc

polaris\_cpp\_dev\_use(polaris\_cpp\_stats\_t)

polaris\_cpp\_tmpfs\_ifdev\_rw(polaris\_cpp\_stats\_t)

polaris\_icc\_broken\_relocations(polaris\_cpp\_stats\_t)

# get attributes of /dev/shm from glibc where\_is\_shmfs function

fs\_getattr\_tmpfs(polaris\_cpp\_stats\_t)

optional\_policy(`

polaris\_cbdma\_dev\_use(polaris\_cpp\_stats\_t)

`)

polaris\_cpp\_tmpfs\_manage(polaris\_cpp\_stats\_t)

polaris\_cpld\_dev\_use(polaris\_cpp\_stats\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppstats.te

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```

#
March 2017, Victor Kamensky
#
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#

policy_module(polarism, 1.0);

gen_require(
 type polaris_lm_t;
)

polaris_btrace_data_manage(polaris_lm_t)
polaris_crft_data_manage(polaris_lm_t)
polaris_chasfs_manage(polaris_lm_t)
polaris_tdlresolve_read(polaris_lm_t)
polaris_tdlldb_list_dirs(polaris_lm_t)
polaris_cpld_read(polaris_lm_t)
polaris_flashlib_read(polaris_lm_t)

polaris_ripc_sman_ui_serv_connect(polaris_lm_t)

allow polaris_lm_t self:capability { dac_override };

allow to read /proc/mtd
kernel_read_system_state(polaris_lm_t)

work with /tmp files (/tmp/iosd_level)
type polaris_lm_tmp_t;
files_tmp_file(polaris_lm_tmp_t)
files_tmp_filetrans(polaris_lm_t, polaris_lm_tmp_t, file, "iosd_level")
files_tmp_filetrans(polaris_lm_t, polaris_lm_tmp_t, file, "stack_apcount")
manage_files_pattern(polaris_lm_t, tmp_t, polaris_lm_tmp_t)

polaris_dyncfg_tmp_read(polaris_lm_t)

polaris_disk_license_manage(polaris_lm_t)

polaris_disk_csl_manage(polaris_lm_t)

logging_send_syslog_msg(polaris_lm_t)

polaris_lua_read(polaris_lm_t)
permission to access /tmp/rp/lipc/lmanrtu_stackrtu_socket
polaris_lm_t policy
allow polaris_lm_t self:unix_stream_socket connectto;

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislm.te

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```
#
August 2017, Victor Kamensky
#
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#
```

```
/usr/binos/conf/flash_check.sh -- gen_context(system_u:object_r:polaris_flashcheck_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisflashcheck.fc

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```
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#
```

```
policy_module(polarislipc, 1.0);
```

```
#####
```

```
LIPC policy
```

```
#####
```

```
gen_require(
 type polaris_pvp_t;
 attribute polaris_extended_domain;
)
```

```
type polaris_lipc_t;
files_type(polaris_lipc_t)
```

```
files_tmp_filetrans(polaris_extended_domain, polaris_lipc_t, dir, "lipc")
init_script_tmp_filetrans(polaris_extended_domain, polaris_lipc_t, dir, "lipc")
```

```
in some cases pvp.sh creates lipc tmp directory it needs permissions for that
manage_dirs_pattern(polaris_pvp_t, tmp_t, polaris_lipc_t)
```

```
gen_require(
 attribute polaris_extended_domain;
 type polaris_pvp_tmp_t;
)
```

```
filetrans_pattern(polaris_extended_domain, polaris_pvp_tmp_t, polaris_lipc_t, dir, "lipc")
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislipc.te
```

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```
#
```

```
September 2018, Anubha Balani
```

```
#
```

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```
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```

```
#
```

```
<summary>Polaris Memory Service Policy Rules.</summary>
```

```
#####
```

```
Polaris memory: libmaroon and such
```

```
#####
```

```
#####
```

```
<summary>
```

```
Allow the specified domain to check existence of
/lib/systemd/system/ksm.service file. Effectively checking
whether KSM kernel feature is enabled on device or not.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_ksm_run_check`,`
```

```
 gen_require(`
 type systemd_unit_file_t;
 `)
```

```
 getattr_files_pattern($1, systemd_unit_file_t, systemd_unit_file_t)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Manage temporary maroon files
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```

<rolebase/>
#
interface(`polaris_maroon_data_manage_all',`

gen_require(`
 attribute polaris_maroon_data_domain;
 type polaris_maroon_base_t;
`)

 manage_files_pattern($1, polaris_maroon_base_t, polaris_maroon_data_domain)
 allow $1 polaris_maroon_data_domain:file map;

 # manage temporary files in maroon_stats directory
 manage_files_pattern($1, polaris_maroon_base_t, polaris_maroon_base_t)
)

```

```

#####
<summary>
Make the specified type usable as maroon data file type.
</summary>
<param name="type">
<summary>
Type to be used for files.
</summary>
</param>
#

```

```

interface(`polaris_maroon_data_type',`
 files_type($1)
 gen_require(`
 attribute polaris_maroon_data_domain;
 `)
 typeattribute $1 polaris_maroon_data_domain;
)

```

```

#####
<summary>
Process to manage its own maroon files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="file_type">
<summary>
File type of maroon that corresponds to given domain.
</summary>
</param>

```



```

<rolebase/>
#
interface(`polaris_maroon_data_client',`
gen_require(
 type polaris_maroon_base_t;
)

 manage_files_pattern($1, polaris_maroon_base_t, $2)
 allow $1 $2:file map;
 filetrans_pattern($1, polaris_maroon_base_t, $2, file)
)

#####
<summary>
Process to manage its own maroon files
</summary>
<param name="domain_stem">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_maroon_data_client_template',`
gen_require(
 type polaris_maroon_base_t;
)

 type polaris_$1_maroon_t;
 polaris_maroon_data_type(polaris_$1_maroon_t)

 polaris_maroon_data_client(polaris_$1_t, polaris_$1_maroon_t)
)

#####
<summary>
Getattr of polaris_zram_device_t files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_zram_getattr',`
 gen_require(
 type device_t;

```

```
 type polaris_zram_device_t;
)
getattr_blk_files_pattern($1, device_t, polaris_zram_device_t)
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismemory.if
```

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```
#
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#
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#
```

```
/bootflash/.dbpersist(/.*)? gen_context(system_u:object_r:polaris_disk_dbm_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdbm.fc
```

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```
#
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#
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#
```

```
policy_module(polarisreflector, 1.0);
```

```
polaris_process_domain_template(reflector)
```

```
corecmd_exec_bin(polaris_reflector_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_reflector_t)
```

```
allow read of /etc/passwd
auth_use_nsswitch(polaris_reflector_t)
```

```
run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_reflector_t)
```

```
read /etc/hosts file
sysnet_read_config(polaris_reflector_t)
```

```
work with /tmp files
```

```

type polaris_reflector_tmp_t;
files_tmp_file(polaris_reflector_tmp_t)
manage_dirs_pattern(polaris_reflector_t, tmp_t, polaris_reflector_tmp_t)
manage_files_pattern(polaris_reflector_t, polaris_reflector_tmp_t, polaris_reflector_tmp_t)
manage_fifo_files_pattern(polaris_reflector_t, polaris_reflector_tmp_t, polaris_reflector_tmp_t)
files_tmp_filetrans(polaris_reflector_t, polaris_reflector_tmp_t, { file dir })

reflector can work with droputil tmp files
polaris_droputil_manage_tmp_files(polaris_reflector_t)

#rsync_exec(polaris_reflector_t)
gen_require(`
 type rsync_t;
`)
rsync_entry_domtrans(polaris_reflector_t, rsync_t)
allow rsync_t polaris_reflector_t:process sigchld;
upon exec rsync inherits reflector.sh stdout/stderr which are
polaris_reflector_t fifo_files
allow rsync_t polaris_reflector_t:fifo_file write;

allow polaris_reflector_t self:capability { sys_resource dac_override };
allow polaris_reflector_t self:process setpgid;

polaris_btrace_data_manage(polaris_reflector_t)
polaris_cpld_read(polaris_reflector_t)
polaris_chasfs_manage(polaris_reflector_t)
polaris_boot_tmp_read(polaris_reflector_t)
polaris_read_debug_conf(polaris_reflector_t)
polaris_disk_crashinfo_getattr(polaris_reflector_t)
polaris_rmonbifo_tmp_read(polaris_reflector_t)

watch over /tmp/rp/dropbox
polaris_droputil_tmp_watch(polaris_reflector_t)

Allow /tmp/ufs/bootflash & /tmp/ufs/harddisk read access
optional_policy(`
polaris_ncd_tmp_read(polaris_reflector_t)
`)

'rm -rf /tmp/rp/reflector'
fs_getattr_tmpfs(polaris_reflector_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisreflector.te
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#
March 2017, Victor Kamensky

```

```

#
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#

policy_module(polarispman, 1.0);

polaris_process_domain_template(pman)

#reassess all permissions granted here for new pman
- do we clone this domain to pman, or replace it?

gen_require(
 type polaris_psvp_t;
 type polaris_pvp_t;
)

corecmd_exec_bin(polaris_pman_t)
corecmd_exec_shell(polaris_pman_t)
can execute process in polaris domain
polaris_exec(polaris_pman_t)

LOOK AT ME start-stop-daemon from busy box iterates all
/proc/<pid> directories and reads /proc/<pid>/cmdline
/proc/<pid>/exe. I.e it need quite a bit of priviledges
domain_read_all_domains_state(polaris_pman_t)

pman wants to write to /proc/<pid>/oom_adj of each process
it started. Now oom_adj is under label of process that owns
it, so for now let pman to be able to write into any file
in polaris_domain. Latter try to clean it up by transitioning
oom_adj into separate domain?
gen_require(
 attribute polaris_domain;
)
manage_files_pattern(polaris_pman_t, polaris_domain, polaris_domain)

allow to read /proc/meminfo
kernel_read_system_state(polaris_pman_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_pman_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_pman_t)

read /proc/sys/vm/nr_hugepages
kernel_read_vm_sysctls(polaris_pman_t)

```

```

read/write cgroups files
fs_rw_cgroup_files(polaris_pman_t)

dmidecode_domtrans(polaris_pman_t)

allow polaris_pman_t self:capability { sys_nice sys_resource dac_override sys_rawio sys_admin };

polaris_btrace_data_manage(polaris_pman_t)
polaris_chasfs_manage(polaris_pman_t)
polaris_cpld_read(polaris_pman_t)
ifdef(^ngwc_family',`
polaris_cpld_write(polaris_pman_t)
`)
polaris_proc_rmonbifo_read(polaris_pman_t)
polaris_rmonbifo_tmp_read(polaris_pman_t)
polaris_boot_tmp_read(polaris_pman_t)
polaris_read_debug_conf(polaris_pman_t)
polaris_disk_crashinfo_getattr(polaris_pman_t)

work with /tmp files
type polaris_pman_tmp_t;
files_tmp_file(polaris_pman_tmp_t)
manage_dirs_pattern(polaris_pman_t, tmp_t, polaris_pman_tmp_t)
manage_files_pattern(polaris_pman_t, polaris_pman_tmp_t, polaris_pman_tmp_t)
manage_fifo_files_pattern(polaris_pman_t, polaris_pman_tmp_t, polaris_pman_tmp_t)
files_tmp_filetrans(polaris_pman_t, polaris_pman_tmp_t, { file dir })
filetrans_pattern(domain, tmp_t, polaris_pman_tmp_t, dir, "process")
filetrans_pattern(domain, tmp_t, polaris_pman_tmp_t, dir, "pman_ports")

pcohort reads files in /tmp/rp/process directory
gen_require(`
 attribute polaris_extended_domain;
`)
read_files_pattern(polaris_extended_domain, polaris_pman_tmp_t, polaris_pman_tmp_t)
list_dirs_pattern(polaris_extended_domain, polaris_pman_tmp_t, polaris_pman_tmp_t)

bash needs setpgid in its make_child function
allow polaris_pman_t self:process { setpgid };

pmanlite uses getsid
allow polaris_pman_t self:process { getsession };

pman call renice utility to change process nice level
allow polaris_pman_t self:process { setsched };

pman needs to work with pvp tmp files
polaris_pvp_manage_tmp_files(polaris_pman_t)

```

```

on ultra pman waits for /tmp/cpp_ifdev_rep pipes appearance before
proceeding further before it starts iosd
optional_policy(
polaris_cpp_tmp_ifdev_getattr(polaris_pman_t)

/tmp/vxe_ucose_image created by some systemd units and accessed
by pman, lets transition it into polaris_pman_tmp_t domain
gen_require(
 type initrc_t;
 type init_t;
)
files_tmp_filetrans({ initrc_t init_t }, polaris_pman_tmp_t, file, "vxe_ucose_image")
files_tmp_filetrans({ initrc_t init_t }, polaris_pman_tmp_t, file, "wlc_ucose_image")
files_tmp_filetrans({ initrc_t init_t }, polaris_pman_tmp_t, file, "utah_ucose_image")
files_tmp_filetrans({ initrc_t init_t }, polaris_pman_tmp_t, file, "fugazi_ucose_image")
)
pman needs to manage cgroups membership of dofferent processes
See move_to_cgroup pman function. It needs setsched permission
domain_setpriority_all_domains(polaris_pman_t)

pman.sh can call logger command
logging_send_syslog_msg(polaris_pman_t)

pman can receive signals from any polaris domain process
polaris_receive_signal_from_domain(polaris_pman_t)

pman.sh calls pidof command (similar to ps)
pidof needs access to /sys/devices/system/cpu/online
dev_read_sysfs(polaris_pman_t)
pidof commands wants sys_ptrace
allow polaris_pman_t self:capability sys_ptrace;

pman can send signal to anything
domain_signal_all_domains(polaris_pman_t)

pmanlite can getpgid to its child group processes
domain_getpgid_all_domains(polaris_pman_t)

pmanlite uses killpg(<child pid>,SIGNULL) to test its child processes
domain_signull_all_domains(polaris_pman_t)

term_use_unallocated_ttys(polaris_pman_t)

optional_policy(
polaris_repm_tmp_manage(polaris_pman_t)
)

```

```

optional_policy(`
pman on nyquist ls /tmp/ufs/crashinfo
polaris_ncd_tmp_read(polaris_pman_t)
`)

runs find over /proc
kernel_getattr_proc(polaris_pman_t)

PLEASE LOOK AT ME: pman removes /tmp/subpkg directory after CSCvm14562 commit
back out and change properly after CSCvm51181 is fixed
polaris_install_tmp_manage(polaris_pman_t)

rm from coreutils-8.30 wants to know filesystem type
fs_getattr_tmpfs(polaris_pman_t)
fs_getattr_xattr_fs(polaris_pman_t)

domain for gdbserver started by pman

polaris_utility_domain_template(gdb)

domtrans_pattern(polaris_pman_t, polaris_gdb_exec_t, polaris_gdb_t)

pman starts gdbserver with stdout pointing to btrace fifo
polaris_use_btrace_fifo(polaris_gdb_t)

gdbserver reads /proc/$pid/exe of a process it gets attached to.
Allow to read state of all processes for now.
domain_read_all_domains_state(polaris_gdb_t)

allow gdbserver to bind to all unreserved ports for now
corenet_tcp_bind_unreserved_ports(polaris_gdb_t)
corenet_tcp_bind_generic_node(polaris_gdb_t)

allow polaris_gdb_t self:process { ptrace setpgid };
allow polaris_gdb_t self:tcp_socket { accept bind create getattr listen setopt };

pman update iosxe_control_processes/iosxe_mgmt_processes/tasks
fs_manage_cgroup_dirs(polaris_pman_t)
fs_manage_cgroup_files(polaris_pman_t)

optional_policy(`
container_runtime_domtrans(polaris_pman_t)
`)

pman calls show_version for dockerd executable
optional_policy(`
polaris_container_runtime_show_version(polaris_pman_t)
`)

```

```

needs to access nsfs file during killall invocation
fs_read_nsfs_files(polaris_pman_t)

#runs over /proc/<pid>/net/arp
kernel_read_network_state(polaris_pman_t)

#runs over /proc/<pid>/net/stat
kernel_read_network_state_symlinks(polaris_pman_t)

#runs over /proc/<pid>/net/rpc
kernel_read_rpc_sysctls(polaris_pman_t)

LOOK AT ME: why pman doing it
from mgmt/confd/confd/src/confd_startup_sh_post_exit.sh archive_errlog function
polaris_btrace_persistent_data_manage(polaris_pman_t)
polaris_confd_log_manage(polaris_pman_t)
allow polaris_pman_t self:process setfscreate;

access /bootflash/.installer/install_issu_state
polaris_disk_install_read(polaris_pman_t)

/usr/binos/conf/umbrella_init.sh that runs under pman
copies into /bootflash/ios_core.p7b
polaris_bootflash_manage(polaris_pman_t)

optional_policy(`
we may write bits to the exiting_bays file in /proc
polaris_rw_exiting_bays(polaris_pman_t)
`)

ifdef(`ngwc_family',`
linux_iods_image_post_exit.sh restores the slot-based address
for the management ethernet should be restored on dual RP system.
polaris_chvrf_domtrans(polaris_pman_t)
sysnet_domtrans_ifconfig(polaris_pman_t)

For use of flashutil preparing for reload
polaris_flashlib_read(polaris_pman_t)
polaris_flashlib_write(polaris_pman_t)
`)

File description leaks for TDL db lock files as processes are managed by
pman.
TODO Eventually these fd leaks should be fixed in the calling processes
#
Note that TDL db lock file interfaces are typically generated by TDL and
are not found in our local .if files

```



```

polaris_tdlresolve_read(polaris_pman_t)
polaris_db_tdlldb_ios_oper_use(polaris_pman_t)

ifdef(`nyquist_platform',`
polaris_db_tdlldb_ewlc_operational_use(polaris_pman_t)
polaris_db_tdlldb_rogued_use(polaris_pman_t)
polaris_db_tdlldb_ewlc_config_use(polaris_pman_t)
polaris_db_tdlldb_wstatsd_use(polaris_pman_t)
polaris_db_tdlldb_client_global_use(polaris_pman_t)
')

delete /tmp/booted from linux_iosd_image_post_exit.sh when iosd goes down.
For example: preparing for reload.
gen_require(`
 type polaris_iosd_tmp_files_t;
')
allow polaris_pman_t polaris_iosd_tmp_files_t:file { delete_file_perms open };

Upon exit of a process, pman needs to remove sai directory and files
associated with the process
polaris_pvp_delete_sai_files(polaris_pman_t)
#rsync port want to establish Tcp connection
#runs over /usr/bin/rsync
corenet_tcp_connect_rsync_port(polaris_pman_t)
rsync_entry_type(polaris_pman_t)

ifdef(`crankshaft_family',`
Provide process signal perms to pman.
polaris_caf_proc_signal_perms(polaris_pman_t)
')

open connections from processes managed by pman can leak. The selinux
errors associated with these typically come from a forked and renamed
elastic process like wncd_0. During process forking/startup, node
binds may cause denials as they are brought up by pman
ifdef(`ngwc_family',`
corenet_tcp_bind_generic_node(polaris_pman_t)
corenet_udp_bind_generic_node(polaris_pman_t)
corenet_tcp_connect_lisp_cons_control_port(polaris_pman_t)
')

pman can stop itself on reload
allow polaris_pman_t self:capability kill;

For pmanlite, allow pman's grand-children rsync to be able to operate on pipe created by pman.
gen_require(`
 type rsync_t;
')

```

```
polaris_use_pman_fifo(rsync_t)
```

```
ifdef(`sumatra_platform',`
Allow pman to execute cman_fp in the polaris_cm_fp_t domain
polaris_cm_fp_domtrans(polaris_pman_t)
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispman.te
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```

dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

dnl Nyquist Platform Max Bay Limits

```
max_bay_map_set(`rp', `per_bay', 0)
```

```
max_bay_map_set(`cc', `per_bay', 0)
```

```
max_bay_map_set(`fp', `per_bay', 0)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(`rp', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`fp', `elasitic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`rp', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`fp', `elastic', BPROC_WNCD, 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/nyquistmaps.m4
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```

#

# Aug 2020, Sridhar

#

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#

```
<summary>Polaris xcopy Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Execute xcopy related scripts in its own domain.
```

```
</summary>
```

```

<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_xcopy_script_domtrans`,`
 gen_require(`
 type polaris_xcopy_script_t, polaris_xcopy_script_exec_t;
 `)

 domtrans_pattern($1, polaris_xcopy_script_exec_t, polaris_xcopy_script_t)
`)
#
#####
<summary>
xcopy progress temp file access
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_xcopy_tmp_manage`,`
 gen_require(`
 type polaris_xcopy_tmp_t;
 `)

 manage_dirs_pattern($1,polaris_xcopy_tmp_t, polaris_xcopy_tmp_t)
 manage_files_pattern($1,polaris_xcopy_tmp_t, polaris_xcopy_tmp_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisxcopy.if

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```

#
April 2017, Victor Kamensky
#
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#
<summary>Polaris dmi_ncsshd_mgmt Policy Rules.</summary>

```

#####

```

<summary>

```

```

Read polaris_ncsshd_keys_t files, effectively access
/tmp/.ncsshd_authorized_keys created by psd and read by ncssh
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ncsshd_authorized_keys_read',`
 gen_require(`
 type polaris_ncsshd_keys_t;
 ')
 read_files_pattern($1, polaris_ncsshd_keys_t, polaris_ncsshd_keys_t)
 list_dirs_pattern($1, polaris_ncsshd_keys_t, polaris_ncsshd_keys_t)
')

#####
<summary>
Watch /var/run/netns and list contents
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_watch_netns',`
 gen_require(`
 type ifconfig_var_run_t;
 ')
 list_dirs_pattern($1, ifconfig_var_run_t, ifconfig_var_run_t)
 allow $1 ifconfig_var_run_t:dir watch;
')

#####
<summary>
Manage polaris_pttcd_tmp_t files, effectively files
under /tmp/tmpub/interceptor
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_interceptor_manage',`
 gen_require(`

```

```

 type polaris_pttcd_tmp_t;
 ')
 manage_files_pattern($1, polaris_pttcd_tmp_t, polaris_pttcd_tmp_t)
 manage_dirs_pattern($1, polaris_pttcd_tmp_t, polaris_pttcd_tmp_t)
 allow $1 polaris_pttcd_tmp_t:{ dir file } watch;
)

#####
<summary>
Execute a domain transition to run ncsshd polaris process.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_ncsshd_mgmt_domtrans`,`
 gen_require(`
 type polaris_dmi_ncsshd_mgmt_t, polaris_dmi_ncsshd_mgmt_exec_t;
 `)

 domtrans_pattern($1, polaris_dmi_ncsshd_mgmt_exec_t, polaris_dmi_ncsshd_mgmt_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmincsshdmgmt.if  
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```

#
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#

<summary>Polaris cm_rp Policy Rules.</summary>

#####
<summary>
Execute cmand_fp in the polaris_cm_fp_t domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#

```

```

interface(`polaris_cm_rp_domtrans`,`
gen_require(`
type polaris_cm_rp_t, polaris_cm_rp_exec_t;
`)

corecmd_search_bin($1)
domtrans_pattern($1, polaris_cm_rp_exec_t, polaris_cm_rp_t)
`)

#####
<summary>
Write into fifo file created by cmrp, typical case when
cmrp starts script under popen.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_cmrp_use_fifo`,`
gen_require(`
type polaris_cm_rp_t;
`)

write_fifo_files_pattern($1, polaris_cm_rp_t, polaris_cm_rp_t)
`)

#####
<summary>
Write/read /tmp/pfu_overtime.lock file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_rp_tmp_manage`,`
gen_require(`
type polaris_cm_rp_tmp_t;
type tmp_t;
`)
manage_dirs_pattern($1, { tmp_t polaris_cm_rp_tmp_t }, polaris_cm_rp_tmp_t)
manage_files_pattern($1, { tmp_t polaris_cm_rp_tmp_t }, polaris_cm_rp_tmp_t)
`)

```

```
#####
<summary>
Setup policies to access dir and file
/vol/harddisk/.inv/inv_log_file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_rp_inv_log_setup`,`
 gen_require(`
 type polaris_cm_rp_inv_log_file_t;
 type polaris_disk_harddisk_t;
 type polaris_disk_bootflash_t;
 `)
 filetrans_pattern($1, {polaris_disk_harddisk_t polaris_disk_bootflash_t}, polaris_cm_rp_inv_log_file_t, dir,
".inv")
 # allow access to /vol/harddisk/.inv
 manage_dirs_pattern($1, {polaris_disk_harddisk_t polaris_disk_bootflash_t}, polaris_cm_rp_inv_log_file_t)
 # allow access to /vol/harddisk/.inv/inv_log_file
 manage_files_pattern($1,{polaris_cm_rp_inv_log_file_t}, polaris_cm_rp_inv_log_file_t)
)`)

```

```
#####
<summary>
Write into /tmp/codesign.txt file created by cm_rp
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_cm_rp_tmp_write`,`
 gen_require(`
 type polaris_cm_rp_tmp_t;
 `)
 write_files_pattern($1, { tmp_t polaris_cm_rp_tmp_t }, polaris_cm_rp_tmp_t)
)`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscmrp.if  
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```
#
February 2020, Victor Kamensky
```

```

#
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#

policy_module(polarisvdaemon, 1.0);

gen_require(
 type polaris_vdaemon_t;
)
polaris_chasfs_manage(polaris_vdaemon_t)
read and write /bootflash/sdwan/etc/vdaemon_gen_id
polaris_bootflash_manage(polaris_vdaemon_t)
polaris_tdlresolve_read(polaris_vdaemon_t)
polaris_cpld_read(polaris_vdaemon_t)
polaris_flashlib_read(polaris_vdaemon_t)

polaris_ripc_sman_ui_serv_connect(polaris_vdaemon_t)

polaris_db_tdlldb_dir_use(polaris_vdaemon_t)

logging_send_syslog_msg(polaris_vdaemon_t)

vconfd_load_shared_schemas
polaris_conf_d_shared_schema_read(polaris_vdaemon_t)

manage /etc/viptela
polaris_cedge_etc_manage(polaris_vdaemon_t)

polaris_cedge_reset_ns(polaris_vdaemon_t)

calls ifconfig for tun_0_0 interface
sysnet_domtrans_ifconfig(polaris_vdaemon_t)

calls dmidecode get system serial number
dmidecode_domtrans(polaris_vdaemon_t)

/var/run/.vdaemon socket and pid
type polaris_vdaemon_var_run_t;
files_pid_file(polaris_vdaemon_var_run_t)
manage_files_pattern(polaris_vdaemon_t, polaris_vdaemon_var_run_t, polaris_vdaemon_var_run_t)
manage_sock_files_pattern(polaris_vdaemon_t, polaris_vdaemon_var_run_t, polaris_vdaemon_var_run_t)
files_pid_filetrans(polaris_vdaemon_t, polaris_vdaemon_var_run_t, { file sock_file })

polaris_ttm_var_sock_write(polaris_vdaemon_t)

generate_instance_uuid reads /sys/devices/virtual/dmi/id/product_uuid
dev_read_sysfs(polaris_vdaemon_t)

```



```

vip_util_set_fd_limits calls setrlimit
allow polaris_vdaemon_t self:process { setrlimit setpgid };

allow polaris_vdaemon_t self:capability { dac_override fowner sys_resource };

vdaemon_init_tunn_intf initialize tun_0_0 in vrf 1
allow polaris_vdaemon_t self:tun_socket create;
corenet_rw_tun_tap_dev(polaris_vdaemon_t)

polaris_persistent_watch(polaris_vdaemon_t)
from vdaemon_misc.c vdaemon_init_inotify function
polaris_cedge_etc_watch(polaris_vdaemon_t)

set_netns_with_etc mounts on / and /sys
set_netns_with_etc opens /etc/netns/1 dir
polaris_namespace_set_netns_with_etc(polaris_vdaemon_t)
DNS thread complains about tmp_t mounton
on /sys when switching namespace
gen_require(
 type tmp_t;
)
allow polaris_vdaemon_t tmp_t:dir mounton;

vip_util_set_ns opens /var/run/netns/*
polaris_cedge_set_ns(polaris_vdaemon_t)
vip_dns_process_request switches namespace from linux n/w namespace to
original mount namespace
allow polaris_vdaemon_t self:capability { net_admin sys_chroot };
allow polaris_vdaemon_t self:udp_socket { bind connect create getattr getopt setopt shutdown };

control linux routes vip_route_delete and vdaemon_setup_system_ip_route
allow polaris_vdaemon_t self:netlink_route_socket { bind create getattr nlmsg_read nlmsg_write };

binds to vbond udp ports
corenet_udp_bind_generic_node(polaris_vdaemon_t)
corenet_udp_bind_polaris_vbond_port(polaris_vdaemon_t)

though default ports exist, users can configure the tcp ports in vManage and vSmart
corenet_tcp_connect_all_ports(polaris_vdaemon_t)

vbond_proc_hello executes VIP_CDB_BACKUP_SCRIPT
polaris_confdomtrans(polaris_vdaemon_t)
VIP_CDB_BACKUP_SCRIPT makes use of /etc/confd/confd_ipc_secret
auth_map_passwd(polaris_vdaemon_t)

vdaemon_write_authorized_keys_to_ncsshd opens VDAEMON_NCSSHD_AUTH_KEY_FILE file
polaris_ncsshd_keys_manage(polaris_vdaemon_t)

```

```
vbond_encode_version opens /etc/version
polaris_confd_etc_read(polaris_vdaemon_t)

generate_or_parse_uuid() invokes uuid_generate that needs read on
random-number generator devices (e.g., /dev/random).
dev_read_rand(polaris_vdaemon_t)

vdaemon_exec_iptables() is invoked by vdaemon all over the place
iptables_domtrans(polaris_vdaemon_t)

allow polaris_vdaemon_t self:capability net_raw;
allow polaris_vdaemon_t self:rawip_socket create_socket_perms;
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisvdaemon.te

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```
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#

<summary>Polaris fman_rp Policy Rules.</summary>
```

```
#####
<summary>
Manage mqipc fmrp2fpm shared memory file in /dev/shm directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fmrp2fpm_mqipc_use`,`
gen_require(`
type polaris_fmrp2fpm_mqipc_t;
`)
polaris_mqipc_use($1, polaris_fmrp2fpm_mqipc_t)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfmanrp.if

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dnl

```

dnl May 2019
dnl
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dnl
dnl confined and permissive domain maps
divert(-1)
define(`permissive_domain', `defn(format(`permissive_domain[%s]", ` $1'))')
define(`permissive_domain_set', `define(format(`permissive_domain[%s]", ` $1'), ` $2'))

define(`confined_domain', `defn(format(`confined_domain[%s]", ` $1'))')
define(`confined_domain_set', `define(format(`confined_domain[%s]", ` $1'), ` $2'))

dnl
dnl list of all subjects that should be in confined mode
dnl
confined_domain_set(`polaris_iosd_t', `polaris_iosd_t')

dnl
dnl list of all subjects that should be placed in permissive mode
dnl
permissive_domain_set(`polaris_nginx_t', `polaris_nginx_t')
permissive_domain_set(`polaris_nginx_webui_t', `polaris_nginx_webui_t')
permissive_domain_set(`polaris_nginx_webui_install_t', `polaris_nginx_webui_install_t')
divert(0)dnl

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/domainmaps.m4
No license file was found, but licenses were detected in source scan.

```

```

#
March 2017, Victor Kamensky
#
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#

```

```

/tmp/dbgmn_log_svr gen_context(system_u:object_r:polaris_fed_sock_t,s0)

```

```

/tmp/fed_post_result -- gen_context(system_u:object_r:polaris_fed_tmp_t,s0)

```

```

/flash/shfwd_params.txt gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcfed.fc

```

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```
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#

policy_module(polarisrollbacktimer, 1.0);

polaris_process_domain_template(rbtimer)

corecmd_exec_bin(polaris_rbtimer_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_rbtimer_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_rbtimer_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_rbtimer_t)

work with /tmp files
type polaris_rbtimer_tmp_t;
files_tmp_file(polaris_rbtimer_tmp_t)
manage_dirs_pattern(polaris_rbtimer_t, tmp_t, polaris_rbtimer_tmp_t)
manage_files_pattern(polaris_rbtimer_t, polaris_rbtimer_tmp_t, polaris_rbtimer_tmp_t)
manage_fifo_files_pattern(polaris_rbtimer_t, polaris_rbtimer_tmp_t, polaris_rbtimer_tmp_t)
files_tmp_filetrans(polaris_rbtimer_t, polaris_rbtimer_tmp_t, { file dir })

work with /bootflash/.rollback_timer (RBT_CONTROL_DIR) file
type polaris_rbtimer_bootflash_t;
polaris_disk_type(polaris_rbtimer_bootflash_t)
polaris_rbtimer_bootflash_manage(polaris_rbtimer_t)

allow polaris_rbtimer_t self:capability sys_resource;
allow polaris_rbtimer_t self:capability dac_override;
allow polaris_rbtimer_t self:process setpgid;

polaris_btrace_data_manage(polaris_rbtimer_t)
polaris_chasfs_manage(polaris_rbtimer_t)
polaris_cpld_read(polaris_rbtimer_t)
polaris_boot_tmp_read(polaris_rbtimer_t)
polaris_read_debug_conf(polaris_rbtimer_t)
polaris_proc_rmonbifo_read(polaris_rbtimer_t)
polaris_rmonbifo_tmp_read(polaris_rbtimer_t)
```

```
polaris_disk_crashinfo_getattr(polaris_rbtimer_t)
polaris_disk_harddisk_read_lnk(polaris_rbtimer_t)
polaris_bootflash_manage(polaris_rbtimer_t)

logging_send_syslog_msg(polaris_rbtimer_t)

uses pidof
domain_read_all_domains_state(polaris_rbtimer_t)
dev_read_sysfs(polaris_rbtimer_t)

#rollbacktimer runs install_engine.sh
polaris_install_engine_domtrans(polaris_rbtimer_t)

polaris_script_errmsg_use(polaris_rbtimer_t)

watch over /bootflash/.rollback_timer
allow polaris_rbtimer_t polaris_rbtimer_bootflash_t:dir watch;
watch over /tmp/rp/rollback_timer
allow polaris_rbtimer_t polaris_rbtimer_tmp_t:dir watch;

access to /tmp/ufs//crashinfo
optional_policy(`
polaris_ncd_tmp_read(polaris_rbtimer_t)
`)
access to read packages.conf
polaris_read_packages_conf(polaris_rbtimer_t)

access to /cdrom0/ when *ova image is booted during
first instance of vwlc on ucs server
polaris_removable_read(polaris_rbtimer_t)

access to "/bootflash/.installer/install_abort_timer_val"
polaris_disk_install_read(polaris_rbtimer_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrollbacktimer.te
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#

policy_module(polarisbhytoolsd, 1.0);

polaris_process_domain_template(bhytoolsd)
```

```

polaris_btrace_data_manage(polaris_bhytoolsd_t)
polaris_chasfs_manage(polaris_bhytoolsd_t)
polaris_cpld_read(polaris_bhytoolsd_t)

vmttoolsd transtions from polaris_bhytoolsd_t to vmttools_t -
bhytoolsd is small wrapper that calls vmttoolsd
vmttools_domtrans(polaris_bhytoolsd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbhytoolsd.te
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#
August 2017, Shawn Lu
#
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#

policy_module(polarismobilityd, 1.0);

gen_require(
 type polaris_mobilityd_t;
)

polaris_btrace_data_manage(polaris_mobilityd_t)
polaris_crft_data_manage(polaris_mobilityd_t)
polaris_chasfs_manage(polaris_mobilityd_t)
polaris_tdlresolve_read(polaris_mobilityd_t)
polaris_tdlldb_list_dirs(polaris_mobilityd_t)
polaris_cpld_read(polaris_mobilityd_t)
polaris_lua_read(polaris_mobilityd_t)
polaris_flashlib_read(polaris_mobilityd_t)

polaris_ripc_sman_ui_serv_connect(polaris_mobilityd_t)

polaris_db_tdlldb_dir_use(polaris_mobilityd_t)

allow to use setrlimit
allow polaris_mobilityd_t self:capability sys_resource;
allow polaris_mobilityd_t self:process setrlimit;
allow polaris_mobilityd_t self:capability dac_override;
allow polaris_mobilityd_t self:udp_socket { create_socket_perms recv_msg send_msg };

logging_send_syslog_msg(polaris_mobilityd_t)

polaris_lfts_dev_use(polaris_mobilityd_t)

```

polaris\_cpld\_read(polaris\_mobilityd\_t)

polaris\_odm\_clnt2svr\_mqipc\_create(polaris\_mobilityd\_t)

polaris\_tmp\_tdldb\_persist\_setup(polaris\_mobilityd\_t)

polaris\_tdldbpersist\_setup(polaris\_mobilityd\_t)

corenet\_udp\_bind\_generic\_node(polaris\_mobilityd\_t)

corenet\_udp\_bind\_polaris\_mobility\_ctl\_port(polaris\_mobilityd\_t)

corenet\_udp\_bind\_polaris\_mobility\_data\_port(polaris\_mobilityd\_t)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismobilityd.te

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#

# June 2017, Victor Kamensky

#

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#

/usr/binos/conf/wui-lighttpd-launch.sh -- gen\_context(system\_u:object\_r:polaris\_webui\_lighttpd\_exec\_t,s0)

/usr/binos/conf/wui-app-launch.sh -- gen\_context(system\_u:object\_r:polaris\_webui\_exec\_t,s0)

/usr/binos/conf/wui-tipc-launch.sh -- gen\_context(system\_u:object\_r:polaris\_webui\_exec\_t,s0)

/webui(/.\*)? gen\_context(system\_u:object\_r:polaris\_webui\_file\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswebui.fc

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#

# April 2017, Victor Kamensky

#

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#

/tmp/\.DmiAuth\.socket -s gen\_context(system\_u:object\_r:polaris\_dmi\_dmiauthd\_tmp\_t,s0)

/tmp/netconf-yang-diag(/.\*)? gen\_context(system\_u:object\_r:polaris\_dmi\_dmiauthd\_tmp\_diags\_t,s0)

/usr/binos/conf/dmid\_diag\_logs.sh -- gen\_context(system\_u:object\_r:polaris\_dmid\_diag\_logs\_exec\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmidmidthd.fc

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#

# polarisrmmgr file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrmmgr.fc

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#

## <summary>Polaris pttcd Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispttcd.if

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#

# March 2017, Victor Kamensky

#

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#

/usr/binos/conf/oom.sh -- gen\_context(system\_u:object\_r:polaris\_oom\_exec\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisoom.fc

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#

# July 2020, Swati Kumari

#

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#



```

policy_module(polarisptpdrp, 1.0);

gen_require(
 type polaris_ptpd_rp_t;
)
polaris_chasfs_read(polaris_ptpd_rp_t)
polaris_cpld_read(polaris_ptpd_rp_t)
polaris_tdlresolve_read(polaris_ptpd_rp_t)
polaris_lsmpi_dev_use(polaris_ptpd_rp_t)

ptpd needs to have open,read,write access with /dev/ds31408
polaris_ds31408_dev_use(polaris_ptpd_rp_t)

blzi device
polaris_blzi_dev_use(polaris_ptpd_rp_t)

allow polaris_ptpd_rp_t self:capability sys_nice;
allow polaris_ptpd_rp_t self:process setsched;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisptpdrp.te
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#

/tmp/lsn.log -- gen_context(system_u:object_r:polaris_epc_ws_liaison_tmp_t,s0)

/tmp/epc_ws(/.*)? gen_context(system_u:object_r:polaris_epc_ws_liaison_tmp_t,s0)

CLI: show platform software wireshark
/usr/binos/conf/wireshark_show.sh -- gen_context(system_u:object_r:polaris_wireshark_show_exec_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisepcwsliaison.fc
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#

```

```

policy_module(polarisgsdrp, 1.0);

gen_require(
 type polaris_gsd_rp_t;
)

#allow to run readlink /dev/loop0 & /bin/date
corecmd_exec_bin(polaris_gsd_rp_t)

#run ldd, which in turn exec "ld.so --verify"
libs_exec_ld_so(polaris_gsd_rp_t)

allow to run mount in its own domain
mount_domtrans(polaris_gsd_rp_t)
awk -v what=^.BuildPath: $pkginfo_file ~ what { print $2 } /tmp/sw/boot/pkginfo
polaris_boot_tmp_read(polaris_gsd_rp_t)
polaris_btrace_data_manage(polaris_gsd_rp_t)
polaris_chasfs_manage(polaris_gsd_rp_t)
polaris_read_debug_conf(polaris_gsd_rp_t)
polaris_disk_crashinfo_getattr(polaris_gsd_rp_t)
polaris_guestshell_exec_files_exec(polaris_gsd_rp_t)
polaris_guestshell_files_read(polaris_gsd_rp_t)
polaris_ncd_tmp_read(polaris_gsd_rp_t)
polaris_proc_rmonbifo_read(polaris_gsd_rp_t)
polaris_cpld_read(polaris_gsd_rp_t)
polaris_bootflash_read(polaris_gsd_rp_t)
polaris_harddisk_read(polaris_gsd_rp_t)

read /proc/cmdline
kernel_read_system_state(polaris_gsd_rp_t)

auth_use_nsswitch(polaris_gsd_rp_t)
polaris_rmonbifo_tmp_read(polaris_gsd_rp_t)

allow polaris_gsd_rp_t self:capability { dac_override sys_resource };
allow polaris_gsd_rp_t self:process setpgid;

type polaris_gsd_rp_tmp_t;
files_tmp_file(polaris_gsd_rp_tmp_t)
manage_dirs_pattern(polaris_gsd_rp_t, tmp_t, polaris_gsd_rp_tmp_t)
manage_files_pattern(polaris_gsd_rp_t, tmp_t, polaris_gsd_rp_tmp_t)
manage_fifo_files_pattern(polaris_gsd_rp_t, polaris_gsd_rp_tmp_t, polaris_gsd_rp_tmp_t)
work with /tmp/guestshell_stk directory
files_tmp_filetrans(polaris_gsd_rp_t, polaris_gsd_rp_tmp_t, dir, "guestshell_stk")

gen_require(
 type rsync_t;

```

```

')
rsync_entry_domtrans(polaris_gsd_rp_t, rsync_t)
allow rsync_t polaris_gsd_rp_t:process sigchld;

read /opt/cisco/caf directory
polaris_caf_files_read(polaris_gsd_rp_t)

gen_require(
 type polaris_caf_api_port_t;
 type polaris_caf_exec_t;
)
allow polaris_gsd_rp_t polaris_caf_api_port_t:tcp_socket name_connect;
allow polaris_gsd_rp_t polaris_caf_exec_t:file { getattr open read };
allow polaris_gsd_rp_t tmp_t:dir { create rmdir };

polaris_flashlib_read(polaris_gsd_rp_t)
polaris_flashlib_write(polaris_gsd_rp_t)

watch over /tmp/udev/etc/udev
polaris_udev_tmp_read(polaris_gsd_rp_t)
polaris_udev_tmp_watch(polaris_gsd_rp_t)
watch over /bootflash/gs_script
polaris_persistent_watch(polaris_gsd_rp_t)
#allow iox_ha_utils.sh to read /etc/docker/daemon.json.
gen_require(
 type container_config_t;
)
read_files_pattern(polaris_gsd_rp_t, container_config_t, container_config_t)

allow guestshell_ha.sh to log messages
logging_send_syslog_msg(polaris_gsd_rp_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisgsdrp.te

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```

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#
<summary>Polaris Rmonbifo Policy Rules.</summary>

```

```

#####
Polaris Rmonbifo Driver policy
#####

```

```
#####
<summary>
Read /proc/rmbonbifo files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_proc_rmonbifo_read`,`
gen_require(`
type polaris_proc_rmonbifo_t;
`)
read_files_pattern($1, polaris_proc_rmonbifo_t, polaris_proc_rmonbifo_t)
list_dirs_pattern($1, polaris_proc_rmonbifo_t, polaris_proc_rmonbifo_t)
`
)
```

```
#####
<summary>
Getattr of /proc/rmbonbifo files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_proc_rmonbifo_getattr`,`
gen_require(`
type polaris_proc_rmonbifo_t;
`)
getattr_files_pattern($1, polaris_proc_rmonbifo_t, polaris_proc_rmonbifo_t)
`
)
```

```
#####
<summary>
Read /tmp/sw/boot/rmbonbifo files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_rmonbifo_tmp_read`,`
gen_require(`
```

```

type polaris_rmonbifo_tmp_t;
 type polaris_boot_tmp_t;
)
read_files_pattern($1, polaris_rmonbifo_tmp_t, polaris_rmonbifo_tmp_t)
/tmp/sw/boot/rmonbifo dir is inside of polaris_boot_tmp_t dir
search_dirs_pattern($1, polaris_boot_tmp_t, polaris_rmonbifo_tmp_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrmonbifo.if

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```

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#

```

```

/usr/binos/conf/ncd.sh -- gen_context(system_u:object_r:polaris_ncd_exec_t,s0)
/etc/conf/unifiedfs/mount_data gen_context(system_u:object_r:polaris_ncd_etc_t,s0)

```

```

/usr/binos/conf/iosd_console_attach.sh -- gen_context(system_u:object_r:polaris_console_attach_exec_t,s0)

```

```

/usr/binos/conf/unifiedfs/unifiedfs_helper.sh -- gen_context(system_u:object_r:polaris_ufs_helper_exec_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisncd.fc

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```

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#

```

```

<summary>Polaris iosd Policy Rules.</summary>

```

```

#####

```

```

<summary>

```

```

Make the specified domain able to work with /tmp/restconf

```

```

</summary>

```

```

<param name="type">

```

```

<summary>

```

```

Domain allowed access.

```

```

</summary>

```

```

</param>
#
interface(`polaris_restconf_tmp_use',`
 gen_require(`
 type polaris_restconf_tmp_t;
 `)

 manage_files_pattern($1, polaris_restconf_tmp_t, polaris_restconf_tmp_t)
 manage_dirs_pattern($1, polaris_restconf_tmp_t, polaris_restconf_tmp_t)
)

```

```

#####
<summary>
Create domain for IOSD Polaris processes. Note
depending on policy build setting it could be confined or
not confined
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
#
interface(`polaris_iosd_domain',`
 polaris_process_domain_confined($1, $2)

 polaris_iosd_maybe_unconfined($1)
)

```

```

#####
<summary>
Make the specified domain able to work with iosd2iox files
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd2iox_tmp_manage',`
 gen_require(`
 type polaris_iosd2iox_tmp_t;
 `)

```

```
)

manage_files_pattern($1, polaris_iosd2iox_tmp_t, polaris_iosd2iox_tmp_t)
)
```

```
#####
<summary>
Make the specified domain able to read iosd2iox files
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd2iox_tmp_read`,`
 gen_require(`
 type polaris_iosd2iox_tmp_t;
 `)
)
```

```
read_files_pattern($1,polaris_iosd2iox_tmp_t,polaris_iosd2iox_tmp_t)
)
```

```
#####
<summary>
Send messages to iosd unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd_dgram_send`,`
 gen_require(`
 type polaris_iosd_t;
 `)
)
```

```
allow $1 polaris_iosd_t:unix_dgram_socket sendto;
)
```

```
#####
<summary>
Make the specified domain to read /tmp/rp/.iosp_dmiauthd
</summary>
<param name="type">
<summary>
Domain allowed access.

```

```

</summary>
</param>
#
interface(`polaris_dmiauthd_token_read`,`
 gen_require(`
 type polaris_dmiauthd_token_t;
 `)

 read_files_pattern($1, polaris_dmiauthd_token_t, polaris_dmiauthd_token_t)
)

```

```
#####
```

```

<summary>
Make the specified domain to read /tmp/rp/.iosp_gnmib
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_gnmib_token_read`,`
 gen_require(`
 type polaris_gnmib_token_t;
 `)

 manage_files_pattern($1, polaris_gnmib_token_t, polaris_gnmib_token_t)
)

```

```
#####
```

```

<summary>
Make the specified domain able to work with files
with polaris_iosd_tmp_files_t
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd_tmp_file_use`,`
 gen_require(`
 type polaris_iosd_tmp_files_t;
 `)

 manage_files_pattern($1, polaris_iosd_tmp_files_t, polaris_iosd_tmp_files_t)
 allow $1 polaris_iosd_tmp_files_t:sock_file { manage_sock_file_perms};
)

```



```
#####
<summary>
Manage /bootflash/geodb/ files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_geodb_files_manage',`
 gen_require(`
 type polaris_geodb_files_t;
 `)

 manage_files_pattern($1, polaris_geodb_files_t, polaris_geodb_files_t)
 manage_dirs_pattern($1, polaris_geodb_files_t, polaris_geodb_files_t)
 manage_lnk_files_pattern($1, polaris_geodb_files_t, polaris_geodb_files_t)
)

#####
<summary>
Allow the specified domain to read /boot/vcpu_template.txt
or /csl_p_0/vcpu_template.txt
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd_vcpu_read',`
 gen_require(`
 type polaris_iosd_vcpu_t;
 type polaris_disk_varied_t;
 type polaris_disk_csl_p_t;
 `)

 read_files_pattern($1, { polaris_disk_varied_t polaris_disk_csl_p_t }, polaris_iosd_vcpu_t)
)

#####
<summary>
Allow the specified domain to read /tmp/usb-disable
</summary>
<param name="type">
```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd_usb_disable_tmp_manage`,`
 gen_require(`
 type polaris_iosd_usb_disable_tmp_t;
 `)

 manage_files_pattern($1, polaris_iosd_usb_disable_tmp_t, polaris_iosd_usb_disable_tmp_t)
 files_tmp_filetrans($1, polaris_iosd_usb_disable_tmp_t, file, "usb-disable")
)

```

```

#####
<summary>
Allow the specified domain to access /bootflash/EFI
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_efi_files_list_dirs`,`
 gen_require(`
 type polaris_efi_files_t;
 `)

 list_dirs_pattern($1, polaris_efi_files_t, polaris_efi_files_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisiosd.if

No license file was found, but licenses were detected in source scan.

```

#
March 2017, Victor Kamensky
#
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#

```

# polarissmd file contexts place holder

```

dc_profile_dir
/mnt/sd3/user/dc_profile_dir(/.*)? gen_context(system_u:object_r:polaris_smd_disk_t,s0)
/flash1/user/dc_profile_dir(/.*)? gen_context(system_u:object_r:polaris_smd_disk_t,s0)

```

```
/bootflash/dc_profile_dir(/.*)? gen_context(system_u:object_r:polaris_smd_disk_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissmd.fc
```

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```

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#
```

```
polarismqipc file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismqipc.fc
```

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```

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#
```

```
<summary>Polaris iomd Policy Rules.</summary>
```

```
#####
```

```
<summary>
Work (read, write, ioctl) with /dev/ngio[0-9+] devices
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
```

```

interface(`polaris_ngio_dev_use',`
gen_require(`
type device_t;
type polaris_ngio_device_t;
)
write_chr_files_pattern($1, device_t, polaris_ngio_device_t)
read_chr_files_pattern($1, device_t, polaris_ngio_device_t)
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiomd.if
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
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```

```
#
```

```
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```

```
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```

```
#
```

```
policy_module(polarisrepm, 1.0);
```

```
gen_require(
 type polaris_repm_t;
```

```
)
```

```
polaris_btrace_data_manage(polaris_repm_t)
```

```
polaris_crft_data_manage(polaris_repm_t)
```

```
polaris_chasfs_manage(polaris_repm_t)
```

```
polaris_tdlresolve_read(polaris_repm_t)
```

```
polaris_tdldb_list_dirs(polaris_repm_t)
```

```
polaris_cpld_read(polaris_repm_t)
```

```
polaris_lua_read(polaris_repm_t)
```

```
polaris_flashlib_read(polaris_repm_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_repm_t)
```

```
polaris_db_tdldb_dir_use(polaris_repm_t)
```

```
allow to read /proc/meminfo
```

```
kernel_read_system_state(polaris_repm_t)
```

```
allow polaris_repm_t self:capability { sys_resource dac_override };
```

```
allow polaris_repm_t self:process setrlimit;
```

```
temporary files created for repm in /tmp/replication
```

```
type polaris_repm_tmp_t;
```

```
files_tmp_file(polaris_repm_tmp_t)
```

```
polaris_systemd_tmpfiles_tmp_filetrans(polaris_repm_tmp_t, dir, "replication")
```

```
manage_files_pattern(polaris_repm_t, polaris_repm_tmp_t, polaris_repm_tmp_t)
```

```
polaris_dyncfg_tmp_read(polaris_repm_t)
```

```
polaris_tdldbpersist_setup(polaris_repm_t)
```

```
polaris_tmp_tdldb_persist_setup(polaris_repm_t)
```

```
send syslog
```

```

logging_send_syslog_msg(polaris_repm_t)

mq.-local_rp_1_0
type polaris_repm_local_rp_mqipc_t;
polaris_mqipc_type(polaris_repm_local_rp_mqipc_t)

polaris_mqipc_create_name(polaris_repm_t, polaris_repm_local_rp_mqipc_t, local_rp_1_0)
polaris_mqipc_create_name(polaris_repm_t, polaris_repm_local_rp_mqipc_t, local_rp_0_0)

repm peer mqipc queues under /dev/shm/repm_peer_mq folder
type polaris_repm_peer_mqipc_t;
polaris_mqipc_type(polaris_repm_peer_mqipc_t)
polaris_mqipc_create_name_dir(polaris_repm_t, polaris_repm_peer_mqipc_t, repm_peer_mq)

repm invokes installer_api_* api's which need access to /bootflash/.installer/install_issu_state
polaris_install_disk_read(polaris_repm_t)

#ifdef(^petra_platform',
#allow access to polaris_cm_rp sem for chasfs
polaris_cm_rp_sem_use(polaris_repm_t)
#allow access to /flash12/moncfg/cfg.dat for config
polaris_swipedrive_file_manage(polaris_repm_t)

)

execute /bin/tar
corecmd_exec_bin(polaris_repm_t)
tar reads /etc/passwd
auth_use_nsswitch(polaris_repm_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrepm.te
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#

<summary>Polaris NGWC Platform Policy Rules.</summary>

#####
<summary>
Manage ngwc shared memory /dev/shm/ngwc_shm.
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ngwc_shm_manage',`
 gen_require(`
 type tmpfs_t;
 type polaris_ngwc_shm_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_ngwc_shm_t)
 allow $1 polaris_ngwc_shm_t:file map;
 filetrans_pattern($1, tmpfs_t, polaris_ngwc_shm_t, file, "ngwc_shm")
)

#####
<summary>
Manage ngwc shared memory /dev/shm/ngwc_scc_shm.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ngwc_scc_shm_manage',`
 gen_require(`
 type tmpfs_t;
 type polaris_ngwc_scc_shm_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_ngwc_scc_shm_t)
 allow $1 polaris_ngwc_scc_shm_t:file map;
 filetrans_pattern($1, tmpfs_t, polaris_ngwc_scc_shm_t, file, "ngwc_scc_shm")
)

#####
<summary>
Manage ngwc shared memory /dev/shm/iomd_to_fed_ptp_offload.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_ngwc_itfpo_manage`,
 gen_require(`
 type tmpfs_t;
 type polaris_ngwc_itfpo_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_ngwc_itfpo_t)
 allow $1 polaris_ngwc_itfpo_t:file map;
 filetrans_pattern($1, tmpfs_t, polaris_ngwc_itfpo_t, file, "iomd_to_fed_ptp_offload")
)

```

```

#####
<summary>
Manage ngwc sdm shared memory /dev/shm/sdm.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_sdm_shm_manage`,
 gen_require(`
 type tmpfs_t;
 type polaris_sdm_shm_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_sdm_shm_t)
 filetrans_pattern($1, tmpfs_t, polaris_sdm_shm_t, file, "sdm")
 allow $1 polaris_sdm_shm_t:file map;
)

```

```

#####
MMAP Driver for mapping ASIC Memory space
#####
#####
<summary>
Work (read, write, ioctl) with /dev/chdrvmmmap
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_chdrvmmmap_dev_use`,
 gen_require(`

```

```

 type device_t;
 type polaris_chdrvmmmap_device_t;
)
 read_chr_files_pattern($1, device_t, polaris_chdrvmmmap_device_t)
 write_chr_files_pattern($1, device_t, polaris_chdrvmmmap_device_t)
 allow $1 polaris_chdrvmmmap_device_t:chr_file map;
)

#####
<summary>
Work (read, write, ioctl) with /dev/gettysburg_dev1
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_gettysburg_fpga_dev_use',`
 gen_require(`
 type device_t;
 type polaris_gettysburg_fpga_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_gettysburg_fpga_device_t)
 read_chr_files_pattern($1, device_t, polaris_gettysburg_fpga_device_t)
 mmap_chr_files_pattern($1, device_t, polaris_gettysburg_fpga_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/cisco/dplriomem
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dplr_iomem_mmapdrv_dev_use',`
 gen_require(`
 type device_t;
 type polaris_dplr_iomem_mmapdrv_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_dplr_iomem_mmapdrv_device_t)
 read_chr_files_pattern($1, device_t, polaris_dplr_iomem_mmapdrv_device_t)
 allow $1 polaris_dplr_iomem_mmapdrv_device_t:chr_file map;
)

```



```
#####
<summary>
Allow access to semaphore of quake flashlib. Pure hack
semaphore got created by dyncfg accidently, need to change to
POSIX semaphore code ASAP.
LOOK AT ME
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_quake_flashlib_sem_use`,`
 gen_require(`
 type polaris_dyncfg_t;
 `)
 allow $1 polaris_dyncfg_t:sem rw_sem_perms;
`)
```

```
#####
<summary>
Manage quake i2c semaphores /dev/shm/sem.i2c_sem00N
and work with corresponding i2c devices (/dev/i2c-XXX)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_quake_i2c_manage`,`
 gen_require(`
 type tmpfs_t;
 type polaris_quake_i2c_t;
 `)
 manage_files_pattern($1, tmpfs_t, polaris_quake_i2c_t)
 polaris_i2c_use($1)
`)
```

```
#####
<summary>
Allow caller to read or write the exiting_bays file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
```

```

</param>
interface(`polaris_rw_exiting_bays`,`
gen_require(`
type polaris_proc_exiting_bays_t;
type proc_t;
`)

rw_files_pattern($1, polaris_proc_exiting_bays_t, polaris_proc_exiting_bays_t)
FIXME/TODO:
The kernel does not reliably create /proc/exiting_bays on all platforms
The following lines should be removed when CSCvv27097 is addressed
allow $1 polaris_proc_exiting_bays_t:file create;
allow $1 proc_t:file create;
allow $1 proc_t:dir { add_name write };
`)

#####
<summary>
Allow caller to create open write /tmp/fpga_upgrade
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fpga_upgrade_tmp_use`,`
gen_require(`
type polaris_fpga_upgrade_tmp_t;
`)
allow $1 polaris_fpga_upgrade_tmp_t:file { create open write };
`)

#####
<summary>
Execute a domain transition to run cat9k_ssd_unmount.sh
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ssd_unmount_domtrans`,`
gen_require(`
type polaris_ssd_unmount_t, polaris_ssd_unmount_exec_t;
`)
domtrans_pattern($1, polaris_ssd_unmount_exec_t, polaris_ssd_unmount_t)

```

)

#####

## <summary>

## Read lnk\_file /ucode0, polaris\_disk\_ucode0\_t.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_disk\_ucode0\_read\_lnk`,`

gen\_require(`

type polaris\_disk\_ucode0\_t;

`)

read\_lnk\_files\_pattern(\$1, polaris\_disk\_ucode0\_t, polaris\_disk\_ucode0\_t)

)

#####

## <summary>

## Work (read, write, ioctl) with /dev/cisco/fpga\_iomem

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_fpga\_iomem\_mmapfpga\_dev\_use`,`

gen\_require(`

type device\_t;

type polaris\_fpga\_iomem\_mmapfpga\_device\_t;

`)

allow \$1 polaris\_fpga\_iomem\_mmapfpga\_device\_t:chr\_file map;

write\_chr\_files\_pattern(\$1, device\_t, polaris\_fpga\_iomem\_mmapfpga\_device\_t)

read\_chr\_files\_pattern(\$1, device\_t, polaris\_fpga\_iomem\_mmapfpga\_device\_t)

)

#####

## <summary>

## Read Write access to /bootflash/nplusm-power

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

```
#
interface(`polaris_nplum_power_manage',`
 gen_require(`
 type polaris_nplum_power_file_t;
 type polaris_disk_bootflash_t;
 `)
 filetrans_pattern($1, polaris_disk_bootflash_t, polaris_nplum_power_file_t, file, "nplum-power")
 allow $1 polaris_nplum_power_file_t:file { write create read open getattr unlink };
)`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwc.if
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
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#

/usr/binos/conf/boothelper_evt.sh -- gen_context(system_u:object_r:polaris_boothelper_evt_exec_t,s0)
/tmp/udev(/.*)? gen_context(system_u:object_r:polaris_udev_tmp_files_t,s0)

/tmp/rommon_upgrade_ngwc(/.*)? gen_context(system_u:object_r:polaris_boothelper_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisboothelper.fc
No license file was found, but licenses were detected in source scan.
```

```
#
December 2018, Victor Kamensky
#
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#

<summary>Polaris ezman_cc Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisezmancc.if
No license file was found, but licenses were detected in source scan.
```

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
```

```
dnl
define(`polaris_lipc_service_server',`)
define(`polaris_lipc_service_client',`')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_lipc_fc.m4
```

No license file was found, but licenses were detected in source scan.

```
#
July 2019, Victor Kamensky
#
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#
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisgrmgr.fc
```

No license file was found, but licenses were detected in source scan.

```
#
July 2017, Victor Kamensky
#
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#
```

```
/usr/binos/conf/install_issu_monitor.sh -- gen_context(system_u:object_r:polaris_issu_monitor_exec_t,s0)
/tmp/rp/issu_mon_dir -d gen_context(system_u:object_r:polaris_issu_monitor_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissumonitor.fc
```

No license file was found, but licenses were detected in source scan.

```
#
March 2019, Shikhar Dogra
#
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#
```

```
<summary>Polaris fman_cc Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfmancc.if
```

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
```

```

#
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#

<summary>Polaris smand Policy Rules.</summary>

#####
<summary>
Allow domain to be started by smand with
transition into specific service domain.
</summary>
<param name="domain">
<summary>
Type to be used to run utility.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
interface(`polaris_smand_domain`,`
 gen_require(`
 type polaris_smand_t;
 `)

 domtrans_pattern(polaris_smand_t, $2, $1)
)

#####
<summary>
Write into fifo file created by smand, typical case when
smand starts script under popen.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_smand_use_fifo`,`
 gen_require(`
 type polaris_smand_t;
 `)

 write_fifo_files_pattern($1, polaris_smand_t, polaris_smand_t)
)

```

```

)

#####
<summary>
Read access to CRDU fifo file created by smand
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_smand_crdu_pipe_read`,`
 gen_require(`
 type polaris_crdu_pipe_tmp_t;
 `)

 read_fifo_files_pattern($1, polaris_crdu_pipe_tmp_t, polaris_crdu_pipe_tmp_t)
)

#####
<summary>
Manage CRDU fifo file created by smand
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_smand_crdu_pipe_manage`,`
 gen_require(`
 type polaris_crdu_pipe_tmp_t;
 `)

 manage_fifo_files_pattern($1, polaris_crdu_pipe_tmp_t, polaris_crdu_pipe_tmp_t)
)

#####
<summary>
Write to polaris_sman_bshell_serv_lipc_t
</summary>
<param name="domain">
<summary>
Domain allowed to connect and write into this lipc file.
</summary>

```

```

</param>
#
interface(`polaris_sman_bshell_serv_lipc_write`,`
 gen_require(`
 type polaris_sman_bshell_serv_lipc_t;
 type polaris_smand_t;
 `)
 polaris_lipc_write($1, polaris_sman_bshell_serv_lipc_t, polaris_smand_t)
`)

#####
<summary>
Manage /tmp/show_ports_tmp
</summary>
<param name="domain">
<summary>
Domain allowed to manage tmp files.
</summary>
</param>
<rolecap/>
interface(`polaris_trans_ports_tmp_manage`,`
 gen_require(`
 type polaris_trans_stats_tmp_t;
 `)
 manage_files_pattern($1, polaris_trans_ports_tmp_t, polaris_trans_ports_tmp_t)
`)

#####
<summary>
create /tmp/trans_tmp and /tmp/trans_tmp.1 to store lsof output
</summary>
<param name="domain">
<summary>
Domain allowed to manage tmp files.
</summary>
</param>
<rolecap/>
interface(`polaris_trans_stats_tmp_manage`,`
 gen_require(`
 type polaris_trans_stats_tmp_t;
 `)
 manage_files_pattern($1, polaris_trans_stats_tmp_t, polaris_trans_stats_tmp_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarissmand.if

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#



```
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#
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#
```

```
/usr/cpp/bin/cpp_cdm_svr -- gen_context(system_u:object_r:polaris_cpp_cdm_exec_t,s0)
```

```
Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppcdm.fc
No license file was found, but licenses were detected in source scan.
```

```
#
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#
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#
```

```
<summary>Polaris Flashlib Policy Rules.</summary>
```

```
#####
Flashlib policy (infra/flashlib)
#####
```

```
#####
```

```
<summary>
Read Polaris /tmp/.flashlock file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_flashlib_lock`,`
gen_require(`
 type tmp_t;
 type polaris_flashlib_lock_t;
`)
```

```
manage_files_pattern($1, tmp_t, polaris_flashlib_lock_t)
allow $1 self:capability dac_override;
```

```
ifdef(`quake_platform`,`
 polaris_quake_flashlib_sem_use($1)
`)
```

```
access of .flashlock on ultra
```

```

 ifdef(`vxe_family',`
 allow $1 self:capability dac_override;
 ')
)

#####
<summary>
Write Polaris /tmp/flashdev.log file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_flashlib_log',`
 gen_require(`
 type tmp_t;
 type polaris_flashlib_log_t;
 ')

 manage_files_pattern($1, tmp_t, polaris_flashlib_log_t)
)

#####
<summary>
Read partition disk device that contains rommon variables.
C8KV reads object store and reads grub files in BIOS and EFI partitions.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_flashlib_read',`
 gen_require(`
 type device_t;
 type polaris_flashlib_device_t;
 ')

 polaris_flashlib_lock($1)
 polaris_flashlib_log($1)
 read_blk_files_pattern($1, device_t, polaris_flashlib_device_t)
 read_chr_files_pattern($1, device_t, polaris_flashlib_device_t)
 ifdef(`vxe_family',`
 polaris_vxeinstall_info_read($1)
 polaris_grub_info_read($1)
 ')
)

```

```

ifdef(`vwlc_platform',`
 polaris_vwlcinstall_info_read($1)
 polaris_vwlc_grub_info_read($1)
`)

processes that use tdlld/DB will access romvar
via flashlib mcp_getmonvar API which read /objstore.
optional_policy(`
 polaris_disk_objstore_read($1)
`)
polaris_flash_shm_manage($1)
`)

#####
<summary>
Write partition disk device that contains rommon variables.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_flashlib_write',`
 gen_require(`
 type device_t;
 type polaris_flashlib_device_t;
 `)

 polaris_flashlib_lock($1)
 write_blk_files_pattern($1, device_t, polaris_flashlib_device_t)
 polaris_flash_shm_manage($1)
`)

#####
<summary>
Manage ngwc shared memory /dev/shm/flash_shm.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_flash_shm_manage',`
 gen_require(`
 type tmpfs_t;
 type polaris_flash_shm_t;
 `)

```

```
)
fs_getattr_tmpfs($1)
manage_files_pattern($1, tmpfs_t, polaris_flash_shm_t)
allow $1 polaris_flash_shm_t:file map;
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisflashlib.if

No license file was found, but licenses were detected in source scan.

```

March 2017, Victor Kamensky

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#
```

```
<summary>Polaris LUA Policy Rules.</summary>
```

```

Lua policy
#####
```

```
#####
```

```
<summary>
Read Polaris lua files (/lua)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_lua_read`,
gen_require(`
type polaris_lua_file_t;
)
```

```
allow $1 polaris_lua_file_t:file read_file_perms;
allow $1 polaris_lua_file_t:dir { read_file_perms search_dir_perms };
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislua.if

No license file was found, but licenses were detected in source scan.

```

July 2017, Victor Kamensky
```

```
#
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#

<summary>Polaris tamd_rp Policy Rules.</summary>
```

```
Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristamdrp.if
No license file was found, but licenses were detected in source scan.
```

```
#
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#
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#
```

```
<summary>Polaris polarisiptbl Policy Rules.</summary>
```

```
Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiptbl.if
No license file was found, but licenses were detected in source scan.
```

```
#
April 2018, Victor Kamensky
#
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#
```

```
autopolarisplatformipcbase file contexts place holder
```

```
Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/autopolarisplatformipcbase.fc
No license file was found, but licenses were detected in source scan.
```

```
#
February 2020, Victor Kamensky
#
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#
```

```
policy_module(polarisdmiportsfetch, 1.0);
```

```
gen_require(^
 type polaris_dmi_ports_fetch_t;
```

```
)
polaris_chasfs_manage(polaris_dmi_ports_fetch_t)
polaris_tdlresolve_read(polaris_dmi_ports_fetch_t)
polaris_cpld_read(polaris_dmi_ports_fetch_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmiportsfetch.te
```

No license file was found, but licenses were detected in source scan.

```

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#
```

```
policy_module(polarisngwcfeddebug, 1.0);
```

```
gen_require(
 type polaris_ngwc_fed_debug_mgr_t;
)
```

```
polaris_bootflash_manage(polaris_ngwc_fed_debug_mgr_t)
polaris_btrace_data_manage(polaris_ngwc_fed_debug_mgr_t)
polaris_cpld_read(polaris_ngwc_fed_debug_mgr_t)
polaris_flashlib_read(polaris_ngwc_fed_debug_mgr_t)
polaris_chasfs_read(polaris_ngwc_fed_debug_mgr_t)
polaris_tdlresolve_read(polaris_ngwc_fed_debug_mgr_t)
```

```
polaris_disk_bootflash_read_lnk(polaris_ngwc_fed_debug_mgr_t)
polaris_dmammap_dev_use(polaris_ngwc_fed_debug_mgr_t)
polaris_chdrvmmmap_dev_use(polaris_ngwc_fed_debug_mgr_t)
polaris_dplr_iomem_mmapdrv_dev_use(polaris_ngwc_fed_debug_mgr_t)
```

```
opens /proc/pid/net/dev
kernel_read_network_state(polaris_ngwc_fed_debug_mgr_t)
```

```
calls tcpdump, let it run in its own domain
netutils_domtrans(polaris_ngwc_fed_debug_mgr_t)
```

```
calls system function
corecmd_exec_shell(polaris_ngwc_fed_debug_mgr_t)
```

```
calls lspci and other utilities
corecmd_exec_bin(polaris_ngwc_fed_debug_mgr_t)
```

```
auth_use_nsswitch(polaris_ngwc_fed_debug_mgr_t)
```

```

lspci needs sysfs access
dev_list_sysfs(polaris_ngwc_fed_debug_mgr_t)
dev_read_sysfs(polaris_ngwc_fed_debug_mgr_t)

dope.py /tmp/idope_svr, /tmp/shfwd_svr socket files
type polaris_fed_debug_sock_t;
files_tmp_file(polaris_fed_debug_sock_t)

files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_sock_t, sock_file, "idope_svr")
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_sock_t, sock_file, "shfwd_svr")

gen_require(
 type tmp_t;
)
manage_sock_files_pattern(polaris_ngwc_fed_debug_mgr_t, tmp_t, polaris_fed_debug_sock_t)

allow show-forward to use following temp files in /tmp dir
type polaris_fed_debug_tmp_t;
files_tmp_file(polaris_fed_debug_tmp_t)
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_tmp_t, file, "pktgen.txt")
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_tmp_t, file, "DopeElam.sh")
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_tmp_t, file, "MemDumpElam.sh")
gen_require(
 type tmp_t;
)
manage_files_pattern(polaris_ngwc_fed_debug_mgr_t, { tmp_t polaris_fed_debug_tmp_t },
polaris_fed_debug_tmp_t)

talk to fed over unix sockets
polaris_fed_sock_write(polaris_ngwc_fed_debug_mgr_t)

/dcmlog.txt
type polaris_fed_debug_dcmlog_t;
files_type(polaris_fed_debug_dcmlog_t)
gen_require(
 type root_t;
)
filetrans_pattern(polaris_ngwc_fed_debug_mgr_t, root_t, polaris_fed_debug_dcmlog_t, file, "dcmlog.txt")
manage_files_pattern(polaris_ngwc_fed_debug_mgr_t, root_t, polaris_fed_debug_dcmlog_t)

dope.py listens on port 12255
corenet_tcp_bind_generic_node(polaris_ngwc_fed_debug_mgr_t)
allow polaris_ngwc_fed_debug_mgr_t self:tcp_socket { getattr setopt ioctl getopt bind create listen accept connect
read write };
corenet_tcp_bind_polaris_fed_debug_trace_rpc_port(polaris_ngwc_fed_debug_mgr_t)
corenet_tcp_connect_polaris_fed_debug_trace_rpc_port(polaris_ngwc_fed_debug_mgr_t)

dope.py listens on port 5389 for shfwd commands

```

```

corenet_tcp_bind_polaris_fed_debug_shfwd_command_port(polaris_ngwc_fed_debug_mgr_t)

LOOK AT ME: /dev/mem access restriction remove after fix for CSCvm07702 is
committed.
#ifdef(`nyquist_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_debug_mgr_t)
`)
#ifdef(`starfleet_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_debug_mgr_t)
`)
#ifdef(`quake_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_debug_mgr_t)
`)

/tmp/asic_config.pickle file access
type polaris_fed_debug_asic_config_t;
files_tmp_file(polaris_fed_debug_asic_config_t);
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_asic_config_t, file, "asic_config.pickle")
gen_require(`
 type tmp_t;
`)
manage_files_pattern(polaris_ngwc_fed_debug_mgr_t, tmp_t, polaris_fed_debug_asic_config_t)

dope.py invokes scapy.py for DP trace which needs to create socket to seek
interface info via ioctl ifreq
allow polaris_ngwc_fed_debug_mgr_t self:udp_socket { create ioctl };

/tmp/rdope_ffi handle directory where libffi will create file with execute
mapping. Files system should be executable and /tmp so far is. Note TMPDIR
environment variable is the first choice where to create libffi executable
mapped files.
type polaris_fed_debug_ffi_t;
files_tmp_file(polaris_fed_debug_ffi_t);
files_tmp_filetrans(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_ffi_t, dir, "rdope_ffi")
gen_require(`
 type tmp_t;
`)
manage_dirs_pattern(polaris_ngwc_fed_debug_mgr_t, tmp_t, polaris_fed_debug_ffi_t)
manage_files_pattern(polaris_ngwc_fed_debug_mgr_t, polaris_fed_debug_ffi_t, polaris_fed_debug_ffi_t)
allow polaris_ngwc_fed_debug_mgr_t polaris_fed_debug_ffi_t:file { execute map };

allow to read /proc/mtd called from mcp_getmonvar
kernel_read_system_state(polaris_ngwc_fed_debug_mgr_t)

polaris_remap_mem_dev_use(polaris_ngwc_fed_debug_mgr_t)

allow polaris_ngwc_fed_debug_mgr_t self:capability sys_resource;

```



Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngwcfeddebug.te

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

dnl Process Names Map

```
define(`process_map', `defn(format(`process_map[%s]', `'$1'))')
```

```
define(`process_map_set', `define(format(`process_map[%s]', `'$1'), `'$2'))')
```

dnl Process Names and Labels

```
define(`process_short_name', `patsubst($1, `^BPROC_', `'))')
```

```
define(`process_default_stem', `translit(process_short_name($1), `A-Z', `a-z'))')
```

```
define(`process_stem', `ifelse(process_map(process_short_name($1)), `', process_default_stem($1),
process_map(process_short_name($1)))')
```

```
define(`process_label', `format(`polaris_%s_t', process_stem($1))')
```

```
define(`process_exec_label', `format(`polaris_%s_exec_t', process_stem($1))')
```

dnl Process Type Map: track that type declations unique

```
define(`process_type_map', `defn(format(`process_type_map[%s]', `'$1'))')
```

```
define(`process_type_map_set', `define(format(`process_type_map[%s]', `'$1'), `'$2'))')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_process.m4

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```
process_map_set(AUTO_UPGRADE_CLIENT_RP, autoupgrade)
```

```
process_map_set(BSM_RP, bsm)
```

```
process_map_set(BTM_CC, btman)
```

```
process_map_set(BTM_FP, btman)
```

```
process_map_set(BTM_RP, btman)
```

```
process_map_set(BTM_BP, btman)
```

```
process_map_set(CCD_RP, caf)
```

```
process_map_set(DMI_CONFD, confd)
```

```
process_map_set(DMI_PTTCD, pttcd)
```

```
process_map_set(SDWAN_CONFD, confd)
```

```
process_map_set(EMD_CC, emd)
```

```
process_map_set(EMD_FP, emd)
process_map_set(EMD_RP, emd)
process_map_set(FCD_RP, flashcheck)
process_map_set(FM_FP, fman_fp)
process_map_set(FM_CC, fman_cc)
process_map_set(FM_RP, fman_rp)
process_map_set(HM_CC, hm)
process_map_set(HM_FP, hm)
process_map_set(HM_RP, hm)
process_map_set(IOMD_CC, iomd)
process_map_set(IOSD_CC, iosd)
process_map_set(IOSD_RP, iosd)
process_map_set(IOSD_BP, iosd)
process_map_set(IOXM_RP, ioxman)
process_map_set(ISSU_STK, issu_stack)
process_map_set(LM_RP, lm)
process_map_set(MAINT_RP, periodic)
process_map_set(PLOGD_CC, plogd)
process_map_set(PLOGD_FP, plogd)
process_map_set(PLOGD_RP, plogd)
process_map_set(REPM_RP, repm)
process_map_set(SERVICE_MGR_RP, service_mgr)
process_map_set(SERVICE_MGR_FP, service_mgr)
process_map_set(SM, smand)
process_map_set(SORT_RP, sort_files)
process_map_set(VMAN_RP, vman)
process_map_set(POLJVM, jvm)
process_map_set(CLUSTERMGR, clustermgr)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/processmap.m4
```

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dnl

divert(-1)

```
include(`polaris_process.m4')
```

```
include(`polaris_database_db.m4')
```

```
include(`polaris_database_db_if.m4')
```

```
include(`polaris_max_scope.m4')
```

```
divert(0)dnl
#
This is a generated file! Instead of modifying this file,
modify proper platform TDL file.
#
<summary>Polaris Platform DB Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_database_if.m4
No license file was found, but licenses were detected in source scan.
```

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2020 by Cisco Systems, Inc.
dnl All rights reserved
dnl
dnl VXE Platform Max Bay Limits
max_bay_map_set(`rp', `per_bay', 0)
max_bay_map_set(`cc', `per_bay', 0)
max_bay_map_set(`fp', `per_bay', 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/vxemaps.m4
No license file was found, but licenses were detected in source scan.
```

```
#
January 2021, Gabriel Lee, Shawn Liu
#
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#
```

```
/ezManage_v1/ezManage_sms_handler.py -- gen_context(system_u:object_r:polaris_ezmanage_exec_t,s0)
```

```
/ezManage_v1(/.*)? gen_context(system_u:object_r:polaris_ezmanage_file_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisezmanage.fc
No license file was found, but licenses were detected in source scan.
```

```
#
April 2017, Victor Kamensky
#
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#
```

## <summary>Polaris dmi\_vtyserverutild Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmi\_vtyserverutild.if  
No license file was found, but licenses were detected in source scan.

```

August 2017, Victor Kamensky

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polarisbsm file contexts place holder
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbsm.fc  
No license file was found, but licenses were detected in source scan.

```

February 2020, Victor Kamensky

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#
```

## <summary>Polaris dmi\_ports\_fetch Policy Rules.</summary>

#####

## <summary>

## Work with /bootflash/sdavc

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

```
interface(`polaris_sdavc_proxy_manage`,`
 gen_require(`
 type polaris_sdavc_proxy_files_t;
 `)
 manage_files_pattern($1, polaris_sdavc_proxy_files_t, polaris_sdavc_proxy_files_t)
 manage_dirs_pattern($1, polaris_sdavc_proxy_files_t, polaris_sdavc_proxy_files_t)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisssdavcproxy.if

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#

/usr/binos/bin/cman_fp_ledp -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)
/usr/binos/bin/cman_fp_us_ledp -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)
/usr/binos/bin/cman_fp_vwlc -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)
/usr/binos/bin/cman_fp_vwlc_ledp -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)
/usr/binos/bin/cman_fp_sumatra_ledp -- gen_context(system_u:object_r:polaris_cm_fp_exec_t,s0)

/usr/binos/conf/mcp_pcie_status_cmd.sh -- gen_context(system_u:object_r:polaris_pcie_status_cmd_exec_t,s0)

/dev/hkp -c gen_context(system_u:object_r:polaris_hkp_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscmfp.fc
No license file was found, but licenses were detected in source scan.
```

```
#
June 2020, Manu Roy
#
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#
```

```
/bootflash labels
/bootflash(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/bootflash/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/bootflash/.ssh/ssh_host.*_key\pub gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)

/flash is symbolic link /flash10/USER
/flash gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

#/flash1
/flash1(/.*)? gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)
/flash1/CRASH(/.*)? gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)
/flash1/CRASH/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/flash7(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)
/flash8(/.*)? gen_context(system_u:object_r:polaris_disk_license_t,s0)
/flash9(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)
```

```

/flash10
USER is a reserved selinux keyword - escape it like this
/flash10(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/flash10/USE[R]/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/flash10/USE[R]/nvram_config -- gen_context(system_u:object_r:polaris_nvram_file_t,s0)
/flash10/USER/.ssh/ssh_host_rsa_key -- gen_context(system_u:object_r:ssh_key_t,s0)

#sdflash
/dev/mmcblk1p1 -b gen_context(system_u:object_r:polaris_iots_swipedrive_device_t,s0)
/dev/sdflash gen_context(system_u:object_r:polaris_iots_swipedrive_file_t,s0)
/sdflash gen_context(system_u:object_r:polaris_iots_swipedrive_file_t,s0)
#usb device
/dev/sda1 -b gen_context(system_u:object_r:polaris_iots_swipedrive_device_t,s0)

#DMA ASIC driver
/dev/mvDmaDrv gen_context(system_u:object_r:polaris_iots_mvDmaDrv_device_t,s0)
/dev/mvIntDrv gen_context(system_u:object_r:polaris_iots_mvIntDrv_device_t,s0)

/crashinfo is symbolic link to /mnt/sd1 created by systemd-tmpfiles
/crashinfo gen_context(system_u:object_r:polaris_disk_crashinfo_t,s0)

#/dev
/dev/petra-fpga -c gen_context(system_u:object_r:polaris_iots_fpga_device_t,s0)
/dev/petra-zynq-ps-gpio -c gen_context(system_u:object_r:polaris_iots_fpga_device_t,s0)
/dev/petra-gpio-pc3 -c gen_context(system_u:object_r:polaris_iots_fpga_device_t,s0)
#Line card fpga driver for mmap
/dev/petra-lc-fpga -c gen_context(system_u:object_r:polaris_iots_fpga_device_t,s0)

#memory devices
/dev/tm -c gen_context(system_u:object_r:polaris_iots_tm_device_t,s0)
/dev/hcam -c gen_context(system_u:object_r:polaris_iots_tm_device_t,s0)
#vlan-virtual ethernet
/dev/petra-krport -c gen_context(system_u:object_r:polaris_iots_tm_device_t,s0)

/tmp/udev/etc/udev/sdflash/udev-info gen_context(system_u:object_r:polaris_udev_tmp_files_t,s0)

hellcat
/dev/spidev0.0 -c gen_context(system_u:object_r:polaris_iots_led_device_t,s0)
/dev/spidev0.1 -c gen_context(system_u:object_r:polaris_iots_led_device_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiots/switch.fc
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#
March 2017, Victor Kamensky
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```

```

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#

policy_module(polarisngwcfed, 1.0);

gen_require(
 type polaris_ngwc_fed_t;
)

polaris_btrace_data_manage(polaris_ngwc_fed_t)
polaris_chasfs_manage(polaris_ngwc_fed_t)
polaris_tdlresolve_read(polaris_ngwc_fed_t)
polaris_tdlldb_list_dirs(polaris_ngwc_fed_t)
polaris_lua_read(polaris_ngwc_fed_t)
polaris_flashlib_read(polaris_ngwc_fed_t)
polaris_chasync_files_manage(polaris_ngwc_fed_t)

LOOK AT ME: system() call restriction remove after
CSCvn19282 is fixed using CSCvn19287.
#
fed executes cp_trace_request.sh when a sv stack split occurs.
cp_trace_request.sh does source of pglobals.sh which requires the
access of /crashinfo.
polaris_disk_crashinfo_getattr(polaris_ngwc_fed_t)

polaris_ripc_sman_ui_serv_connect(polaris_ngwc_fed_t)

polaris_db_tdlldb_dir_use(polaris_ngwc_fed_t)

corecmd_exec_bin(polaris_ngwc_fed_t)
corecmd_exec_shell(polaris_ngwc_fed_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_ngwc_fed_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_ngwc_fed_t)

allow read/write to /proc/irq/N/irq files
kernel_rw_irq_sysctls(polaris_ngwc_fed_t)

polaris_obfl_data_manage(polaris_ngwc_fed_t)
polaris_lsmapi_dev_use(polaris_ngwc_fed_t)

allow polaris_ngwc_fed_t self:capability { sys_rawio dac_override ipc_owner sys_nice ipc_lock };
allow polaris_ngwc_fed_t self:capability2 block_suspend;

polaris_dyncfg_tmp_read(polaris_ngwc_fed_t)

```

```

optional_policy(
polaris_ngwc_shm_manage(polaris_ngwc_fed_t)
')

optional_policy(
polaris_ngwc_scc_shm_manage(polaris_ngwc_fed_t)
')

cpp bleeds into switching platforms through fman_fp and fed
apparently even on nyquist fed creates /tmp/cpp_anon_db
polaris_cpp_process(polaris_ngwc_fed_t)
polaris_cpp_tmp_files_use(polaris_ngwc_fed_t)

optional_policy(
/dev/dplr_intrpt usage
polaris_dplr_dev_use(polaris_ngwc_fed_t)

/dev/dmammap usage
polaris_dmammap_dev_use(polaris_ngwc_fed_t)

/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_ngwc_fed_t)
')

/dev/cli2xcvr_pipe and /dev/xcvr2cli_pipe
type polaris_fed_xcvr_pipe_t;
files_type(polaris_fed_xcvr_pipe_t)
dev_associate(polaris_fed_xcvr_pipe_t)
gen_require(
 type device_t;
)
filetrans_pattern(polaris_ngwc_fed_t, device_t, polaris_fed_xcvr_pipe_t, fifo_file, "cli2xcvr_pipe")
filetrans_pattern(polaris_ngwc_fed_t, device_t, polaris_fed_xcvr_pipe_t, fifo_file, "xcvr2cli_pipe")
manage_fifo_files_pattern(polaris_ngwc_fed_t, device_t, polaris_fed_xcvr_pipe_t)

polaris_disk_bootflash_search(polaris_ngwc_fed_t)

allow polaris_ngwc_fed_t self:process setsched;

work with /dev/msi/Slot0/Doppler0/GroupN files
dev_rw_generic_chr_files(polaris_ngwc_fed_t)

read /sys/devices/system/cpu/online
dev_read_sysfs(polaris_ngwc_fed_t)

bind to shfwd port
corenet_udp_bind_polaris_ngwc_fed_shfwd_port(polaris_ngwc_fed_t)

```



```

connect to shfwd port
corenet_tcp_connect_polaris_fed_debug_shfwd_command_port(polaris_ngwc_fed_t)

creates and write /flash/shfwd_params.txt file
polaris_bootflash_manage(polaris_ngwc_fed_t)

use polaris_ngwc_fed_t as syslog_client_type
logging_send_syslog_msg(polaris_ngwc_fed_t)

bind to dbgmn port
corenet_udp_bind_polaris_ngwc_fed_dbgmn_port(polaris_ngwc_fed_t)

corenet_udp_bind_generic_node(polaris_ngwc_fed_t)
allow polaris_ngwc_fed_t self:udp_socket { bind create getopt };

optional_policy(`
on macallan cman_fp needs access to /dev/cisco/dplriomem
for mapping dplr io memory to application space.
polaris_dplr_iomem_mmapdrv_dev_use(polaris_ngwc_fed_t);
`)

On Macallan as part of doppler sdk_asic_init(), a
rw call is made to /dev/cpld
polaris_cpld_dev_use(polaris_ngwc_fed_t)
polaris_cpld_read(polaris_ngwc_fed_t)
#ptp_init_systemclock() called during fed process init writes
/sys/devices/platform/cpld/reg_doppe_1588_sync
polaris_cpld_write(polaris_ngwc_fed_t)

optional_policy(`
In Macallan cards which use Doppler ASIC,
ngmod_doppler_mmap() api is called to get hold of
MMapped Asic address. As part of the operation it uses
/dev/chdrvmmmap device.
polaris_chdrvmmmap_dev_use(polaris_ngwc_fed_t)
`)

LOOK AT ME: /dev/mem access restriction remove after
CSCvk00737 is fixed using CSCvk00741
#ifdef(`nyquist_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_t)
`)

LOOK AT ME: /dev/mem access restriction remove after
CSCvm34589 is fixed using CSCvm34617
#ifdef(`starfleet_platform',`

```

```

polaris_dev_mem_use(polaris_ngwc_fed_t)
')

LOOK AT ME: /dev/mem access restriction remove after
CSCvn64182 is fixed using CSCvn64184
#ifdef(^quake_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_t)
')

#ifdef(^sumatra_platform',`
LOOK AT ME: After direct usage of /dev/mem is removed (CSCvw80796)
polaris_dev_mem_use(polaris_ngwc_fed_t)
polaris_sumatra_doppler_dev_use(polaris_ngwc_fed_t)
')

LOOK AT ME: /dev/mem access restriction remove after
CSCvn08008 is fixed using CSCvn08019.
FED accesses raw memory (/dev/mem) for sending/receiving OOB
traffic on an FSS interface.
#ifdef(^passport_platform',`
polaris_dev_mem_use(polaris_ngwc_fed_t)
')

#Entropy number is read from ACT2 and stored in /tmp/hw_entropy
#Allow sesa library read from /tmp/hw_entropy to update random
#number seed.
polaris_hw_entropy_read(polaris_ngwc_fed_t)

fed is server for /tmp/dbgmn_log_svr socket file
type polaris_fed_sock_t;
files_tmp_file(polaris_fed_sock_t)

files_tmp_filetrans(polaris_ngwc_fed_t, polaris_fed_sock_t, sock_file, "dbgmn_log_svr")

gen_require(`
 type tmp_t;
')
manage_sock_files_pattern(polaris_ngwc_fed_t, tmp_t, polaris_fed_sock_t)

optional_policy(`
talk to rdope.sh over unix sockets
polaris_fed_debug_sock_write(polaris_ngwc_fed_t)
')

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_ngwc_fed_t)

```

```

)

creates few files under /tmp/installer (e.g like
/tmp/installer/phy_shannon_ver_1) to indicate current h/w conditions
polaris_install_tmp_manage(polaris_ngwc_fed_t)

communication between the nif manager and fed use directories under /tmp/sv
polaris_sv_tmp_use(polaris_ngwc_fed_t)

optional_policy(
 polaris_quake_i2c_manage(polaris_ngwc_fed_t)
)

work with /tmp files (/tmp/fed_post_results)
type polaris_fed_tmp_t;
files_tmp_file(polaris_fed_tmp_t)
files_tmp_filetrans(polaris_ngwc_fed_t, polaris_fed_tmp_t, file, "fed_post_result")
files_tmp_filetrans(polaris_ngwc_fed_t, polaris_fed_tmp_t, dir, "test_mrvlphy")
manage_files_pattern(polaris_ngwc_fed_t, polaris_fed_tmp_t, polaris_fed_tmp_t)
manage_dirs_pattern(polaris_ngwc_fed_t, polaris_fed_tmp_t, polaris_fed_tmp_t)
manage_fifo_files_pattern(polaris_ngwc_fed_t, polaris_fed_tmp_t, polaris_fed_tmp_t)
polaris_cm_rp_tmp_manage(polaris_ngwc_fed_t)

Allow write to flash. Needed for template support.
polaris_flashlib_write(polaris_ngwc_fed_t)

CSCvo78054 will be used to fix fed policies on crankshaft properly.
Below policy is just to unblock Nightwatch boot issue on ISR in
enforcing mode.
#ifdef(^crankshaft_family',`
ISR Nightwatch module accesses libraries compiled with icc
polaris_icc_broken_relocations(polaris_ngwc_fed_t)

#ISR Nightwatch module creates softlink /flash -> /bootflash
gen_require(
 type root_t;
)
filetrans_pattern(polaris_ngwc_fed_t, root_t, polaris_disk_bootflash_t, lnk_file, "flash")

)

optional_policy(
polaris_epc_ws_liaison_tmp_read(polaris_ngwc_fed_t)
)

ngwc-fed manage /tmp/epc_ws/fed_to_wif_pipe file fifo_file.
optional_policy(
polaris_epc_ws_liaison_fifo_manage(polaris_ngwc_fed_t)

```

)

```
optional_policy(
polaris_ngwc_itfpo_manage(polaris_ngwc_fed_t)
)
```

```
access SERDES /tmp/serdes_asic_key_dir/*
optional_policy(
polaris_serdes_asic_key_tmp_manage(polaris_ngwc_fed_t)
)
```

```
ngwc-fed creates /tmp/epc_ws dir
optional_policy(
polaris_epc_ws_liaison_tmp_file(polaris_ngwc_fed_t)
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcfed.te
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```

```

April 2017, Victor Kamensky

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#
```

```
/usr/binos/sbin/ncsshd -- gen_context(system_u:object_r:polaris_dmi_ncsshd_mgmt_exec_t,s0)
/var/run/ncsshd_mgmt\pid -- gen_context(system_u:object_r:polaris_dmi_ncsshd_mgmt_var_run_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmincsshdmgmt.fc
No license file was found, but licenses were detected in source scan.
```

```

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#
```

```
/usr/binos/conf/mcp_smartctl_cmds.sh -- gen_context(system_u:object_r:polaris_smartctl_exec_t,s0)

/tmp/smart.pid -- gen_context(system_u:object_r:polaris_smartctl_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngiolite.fc
```

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```

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#
```

```
/tmp/tmppub/interceptor(/.*)? gen_context(system_u:object_r:polaris_pttcd_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispttcd.fc
```

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```

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#
```

```
<summary>Polaris Cfg Policy Rules.</summary>
```

```

Cfg files policy
#####
```

```
#####
```

```
<summary>
Manage cfg files (under /tmp/sw/cfg)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
```

```
interface(`polaris_cfg_data_manage`,
gen_require(`
type polaris_cfg_data_t;
)

manage_dirs_pattern($1, polaris_cfg_data_t, polaris_cfg_data_t)
manage_files_pattern($1, polaris_cfg_data_t, polaris_cfg_data_t)
manage_lnk_files_pattern($1, polaris_cfg_data_t, polaris_cfg_data_t)
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscfg.if

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#

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#

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#

policy\_module(polarisngiolite, 1.0);

gen\_require(`

type polaris\_ngiolite\_t;

`)

polaris\_btrace\_data\_manage(polaris\_ngiolite\_t)

polaris\_crft\_data\_manage(polaris\_ngiolite\_t)

polaris\_chasfs\_manage(polaris\_ngiolite\_t)

polaris\_tdlresolve\_read(polaris\_ngiolite\_t)

polaris\_tdlldb\_list\_dirs(polaris\_ngiolite\_t)

polaris\_cpld\_read(polaris\_ngiolite\_t)

polaris\_flashlib\_read(polaris\_ngiolite\_t)

optional\_policy(`

polaris\_cpp\_tmp\_ifdev\_use(polaris\_ngiolite\_t)

`)

# In the file of radium\_xcvr.c allow access to create and bind

# the socket using the API bnxt\_impl\_init\_netlink.

allow polaris\_ngiolite\_t self:netlink\_generic\_socket { bind create getattr setopt };

# in iot platforms, ngiolite needs access to /proc/sys/net/ipv6/conf/mvsw/disable\_ipv6

optional\_policy(`

kernel\_rw\_net\_sysctls(polaris\_ngiolite\_t)

kernel\_search\_network\_sysctl(polaris\_ngiolite\_t)

`)

# PLEASE LOOK AT code should not use sysv IPC ARIs,

# instead POSIX variants must be used. Remove after

# code changed in proper way

# allow access sysv semaphor created by qfp process

ifdef(`crankshaft\_family',`

polaris\_qfp\_sem\_use(polaris\_ngiolite\_t)

polaris\_ggpio\_dev\_read\_write(polaris\_ngiolite\_t)

polaris\_dplr\_dev\_use(polaris\_ngiolite\_t)

```

')

ifdef(^fugazi_platform',`
polaris_qfp_sem_use(polaris_ngiolite_t)
')

write access to /sys/bus/pci/rescan
dev_rw_sysfs(polaris_ngiolite_t)
LOOK AT ME ngiolite does it through "echo 1 > /sys/bus/pci/rescan" seems to much
to grunt shell and bin access just to write "1" string into the file
corecmd_exec_bin(polaris_ngiolite_t)
corecmd_exec_shell(polaris_ngiolite_t)
allow read of /etc/passwd
auth_use_nsswitch(polaris_ngiolite_t)

polaris_firmware_read(polaris_ngiolite_t)

polaris_udev_tmp_list_dirs(polaris_ngiolite_t)

allow access to read the file cman rommon file.
polaris_proc_rmonbifo_getattr(polaris_ngiolite_t)
polaris_proc_rmonbifo_read(polaris_ngiolite_t)

allow polaris_ngiolite_t self:capability { net_admin sys_rawio };

allow system time capability to check for system timeout
while checking the state using API cwan_modem_check_ready_state
allow polaris_ngiolite_t self:capability sys_time;

allow access to nim_xxd file created by cmcc
polaris_nim_xxd_tmp_open_unlink(polaris_ngiolite_t);

ngiolite needs to work with /dev/sd /dev/sg devices to figure out disk driver
paramters. drivers/userspace/nim_xxd library
storage_raw_read_fixed_disk(polaris_ngiolite_t)
storage_read_scsi_generic(polaris_ngiolite_t)
storage_write_scsi_generic(polaris_ngiolite_t)

polaris_sysfs_platform_dev_use(polaris_ngiolite_t)

LOOK AT ME: ngiolite needs to work with /dev/ds31408, which is generic device_t now
gen_require(
 type device_t;
)
rw_chr_files_pattern(polaris_ngiolite_t, device_t, device_t)

modprobe nim_dm dm_drv_log_level=0x01
ifdef(^crankshaft_family',`

```

```

modutils_domtrans_insmod(polaris_ngiolite_t)
')

polaris_smartctl_domtrans(polaris_ngiolite_t)

utah_fpge_driver.c needs socket to configure interface parameters
allow polaris_ngiolite_t self:udp_socket create_socket_perms;

polaris_utility_domain_template(smartctl)

corecmd_exec_bin(polaris_smartctl_t)
corecmd_exec_shell(polaris_smartctl_t)

allow access to polaris_cpp_tmpfs_t file
Example is ifdev shared memory /dev/shm//cpp_ifdev_shmem
The ngiolite init function calls the api ifdev_init
to initialize shared memory control info.
fs_getattr_tmpfs(polaris_ngiolite_t)
polaris_cpp_tmpfs_ifdev_rw(polaris_ngiolite_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_smartctl_t)

logging_send_syslog_msg(polaris_smartctl_t)

fstools_domtrans(polaris_smartctl_t)

runs tar /bin/tar -xvzf /firmware/MicronP400m-MTFDDAK200MAN.pkg -C /firmware
polaris_firmware_manage(polaris_smartctl_t)
files_getattr_all_dirs(polaris_smartctl_t)
files_read_all_symlinks(polaris_smartctl_t)

work with /dev/sgX
storage_read_scsi_generic(polaris_smartctl_t)
storage_write_scsi_generic(polaris_smartctl_t)

allow polaris_smartctl_t self:capability { chown dac_override fowner fsetid };

type polaris_smartctl_tmp_t;
files_tmp_file(polaris_smartctl_tmp_t)
files_tmp_filetrans(polaris_smartctl_t, polaris_smartctl_tmp_t, file, "smart.pid")
manage_files_pattern(polaris_smartctl_t, polaris_smartctl_tmp_t, polaris_smartctl_tmp_t)

script inherits stdout from ngiolite, needs permission to append to it
polaris_use_btrace_fifo(polaris_smartctl_t)

LOOK AT ME: raw memory access in cavium vendor SDK

```



```

related to octeon driver (BUG CSCvh55517)
ifdef(`crankshaft_family',`
polaris_dev_mem_use(polaris_ngiolite_t)
`)

ifdef(`sparrow_platform',`
polaris_cm_cc_tmpfs_manage(polaris_ngiolite_t)
polaris_tty_NMEA_dev_use(polaris_ngiolite_t)
`)

ifdef(`blackheart_platform',`
polaris_cm_cc_tmpfs_manage(polaris_ngiolite_t)
`)

ifdef(`cabo_platform',`
polaris_cm_cc_tmpfs_manage(polaris_ngiolite_t)
`)

ifdef(`aventus_platform',`
polaris_cm_cc_tmpfs_manage(polaris_ngiolite_t)
polaris_tty_NMEA_dev_use(polaris_ngiolite_t)
`)

ifdef(`crankshaft_family',`
allow scan pci/devices proc dir
The ngiolite init function makes call to o2_cvmx_remote_open to
open the remote library connection to cavium chip in FFP.
The octeon library call invokes pci_get_device, which needs to
access /proc .
kernel_getattr_proc_files(polaris_ngiolite_t)
kernel_write_proc_files(polaris_ngiolite_t)
kernel_read_system_state(polaris_ngiolite_t)

allow access to /tmp/octeon-remote-lock-pci***
This is required as part of ngiolite access of octeon chip.
As part of the init, call is made to octeon_remote_lock()
which requires access to the /tmp file.
polaris_cm_fp_tmp_filetrans(polaris_ngiolite_t)
polaris_cm_fp_tmp_manage(polaris_ngiolite_t)

#####
CWAN NGIOLITE process policies start#####
#####
#cwan running as a ngiolite process needs to be able to RW/IOCTL to qcqmiX files
polaris_qcqmi_dev_use(polaris_ngiolite_t)

#RDM thread in CWAN running as ngiolite process needs access to ttyUSB0 for DM logging
term_use_usb_ttys(polaris_ngiolite_t)

```

```

#RDM/Event thread needs to add a newly generated DM log file/Crash dump file to/from bootflash directory
polaris_bootflash_manage(polaris_ngiolite_t)

#Modem Monitor thread uses sendto over a Datagram socket to send datato Turing Thread
allow polaris_ngiolite_t self:unix_dgram_socket sendto;

#Modem Monitor thread opens a socket to UDEV to process Modem USB addition/disconnection events
allow polaris_ngiolite_t self:netlink_kobject_uevent_socket create_socket_perms;

#Modem Monitor thread needs to be able to open/Read and GetAttributes to differentiate between Telit/SWI vendor
udev_rw_db(polaris_ngiolite_t)

#Turing thread needs to gather stats as well as set the IP address to /proc/net/cwan_modem0/cwan0/src_ip
kernel_search_network_state(polaris_ngiolite_t)
polaris_kernel_rw_network_state_files(polaris_ngiolite_t)

#####
CWAN NGIOLITE process policies end#####
#####
)

on tsn need access to /sys/devices/platform/moka_fpga
/sys/devices/platform/moka_fpga/external_int_pending dev
optional_policy(`
polaris_mokafpga_rw(polaris_ngiolite_t)
`)

on radium need to get model info
optional_policy(`
polaris_dash_dev_use(polaris_ngiolite_t)
`)

work with contdev sysfs files
polaris_contdev_dev_read(polaris_ngiolite_t)

sysnet_domtrans_ifconfig(polaris_ngiolite_t)

logging_send_syslog_msg(polaris_ngiolite_t)

ifdef(`neptune_platform',`
polaris_cpp_cavium_sdk_ipc_use(polaris_ngiolite_t)
`)

optional_policy(`
polaris_nim_dm_dev_use(polaris_ngiolite_t)
`)

```

```

ifdef(`radius_platform',`
#allow ngiolite to access nim_phy_device
polaris_nim_phy_dev_use(polaris_ngiolite_t)
`)

TODO/FIXME, Need to review this permission, this is related to
the call "echo 1 > /sys/bus/pci/rescan"
dev_manage_sysfs_dirs(polaris_ngiolite_t)
allow polaris_ngiolite_t sysfs_t:file create;

allow ngiolite to access sfp over i2c bus
polaris_i2c_use(polaris_ngiolite_t)

on neptune, cavium library in o2_cavm_mem_map wants access to
/sys/devices/pci0000:00/0000:00:01.0/0000:01:00.0/resource0
optional_policy(`
polaris_cpp_cavium_dma_map(polaris_ngiolite_t)
`)

/dev/sfp-ktr & qfp sem access on Katar
ifdef(`katar_platform',`
polaris_sfp_katar_dev_use(polaris_ngiolite_t)
polaris_qfp_sem_use(polaris_ngiolite_t)
fs_getattr_tmpfs(polaris_ngiolite_t)
polaris_cpp_tmpfs_ifdev_rw(polaris_ngiolite_t)
`)

allow /usr/binos/bin/ngiolite to access /tmp/nim_xxd_present
gen_require(`
 type polaris_cmrp_nim_xxd_tmp_t;
`)
files_tmp_file(polaris_cmrp_nim_xxd_tmp_t)
files_tmp_filetrans(polaris_ngiolite_t, polaris_cmrp_nim_xxd_tmp_t, file, "nim_xxd_present")
manage_files_pattern(polaris_ngiolite_t, polaris_cmrp_nim_xxd_tmp_t, polaris_cmrp_nim_xxd_tmp_t)

allow /usr/binos/bin/ngiolite to access /tmp/hd_sz
gen_require(`
 type udev_tmp_t;
`)
read_files_pattern(polaris_ngiolite_t, udev_tmp_t, udev_tmp_t)

allow /usr/sbin/lvm to be executed and to be operated
lvm_domtrans(polaris_ngiolite_t)

allow /usr/binos/bin/ngiolite to manage /tmp
type polaris_ngiolite_tmp_t;
files_tmp_file(polaris_ngiolite_tmp_t)
allow /usr/binos/bin/ngiolite to manage /tmp/smartctl.out and

```

```

/tmp/xxdisplay.ouT
files_tmp_filetrans(polaris_ngiolite_t, polaris_ngiolite_tmp_t, file)
manage_files_pattern(polaris_ngiolite_t, polaris_ngiolite_tmp_t, polaris_ngiolite_tmp_t)

allow /usr/sbin/smartctl to operate on fsadm_exec_t
fstools_domtrans(polaris_ngiolite_t)

allow /usr/sbin/smartctl to access nvme device in chr and blk
dev_nvme_chr_files_manage(polaris_ngiolite_t)
dev_nvme_blk_files_manage(polaris_ngiolite_t)

ifdef(`sumatra_platform',`
dev/cpld
polaris_cpld_dev_use(polaris_ngiolite_t)

manage "sysctrl_i2c.lck"
gen_require(`
 type polaris_cm_rp_tmp_t;
 ')
files_tmp_filetrans(polaris_ngiolite_t, polaris_cm_rp_tmp_t, file, "sysctrl_i2c.lck")
polaris_cm_rp_tmp_manage(polaris_ngiolite_t)

access /dev/huron_fpga
polaris_huron_dev_use(polaris_ngiolite_t)

)

ifdef(`crankshaft_family',`
/var/run/cwan socket and pid
gen_require(`
 type polaris_cwan_svr_var_run_t;
 ')
files_pid_filetrans(polaris_ngiolite_t, polaris_cwan_svr_var_run_t, sock_file, "cwan_ezmanage_cwan_server")
create_sock_files_pattern(polaris_ngiolite_t, polaris_cwan_svr_var_run_t, polaris_cwan_svr_var_run_t)
delete_sock_files_pattern(polaris_ngiolite_t, polaris_cwan_svr_var_run_t, polaris_cwan_svr_var_run_t)
)

allow /usr/binos/bin/ngiolite to access the the following interface
fs_unmount_xattr_fs(polaris_ngiolite_t)
dev_manage_generic_symlinks(polaris_ngiolite_t)
polaris_udev_tmp_manage(polaris_ngiolite_t)

ngiolite/ezManage access rules - currently only applies to TSN
optional_policy(`
Allow ngiolite to access ezManage dgram socket
gen_require(`
 type polaris_ezmanage_t;
 ')
)

```

```

allow polaris_ngiolite_t polaris_ezmanage_t:unix_dgram_socket sendto;

Allow ngiolite to access ezManage socket file in /var/run
polaris_manage_ezmanage_var_run_files(polaris_ngiolite_t
')

allow ngiolite to access /dev/nim_phy
ifdef(`crankshaft_family',`
polaris_nim_phy_dev_use(polaris_ngiolite_t)
')

allow ioctl, read, wr permission for ds31408 device
optional_policy(`
polaris_ds31408_dev_use(polaris_ngiolite_t)
')

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngiolite.te
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#

/tmp/\.ncsshd_bp\sock -s gen_context(system_u:object_r:polaris_dmi_ncsshd_log_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmincsshdfwd.fc
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#

<summary>Polaris vdaemon Policy Rules.</summary>

#####
<summary>
Write vdaemon /var/run socket file
</summary>
<param name="domain">
<summary>

```

```

Domain allowed access.
</summary>
</param>
#
interface(`polaris_vdaemon_var_sock_write`,
 gen_require(`
 type polaris_vdaemon_t;
 type polaris_vdaemon_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_vdaemon_var_run_t)
 allow $1 polaris_vdaemon_t:unix_stream_socket { connectto };
)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisvdaemon.if
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```

```

#
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#

policy_module(polarisboothelper, 1.0);

polaris_process_domain_template(boothelper_evt)

corecmd_exec_bin(polaris_boothelper_evt_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_boothelper_evt_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_boothelper_evt_t)

polaris_cpld_read(polaris_boothelper_evt_t)

#####
work with /tmp/udev/.

type polaris_udev_tmp_files_t;
files_tmp_file(polaris_udev_tmp_files_t)

polaris_systemd_tmpfiles_tmp_filetrans(polaris_udev_tmp_files_t, dir, "udev")

polaris_bootflash_manage(polaris_boothelper_evt_t)

```

```

type polaris_boothelper_tmp_t;
files_tmp_file(polaris_boothelper_tmp_t)
files_tmp_filetrans(polaris_boothelper_evt_t, polaris_boothelper_tmp_t, dir, "rommon_upgrade_ngwc")
manage_files_pattern(polaris_boothelper_evt_t, polaris_boothelper_tmp_t, polaris_boothelper_tmp_t)
manage_dirs_pattern(polaris_boothelper_evt_t, polaris_boothelper_tmp_t, polaris_boothelper_tmp_t)
watch over /tmp/rommon_upgrade_ngwc
allow polaris_boothelper_evt_t polaris_boothelper_tmp_t:dir watch;

nyquist creates /tmp/udev_ssd.log
gen_require(
 type udev_t;
)
files_tmp_filetrans(udev_t, polaris_udev_tmp_files_t, file, "udev_ssd.log")
fs_tmpfs_filetrans(udev_t, polaris_udev_tmp_files_t, file, "udev_ssd.log")

create /dev/harddisk1 softlink during bootup
ifdef(`crankshaft_family',`
gen_require(
 type device_t;
 type initrc_t;
 type fixed_disk_device_t;
)
filetrans_pattern(initrc_t, device_t, fixed_disk_device_t, lnk_file, "harddisk1")
)
restorecon under setfiles_t appends to /tmp/udev_ssd.log
gen_require(
 type setfiles_t;
)
polaris_udev_tmp_manage(setfiles_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisboothelper.te

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```

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#

```

```

policy_module(polarisnmspd, 1.0);

```

```

gen_require(
 type polaris_nmspd_t;
)

```

```

polaris_btrace_data_manage(polaris_nmspd_t)
polaris_crft_data_manage(polaris_nmspd_t)
polaris_chasfs_manage(polaris_nmspd_t)
polaris_tdlresolve_read(polaris_nmspd_t)
polaris_tdlldb_list_dirs(polaris_nmspd_t)
polaris_cpld_read(polaris_nmspd_t)
polaris_lua_read(polaris_nmspd_t)
polaris_flashlib_read(polaris_nmspd_t)

polaris_ripc_sman_ui_serv_connect(polaris_nmspd_t)

polaris_db_tdlldb_dir_use(polaris_nmspd_t)

#####
mqipc manual, one that missing in platform tdl file\n
#####
type polaris_nmspd_testclient1_mqipc_t;
polaris_mqipc_type(polaris_nmspd_testclient1_mqipc_t)

type polaris_nmspd_testclient2_mqipc_t;
polaris_mqipc_type(polaris_nmspd_testclient2_mqipc_t)

type polaris_testclient1_nmspd_mqipc_t;
polaris_mqipc_type(polaris_testclient1_nmspd_mqipc_t)

type polaris_testclient2_nmspd_mqipc_t;
polaris_mqipc_type(polaris_testclient2_nmspd_mqipc_t);

polaris_mqipc_create_name(polaris_nmspd_t, polaris_nmspd_testclient1_mqipc_t, nmspd-testclient1)
polaris_mqipc_use(polaris_nmspd_t, polaris_testclient1_nmspd_mqipc_t)

polaris_mqipc_create_name(polaris_nmspd_t, polaris_nmspd_testclient2_mqipc_t, nmspd-testclient2)
polaris_mqipc_use(polaris_nmspd_t, polaris_testclient2_nmspd_mqipc_t)

#stuff related to vrf support of the socket
polaris_lfts_dev_use(polaris_nmspd_t)
polaris_socketat_nsfs_read(polaris_nmspd_t)
enable listen on tcp port 16113
corenet_tcp_bind_polaris_nmspd_port(polaris_nmspd_t)

allow polaris_nmspd_t self:capability dac_override;

Allow IPC messages to Btrace Process from NMSPD Process
logging_send_syslog_msg(polaris_nmspd_t)
Allow NMSPD to read DNS file for namerresolution
sysnet_read_config(polaris_nmspd_t)

NMSPD uses cURL to open HTTP connections and SSL to open TLS Connections

```



```

to DNASpaces and CMX respectively
gen_require(
 type node_t;
)
allow polaris_nmospd_t node_t:udp_socket node_bind;
allow polaris_nmospd_t self:udp_socket { bind connect getattr };
corenet_tcp_connect_http_port(polaris_nmospd_t)
polaris_odm_clnt2svr_mqipc_create(polaris_nmospd_t)

#DB persistence
polaris_tdlldbpersist_setup(polaris_nmospd_t)
polaris_tmp_tdlldb_persist_setup(polaris_nmospd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnmospd.te
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#

policy_module(polarisftm, 1.0);

gen_require(
 type polaris_ftm_t;
)
polaris_chasfs_manage(polaris_ftm_t)
polaris_cpld_read(polaris_ftm_t)
polaris_flashlib_read(polaris_ftm_t)
polaris_tdlresolve_read(polaris_ftm_t)

polaris_ripc_sman_ui_serv_connect(polaris_ftm_t)

polaris_db_tdlldb_dir_use(polaris_ftm_t)

logging_send_syslog_msg(polaris_ftm_t)

corecmd_exec_bin(polaris_ftm_t)
corecmd_exec_shell(polaris_ftm_t)
auth_use_nsswitch(polaris_ftm_t)

vconfd_load_shared_schemas
polaris_confid_shared_schema_read(polaris_ftm_t)

work with /tmp/xml

```

```

polaris_cedge_xml_tmp_manage(polaris_ftm_t)

work with /tmp/tmp
polaris_cedge_tmp_manage(polaris_ftm_t)

polaris_cedge_reset_ns(polaris_ftm_t)

/var/run/.ftmd-xxx sockets and pid
type polaris_ftm_var_run_t;
files_pid_file(polaris_ftm_var_run_t)
manage_files_pattern(polaris_ftm_t, polaris_ftm_var_run_t, polaris_ftm_var_run_t)
manage_sock_files_pattern(polaris_ftm_t, polaris_ftm_var_run_t, polaris_ftm_var_run_t)
files_pid_filetrans(polaris_ftm_t, polaris_ftm_var_run_t, { file sock_file })

polaris_cfgmgr_var_sock_write(polaris_ftm_t)
polaris_dbgd_var_sock_write(polaris_ftm_t)
polaris_fpm_var_sock_write(polaris_ftm_t)
polaris_ttm_var_sock_write(polaris_ftm_t)
polaris_vdaemon_var_sock_write(polaris_ftm_t)

PLEASE LOOK AT ME: write access to /boot/hugepage.conf
which on ultra translates into /varied/hugepage.conf access
But no code in polaris uses it
polaris_disk_varied_manage(polaris_ftm_t)
files_manage_boot_files(polaris_ftm_t)

fp_scaling_init calls posix_sysconf
dev_read_sysfs(polaris_ftm_t)

vip_execute_nowait uses setpgid
allow polaris_ftm_t self:process setpgid;

polaris_cedge_tmpfs_manage(polaris_ftm_t)

raw socket access from trace_tunnel_socket_icmp_init ftm_binos_trace.c
allow polaris_ftm_t self:rawip_socket create_socket_perms;
allow polaris_ftm_t self:capability net_raw;

bind to ftm fnf port
corenet_udp_bind_polaris_ftm_fnf_port(polaris_ftm_t)
corenet_udp_bind_generic_node(polaris_ftm_t)

ftm may create vrf-based netns on demand, vrf.65528
polaris_vrf_netns_manage(polaris_ftm_t)

creates /tmp/HTX-IOX/sw-htx-service
optional_policy(
 polaris_htx_iox_tmp_manage(polaris_ftm_t)

```

')

```
fp_scaling_read_core_count accesses cgroups file at
/sys/fs/cgroup/cpuset/iosxe_control_processes/cpuset.cpus
fs_read_cgroup_files(polaris_ftm_t)
```

```
ftm_change_default_gw_src_ip calls ip utility
sysnet_domtrans_ifconfig(polaris_ftm_t)
```

```
ftm process periodically call nice utility to gzip some xml file
allow polaris_ftm_t self:process setsched;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisftm.te
```

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```

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#
```

```
<summary>Polaris fman_fp Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfmanfp.if
```

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```

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#
```

```
/tmp/replication(/.*)? gen_context(system_u:object_r:polaris_repm_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrepm.fc
```

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#
```

```

<summary>Polaris Btrace Policy Rules.</summary>

#####
Polaris cpp (ultra)
#####

#####
<summary>
Work (read, write, ioctl) with /dev/cpp_dev_info and /dev/cpp_vxe_rsrc
devices.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_cpp_dev_use',`
gen_require(`
 type device_t;
 type polaris_cpp_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_cpp_device_t)
 read_chr_files_pattern($1, device_t, polaris_cpp_device_t)
 allow $1 polaris_cpp_device_t:chr_file map;
 polaris_i95_dev_use($1)
')

#####
<summary>
Make the specified domain as polaris cpp process.
</summary>
<param name="type">
<summary>
Type to be used as a cpp process.
</summary>
</param>
#
interface(`polaris_cpp_process',`
gen_require(`
 attribute polaris_cpp_domain;
`)
 typeattribute $1 polaris_cpp_domain;
')

```

```
#####
<summary>
Make the specified domain able to use cpp /tmp files.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
<param name="object">
<summary>
File name in /tmp that domains creates and other cpp process
access.
</summary>
</param>
#
interface(`polaris_cpp_tmp_files_use`,`
 gen_require(`
 type polaris_cpp_tmp_t;
 `)

 files_tmp_filetrans($1, polaris_cpp_tmp_t, file, $2)
 manage_files_pattern($1, tmp_t, polaris_cpp_tmp_t)
 allow $1 polaris_cpp_tmp_t:file map;
`)

#####
<summary>
Specified domain can execute polaris_cpp_tmpifs_t code
which resides in /dev/shm/cpp_ucode_dram
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_tmpifs_exec`,`
 gen_require(`
 type polaris_cpp_tmpifs_t;
 `)

 allow $1 polaris_cpp_tmpifs_t:file execute;
`)

#####
<summary>
Read write from polaris_cpp_tmpifs_t file
```

```

Example is ifdev shared memory /dev/shm/cpp_ifdev_shmem
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_tmpfs_ifdev_rw`,`
 gen_require(`
 type tmpfs_t;
 type polaris_cpp_tmpfs_t;
 `)

 rw_files_pattern($1, tmpfs_t, polaris_cpp_tmpfs_t)
 allow $1 polaris_cpp_tmpfs_t:file map;
)

#####
<summary>
Make the specified domain able to work with cpp /tmp/cpp_ifdev_rep and
/tmp/cpp_ifdev_req pipe files.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_tmp_ifdev_use`,`
 gen_require(`
 type polaris_cpp_tmp_t;
 `)

 manage_fifo_files_pattern($1, tmp_t, polaris_cpp_tmp_t)
 allow $1 polaris_cpp_tmp_t:file map;
)

#####
<summary>
Make the specified domain able to getattr of /tmp/cpp_ifdev_rep and
/tmp/cpp_ifdev_req pipe files.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>

```

```

</param>
#
interface(`polaris_cpp_tmp_ifdev_getattr`,`
 gen_require(`
 type polaris_cpp_tmp_t;
 `)

 setattr_fifo_files_pattern($1, tmp_t, polaris_cpp_tmp_t)
)

#####
<summary>
Allow process to use Cavium SDK sysv IPC primitives
created by octeon_pci_dmap.c. Those could be created either
by cpp_driver (usually) or by cpp_cdm on utah and overlord,
and by cm_fp on neptune.
##
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_cavium_sdk_ipc_use`,`
 ifdef(`crankshaft_family`,`
 polaris_cpp_driver_sem_use($1)
 polaris_cpp_driver_shm_use($1)
 optional_policy(`
 polaris_cpp_cdm_sem_use($1)
 polaris_cpp_cdm_shm_use($1)
 `)
 optional_policy(`
 polaris_cm_fp_sem_use($1)
 polaris_cm_fp_shm_use($1)
 `)
 # allow scan pci/devices proc dir
 kernel_getattr_proc_files($1)
 kernel_write_proc_files($1)
 kernel_read_system_state($1)
)
)

#####
<summary>
Work (read, write, ioctl) with /dev/i95 devices
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_i95_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_i95_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_i95_device_t)
 read_chr_files_pattern($1, device_t, polaris_i95_device_t)
 allow $1 polaris_i95_device_t:chr_file map;
)

```

```

#####
<summary>
Work (read, write, map) with sysfs files required
by cavium library in o2_cavm_mem_map.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_cavium_dma_map`,`
 gen_require(`
 type sysfs_t;
 `)

 mmap_files_pattern($1, sysfs_t, sysfs_t)
 dev_rw_sysfs($1)
)

```

```

#####
<summary>
Manage /dev/shm files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_cpp_tmpfs_manage`,`
 gen_require(`

```



```

type polaris_cpp_tmpfs_t;
type tmpfs_t;
)

fs_tmpfs_filetrans($1, polaris_cpp_tmpfs_t, file)
manage_files_pattern($1, tmpfs_t, polaris_cpp_tmpfs_t)
allow $1 polaris_cpp_tmpfs_t:file map;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscpp.if

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```

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#

```

## <summary>Polaris bt\_logger Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtlogger.if

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```

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#

```

# /bootflash labels

```

/bootflash(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/bootflash/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/bootflash/.ssh/ssh_host.*_key\pub gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/bootflash/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/bootflash/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)

```

# /csl\_p\_0

```

/csl_p_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)

```

# /csl\_p\_1.context

```

/csl_p_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)

/csl_s_0.context
/csl_s_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)

/csl_s_1.context
/csl_s_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)

/obfl is separate on qwlc
/obfl(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/varied
/varied(/.*)? gen_context(system_u:object_r:polaris_disk_varied_t,s0)
/varied/install_info gen_context(system_u:object_r:polaris_vwlcinstall_info_t,s0)
/varied/obfl_* gen_context(system_u:object_r:polaris_obfl_data_t,s0)
/varied/grub_cisco_version gen_context(system_u:object_r:polaris_grubver_t,s0)
/varied/grub(/.*)? gen_context(system_u:object_r:boot_t,s0)
/varied/grub2(/.*)? gen_context(system_u:object_r:polaris_grub_bios_t,s0)
/varied/grub/menu.* gen_context(system_u:object_r:bootloader_etc_t, s0)
/sbin/grub* gen_context(system_u:object_r:bootloader_exec_t,s0)

/grubenv
/bootefi(/.*)? gen_context(system_u:object_r:polaris_grub_efi_t, s0)

hanet driver used by vwlc and ultra, is there better place for it?
/dev/hanet -c gen_context(system_u:object_r:polaris_hanet_device_t,s0)

from /lib/tmpfiles.d/binos-vxe.conf
/lic0 -l gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/lic1 -l gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)

/harddisk labels (qwlc)
/vol/harddisk(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
/vol/harddisk/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/vol/harddisk/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)

/init is symbolic link to /lib/systemd/systemd
/init -l gen_context(system_u:object_r:init_exec_t,s0)
/disk0 is symbolic link to /vol/disk0
/disk0 -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

/dev/epa device on qwlc
/dev/epa[0-9]* -c gen_context(system_u:object_r:polaris_epa_device_t,s0)
/dev/epactrl[0-9]* -c gen_context(system_u:object_r:polaris_epa_device_t,s0)

/dev/luna_fpga on qwlc

```

```

/dev/luna_mbfpga -c gen_context(system_u:object_r:polaris_luna_mbfpga_device_t,s0)

/dev/astro on qwlc
/dev/astro -c gen_context(system_u:object_r:polaris_astro_device_t,s0)

/dev/cpp_il on qwlc
/dev/cpp_il -c gen_context(system_u:object_r:polaris_cpp_il_device_t,s0)

/flash is symbolic link to /bootflash on qwlc
/flash gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

/dev/oob_evfc on qwlc
/dev/oob_evfc -c gen_context(system_u:object_r:polaris_oob_evfc_device_t,s0)

/dev/sfp-ktr on katar
/dev/sfp-ktr -c gen_context(system_u:object_r:polaris_sfp_katar_device_t,s0)

To store tcpdump output in file haIntCaptureLo.pcap
/bootflash/haIntCaptureLo.pcap gen_context(system_u:object_r:polaris_netutils_data_t,s0)
/objstore(/.*)? gen_context(system_u:object_r:polaris_disk_objstore_t,s0)

/config labels
/config(/.*)? gen_context(system_u:object_r:polaris_disk_config_t,s0)
/config/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/config/.ssh/ssh_host.*_key\pub gen_context(system_u:object_r:sshd_key_t,s0)
/config/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswlc.fc

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dnl

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dnl

dnl WLC Platform Max Bay Limits

max\_bay\_map\_set(rp, `per\_bay', 0)

max\_bay\_map\_set(cc, `per\_bay', 0)

max\_bay\_map\_set(fp, `per\_bay', 0)

dnl in elastic scope each process has its own value

max\_elastic\_map\_set(rp, `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(cc, `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(fp, `elasitic', BPROC\_ODM, 1)

max\_elastic\_map\_set(rp, `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(cc, `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(fp, `elastic', BPROC\_WNCD, 7)

```
max_elastic_ripc_map_set(`rp', `elastic', BPROC_ODM, 1)
max_elastic_ripc_map_set(`cc', `elastic', BPROC_ODM, 1)
max_elastic_ripc_map_set(`fp', `elasic', BPROC_ODM, 1)
```

```
max_elastic_ripc_map_set(`rp', `elastic', BPROC_WNCD, 7)
max_elastic_ripc_map_set(`cc', `elastic', BPROC_WNCD, 7)
max_elastic_ripc_map_set(`fp', `elastic', BPROC_WNCD, 7)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/vwlcmaps.m4
```

No license file was found, but licenses were detected in source scan.

```
#
June 2017, Victor Kamensky
#
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#
```

```
policy_module(polariswebui, 1.0);
```

```
type polaris_webui_file_t;
files_type(polaris_webui_file_t)
polaris_pfile_type(polaris_webui_file_t)
```

```
polaris_process_domain_template(webui_lighttpd)
```

```
polaris_process_domain_template(webui)
```

```
gen_require(`
 type initrc_t;
')
manage_dirs_pattern(initrc_t, polaris_webui_file_t, polaris_webui_file_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswebui.te
```

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polariscmrp, 1.0);
```

```

gen_require(
 type polaris_cm_rp_t;
)

polaris_btrace_data_manage(polaris_cm_rp_t)
polaris_crft_data_manage(polaris_cm_rp_t)
polaris_chasfs_manage(polaris_cm_rp_t)
polaris_tdlresolve_read(polaris_cm_rp_t)
polaris_tdlldb_list_dirs(polaris_cm_rp_t)
polaris_cpld_read(polaris_cm_rp_t)
polaris_lua_read(polaris_cm_rp_t)
polaris_flashlib_read(polaris_cm_rp_t)
polaris_flashlib_write(polaris_cm_rp_t)
#
cm_rp opens log file to collect required RP, CC, FP and rommon details
and write into /vol/harddisk/.inv/inv_log_file
This file is accessed by crashinfo collecting script and others
type polaris_cm_rp_inv_log_file_t;
polaris_disk_type(polaris_cm_rp_inv_log_file_t)
polaris_cm_rp_inv_log_setup(polaris_cm_rp_t)

polaris_ripc_sman_ui_serv_connect(polaris_cm_rp_t)

polaris_cpld_dev_use(polaris_cm_rp_t)
polaris_lfts_dev_use(polaris_cm_rp_t)
polaris_proc_rmonbifo_read(polaris_cm_rp_t)
polaris_obfl_data_read(polaris_cm_rp_t)

polaris_db_tdlldb_dir_use(polaris_cm_rp_t)
cman_rp needs read access to cpu identity
/dev/cpu/0/msr
dev_read_cpuid(polaris_cm_rp_t)
allow polaris_cm_rp_t self:capability { sys_rawio dac_override chown sys_resource };

allow polaris_cm_rp_t self:process setsched;

on ultra read eeprom through i2c
type=AVC msg=audit(1479569571.044:3): avc: denied { getattr } for pid=5283 comm="cmand"
path="/sys/devices/i2c-0/i2c-1/1-0056/eeprom" dev="sysfs" ino=25556
scontext=system_u:system_r:polaris_cm_rp_t:s0 tcontext=system_u:object_r:sysfs_t:s0 tclass=file
type=AVC msg=audit(1479569571.045:4): avc: denied { read write } for pid=5283 comm="cmand"
name="eeprom" dev="sysfs" ino=25556 scontext=system_u:system_r:polaris_cm_rp_t:s0
tcontext=system_u:object_r:sysfs_t:s0 tclass=file
dev_rw_sysfs(polaris_cm_rp_t)

polaris_ggpio_dev_read_write(polaris_cm_rp_t)

accessing obfl files like /obfl/obfl_uptime_v2.log

```

```

polaris_bootflash_read(polaris_cm_rp_t)
polaris_obfl_data_manage(polaris_cm_rp_t)

corecmd_exec_shell(polaris_cm_rp_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_cm_rp_t)

cman_data_chasfs_mgmt_eth_override (cman/rp/src/cman_data.c:1096) tries to do
ioctl(sk, SIOCGIFHWADDR, &ifr) for "eth2", which is not present on ultra, but
such ioctl in kernel triggers dev_load attempt in kernel. Since interface
and module does exist anyway, it is OK to deny it
kernel_dontaudit_request_load_module(polaris_cm_rp_t)

cmand creates udp socket to get interface hw address cmlib_if_config_addr
allow polaris_cm_rp_t self:udp_socket create_socket_perms;

dyncfg_setup.sh is started by cmand
polaris_dyncfg_domtrans(polaris_cm_rp_t)
polaris_dyncfg_tmp_read(polaris_cm_rp_t)
on crankshaft cm_rp does init directly
polaris_dyncfg_setup(polaris_cm_rp_t)

denied { search read open } subject: polaris_cm_rp_t; object: polaris_disk_varied_t
name="/" dev="sda5"; path="/varied"
polaris_disk_varied_manage(polaris_cm_rp_t)

#allow polaris_cm_rp_t polaris_udev_tmp_files_t:dir { read search };
polaris_udev_tmp_list_dirs(polaris_cm_rp_t)

LOOK AT ME: /tmp/rp/chasfs/inventory has symbolic links back to
/bootflash/core/modules and /bootflash/tracelogs/modules cman_inv_restart_init
calls chasfs_properties_internal over this node and as result it tries to
access those directories
polaris_core_file_search(polaris_cm_rp_t)
polaris_disk_bootflash_search(polaris_cm_rp_t)
polaris_btrace_persistent_data_search(polaris_cm_rp_t)

polaris_dyncfg_tmp_manage(polaris_cm_rp_t)

ifdef(^mcp_family',`
polaris_scooby_dev_use(polaris_cm_rp_t)
read/write /dev/ds3100 chr device
dev_rw_generic_chr_files(polaris_cm_rp_t)
polaris_spa_dev_use(polaris_cm_rp_t)
')

```

```

temporary files created for repm in /tmp/replication
type polaris_cm_rp_tmp_t;
files_tmp_file(polaris_cm_rp_tmp_t)
gen_require(
 type tmp_t;
)
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "sysctrl_i2c.lck")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "pfu_overtime.lock")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "golden_boot")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "sr_message_debug.txt")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "ngwc_sudi_auth_done")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "codesign.txt")
polaris_cm_rp_tmp_manage(polaris_cm_rp_t)

logging_send_syslog_msg(polaris_cm_rp_t)

work with /dev/i2c devices
polaris_i2c_use(polaris_cm_rp_t)
dev_getattr_sysfs_fs(polaris_cm_rp_t)

/var files
gen_require(
 type var_log_t;
)
type polaris_cm_rp_var_log_t;
logging_log_file(polaris_cm_rp_var_log_t)
logging_log_filetrans(polaris_cm_rp_t, polaris_cm_rp_var_log_t, file, "obfl_uptime_v2.log")
manage_files_pattern(polaris_cm_rp_t, var_log_t, polaris_cm_rp_var_log_t)

needed for "show platform hardware slot R0 eobc interface primary status"
kernel_read_network_state(polaris_cm_rp_t)

#####
show platform hardware slot R0 pcie status
mcp_pcie_status_cmd.sh
/bin/sh /usr/binos/conf/bexec.sh -c /usr/binos/conf/mcp_pcie_status_cmd.sh
#####

polaris_utility_domain_template(pcie_status_cmd)

polaris_bexecute_domtrans(polaris_cm_rp_t)
polaris_bexecute_domain(polaris_pcie_status_cmd_t, polaris_pcie_status_cmd_exec_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_pcie_status_cmd_t)

"lspci" needs access to files like /sys/devices/pci0000:00/0000:00:00.0/resource

```

```

dev_read_sysfs(polaris_pcie_status_cmd_t)

polaris_send_signal_to_bexecute(polaris_cm_rp_t)

need write/getattr access for pipes like "pipe:[118396]"
polaris_cmrp_use_fifo(polaris_pcie_status_cmd_t)

corecmd_exec_bin(polaris_pcie_status_cmd_t)

on utah need to get model info
optional_policy(`
 polaris_dash_dev_use(polaris_cm_rp_t)
 polaris_nios_dev_use(polaris_cm_rp_t)
`)

#access to /dev/dash_fpga device on fugazi platform
#ifdef(^fugazi_platform',`
 polaris_dash_dev_mcp_use(polaris_cm_rp_t)
`)

#ifdef(^crankshaft_family',`
 polaris_quack_dev_use(polaris_cm_rp_t)
`)

#ifdef(^sparrow_platform',`
 polaris_cm_cc_tmpfs_manage(polaris_cm_rp_t)
`)

#ifdef(^blackheart_platform',`
 polaris_cm_cc_tmpfs_manage(polaris_cm_rp_t)
`)

#ifdef(^cabo_platform',`
 polaris_cm_cc_tmpfs_manage(polaris_cm_rp_t)
`)

#ifdef(^aventus_platform',`
 polaris_cm_cc_tmpfs_manage(polaris_cm_rp_t)
 polaris_dio_dev_use(polaris_cm_rp_t)
`)

#ifdef(^qwlc_platform',`
 polaris_quack_dev_use(polaris_cm_rp_t)
`)

#ifdef(^katar_platform',`
 polaris_quack_dev_use(polaris_cm_rp_t)
`)

```



```

ifdef(`wlc_family',`
netutils_domtrans_ping(polaris_cm_rp_t)
`)

ifdef(`ngwc_family',`
In cman_rp module fips/entropy component
calls cman_ngwc_tam_platform_get_act2_entropy() to
retrieve entropy from ACT2 chip.
polaris_act2_dev_use(polaris_cm_rp_t)

cman-rp init needs access to quack chip
polaris_quack_dev_use(polaris_cm_rp_t)

read /proc/cmdline
kernel_read_system_state(polaris_cm_rp_t)

#on macallan and nyquist cman_rp needs to access /flash<#>/lic0/sudi_cert_data_v3
polaris_disk_license_read(polaris_cm_rp_t)

#on macallan and starfleet cli "show firmware version lan_spi" triggers ethtool usage
sysnet_domtrans_ifconfig(polaris_cm_rp_t)
`)

cman-rp needs to read /tmp/fed_post_result and /tmp/sm_post_result
on ngwc platforms
optional_policy(`
polaris_fed_tmp_files_read(polaris_cm_rp_t)
`)
optional_policy(`
polaris_sif_mgr_tmp_files_read(polaris_cm_rp_t)
`)

ifdef(`starfleet_platform',`
polaris_dmammap_dev_use(polaris_cm_rp_t)
`)

ifdef(`nyquist_platform',`
polaris_ngwc_shm_manage(polaris_cm_rp_t)

/dev/dmammap usage
polaris_dmammap_dev_use(polaris_cm_rp_t)

/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_cm_rp_t)

```

```
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "pm_post_result")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, dir, "microcode_update")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "mcu_upgrading")
```

```
executes tar for microcode
allow polaris_cm_rp_t self:capability { fowner fsetid };
')
```

```
ifdef(^radium_platform',`
/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_cm_rp_t)
')
```

```
ifdef(^sumatra_platform',`
/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_cm_rp_t)
LOOK AT ME: After direct usage of /dev/mem is removed (CSCvw80796)
polaris_dev_mem_use(polaris_cm_rp_t)
access huron FPGA
polaris_huron_dev_use(polaris_cm_rp_t)
')
```

```
ifdef(^quake_platform',`
polaris_ngwc_shm_manage(polaris_cm_rp_t)
```

```
/dev/dmammap usage
polaris_dmammap_dev_use(polaris_cm_rp_t)
```

```
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "pm_post_result")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, dir, "microcode_update")
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "mcu_upgrading")
')
```

```
LOOK AT ME: /dev/mem access restriction remove after
CSCvm48950 is fixed using CSCvm48953
ifdef(^nyquist_platform',`
polaris_dev_mem_use(polaris_cm_rp_t)
')
```

```
LOOK AT ME: /dev/mem access restriction remove after
CSCvn64182 is fixed using CSCvn64184
ifdef(^quake_platform',`
polaris_dev_mem_use(polaris_cm_rp_t)
')
```

```
#####
```

```

CLI: "show platform hardware slot R0 xaui statistics"
this results in cman (/usr/binos/bin/cmand) invoking
"/bin/sh /usr/binos/conf/bexec.sh -c /usr/binos/conf/dash_fpga_xaui.py show".
The python script dash_fpga_xaui.py runs in polaris_bexecute_t domain
and as part of its functionality it needs to create an UDP socket and make an ioctl call.
#####

polaris_utility_domain_template(dash_fpga_xaui)

polaris_bexecute_domain(polaris_dash_fpga_xaui_t, polaris_dash_fpga_xaui_exec_t)
polaris_cmrp_use_fifo(polaris_dash_fpga_xaui_t)
allow polaris_dash_fpga_xaui_t self:udp_socket { create ioctl };

#####
CLI: show plat soft cpu share
- invokes functions in binos/tools/bin/cgroup_reports.sh
- also cman_cli_show_cpu_share_cb in binos/cman/rp/src/cman_cli.c
allow open/read/search cgroup files like
/sys/fs/cgroup/cpu,cpuacct/iosxe_control_processes/cpu.shares
#####
fs_read_cgroup_files(polaris_cm_rp_t)
fs_list_cgroup_dirs(polaris_cm_rp_t)

on tsn need access to /dev/moka_fpga
optional_policy(`
polaris_mokafpga_dev_use(polaris_cm_rp_t)
`)

optional_policy(`
betelgeuse need access to /dev/sirius_fpga
polaris_sirius_fpga_dev_use(polaris_cm_rp_t)
`)

on tsn read access to /sys/devices/platform/moka_fpga
optional_policy(`
polaris_mokafpga_read(polaris_cm_rp_t)
`)

optional_policy(`
polaris_tam_getattrs_tmp_dirs(polaris_cm_rp_t)
`)

on vwlc/macallan, cmand creates /tmp/hw_entropy
polaris_hw_entropy_create(polaris_cm_rp_t)

on tsn need write access to
sys/devices/platform/cpld/reg_rp_sku_register
on starfleet need write access to

```

```

sys/devices/platform/cpld/reg_fan_fault_shutdown
optional_policy(`
polaris_cpld_write(polaris_cm_rp_t)
`)

LOOK AT ME: /dev/mem access restriction
ifdef(`tsn_platform',`
polaris_dev_mem_use(polaris_cm_rp_t)
`)

reads from, populates chasfs with values and deletes /tmp/package_biv_sums
polaris_kgv_data_manage(polaris_cm_rp_t)

optional_policy(`
 polaris_quake_i2c_manage(polaris_cm_rp_t)
`)

ifdef(`qwlc_platform',`
read/write /dev/ds3100 chr device
dev_rw_generic_chr_files(polaris_cm_rp_t)
`)

ifdef(`katar_platform',`
read/write /dev/ds3100 chr device
dev_rw_generic_chr_files(polaris_cm_rp_t)
Read access to /tmp/ldwm_envelope file
polaris_ldwm_envelope_read(polaris_cm_rp_t)
`)

ifdef(`mcp_family',`
Read access to /tmp/ldwm_envelope file
polaris_ldwm_envelope_read(polaris_cm_rp_t)
`)

/dev/luna_fpga on qwlc
optional_policy(`
polaris_luna_mbfpga_dev_use(polaris_cm_rp_t)
`)

open /dev/ttyS0
term_use_unallocated_ttys(polaris_cm_rp_t)

optional_policy(`
polaris_ngwc_scc_shm_manage(polaris_cm_rp_t)
`)

ifdef(`ngwc_family',`
on nyquist in ngwc_update_member_config nvram_config is

```

```

copied from /tmp/chassis/local/rp/tam/00001.nvram_config
polaris_nvram_manage(polaris_cm_rp_t)
CMAN needs to create nvram_config with the right label instead of bootflash_t
gen_require(
 type polaris_nvram_file_t;
 type polaris_disk_bootflash_t;
)
filetrans_pattern(polaris_cm_rp_t, polaris_disk_bootflash_t, polaris_nvram_file_t, file, "nvram_config")
)

CMANRP needs to create right label instead of bootflash_t
type polaris_user_file_t;
files_type(polaris_user_file_t);
polaris_bootflash_filetrans(polaris_cm_rp_t, polaris_user_file_t, file);
manage_files_pattern(polaris_cm_rp_t, polaris_disk_bootflash_t, polaris_user_file_t)

on virtual platforms cman reads virtual sudi file /csl_p_0/vudi.pri
ifdef(`vxe_family',`
polaris_disk_csl_read(polaris_cm_rp_t)
)
ifdef(`wlc_family',`
polaris_disk_csl_read(polaris_cm_rp_t)
)

from cman_util_chasfs_watch_stby_harddisk
polaris_udev_tmp_watch(polaris_cm_rp_t)

watch read over /tmp/chassis/local/rp/tam by cman_nyq_board_auth_init
polaris_chasfs_watch_read(polaris_cm_rp_t)

/dev/aikido access
polaris_aikido_dev_use(polaris_cm_rp_t)

access SERDES /tmp/serdes_asic_key_dir/*
optional_policy(
polaris_serdes_asic_key_tmp_manage(polaris_cm_rp_t)
)

run /sbin/hwclock in its own domain
clock_domtrans(polaris_cm_rp_t)

ifdef(`crankshaft_family',`
modprobe sm_nim_adpt.ko for Switzer-CC
modutils_domtrans_insmod(polaris_cm_rp_t)
/dev/sm_nim_adpt device files for Switzer-CC
polaris_sm_nim_adpt_dev_use(polaris_cm_rp_t)

"show platform hardware subslot <slot/card> backplane statistics"

```

```

triggers ethtool with ifconfig_t using fifo_file (pipe) on polaris_cm_rp_t.
gen_require(`
 type ifconfig_t;
`)

polaris_cmrp_use_fifo(ifconfig_t)
`)

polaris_iosd_vcpu_read(polaris_cm_rp_t)

#####
show platform hardware slot R0 fpga
mcp_fpga_status_cmd.sh
/bin/sh /usr/binos/conf/bexec.sh -c /usr/binos/conf/mcp_fpga_status_cmd.sh
#####

polaris_utility_domain_template(fpga_status_cmd)

polaris_bexecute_domtrans(polaris_cm_rp_t)
polaris_bexecute_domain(polaris_fpga_status_cmd_t, polaris_fpga_status_cmd_exec_t)
polaris_cmrp_use_fifo(polaris_fpga_status_cmd_t)

auth_use_nsswitch(polaris_fpga_status_cmd_t)
corecmd_exec_bin(polaris_fpga_status_cmd_t)

PLEASE LOOK AT ME: /sys/devices/platform/nios should have Cisco specific label
read content under /sys/devices/platform/nios
dev_read_sysfs(polaris_fpga_status_cmd_t)

ifdef(`sparrow_platform',`
polaris_dio_dev_use(polaris_cm_rp_t)
`)

ifdef(`cabo_platform',`
polaris_dio_dev_use(polaris_cm_rp_t)
`)

ifdef(`starfleet_platform',`
polaris_fpga_upgrade_tmp_use(polaris_cm_rp_t)
`)

type polaris_fpga_upgrade_tmp_t;
files_tmp_file(polaris_fpga_upgrade_tmp_t)
files_tmp_filetrans(polaris_cm_rp_t, polaris_fpga_upgrade_tmp_t, file, "fpga_upgrade")
cman_rp needs read access to cpu identity
/dev/cpu/0/msr
dev_read_cpuid(polaris_cm_rp_t)

```

```

cman_rp needs read/write access to cpu msr
/dev/cpu/0/msr
following definition provides that
dev_rw_cpu_microcode(polaris_cm_rp_t)

type polaris_cmrp_nim_xxd_tmp_t;
files_tmp_file(polaris_cmrp_nim_xxd_tmp_t)
files_tmp_filetrans(polaris_cm_rp_t, polaris_cmrp_nim_xxd_tmp_t, file, "nim_xxd_present")
manage_files_pattern(polaris_cm_rp_t, polaris_cmrp_nim_xxd_tmp_t, polaris_cmrp_nim_xxd_tmp_t)

#ifdef(`2kp_platform',`
blzi device
polaris_blzi_dev_use(polaris_cm_rp_t)
')

#tamlib debug file access
polaris_tamlib_dbg_file_manage(polaris_cm_rp_t)

#ifdef(`wlc_family',`
tcpdump access for RP
packet dump is stored in file /bootflash/haIntCaptureLo.pcap
type polaris_netutils_data_t;
polaris_pfile_type(polaris_netutils_data_t)
gen_require(`
 type polaris_disk_bootflash_t;
 type netutils_t;
')
filetrans_pattern(netutils_t, polaris_disk_bootflash_t, polaris_netutils_data_t, file, "haIntCaptureLo.pcap")
manage_files_pattern(netutils_t, polaris_netutils_data_t, polaris_netutils_data_t)

tcpdump access
netutils_run(polaris_cm_rp_t, system_r)

pidof access
dev_read_sysfs(polaris_cm_rp_t)
kernel_read_system_state(polaris_cm_rp_t)
domain_read_all_domains_state(polaris_cm_rp_t)

/usr/sbin/ethtool access for show platform hardware slot x ha_port interface stats command
sysnet_domtrans_ifconfig(polaris_cm_rp_t)
')

optional_policy(`
polaris_ds31408_dev_use(polaris_cm_rp_t)
')

polaris_ddr_dev_use(polaris_cm_rp_t)

```

```

allow /usr/sbin/smartctl to be operated on fsadm_exec_t
fstools_exec(polaris_cm_rp_t)

allow access to /tmp/cmlib_eeprom_sim_smartctl.out
files_tmp_filetrans(polaris_cm_rp_t, polaris_cm_rp_tmp_t, file, "cmlib_eeprom_sim_smartctl.out")

allow access to /dev/nvme*
dev_nvme_chr_files_manage(polaris_cm_rp_t)
dev_nvme_blk_files_manage(polaris_cm_rp_t)

#DB persistence
polaris_tldbpersist_setup(polaris_cm_rp_t)
polaris_tmp_tldb_persist_setup(polaris_cm_rp_t)

#code_sign_verify is started by cmand
polaris_code_verify_domtrans(polaris_cm_rp_t)

ifdef(^ngwc_family,`
SELINUX Mismatch warning when doing power redundancy configuration commands
Allow access /bootflash/nplum-power
polaris_nplum_power_manage(polaris_cm_rp_t)
`)

ifdef(^crankshaft_family,`
For USB disable feature, /sys/bus/usb/drivers/usb/*/authorized is accessed
gen_require(
type sysfs_t;
)
allow polaris_cm_rp_t sysfs_t:file create;
dev_manage_sysfs_dirs(polaris_cm_rp_t)
`)

ifdef(^petra_platform,`
#allow access to /dev/petra-fpga
polaris_iots_fpga_dev_use(polaris_cm_rp_t)
#allow access to /flash6/moncfg/cfg.dat
polaris_nvram_read(polaris_cm_rp_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscmrp.te

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dnl

dnl April 2018, Victor Kamensky

dnl

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```

dnl
divert(-1)

include(`polaris_process.m4')
dnl Stub out plaris process
define(`polaris_process',`)

dnl Stub out mqipc
define(`polaris_mqipc_service_server',`)
define(`polaris_mqipc_service_client',`)
define(`polaris_mqipc_service_server_elastic_client',`)

dnl Stub out lipc
define(`polaris_lipc_service_server',`)
define(`polaris_lipc_service_client',`)

include(`polaris_ipc_ripc.m4')
include(`polaris_ipc_base_ripc_if.m4')

dnl Stub out non existent one
define(`polaris_websocket_service_server',`)
define(`polaris_cipc_service_server',`)

include(`polaris_max_scope.m4')

divert(0)dnl
#
This is a generated file! Instead of modifying this file,
modify proper platform TDL file.
#
<summary>Polaris Platform Base IPC Policy Rules.</summary>
<required val="true">
Needed for each polaris platform
</required>

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_base_if.m4
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#

policy_module(polarisplogd, 1.0);

```

```

gen_require(
 type polaris_plogd_t;
)

polaris_btrace_data_manage(polaris_plogd_t)
polaris_crft_data_manage(polaris_plogd_t)
polaris_chasfs_manage(polaris_plogd_t)
polaris_tdlresolve_read(polaris_plogd_t)
polaris_tdlldb_list_dirs(polaris_plogd_t)
polaris_cpld_read(polaris_plogd_t)
polaris_flashlib_read(polaris_plogd_t)

polaris_ripc_sman_ui_serv_connect(polaris_plogd_t)

originally when box starts /dev/log is symbolic link to /run/systemd/journal/dev-log
but latter plogd reset links to its own socket: make sure that we have proper
transition
gen_require(
 type devlog_t;
 type syslogd_t;
)
allow polaris_plogd_t devlog_t:sock_file manage_sock_file_perms;
allow polaris_plogd_t devlog_t:lnk_file manage_lnk_file_perms;
dev_filetrans(polaris_plogd_t, devlog_t, sock_file, "log")
make sure that unix_dgram_socket got transitioned into syslogd_t
type_transition polaris_plogd_t polaris_plogd_t:unix_dgram_socket syslogd_t;
allow polaris_plogd_t syslogd_t:unix_dgram_socket { bind create read };

autogen script misses connection between plogd
polaris_ripc_plog_serv_connect(polaris_plogd_t)

why plogd needs dac_override capability?
allow polaris_plogd_t self:capability { dac_override };
allow polaris_plogd_t self:capability2 block_suspend;

polaris_dyncfg_tmp_read(polaris_plogd_t)

plogd calls journalctl -f to get system logs including our AVC messages
plogd also signals running journalctl to manage the buffer queues
gen_require(
 type journalctl_t;
)
journalctl_domtrans(polaris_plogd_t)
allow polaris_plogd_t journalctl_t:process signal;

should be moved into contrib journalctl.te? journalctl tries to read
/proc/1/environ
gen_require(

```

```

type journalctl_t;
)
init_read_state(journalctl_t)
allow journalctl_t self:capability sys_resource;
allow journalctl_t self:process setrlimit;

plogd calls stdbuf to set up journalctl buffering
corecmd_exec_bin(polaris_plogd_t)

writes into pman fifo stdout
polaris_use_btrace_fifo(journalctl_t)

/dev/log is symbolic link to /run/systemd/journal/dev-log
need ability to search in init_var_run_t /run/systemd
some of subjects that use syslog may not have it
gen_require(
 attribute syslog_client_type;
)
init_search_pid_dirs(syslog_client_type)
#plog_d calls journalctl to get system log including AVC message.
allow polaris_plogd_t journalctl_t:process signal;

```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplogd.te

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```

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#

```

```

polaristamsrp file contexts place holder

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristamsrp.fc

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```

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#

```

```

<summary>Polaris ftm Policy Rules.</summary>

```

```
#####
```

```
<summary>
Write ttm /var/run socket file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ftm_var_sock_write`,
 gen_require(`
 type polaris_ftm_t;
 type polaris_ftm_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_ftm_var_run_t)
 allow $1 polaris_ftm_t:unix_stream_socket { connectto };
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisftm.if

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```
#
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#
```

```
/usr/binos/conf/iptables.sh -- gen_context(system_u:object_r:polaris_iptbl_exec_t,s0)
```

```
/tmp/rp/iptables -d gen_context(system_u:object_r:polaris_iptbl_tmp_t,s0)
/tmp/rp/iptables/inot_fifo -p gen_context(system_u:object_r:polaris_iptbl_tmp_t,s0)
```

# in polaris we have xtables-multi at wrong location

```
/usr/bin/xtables-multi -- gen_context(system_u:object_r:iptables_exec_t,s0)
```

#fman (rp/fp) acl mgmt and iptbl modules dependency

```
/tmp/iptables.v4 gen_context(system_u:object_r:polaris_iptbl_tmp_t,s0)
/tmp/iptables.v6 gen_context(system_u:object_r:polaris_iptbl_tmp_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisiptables.fc

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```
#
```

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#

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#

## <summary>Polaris cpp\_sp Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppsp.if

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#

# polarisngwctblmgr file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngwctblmgr.fc

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#

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#

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#

/tmp/sysctrl\_i2c.lck gen\_context(system\_u:object\_r:polaris\_cm\_rp\_tmp\_t,s0)

/tmp/pfu\_overtime.lock gen\_context(system\_u:object\_r:polaris\_cm\_rp\_tmp\_t,s0)

/tmp/golden\_boot gen\_context(system\_u:object\_r:polaris\_cm\_rp\_tmp\_t,s0)

# dash\_fpga\_xaui.py is the backend python code for

# the cli "show platform hardware slot R0 xaui statistics"

/usr/binos/conf/dash\_fpga\_xaui.py -- gen\_context(system\_u:object\_r:polaris\_dash\_fpga\_xaui\_exec\_t,s0)

/usr/binos/bin/cmand\_us -- gen\_context(system\_u:object\_r:polaris\_cm\_rp\_exec\_t,s0)

# relabel /vol/harddisk/.inv

/vol/harddisk/.inv(/.\*)? gen\_context(system\_u:object\_r:polaris\_cm\_rp\_inv\_log\_file\_t,s0)

/vol/harddisk\_internal/.inv(/.\*)? gen\_context(system\_u:object\_r:polaris\_cm\_rp\_inv\_log\_file\_t,s0)

# .inv dir is in /bootflash in Katar eWLC

/bootflash/.inv(/.\*)? gen\_context(system\_u:object\_r:polaris\_cm\_rp\_inv\_log\_file\_t,s0)

```
/usr/binos/conf/mcp_fpga_status_cmd.sh -- gen_context(system_u:object_r:polaris_fpga_status_cmd_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscmrp.fc
```

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```
#
```

```
August 2017, Shawn Lu
```

```
#
```

```
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```
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```

```
#
```

```
<summary>Polaris rrm_mgr Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrrmmgr.if
```

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```
#
```

```
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```

```
#
```

```
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```
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```

```
#
```

```
<summary>Polaris LIPC Policy Rules.</summary>
```

```
#####
```

```
LIPC policy
```

```
#####
```

```
#####
```

```
<summary>
```

```
Manage lipc files
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<rolebase/>
```

```
#
```

```
interface(`polaris_lipc_manage',`
```

```
 gen_require(`
```

```
 type polaris_lipc_t;
```

```
 `
```

```
 manage_dirs_pattern($1, polaris_lipc_t, polaris_lipc_t)
```

```
manage_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
manage_lnk_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
manage_fifo_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
manage_sock_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
')
```

```
#####
```

```
<summary>
Getattr of lipc files directories
</summary>
```

```
<param name="domain">
```

```
<summary>
Domain allowed access.
</summary>
```

```
</param>
```

```
<rolebase/>
```

```
#
```

```
interface(`polaris_lipc_getattr`,`
```

```
gen_require(`
type polaris_lipc_t;
```

```
`)
```

```
 getattr_dirs_pattern($1, polaris_lipc_t, polaris_lipc_t)
 getattr_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
 getattr_lnk_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
 getattr_fifo_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
 getattr_sock_files_pattern($1, polaris_lipc_t, polaris_lipc_t)
```

```
')
```

```
#####
```

```
<summary>
Create lipc file
</summary>
```

```
<param name="domain">
```

```
<summary>
Domain allowed creating lipc channel.
</summary>
```

```
</param>
```

```
<param name="channel_domain">
```

```
<summary>
Domain assigned to lipc channel.
</summary>
```

```
</param>
```

```
<param name="channel_name">
```

```
<summary>
File name of lipc channel.
</summary>
```

```
</param>
```

```

#
interface(`polaris_lipc_create_name',`
gen_require(`
type polaris_lipc_t;
')
type_transition $1 polaris_lipc_t : sock_file $2 $3;
manage_sock_files_pattern($1, polaris_lipc_t, $2)

polaris_socketat_nsfs_read($1)

not specific enough
type_transition $1 $1 : unix_stream_socket $2;
allow $1 $2:unix_stream_socket { listen accept bind create write read };
')

#####
<summary>
Write lipc file
</summary>
<param name="domain">
<summary>
Domain allowed to connect and write into lipc file.
</summary>
</param>
<param name="channel_domain">
<summary>
Domain assigned to lipc channel.
</summary>
</param>
<param name="server">
<summary>
Domain of owner of lipc channel.
</summary>
</param>
#
interface(`polaris_lipc_write',`
gen_require(`
type polaris_lipc_t;
')
write_sock_files_pattern($1, polaris_lipc_t, $2)
allow $1 $3:unix_stream_socket { connectto };

polaris_socketat_nsfs_read($1)
')

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislipc.if



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```
dnl
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dnl
define(`polaris_lipc_service_server_aux',`dnl
type $1;
files_type($1)
polaris_lipc_$2_create_name($3)

define(`polaris_lipc_service_server_full',`dnl
polaris_lipc_service_server_aux(lipc_label($1), lipc_stem($1), process_label($2))dnl
')

define(`polaris_lipc_service_server',`dnl
ifndef(lipc_type_map($1), `', `polaris_lipc_service_server_full($1, $2)')
lipc_type_map_set(lipc_label($1), process_label($2))
')

define(`polaris_lipc_service_client_aux',`dnl
polaris_lipc_$2_write($3, $4)')

define(`polaris_lipc_service_client',`dnl
polaris_lipc_service_client_aux(lipc_label($1), lipc_stem($1), process_label($2), lipc_type_map(lipc_label($1)))dnl
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_lipc\_te.m4

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```
#
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#
```

```
policy_module(polarisbtman, 1.0);
```

```
gen_require(`
 type polaris_btman_t;
')
```

```
polaris_crft_data_manage(polaris_btman_t)
```

```

polaris_chasfs_manage(polaris_btman_t)
polaris_tdlresolve_read(polaris_btman_t)
polaris_tdlldb_list_dirs(polaris_btman_t)
polaris_cpld_read(polaris_btman_t)
polaris_flashlib_read(polaris_btman_t)

polaris_ripc_sman_ui_serv_connect(polaris_btman_t)

polaris_db_tdlldb_dir_use(polaris_btman_t)

polaris_bexecute_domtrans(polaris_btman_t)

script starts rsync with mcp_chvrf.sh
polaris_chvrf_domtrans(polaris_btman_t)
polaris_send_signal_to_bexecute(polaris_btman_t)

corecmd_exec_bin(polaris_btman_t)
corecmd_exec_shell(polaris_btman_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_btman_t)

allow polaris_btman_t self:capability { dac_override fsetid };

polaris_cpld_read(polaris_btman_t)

operate on all btrace files
polaris_btrace_data_manage_all(polaris_btman_t)

btman operated on /tmp/tmppub files
type polaris_btrace_tmppub_t;
files_tmp_file(polaris_btrace_tmppub_t)

polaris_systemd_tmpfiles_tmp_filetrans(polaris_btrace_tmppub_t, dir, "tmppub")
filetrans_pattern(polaris_btman_t, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t, { file dir })
manage_files_pattern(polaris_btman_t, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
manage_dirs_pattern(polaris_btman_t, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)

polaris_persistent_read(polaris_btman_t)

in purge_old_core_files_from_harddisk function of btrace_rotate_util.c
script removes outdated core files, so it needs read/write permission
to polaris_core_file_t files.
polaris_core_file_manage(polaris_btman_t)

fs_getattr_xattr_fs(polaris_btman_t)

btman checks for presence of /tmp/udev/etc/udev/harddisk

```

```

through hwutil_is_harddisk_present function of hwutil-common.sh
polaris_udev_tmp_list_dirs(polaris_btman_t)

when /bootflash or /harddisk are 100% full
allow polaris_btman_t self:capability sys_resource;

access to /tmp/sw/boot/dmesg
polaris_boot_tmp_read(polaris_btman_t)

polaris_create_ldb_domtrans(polaris_btman_t)

btman calls update_resolver_luid_paths which eventually calls open_brand function for
given polaris executable (build_crdu_luid_file_paths, bcrdu_get_proc_path_internal,
brand_type_string)
polaris_read_exec_domain(polaris_btman_t)

btman create transitional files in /tmp directory
type polaris_btman_tmp_t;
files_tmp_file(polaris_btman_tmp_t)
files_tmp_filetrans(polaris_btman_t, polaris_btman_tmp_t, file)
manage_files_pattern(polaris_btman_t, polaris_btman_tmp_t, polaris_btman_tmp_t)

use syslog
logging_send_syslog_msg(polaris_btman_t)

btman unlink /tmp/rp/pvp/work/btman_first_inst
polaris_pvp_manage_tmp_files(polaris_btman_t)

operate on btrace file in /bootflash
polaris_btrace_persistent_data_manage(polaris_btman_t)

gen_require(
 type polaris_btrace_data_t;
)
polaris_bootflash_filetrans(polaris_btman_t, polaris_btrace_data_t, dir, "tracelogs")
polaris_harddisk_filetrans(polaris_btman_t, polaris_btrace_data_t, dir, "tracelogs")
polaris_crashinfo_filetrans(polaris_btman_t, polaris_btrace_data_t, dir, "tracelogs")
polaris_bootflash_filetrans(polaris_btman_t, polaris_btrace_data_t, dir, "tan")
polaris_harddisk_filetrans(polaris_btman_t, polaris_btrace_data_t, dir, "tan")

btman creates /tmp/rp//pvp/work/btman_first_inst directory in is_first_incarnation
function called by btrace_rotate_init
polaris_pvp_manage_tmp_files(polaris_btman_t)

#####
This block is policies for "request platform software system shell" CLI

/tmp/sw/rp/0/0/rp_security/mount/usr/binos/bin/btman -f rp

```

```

-s /tmp/rp/trace/stage -w /tmp/rp/trace
- needs to read/getattr on
/tmp/sw/mount/*universalk9.*.SSA.pkg/usr/binos/sbin/in.telnetd
gen_require(
 type telnetd_exec_t;
)
allow polaris_btman_t telnetd_exec_t:file { getattr open read };

btman establishes leases for trace files
allow polaris_btman_t self:capability lease;

dump_btrace_meta walks all files with nftw
files_getattr_all_files(polaris_btman_t)
files_getattr_all_dirs(polaris_btman_t)
files_read_all_symlinks(polaris_btman_t)
files_list_non_security(polaris_btman_t)
files_read_all_files(polaris_btman_t)
files_mmap_all_files(polaris_btman_t)

btman exports data through http protocol btm_trigger_export and schedule_newfile_export
corenet_tcp_connect_http_port(polaris_btman_t)

LOOK AT ME: incorrect iosd-tps service_def. It should be renamed
iosd_tps_socket-b0 in all platform.tdl files. Remove the following
policy when CSCvp89498 is fixed.
gen_require(
 type polaris_lipc_t;
 type polaris_pman_t;
)
polaris_lipc_write(polaris_btman_t, polaris_lipc_t, polaris_pman_t)

btman manages some persistent crashinfo files
polaris_disk_crashinfo_manage(polaris_btman_t)

#DB persistence
polaris_tdlpersist_setup(polaris_btman_t)

polaris_tmp_tdlpersist_setup(polaris_btman_t)

polaris_btrace_data_watch(polaris_btman_t)

dump_btrace_meta writes to /tmp/binary_trace.1605747053/.pkginfo
polaris_install_tmp_manage(polaris_btman_t)

#allow polaris_btman_t access to polaris_cm_rp semaphore
polaris_cm_rp_sem_use(polaris_btman_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtman.te

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#

# March 2017, Victor Kamensky

#

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#

policy\_module(polarisfmanrp, 1.0);

gen\_require(`

type polaris\_fman\_rp\_t;

`)

#####

# mqipc manual, one that missing in platform tdl file

#####

# mq.-fman-log-bay0-peer0

type polaris\_fman\_log\_bay0\_peer0\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer0\_mqipc\_t)

# mq.-fman-log-bay0-peer1

type polaris\_fman\_log\_bay0\_peer1\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer1\_mqipc\_t)

# mq.-fman-log-bay0-peer2

type polaris\_fman\_log\_bay0\_peer2\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer2\_mqipc\_t)

# mq.-fman-log-bay0-peer3

type polaris\_fman\_log\_bay0\_peer3\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer3\_mqipc\_t)

# mq.-fman-log-bay0-peer4

type polaris\_fman\_log\_bay0\_peer4\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer4\_mqipc\_t)

# mq.-fman-log-bay0-peer5

type polaris\_fman\_log\_bay0\_peer5\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer5\_mqipc\_t)

# mq.-fman-log-bay0-peer6

type polaris\_fman\_log\_bay0\_peer6\_mqipc\_t;

polaris\_mqipc\_type(polaris\_fman\_log\_bay0\_peer6\_mqipc\_t)

```

mq.-fman-log-bay0-peer7
type polaris_fman_log_bay0_peer7_mqipc_t;
polaris_mqipc_type(polaris_fman_log_bay0_peer7_mqipc_t)

mq.-fman-log-bay0-peer8
type polaris_fman_log_bay0_peer8_mqipc_t;
polaris_mqipc_type(polaris_fman_log_bay0_peer8_mqipc_t)

polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer0_mqipc_t, fman-log-bay0-peer0)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer1_mqipc_t, fman-log-bay0-peer1)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer2_mqipc_t, fman-log-bay0-peer2)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer3_mqipc_t, fman-log-bay0-peer3)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer4_mqipc_t, fman-log-bay0-peer4)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer5_mqipc_t, fman-log-bay0-peer5)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer6_mqipc_t, fman-log-bay0-peer6)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer7_mqipc_t, fman-log-bay0-peer7)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fman_log_bay0_peer8_mqipc_t, fman-log-bay0-peer8)

polaris_btrace_data_manage(polaris_fman_rp_t)
polaris_crft_data_manage(polaris_fman_rp_t)
polaris_chasfs_manage(polaris_fman_rp_t)
polaris_tdlresolve_read(polaris_fman_rp_t)
polaris_tdlldb_list_dirs(polaris_fman_rp_t)
polaris_cpld_read(polaris_fman_rp_t)
polaris_flashlib_read(polaris_fman_rp_t)
polaris_lua_read(polaris_fman_rp_t)

polaris_ripc_sman_ui_serv_connect(polaris_fman_rp_t)

polaris_db_tdlldb_dir_use(polaris_fman_rp_t)

#ifdef(^nyquist_platform',`
gen_require(`
 type polaris_bt_logger_fman_rp_mqipc_t;
`)
fman_rp may start first and create this mqipc channel
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_bt_logger_fman_rp_mqipc_t, bt_logger_fman-rp)
`)

allow polaris_fman_rp_t self:udp_socket { create ioctl };

allow polaris_fman_rp_t self:capability { dac_override };
allow polaris_fman_rp_t self:capability2 block_suspend;

not clear why fman_rp tries to load netdev-mgmtbr kernel module
it does not exist on ultra anyway
type=AVC msg=audit(1478126742.967:98): avc: denied { module_request } for pid=18020 comm="fman_rp"
kmod="netdev-mgmtbr" scontext=system_u:system_r:polaris_fman_rp_t:s0

```

```

tcontext=system_u:system_r:kernel_t:s0 tclass=system
kernel_request_load_module(polaris_fman_rp_t)

polaris_socketat_nsfs_read(polaris_fman_rp_t)

polaris_dyncfg_tmp_read(polaris_fman_rp_t)

socketat usage from fman_punt_port_mapping_init for AF_NETLINK, SOCK_DGRAM
polaris_lfts_dev_use(polaris_fman_rp_t)
allow polaris_fman_rp_t self:netlink_tcpdiag_socket {create nlmsg_read };

fman_rp tries to write to sytemd journal when a peer is stuck
introduced by CSCvt19772
logging_send_syslog_msg(polaris_fman_rp_t)

optional_policy(`
#fman-rp creates tmp files in acl-mgmt workflow.
polaris_fman_acl_iptbl_tmp_file(polaris_fman_rp_t)
`)

manually create mqipc channel: missing in TDL
type polaris_fmnp2fpm_mqipc_t;
polaris_mqipc_type(polaris_fmnp2fpm_mqipc_t)
polaris_mqipc_create_name(polaris_fman_rp_t, polaris_fmnp2fpm_mqipc_t, fmnp2fpm_vulcan_mqipc)

optional_policy(`
polaris_fpm2fmnp_mqipc_use(polaris_fman_rp_t)
`)

polaris_issu_tmp_files_read(polaris_fman_rp_t)

polaris_install_tmp_read(polaris_fman_rp_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfmanrp.te
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#
August 2017, Shawn Lu
#
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#

policy_module(polarisrifmgr, 1.0);

gen_require(`
 type polaris_rif_mgr_t;

```

)

```
polaris_btrace_data_manage(polaris_rif_mgr_t)
polaris_crft_data_manage(polaris_rif_mgr_t)
polaris_chasfs_manage(polaris_rif_mgr_t)
polaris_tdlresolve_read(polaris_rif_mgr_t)
polaris_tdlldb_list_dirs(polaris_rif_mgr_t)
polaris_cpld_read(polaris_rif_mgr_t)
polaris_lua_read(polaris_rif_mgr_t)
polaris_flashlib_read(polaris_rif_mgr_t)
polaris_lfts_dev_use(polaris_rif_mgr_t)
logging_send_syslog_msg(polaris_rif_mgr_t)
```

```
polaris_rpc_sman_ui_serv_connect(polaris_rif_mgr_t)
```

```
allow polaris_rif_mgr_t self:capability { sys_nice dac_override };
allow polaris_rif_mgr_t self:process { setsched };
open /dev/ttyS0 console in sco_sys_init_sw_params
term_use_unallocated_ttys(polaris_rif_mgr_t)
```

```
work with /dev/hanet device
polaris_hanet_dev_use(polaris_rif_mgr_t)
```

```
update/read chassis serial numer /csl_p_0/vudi.pri
polaris_disk_csl_manage(polaris_rif_mgr_t)
```

```
monitors native interfaces flap over /proc and netlink
kernel_read_network_state(polaris_rif_mgr_t)
allow polaris_rif_mgr_t self:netlink_route_socket rw_netlink_socket_perms;
allow polaris_rif_mgr_t self:unix_dgram_socket create_socket_perms;
```

```
pidof and /proc usage
dev_read_sysfs(polaris_rif_mgr_t)
kernel_read_system_state(polaris_rif_mgr_t)
domain_read_all_domains_state(polaris_rif_mgr_t)
```

```
corecmd_exec_bin(polaris_rif_mgr_t)
```

```
kernel_dontaudit_request_load_module(polaris_rif_mgr_t)
rifmgr creates udp socket to get interface flags in rif_rp_init
allow polaris_rif_mgr_t self:udp_socket create_socket_perms;
```

```
corenet_tcp_bind_polaris_rif_mgr_port(polaris_rif_mgr_t)
corenet_tcp_connect_polaris_rif_mgr_port(polaris_rif_mgr_t)
```

```
corenet_udp_bind_polaris_rif_mgr_port(polaris_rif_mgr_t)
corenet_udp_bind_generic_node(polaris_rif_mgr_t)
```



Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrifmgr.te

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#

# March 2017, Victor Kamensky

#

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#

## <summary>Polaris stack\_mgr Policy Rules.</summary>

#####

## <summary>

## Read and write all stack mgr's fifo file, used as

## standard input/output.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

## <rolecap/>

#

interface(`polaris\_use\_stack\_mgr\_fifo`,`

gen\_require(`

type polaris\_stack\_mgr\_t;

`)

write\_fifo\_files\_pattern(\$1, polaris\_stack\_mgr\_t, polaris\_stack\_mgr\_t)

')

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisstackmgr.if

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#

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#

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#

/tmp/^.DML\_FIFO gen\_context(system\_u:object\_r:polaris\_dmi\_vtyserverutild\_tmp\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmivtyserverutild.fc

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```
#
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#
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#

<summary>Polaris cm_cc Policy Rules.</summary>

#####
<summary>
Execute cmand_fp in the polaris_cm_fp_t domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_cm_cc_domtrans`,`
 gen_require(`
 type polaris_cm_cc_t, polaris_cm_cc_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_cm_cc_exec_t, polaris_cm_cc_t)
)

#####
<summary>
Manage cm_cc_tmpfs files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cm_cc_tmpfs_manage`,`
 gen_require(`
 type polaris_cm_cc_tmpfs_t;
 `)

 manage_files_pattern($1, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
 mmap_files_pattern($1, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
)
```

```
#####
<summary>
Check presence and unlink /tmp/nim_xxd_present file created by cman cc.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_nim_xxd_tmp_open_unlink`,`
 gen_require(`
 type polaris_nim_xxd_tmp_t;
 `)

 allow $1 polaris_nim_xxd_tmp_t:file { open unlink }
`)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismcc.if
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```

```
#
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#
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#
```

```
<summary>Polaris LUA Policy Rules.</summary>
```

```
#####
Polaris lfts
#####
```

```
#####
<summary>
Work (read, write, ioctl) with /dev/dev_lfts device.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
```

```

interface(`polaris_lfts_dev_use',`
gen_require(
 type device_t;
 type polaris_lfts_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_lfts_device_t)
 read_chr_files_pattern($1, device_t, polaris_lfts_device_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislfts.if

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```

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#

```

## <summary>Polaris ofa Policy Rules.</summary>

Found in path(s):

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```

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#

```

```

/var/virtual-instance(/.*)? gen_context(system_u:object_r:polaris_var_vman_t,s0)

```

```

/bootflash/virtual-instance(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/bootflash/virtual-instance.conf -- gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/bootflash/vman_fdb(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/vol/harddisk/virtual-instance(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/vol/harddisk/virtual-instance.conf -- gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/vol/harddisk/vman_fdb(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

#sparrow, blackheart

```

```

/flash1/virtual-instance(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/flash1/virtual-instance.conf -- gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```

/flash1/vman_fdb(/.*)? gen_context(system_u:object_r:polaris_disk_vman_t,s0)

```

```
/tmp/vman(/.*)? gen_context(system_u:object_r:polaris_vman_tmp_t,s0)
/tmp/cgroup.log gen_context(system_u:object_r:polaris_vman_tmp_t,s0)
/tmp/vman_lxc_wdt_[0-9]* gen_context(system_u:object_r:polaris_vman_tmp_t,s0)
/tmp/trace(/.*)? gen_context(system_u:object_r:polaris_vman_tmp_t,s0)

/usr/binos/conf/vman_exec.sh -- gen_context(system_u:object_r:polaris_vman_shell_exec_t,s0)

/usr/binos/conf/cgroup_reports.sh -- gen_context(system_u:object_r:polaris_cgroup_reports_exec_t,s0)
/usr/binos/conf/vman_techsupport.sh -- gen_context(system_u:object_r:polaris_vman_tech_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisvman.fc
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```

```
#
August 2017, Shawn Lu
#
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#

policy_module(polarisodmproxy, 1.0);

gen_require(
 type polaris_odm_proxy_t;
)

polaris_btrace_data_manage(polaris_odm_proxy_t)
polaris_crft_data_manage(polaris_odm_proxy_t)
polaris_chasfs_manage(polaris_odm_proxy_t)
polaris_tdlresolve_read(polaris_odm_proxy_t)
polaris_tdlldb_list_dirs(polaris_odm_proxy_t)
polaris_cpld_read(polaris_odm_proxy_t)
polaris_lua_read(polaris_odm_proxy_t)
polaris_flashlib_read(polaris_odm_proxy_t)

polaris_ripc_sman_ui_serv_connect(polaris_odm_proxy_t)

polaris_db_tdlldb_dir_use(polaris_odm_proxy_t)

#allow to setrlimit
allow polaris_odm_proxy_t self:capability sys_resource;
allow polaris_odm_proxy_t self:process setrlimit;
allow polaris_odm_proxy_t self:capability dac_override;

polaris_odm_clnt2svr_mqipc_create(polaris_odm_proxy_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisodmproxy.te

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```
#
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#

<summary>Polaris issu_monitor Policy Rules.</summary>
#####
<summary>
Execute issumonitor in the polaris_issu_monitor domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_issu_monitor_domtrans`,
gen_require(`
 type polaris_issu_monitor_t, polaris_issu_monitor_exec_t;
`)

domtrans_pattern($1, polaris_issu_monitor_exec_t, polaris_issu_monitor_t)
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisissumonitor.if

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```
dnl
dnl May 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
dnl Place holder to let selinux-policy makefile know that this module
dnl is autogenerated, but we have different rules for it
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplatformipcauto.fc.in  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplatformdbauto.te.in  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplatformdbauto.if.in  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/autopolarisplatformipcbase.te.in  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisplatformdbauto.fc.in

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisplatformipcauto.te.in
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/autopolarisplatformipcbase.if.in
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisplatformipcauto.if.in
No license file was found, but licenses were detected in source scan.
```

```
#
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#
```

```
policy_module(polariskeyman, 1.0);
```

```
gen_require(`
 type polaris_keyman_t;
`)
```

```
polaris_btrace_data_manage(polaris_keyman_t)
polaris_crft_data_manage(polaris_keyman_t)
polaris_chasfs_manage(polaris_keyman_t)
polaris_tdlresolve_read(polaris_keyman_t)
polaris_tdlldb_list_dirs(polaris_keyman_t)
polaris_flashlib_read(polaris_keyman_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_keyman_t)
```

```
allow polaris_keyman_t self:capability net_admin;
keyman utilizes secure memory via ciscossl libcrypto.so (mlock)
allow polaris_keyman_t self:capability ipc_lock;
polaris_cpld_read(polaris_keyman_t)
```

```
__get_nprocs opens /sys/devices/system/cpu/online
ifdef(`quake_platform',`
dev_read_sysfs(polaris_keyman_t)
`)
```

```
__get_nprocs opens /sys/devices/system/cpu/online
ifdef(`supernova_platform',`
dev_read_sysfs(polaris_keyman_t)
`)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariskeyman.te
No license file was found, but licenses were detected in source scan.
```

```
#
July 2017, Victor Kamensky
```

```
#
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#

polaristamdrp file contexts place holder

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristamdrp.fc
No license file was found, but licenses were detected in source scan.
```

```
#
July 2017, Victor Kamensky
#
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#
```

```
/bootflash labels
/bootflash(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/bootflash/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/bootflash/.ssh/ssh_host.*_key\pub gen_context(system_u:object_r:ssh_key_t,s0)
/bootflash/.ssh/ssh_host.*_key gen_context(system_u:object_r:ssh_key_t,s0)
/bootflash/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/bootflash/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/bootflash/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
```

```
/vol/bootflash4 labels
/vol/bootflash4(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/vol/bootflash4/csl_p_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/vol/bootflash4/csl_p_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/vol/bootflash4/csl_s_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
/vol/bootflash4/csl_s_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
/vol/bootflash4/obfl_* gen_context(system_u:object_r:polaris_obfl_data_t,s0)
```

```
/harddisk labels
/vol/harddisk(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
/vol/harddisk_internal(/.*)? gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
/vol/harddisk/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/vol/harddisk/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/vol/harddisk_internal/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk_internal/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/vol/harddisk_internal/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/vol/harddisk/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)
```



```

on 1ng persistent storage arranged differently
/csl_p_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/csl_p_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/csl_s_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
/csl_s_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
/obfl(/.*)? gen_context(system_u:object_r:polaris_obfl_data_t,s0)

/vol/disk0(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/init is symbolic link to /lib/systemd/systemd
/init -l gen_context(system_u:object_r:init_exec_t,s0)
/disk0 is symbolic link to /vol/disk0
/disk0 -l gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)

scooby device
/dev/scooby -c gen_context(system_u:object_r:polaris_scooby_device_t,s0)

spa devices handled by sys_platform driver
/dev/spa0 -c gen_context(system_u:object_r:polaris_spa_device_t,s0)
/dev/spa1 -c gen_context(system_u:object_r:polaris_spa_device_t,s0)
/dev/spa2 -c gen_context(system_u:object_r:polaris_spa_device_t,s0)
/dev/spa3 -c gen_context(system_u:object_r:polaris_spa_device_t,s0)
/dev/iocp0 -c gen_context(system_u:object_r:polaris_spa_device_t,s0)

htdp devices
/dev/htdp[0-9]* -c gen_context(system_u:object_r:polaris_htdp_device_t,s0)

/dev/epa device on asr1k(mcp)
/dev/epa[0-9]* -c gen_context(system_u:object_r:polaris_epa_device_t,s0)
/dev/epactrl[0-9]* -c gen_context(system_u:object_r:polaris_epa_device_t,s0)

/dev/luna_fpga on asr1k(mcp)
/dev/luna_mbfpga -c gen_context(system_u:object_r:polaris_luna_mbfpga_device_t,s0)

/dev/dash_fpga device on fugazi(mcp)
/dev/dash_fpga -c gen_context(system_u:object_r:polaris_dash_device_t,s0)
/dev/dash_fpga_cc0 -c gen_context(system_u:object_r:polaris_dash_device_t,s0)

/dev/astro on asr1k(mcp)
/dev/astro -c gen_context(system_u:object_r:polaris_astro_device_t,s0)

/dev/oob_evfc on asr1k(mcp)
/dev/oob_evfc -c gen_context(system_u:object_r:polaris_oob_evfc_device_t,s0)

/dev/cpp_il on asr1k(mcp)
/dev/cpp_il -c gen_context(system_u:object_r:polaris_cpp_il_device_t,s0)

/dev/icp_adf_ctl -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_adf_gige_wd -c gen_context(system_u:object_r:polaris_icp_device_t,s0)

```

```

/dev/icp_dev0_csr -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_dev0_ring -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_dev_mem -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_dev_mem_page -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_dev_processes -c gen_context(system_u:object_r:polaris_icp_device_t,s0)

/dev/ds31408 -c gen_context(system_u:object_r:polaris_ds31408_device_t,s0)
/dev/cbdma -c gen_context(system_u:object_r:polaris_cbdma_device_t,s0)
/dev/cpp_htdp -c gen_context(system_u:object_r:polaris_cpp_htdp_device_t,s0)
/dev/n2_device -c gen_context(system_u:object_r:polaris_n2_device_t,s0)
/dev/cy2213 -c gen_context(system_u:object_r:polaris_cy2213_device_t,s0)

/dev/vega -c gen_context(system_u:object_r:polaris_vega_device_t,s0)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismcp.fc
```

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

```
define(^max_bay_map', `defn(format(`max_bay_map[%s-%s]", ` $1', ` $2'))')
```

```
define(^max_bay_map_set', `define(format(`max_bay_map[%s-%s]", ` $1', ` $2'), ` $3'))')
```

```
define(^max_elastic_map', `defn(format(`max_elastic_map[%s-%s-%s]", ` $1', ` $2', ` $3'))')
```

```
define(^max_elastic_map_set', `define(format(`max_elastic_map[%s-%s-%s]", ` $1', ` $2', ` $3'), ` $4'))')
```

```
define(^max_scope_map', `ifelse($2, `elastic', `max_elastic_map($1, $2, $3), `max_bay_map($1, $2))')
```

dnl RICP scope handling

```
define(^min_bay_ripc_map', `defn(format(`min_bay_ripc_map[%s-%s]", ` $1', ` $2'))')
```

```
define(^min_bay_ripc_map_set', `define(format(`min_bay_ripc_map[%s-%s]", ` $1', ` $2'), ` $3'))')
```

```
define(^min_elastic_ripc_map', `defn(format(`min_elastic_ripc_map[%s-%s-%s]", ` $1', ` $2', ` $3'))')
```

```
define(^min_elastic_ripc_map_set', `define(format(`min_elastic_ripc_map[%s-%s-%s]", ` $1', ` $2', ` $3'), ` $4'))')
```

```
define(^min_scope_ripc_map_aux', `ifelse($2, `elastic', `min_elastic_ripc_map($1, $2, $3), `min_bay_ripc_map($1, $2))')
```

```
define(^min_scope_ripc_map', `ifelse(min_scope_ripc_map_aux($1, $2, $3), `', 0, min_scope_ripc_map_aux($1, $2, $3))')
```

```
define(^max_bay_ripc_map', `defn(format(`max_bay_ripc_map[%s-%s]", ` $1', ` $2'))')
```

```
define(^max_bay_ripc_map_set', `define(format(`max_bay_ripc_map[%s-%s]", ` $1', ` $2'), ` $3'))')
```

```
define(^max_elastic_ripc_map', `defn(format(`max_elastic_ripc_map[%s-%s-%s]", ` $1', ` $2', ` $3'))')
```

```
define(`max_elastic_ripc_map_set', `define(format(`max_elastic_ripc_map[%s-%s-%s]', `$1', `$2', `$3'), `$4'))

define(`max_scope_ripc_map_aux', `ifelse($2, `elastic', `max_elastic_ripc_map($1, $2, $3)',
`max_bay_ripc_map($1, $2)')')
define(`max_scope_ripc_map', `ifelse(max_scope_ripc_map_aux($1, $2, $3), `', 0, max_scope_ripc_map_aux($1,
$2, $3))')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_max\_scope.m4  
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```
#
March 2017, Victor Kamensky
#
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#

<summary>Polaris periodic Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisperiodic.if  
No license file was found, but licenses were detected in source scan.

```
#
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#

<summary>Polaris service_mgr Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisservicemgr.if  
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```
#
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#
```

policy\_module(polariscommon, 1.0);

```
#####
Polaris common
```

```
#####
```

```
domain that holds all polaris processes
attribute polaris_domain;
```

```
domain that holds all polaris processes executables
attribute polaris_exec_domain;
```

```
domain that holds all polaris processes plus few base types that operates on
during system start, like initrc_t and unconfined_service_t. Please remove
unconfined types latter.
attribute polaris_extended_domain;
```

```
gen_require(
 type unconfined_t;
 type unconfined_service_t;
 type initrc_t;
 type init_t;
)
typeattribute unconfined_t polaris_extended_domain;
typeattribute unconfined_service_t polaris_extended_domain;
typeattribute initrc_t polaris_extended_domain;
typeattribute init_t polaris_extended_domain;
```

```
common permissions that are safe to grant and hard to root cause.
these permissions may need to be turned off during development or tightened
in future releases
```

```
gen_require(
 attribute domain;
)
sys_resource denial is seen due to disk full issue
and possibly FD exceeding limit
allow domain self:capability sys_resource;
```

```
When management interface is enabled for development Polaris device can be
access by telnet, which directly drops into shell. It would be desirreably
to remove telnet functionality att all. But for now we need transition
rule to get shell running in unconfined domain.
```

```
gen_require(
 type telnetd_t;
)
)
```

```
unconfined_shell_domtrans(telnetd_t)
```

```
#####
```

```
This block is policies for "request platform software system shell" CLI.
```

```
Execute bexecute in polaris_bexecute domain.
```

```
polaris_bexecute_domtrans(telnetd_t)
```

```

/tmp/sw/rp/0/0/rp_security/mount/usr/binos/sbin/in.telnetd
#
-L /usr/binos/conf/brelay.sh
- this needs read/write/create access to /tmp/rp/trace/.in_telnetd_*.bin.tmp
which later gets renamed to /tmp/rp/trace/telnetd_service_sh_*.bin
polaris_btrace_data_manage(telnetd_t)
mcp_telnetd_init through btrace_application_start calls get_chassis_number
so it needs chasfs access
polaris_chasfs_read(telnetd_t)
polaris_cpld_read(telnetd_t)
polaris_btrace_lvl_config_manage(telnetd_t)
#####

LOOK AT ME: rsync needs sys_admin capability
only seen when we boot in enforcing mode, localtime glibc library call
needs time zone information and through __tz_convert function it eventually
calls syspage function and that in turns calls Cisco syspage related
prctl that is protected by CAP_ADMIN now
gen_require(
 type rsync_t;
)
allow rsync_t self:capability sys_admin;

mount_packages.sh systemd unit runs under init_t and it leaks unix socket
gen_require(
 type rsync_t;
 type init_t;
)
allow rsync_t init_t:unix_stream_socket getattr;

LOOK AT ME: auditd needs sys_admin capability
only seen when we boot in enforcing mode, denials happens upon exec of
auditdsp why is not entirely clear
gen_require(
 type auditd_t;
)
allow auditd_t self:capability sys_admin;

LOOK AT ME:
Because Cisco kernel features check for capability sys_admin
before granting access to it. It turns out to be mistake because
in SELinux universe beeing root does not meen one have sys_admin
capability. For now grant sys_admin capability to everyone :(
gen_require(
 attribute domain;
)
allow domain self:capability sys_admin;

```

```

LOOK AT ME:
all polaris SMU system is based on LD_LIBRARY_PATH passing from
parent to child, but if auxv AT_SECURE would be set to 1, glibc
will clean LD_LIBRARY_PATH and other environment variables when
it execve another process. We need to grant noatsecure to all
processes
gen_require(
 attribute domain;
)
allow domain domain:process { noatsecure rlimitinh };

nfs server exporting some directories like /harddisk
gen_require(
 type nfsd_t;
)
polaris_disk_bootflash_read_lnk(nfsd_t)
polaris_harddisk_read(nfsd_t)

nfs server check hugetlbfs files system
gen_require(
 type hugetlbfs_t;
)
list_dirs_pattern(nfsd_t, hugetlbfs_t, hugetlbfs_t)

temporarily addressing denial,
preferable to turn on nfs_export_all_rw/ro boolean
gen_require(
 type removable_t;
)
list_dirs_pattern(nfsd_t, removable_t, removable_t)

firmware type
type polaris_firmware_t;
files_type(polaris_firmware_t)

some systemd unit creates /firmware directory in initramfs
gen_require(
 attribute domain;
 type root_t;
)
filetrans_pattern(domain, root_t, polaris_firmware_t, dir, "firmware")

handling /tmp/debug.conf, created by systemd unit
gen_require(
 type polaris_debug_conf_t;
 type unconfined_service_t;
)
files_tmp_filetrans(unconfined_service_t, polaris_debug_conf_t, {file lnk_file}, "debug.conf")

```

```

/tmp/etc files; serving as /etc like but sitting in mutable storage
(assuming that real /etc would become read-only eventually)
type polaris_etc_t;
files_type(polaris_etc_t);

/tmp/sv files
type polaris_sv_tmp_t;
files_tmp_file(polaris_sv_tmp_t)

/dev/i2c-N
type polaris_i2c_device_t;
dev_node(polaris_i2c_device_t)

remap_mem0 device
type polaris_remap_mem_device_t;
dev_node(polaris_remap_mem_device_t)

type polaris_ebf_t;
files_type(polaris_ebf_t)

allow all domains map/read ebf files
gen_require(
 attribute domain;
)
polaris_ebf_map(domain)

btrace files for telnetd, since telnetd is open source label
and it does not use our domain creation template
gen_require(
 type telnetd_t;
)
type polaris_telnetd_bt_t;
polaris_btrace_data_type(polaris_telnetd_bt_t)
polaris_btrace_data_client(telnetd_t, polaris_telnetd_bt_t)

type polaris_telnetd_maroon_t;
polaris_maroon_data_type(polaris_telnetd_maroon_t)
polaris_maroon_data_client(telnetd_t, polaris_telnetd_maroon_t)

#####
"install add file" on ULTRA invokes:
/tmp/sw/rp/0/0/rp_security/mount/usr/binos/sbin/in.telnetd -L /usr/binos/conf/brelay.sh
That needs getattr on /lib/systemd/system/ksm.service
polaris_ksm_run_check(telnetd_t)

restorecon needs sys_resource capability
gen_require(

```

```

type setfiles_t;
)
allow setfiles_t self:capability sys_resource;

accessing /sys/firmware/dmi/tables/DMI
gen_require(
 type dmidecode_t;
 type sysfs_t;
)
mmap_files_pattern(dmidecode_t, sysfs_t, sysfs_t)
gen_require(
 type dmidecode_t;
 type memory_device_t;
)
allow dmidecode_t memory_device_t:chr_file map;
called by confd_t label with it is file as stdin
polaris_confd_tmp_use_fifo(dmidecode_t)

rpcbind binds to port
gen_require(
 type rpcbind_t;
)
corenet_udp_bind_generic_port(rpcbind_t)

when polaris_unconfined we need to mark all subject labels except
iosd lable to run as unconfined
#ifdef(`polaris_unconfined',`
 gen_require(
 type auditd_t;
 type dhcpc_t;
 type getty_t;
 type inetd_t;
 type initrc_t;
 type init_t;
 type journalctl_t;
 type nfsd_t;
 type ntpd_t;
 type rpcbind_t;
 type rpcd_t;
 type rsync_t;
 type setfiles_t;
 type sshd_t;
 type syslogd_t;
 type system_dbusd_t;
 type udev_t;
 type virtd_t;
 type virtlogd_t;
 type ldconfig_t;

```



```

 type hostname_t;
)
 unconfined_domain(auditd_t)
 unconfined_domain(dhcpc_t)
 unconfined_domain(getty_t)
 unconfined_domain/inetd_t)
 unconfined_domain(initrc_t)
 unconfined_domain(init_t)
 unconfined_domain(journalctl_t)
 unconfined_domain(nfsd_t)
 unconfined_domain(ntpd_t)
 unconfined_domain(rpcbind_t)
 unconfined_domain(rpcd_t)
 unconfined_domain(rsync_t)
 unconfined_domain(setfiles_t)
 unconfined_domain(sshd_t)
 unconfined_domain(syslogd_t)
 unconfined_domain(system_dbusd_t)
 unconfined_domain(udev_t)
 unconfined_domain(virtfd_t)
 unconfined_domain(virtlogd_t)
 unconfined_domain(ldconfig_t)
 unconfined_domain(hostname_t)
)

ifdef(`polaris_unconfined',`
optional_policy(`
 gen_require(`
 type container_runtime_t;
)
 unconfined_domain(container_runtime_t)
)
)

/tmp/rsync_log_dir files
type polaris_rsync_tmp_t;
files_tmp_file(polaris_rsync_tmp_t)

activate correct named transition for basic directories
when code runs under unconfined_service_t, i.e calls ip
command that runs under ifconfig_t and creates /run/netns
gen_require(`
 type unconfined_service_t;
)
domain_named_filetrans(unconfined_service_t)
gen_require(`
 type ifconfig_t;
 type ifconfig_var_run_t;

```

```

')
allow ifconfig_t ifconfig_var_run_t:dir mounton;

earlier invocation of ifconfig complains about tmp_t mounton
on /sys directory
gen_require(
 type tmp_t;
)
allow ifconfig_t tmp_t:dir mounton;

#SERDES library stores info in /tmp/serdes_asic_key_dir/*
type polaris_serdes_asic_key_tmp_t;
files_tmp_file(polaris_serdes_asic_key_tmp_t)

/dev/shm/vrf_shm access
type polaris_vrf_shm_t;
files_type(polaris_vrf_shm_t)

/dev/shm/cerrno_dll access
type polaris_cerr_shm_t;
files_tmpfs_file(polaris_cerr_shm_t)

for /sbin/ip: /dev/shm/vrf_shm access in netns creation
gen_require(
 type ifconfig_t;
)
polaris_vrf_shm_manage(ifconfig_t)

for /sbin/ip: adds lfts device in netns creation
polaris_lfts_dev_use(ifconfig_t)

new systemd-tmpfiles needs this permissions
gen_require(
 type systemd_tmpfiles_t;
)
allow systemd_tmpfiles_t self:capability sys_resource;
allow systemd_tmpfiles_t self:process setrlimit;

gen_require(
 type unconfined_service_t;
)
ssh_initrc_domtrans(unconfined_service_t)

#wlc awips
type polaris_awips_signature_file_t;
polaris_pfile_type(polaris_awips_signature_file_t)

/usr/bin/curl

```

```

type polaris_curl_t;
type polaris_curl_exec_t;
init_system_domain(polaris_curl_t, polaris_curl_exec_t)
corenet_udp_bind_generic_node(polaris_curl_t)
auth_use_nsswitch(polaris_curl_t)
polaris_crft_data_read(polaris_curl_t)

for ip netns exec X curl
optional_policy(`
 polaris_curl_domtrans(ifconfig_t)
`)

/etc/init.d/sshd that runs under initrc_t through ssh-keygen
creates /config/.ssh directory if does not exist; /config
directory is typically symlink to /bootflash
gen_require(`
 type initrc_t;
 type ssh_home_t;
`)
polaris_bootflash_filetrans(initrc_t, ssh_home_t, dir, ".ssh")

/tmp/ldwm_envelope file
type polaris_ldwm_envelope_tmp_t;
files_tmp_file(polaris_ldwm_envelope_tmp_t)
gen_require(`
 type initrc_t;
 type init_t;
`)
files_tmp_filetrans({ initrc_t init_t }, polaris_ldwm_envelope_tmp_t, file, "ldwm_envelope")

#####
CLI: show platform software tech-support
#####
polaris_utility_domain_template(tech_support)
polaris_bexecute_domain(polaris_tech_support_t, polaris_tech_support_exec_t)
polaris_bexecute_domtrans(polaris_tech_support_t)

allow to run readlink -f /usr/binos/conf/psimple.sh
corecmd_exec_bin(polaris_tech_support_t)

Additional policies needed for workflow
auth_use_nsswitch(polaris_tech_support_t)
dev_list_sysfs(polaris_tech_support_t)
polaris_chasfs_read(polaris_tech_support_t)
polaris_cpld_read(polaris_tech_support_t)
scripts stdin is set by hman and needs access to pipes like pipe:[271524]
polaris_hman_use_fifo(polaris_tech_support_t)
Allow ls to /tmp/ufs/crashinfo

```

```

optional_policy(
 polaris_ncd_tmp_read(polaris_tech_support_t)
)

Allow readlink to /usb0 and /usb1
optional_policy(
 fs_read_removable_symlinks(polaris_tech_support_t)
)

gen_require(
 type polaris_btrace_tmppub_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_crashinfo_t;
)

platform_tech_support.sh creates misc files/dirs under /tmp/tmppub
type polaris_tech_support_tmp_t;
files_tmp_file(polaris_tech_support_tmp_t)
filetrans_pattern(polaris_tech_support_t, polaris_btrace_tmppub_t, polaris_tech_support_tmp_t, { file dir })
misc file directly in /tmp like /tmp/esg_tech_support_command_file_out.txt
files_tmp_filetrans(polaris_tech_support_t, polaris_tech_support_tmp_t, file,
"esg_tech_support_command_file_out.txt")
files_tmp_filetrans(polaris_tech_support_t, polaris_tech_support_tmp_t, file,
"sdwan_tech_support_command_file_out.txt")
manage_files_pattern(polaris_tech_support_t, polaris_tech_support_tmp_t, polaris_tech_support_tmp_t)
manage_dirs_pattern(polaris_tech_support_t, polaris_tech_support_tmp_t, polaris_tech_support_tmp_t)

/bootflash/certs
type polaris_ap_cert_file_t;
files_type(polaris_ap_cert_file_t)
polaris_pfile_type(polaris_ap_cert_file_t)

Additional policies needed for workflow when file option is used
show platform software tech-support file bootflash:show_tech_file
polaris_bootflash_manage(polaris_tech_support_t)
polaris_disk_crashinfo_manage(polaris_tech_support_t)
fs_getattr_tmpfs(polaris_tech_support_t)
polaris_btrace_persistent_data_read(polaris_tech_support_t)

type polaris_rommon_info_tmp_t;
files_tmp_filetrans(initrc_t, polaris_rommon_info_tmp_t, file, "existing_rommon_info")
manage_files_pattern(initrc_t, polaris_rommon_info_tmp_t, polaris_rommon_info_tmp_t)
fs_associate_tmpfs(polaris_rommon_info_tmp_t)

tamlib debug file
type polaris_tamlib_dbg_file_t;
polaris_pfile_type(polaris_tamlib_dbg_file_t)

```

```
read /proc/cmdline
kernel_read_system_state(polaris_tech_support_t)
read rmonbifo files such as env_var.sh
polaris_rmonbifo_tmp_read(polaris_tech_support_t)
read /tmp/sw/boot/base_pkg
polaris_boot_tmp_read(polaris_tech_support_t)
```

```
/dev/DDR
type polaris_DDR_device_t;
dev_node(polaris_DDR_device_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscommon.te
No license file was found, but licenses were detected in source scan.
```

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
dnl RIPC Base Interface Map: track that type declarations unique
define(^rip_base_type_map', `defn(format(`rip_base_type_map[%s]", ` $1'))')
define(^rip_base_type_map_set', `define(format(`rip_base_type_map[%s]", ` $1'), ` $2'))

define(^rip_base_port_map', `defn(format(`rip_base_port_map[%s]", ` $1'))')
define(^rip_base_port_map_set', `define(format(`rip_base_port_map[%s]", ` $1'), ` $2'))

define(^polaris_rip_portcon', portcon tcp $1 gen_context(system_u:object_r:$2,s0))

define(^polaris_rip_portcon_aux', `dnl
ifelse(rip_base_port_map($1), `', `polaris_rip_portcon($1, $2)')
rip_base_port_map_set($1, $2)
')

define(^polaris_rip_portcon_many',
`polaris_rip_portcon_aux(eval($2 + $3), $1)
ifelse($4, $3, `', `polaris_rip_portcon_many($1, $2, eval($3 + 1), $4)')')

define(^polaris_rip_service_server_aux', `dnl
type $1, port_type, defined_port_type;
$4
')

define(^polaris_rip_service_server_full', `dnl
polaris_rip_service_server_aux(rip_label($1), rip_stem($1), process_label($2),
polaris_rip_portcon_many(rip_label($1), $5, min_scope_rip_map($3, $4, $2),
```

```
max_scope_ripc_map($3, $4, $2)))
```

```
)
```

```
define(`polaris_ripc_service_server',`dnl
```

```
ifelse(ripc_base_type_map($1),`,`polaris_ripc_service_server_full($1, $2, $3, $4, $5)')
```

```
ripc_base_type_map_set($1, 1)
```

```
)
```

```
define(`polaris_ripc_service_client',`dnl
```

```
ifelse(ripc_base_type_map($1),`,`polaris_ripc_service_server_full($1, $2, $3, $4, $5)')
```

```
ripc_base_type_map_set($1, 1)
```

```
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_base_ripc_te.m4
```

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```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
All rights reserved
```

```
#
```

```
<summary>Polaris ngwc_plfm_mgr Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Read /tmp/installer files and directories
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_ngwc_plfm_mgt_tmp_manage',`
```

```
gen_require(`
```

```
type polaris_ngwc_plfm_mgr_tmp_t;
```

```
)
```

```
manage_dirs_pattern($1, polaris_ngwc_plfm_mgr_tmp_t, polaris_ngwc_plfm_mgr_tmp_t)
```

```
manage_files_pattern($1, polaris_ngwc_plfm_mgr_tmp_t, polaris_ngwc_plfm_mgr_tmp_t)
```

```
)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcplfmgr.if
```

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```
#
April 2017, Victor Kamensky
#
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#

<summary>Polaris dmi_dmiauthd Policy Rules.</summary>

#####
<summary>
Connect to and send messages to dmiauthd.
tmp/.DmiAuth.sock unix datagram sockets.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dmi_dmiauthd_dgram_send`,`
 gen_require(`
 type polaris_dmi_dmiauthd_tmp_t;
 type polaris_dmi_dmiauthd_t;
 `)
 allow $1 self:unix_stream_socket {create_socket_perms};
 allow $1 polaris_dmi_dmiauthd_t:unix_stream_socket { connectto };
 write_sock_files_pattern($1, polaris_dmi_dmiauthd_tmp_t,polaris_dmi_dmiauthd_tmp_t)
)`

#####
<summary>
Manage dmiauthd fifo files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dmiauthd_tmp_manage`,`
 gen_require(`
 type polaris_dmi_dmiauthd_tmp_t;
 type tmp_t;
 `)
 manage_fifo_files_pattern($1, tmp_t, polaris_dmi_dmiauthd_tmp_t)
`
```

)

#####

## <summary>

## Write into fifo file created by dmiauthd, typical case when

## dmiauthd starts script under popen.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_dmiauthd\_use\_fifo`,`

gen\_require(`

type polaris\_dmi\_dmiauthd\_t;

`)

write\_fifo\_files\_pattern(\$1, polaris\_dmi\_dmiauthd\_t, polaris\_dmi\_dmiauthd\_t)

`)

#####

## <summary>

## Manage /tmp/netconf-yang-diag/ files

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

## <rolebase/>

#

interface(`polaris\_dmiauthd\_tmp\_diags\_manage`,`

gen\_require(`

type polaris\_dmi\_dmiauthd\_tmp\_diags\_t;

`)

manage\_files\_pattern(\$1, polaris\_dmi\_dmiauthd\_tmp\_diags\_t, polaris\_dmi\_dmiauthd\_tmp\_diags\_t)

manage\_dirs\_pattern(\$1, polaris\_dmi\_dmiauthd\_tmp\_diags\_t, polaris\_dmi\_dmiauthd\_tmp\_diags\_t)

manage\_lnk\_files\_pattern(\$1, polaris\_dmi\_dmiauthd\_tmp\_diags\_t, polaris\_dmi\_dmiauthd\_tmp\_diags\_t)

`)

#####

## <summary>

## Read /tmp/netconf-yang-diag/ files

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>



```

</param>
<rolebase/>
#
interface(`polaris_dmiauthd_tmp_diags_read`,
 gen_require(`
 type polaris_dmi_dmiauthd_tmp_diags_t;
 `)
 read_files_pattern($1, polaris_dmi_dmiauthd_tmp_diags_t, polaris_dmi_dmiauthd_tmp_diags_t)
 list_dirs_pattern($1, polaris_dmi_dmiauthd_tmp_diags_t, polaris_dmi_dmiauthd_tmp_diags_t)
 read_lnk_files_pattern($1, polaris_dmi_dmiauthd_tmp_diags_t, polaris_dmi_dmiauthd_tmp_diags_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdmidmiauthd.if

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```

#
March 2019, Shikhar Dogra
#
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#

```

# polarisfmancc file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfmancc.fc

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```

dnl
dnl April 2018, Victor Kamensky
dnl
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dnl
define(`lipc_stem', `translit(patsubst($1, `-lipc$', `'), `-', `_)')
define(`lipc_label', `format(`polaris_%s_lipc_t', lipc_stem($1))')

dnl Lipc Type Map: track that type declations unique
define(`lipc_type_map', `defn(format(`lipc_type_map[%s]', `$1'))')
define(`lipc_type_map_set', `define(format(`lipc_type_map[%s]', `$1'), `$2')')

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_lipc.m4

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```

#
February 2020, Victor Kamensky

```

```

#
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#

policy_module(polariscfgmgr, 1.0);

gen_require(
 type polaris_cfgmgr_t;
)
polaris_chasfs_manage(polaris_cfgmgr_t)
read day0_oper.xml and write local.data.tmp
polaris_bootflash_manage(polaris_cfgmgr_t)
polaris_boot_tmp_read(polaris_cfgmgr_t)
polaris_cpld_read(polaris_cfgmgr_t)
polaris_tdlresolve_read(polaris_cfgmgr_t)
polaris_flashlib_read(polaris_cfgmgr_t)

polaris_ripc_sman_ui_serv_connect(polaris_cfgmgr_t)

polaris_db_tdlb_dir_use(polaris_cfgmgr_t)

logging_send_syslog_msg(polaris_cfgmgr_t)

vconfd_load_shared_schemas
polaris_confd_shared_schema_read(polaris_cfgmgr_t)

polaris_cedge_reset_ns(polaris_cfgmgr_t)

polaris_cedge_etc_manage(polaris_cfgmgr_t)

/etc/version is opened via "show sdwan version"
polaris_confd_etc_read(polaris_cfgmgr_t)

/var/run/.cfgmgr socket and pid
type polaris_cfgmgr_var_run_t;
files_pid_file(polaris_cfgmgr_var_run_t)
manage_files_pattern(polaris_cfgmgr_t, polaris_cfgmgr_var_run_t, polaris_cfgmgr_var_run_t)
manage_sock_files_pattern(polaris_cfgmgr_t, polaris_cfgmgr_var_run_t, polaris_cfgmgr_var_run_t)
files_pid_filetrans(polaris_cfgmgr_t, polaris_cfgmgr_var_run_t, { file sock_file })

sets up symlink /var/run/netns/default to pid 1 netns
sysnet_manage_ifconfig_run(polaris_cfgmgr_t)

PLEASE LOOK AT ME create_syslog_conf_file function in
vptela/cfgmgr/cfgmgr_logging.c creates /etc/syslog.conf.sysklogd file
that nobody uses in polaris
files_manage_etc_files(polaris_cfgmgr_t)

```

```

in cfgmgr_vpn_namespace_add creates udp socket
allow polaris_cfgmgr_t self:udp_socket create_socket_perms;

watch /bootflash/sdwan/day0_oper.xml
polaris_persistent_watch(polaris_cfgmgr_t)

compute_available_memory executes '/bin/df /dev/shm'
corecmd_exec_bin(polaris_cfgmgr_t)
vip_binos_cpufreq calls sysconf
dev_read_sysfs(polaris_cfgmgr_t)
cfgmgr_show_system_get_elem collects SDWAN_DISK_MOUNT (/bootflash) fs info
fs_getattr_xattr_fs(polaris_cfgmgr_t)
crashlist_refresh collects info about corefiles
polaris_core_file_read(polaris_cfgmgr_t)
cfgmgr_show_system_get_elem collects info about /bootflash/.installer fs
polaris_disk_install_read(polaris_cfgmgr_t)
cfgmgr_show_system_get_elem() collects available mem info by executing
'/bin/df /tmp/rp/tlddb'
polaris_tlddb_list_dirs(polaris_cfgmgr_t)

#vip_binos_cpufreq() performs file operations on PROC_CPUSTAT_FILE (/proc/stat)
polaris_disk_install_fs_getattr(polaris_cfgmgr_t)
#vip_binos_meminfo() reads PROC_MEMINFO_PATH (/proc/meminfo)
kernel_read_system_state(polaris_cfgmgr_t)

configure ip address on system interface on vrf 1
sysnet_domtrans_ifconfig(polaris_cfgmgr_t)

create tunnel interface in cfgmgr_tun_alloc function
corenet_rw_tun_tap_dev(polaris_cfgmgr_t)
allow polaris_cfgmgr_t self:tun_socket create;

works if /proc/accept_source_route file of system interface
kernel_rw_net_sysctls(polaris_cfgmgr_t)

work with /tmp/xml/geostats
polaris_cedge_xml_tmp_manage(polaris_cfgmgr_t)

work with /tmp/tmp/geostats
polaris_cedge_tmp_manage(polaris_cfgmgr_t)
allow polaris_cfgmgr_t self:process setpgid;

map on /etc/passwd
auth_map_passwd(polaris_cfgmgr_t)

give read permissions for /tmp/GPS_supported file created by iosd
polaris_iosd2iox_tmp_read(polaris_cfgmgr_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscfgmgr.te

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dnl

dnl May 2018, Manohar Hungund

dnl

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dnl

dnl Starfleet Platform Max Bay Limits

max\_bay\_map\_set(rp, `per\_bay', 0)

max\_bay\_map\_set(bp, `per\_bay', 0)

max\_bay\_map\_set(cc, `per\_bay', 1)

max\_bay\_map\_set(fp, `per\_bay', 1)

min\_bay\_ripc\_map\_set(rp, `per\_bay', 0)

min\_bay\_ripc\_map\_set(bp, `per\_bay', 0)

min\_bay\_ripc\_map\_set(cc, `per\_bay', 1)

min\_bay\_ripc\_map\_set(fp, `per\_bay', 0)

max\_bay\_ripc\_map\_set(rp, `per\_bay', 1)

max\_bay\_ripc\_map\_set(bp, `per\_bay', 1)

max\_bay\_ripc\_map\_set(cc, `per\_bay', 1)

max\_bay\_ripc\_map\_set(fp, `per\_bay', 1)

min\_bay\_ripc\_map\_set(rp, `global', 0)

min\_bay\_ripc\_map\_set(bp, `global', 0)

min\_bay\_ripc\_map\_set(cc, `global', 1)

min\_bay\_ripc\_map\_set(fp, `global', 0)

max\_bay\_ripc\_map\_set(rp, `global', 1)

max\_bay\_ripc\_map\_set(bp, `global', 1)

max\_bay\_ripc\_map\_set(cc, `global', 1)

max\_bay\_ripc\_map\_set(fp, `global', 1)

dnl in elastic scope each process has its own value

max\_elastic\_map\_set(rp, `elastic', BPROC\_ODM, 0)

max\_elastic\_map\_set(cc, `elastic', BPROC\_ODM, 0)

max\_elastic\_map\_set(fp, `elasitic', BPROC\_ODM, 0)

max\_elastic\_map\_set(rp, `elastic', BPROC\_WNCD, 0)

max\_elastic\_map\_set(cc, `elastic', BPROC\_WNCD, 0)

max\_elastic\_map\_set(fp, `elastic', BPROC\_WNCD, 0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/bigbangmaps.m4

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dnl

dnl Nyquist Platform Max Bay Limits

max\_bay\_map\_set(rp, `per\_bay', 0)

max\_bay\_map\_set(cc, `per\_bay', 0)

max\_bay\_map\_set(fp, `per\_bay', 0)

dnl in elastic scope each process has its own value

max\_elastic\_map\_set(rp, `elastic', BPROC\_ODM, 0)

max\_elastic\_map\_set(cc, `elastic', BPROC\_ODM, 0)

max\_elastic\_map\_set(fp, `elasitc', BPROC\_ODM, 0)

max\_elastic\_map\_set(rp, `elastic', BPROC\_WNCD, 0)

max\_elastic\_map\_set(cc, `elastic', BPROC\_WNCD, 0)

max\_elastic\_map\_set(fp, `elastic', BPROC\_WNCD, 0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/quake2maps.m4

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#

# August 2017, Shawn Lu

#

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#

# polarisodmproxy file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisodmproxy.fc

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#

# August 2017, Shawn Lu

#

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#

## <summary>Polaris rif\_mgr Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrifmgr.if

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```
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March 2017, Victor Kamensky
#
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#

#
August 2018 Man-Yee Hau
#
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/usr/cpp/bin/qfp-ucode-csr -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-csr-us -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-csx -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-c8kv -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-wlc -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-utah -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-tsn -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-tsn-le -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-supernova -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-blackheart -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-sparrow -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-aventus -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-cabo -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-goldbeach -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-radium -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-fugazi -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-sumatra -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-nanook -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/usr/cpp/bin/qfp-ucode-csr-fb -- gen_context(system_u:object_r:polaris_qfp_exec_t,s0)
/var/run/.rte_config -- gen_context(system_u:object_r:polaris_qfp_var_run_t,s0)

/dev/netmap -c gen_context(system_u:object_r:polaris_netmap_device_t,s0)

/dev/svc_eng_punt[0-9]* -c gen_context(system_u:object_r:polaris_sep_device_t,s0)

qfp memif interfaces
/bootflash/SHARED-IOX/memif(/.*)? gen_context(system_u:object_r:polaris_qfp_memif_t,s0)
/tmp/memif(/.*)? gen_context(system_u:object_r:polaris_qfp_memif_t,s0)

CSR & C8KV infiniband devices for Azure
/dev/infiniband/uverbs[0-9]* -c gen_context(system_u:object_r:polaris_infiniband_device_t,s0)

/etc/rc.d/init.d/iocbd.sh -- gen_context(system_u:object_r:polaris_iocbd_exec_t,s0)
```

```
For Intel quickassist (qat) v1.5 - Note that mcp_family also includes this.
fugazi uses polarismcp.fc and polasrisqfp.fc so need to exclude it here.
ifndef(`mcp_family`,`
/dev/icp_adf_ctl -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/icp_dev_processes -c gen_context(system_u:object_r:polaris_icp_device_t,s)
')
```

```
For platforms which use Intel quickassist (qat) v1.7
/dev/usdm_drv -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/qat_adf_ctl -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
/dev/qat_dev_processes -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

```
For platforms which use the musdk from the Marvell 10.3.x.x SDK
/dev/musdk-cma -c gen_context(system_u:object_r:polaris_icp_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisqfp.fc
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```

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#
```

```
/usr/binos/conf/telnetd_service.sh -- gen_context(system_u:object_r:polaris_tservice_telnet_exec_t,s0)
/usr/binos/conf/sshd_service.sh -- gen_context(system_u:object_r:polaris_tservice_ssh_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristservice.fc
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```

```
/usr/binos/conf/rollback_timer.sh -- gen_context(system_u:object_r:polaris_rbtimer_exec_t,s0)
```

```
/bootflash/.rollback_timer(/.*)? gen_context(system_u:object_r:polaris_rbtimer_bootflash_t,s0)
/tmp/rp/rollback_timer(/.*)? gen_context(system_u:object_r:polaris_rbtimer_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrollbacktimer.fc
```

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dnl

dnl Katar WLC Platform Max Bay Limits

max\_bay\_map\_set(`rp', `per\_bay', 0)

max\_bay\_map\_set(`cc', `per\_bay', 3)

max\_bay\_map\_set(`fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`rp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`cc', `per\_bay', 3)

max\_bay\_ripc\_map\_set(`fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(`rp', `global', 0)

max\_bay\_ripc\_map\_set(`cc', `global', 3)

max\_bay\_ripc\_map\_set(`fp', `global', 0)

dnl in elastic scope each process has its own value

max\_elastic\_map\_set(`rp', `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(`cc', `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(`fp', `elasitc', BPROC\_ODM, 1)

max\_elastic\_map\_set(`rp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(`cc', `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(`fp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(`rp', `elastic', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(`cc', `elastic', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(`fp', `elasitc', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(`rp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(`cc', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(`fp', `elastic', BPROC\_WNCD, 7)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/katarmaps.m4

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#

# polariscontainer file contexts place holder



```

All the possible IOX flash_dir/harddisk_dir from iox_polaris.conf for docker
Expected labels for docker as per container.fc
/bootflash/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/bootflash/docker./*/config\env gen_context(system_u:object_r:container_share_t,s0)
/bootflash/docker./*/containers/./.*\log gen_context(system_u:object_r:container_log_t,s0)
/bootflash/docker./*/containers/./hostname gen_context(system_u:object_r:container_share_t,s0)
/bootflash/docker./*/containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/bootflash/docker./*/init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/bootflash/docker./*/overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/bootflash/docker./*/overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

```

```

/bootflash/iox_alt_hdd_mount_dir/docker(/.*)?
gen_context(system_u:object_r:container_var_lib_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/config\env
gen_context(system_u:object_r:container_share_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/containers/./.*\log
gen_context(system_u:object_r:container_log_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/containers/./hostname
gen_context(system_u:object_r:container_share_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/containers/./hosts
gen_context(system_u:object_r:container_share_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/init(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/overlay(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
/bootflash/iox_alt_hdd_mount_dir/docker./*/overlay2(/.*)?
gen_context(system_u:object_r:container_share_t,s0)

```

```

/mnt/sd3/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/mnt/sd3/docker./*/config\env gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/docker./*/containers/./.*\log gen_context(system_u:object_r:container_log_t,s0)
/mnt/sd3/docker./*/containers/./hostname gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/docker./*/containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/docker./*/init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/docker./*/overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/docker./*/overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

```

```

ifdef(`nyquist_platform',`
/mnt/sd3/iox_alt_hdd_mount_dir/docker(/.*)?
gen_context(system_u:object_r:container_var_lib_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker./*/config\env
gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker./*/containers/./.*\log
gen_context(system_u:object_r:container_log_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker./*/containers/./hostname
gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker./*/containers/./hosts

```

```

gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker/.*/init(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker/.*/overlay(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
/mnt/sd3/iox_alt_hdd_mount_dir/docker/.*/overlay2(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
')

```

```

ifdef(`passport_platform',`
/flash1/iox_alt_hdd_mount_dir/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/config\.env
gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/containers/.*/*\.log
gen_context(system_u:object_r:container_log_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/containers/.*hostname
gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/containers/.*hosts
gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/overlay(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox_alt_hdd_mount_dir/docker/.*/overlay2(/.*)?
gen_context(system_u:object_r:container_share_t,s0)
')

```

```

/flash1/iox/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/flash1/iox/docker/.*/config\.env gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox/docker/.*/containers/.*/*\.log gen_context(system_u:object_r:container_log_t,s0)
/flash1/iox/docker/.*/containers/.*hostname gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox/docker/.*/containers/.*hosts gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox/docker/.*/init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox/docker/.*/overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/flash1/iox/docker/.*/overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

```

```

/flash11/iox/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/flash11/iox/docker/.*/config\.env gen_context(system_u:object_r:container_share_t,s0)
/flash11/iox/docker/.*/containers/.*/*\.log gen_context(system_u:object_r:container_log_t,s0)
/flash11/iox/docker/.*/containers/.*hostname gen_context(system_u:object_r:container_share_t,s0)
/flash11/iox/docker/.*/containers/.*hosts gen_context(system_u:object_r:container_share_t,s0)
/flash11/iox/docker/.*/init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/flash11/iox/docker/.*/overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/flash11/iox/docker/.*/overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

```

```

/vol/harddisk/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/vol/harddisk/docker/.*/config\.env gen_context(system_u:object_r:container_share_t,s0)
/vol/harddisk/docker/.*/containers/.*/*\.log gen_context(system_u:object_r:container_log_t,s0)
/vol/harddisk/docker/.*/containers/.*hostname gen_context(system_u:object_r:container_share_t,s0)

```

```

/vol/harddisk/docker/./containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/vol/harddisk/docker/./init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/harddisk/docker/./overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/harddisk/docker/./overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

/vol/disk0/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/vol/disk0/docker/./config\env gen_context(system_u:object_r:container_share_t,s0)
/vol/disk0/docker/./containers/./.*\log gen_context(system_u:object_r:container_log_t,s0)
/vol/disk0/docker/./containers/./hostname gen_context(system_u:object_r:container_share_t,s0)
/vol/disk0/docker/./containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/vol/disk0/docker/./init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/disk0/docker/./overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/disk0/docker/./overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

/vol/usb1/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/vol/usb1/docker/./config\env gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/docker/./containers/./.*\log gen_context(system_u:object_r:container_log_t,s0)
/vol/usb1/docker/./containers/./hostname gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/docker/./containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/docker/./init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/docker/./overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/docker/./overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

#Sumatra
/vol/usb1/iox/docker(/.*)? gen_context(system_u:object_r:container_var_lib_t,s0)
/vol/usb1/iox/docker/./config\env gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/iox/docker/./containers/./.*\log gen_context(system_u:object_r:container_log_t,s0)
/vol/usb1/iox/docker/./containers/./hostname gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/iox/docker/./containers/./hosts gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/iox/docker/./init(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/iox/docker/./overlay(/.*)? gen_context(system_u:object_r:container_share_t,s0)
/vol/usb1/iox/docker/./overlay2(/.*)? gen_context(system_u:object_r:container_share_t,s0)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscontainer.fc
```

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```

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```

```
policy_module(polarisortfiles, 1.0);
```

```

gen_require(
 type polaris_sort_files_t;

```

```

')

corecmd_exec_bin(polaris_sort_files_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_sort_files_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_sort_files_t)

polaris_btrace_data_manage(polaris_sort_files_t)
polaris_chasfs_manage(polaris_sort_files_t)
polaris_rmonbifo_tmp_read(polaris_sort_files_t)
polaris_read_debug_conf(polaris_sort_files_t)
polaris_persistent_getattr(polaris_sort_files_t)
polaris_persistent_list_dirs(polaris_sort_files_t)
polaris_cpld_read(polaris_sort_files_t)
polaris_capsule_upgrade_log_use(polaris_sort_files_t)
optional_policy(`
polaris_gnmib_gnoi_images_read(polaris_sort_files_t)
`)

Dontaudit /bootflash/#lost+found avc denials
dontaudit polaris_sort_files_t polaris_disk:chr_file { getattr };
dontaudit polaris_sort_files_t polaris_disk:blk_file { getattr };

#allow polaris_sort_files_t polaris_udev_tmp_files_t:dir { getattr search };
polaris_udev_tmp_list_dirs(polaris_sort_files_t)

optional_policy(`
polaris_iox_dir_list(polaris_sort_files_t)
`)

polaris_sandbox_file_dir_list(polaris_sort_files_t)

polaris_disk_bootflash_read_lnk(polaris_sort_files_t)

polaris_disk_bootflash_fifo_file_getattr(polaris_sort_files_t)
polaris_disk_bootflash_sock_file_getattr(polaris_sort_files_t)

allow search and read under /tmp/boot directory
polaris_boot_tmp_read(polaris_sort_files_t)

#allow manage the files under /tmp/sort
type polaris_sort_files_tmp_t;
files_tmp_file(polaris_sort_files_tmp_t)
files_tmp_filetrans(polaris_sort_files_t, polaris_sort_files_tmp_t, file)
manage_files_pattern(polaris_sort_files_t, polaris_sort_files_tmp_t, polaris_sort_files_tmp_t)

```

```

for pluggable FS, allow sort to access files on them.
polaris_getattr_removable(polaris_sort_files_t)
polaris_removable_manage(polaris_sort_files_t)
fs_read_removable_symlinks(polaris_sort_files_t)

to look at files sort_file sometime needs to violate DAC permissions
allow polaris_sort_files_t self:capability dac_read_search;

optional_policy(`
LOOK AT ME memif sock_file interface present in /bootflash as
/bootflash/SHARED-IOX/memif/memif-dp-svr, since class of the
object is sock_file adding it to polaris_disk does not make much
sense
gen_require(`
 type polaris_qfp_memif_t;
 `)
getattr_sock_files_pattern(polaris_sort_files_t, polaris_qfp_memif_t, polaris_qfp_memif_t)
`)

find runs fstatfs
fs_getattr_xattr_fs(polaris_sort_files_t)

allow polaris_sort_files_t fs_t:filesystem getattr
fs_getattr_all_fs(polaris_sort_files_t)

with "/bootflash"...this needs attr to access for logfile
polaris_user_file_getattr(polaris_sort_files_t)

optional_policy(`
gen_require(`
 type polaris_efi_files_t;
 `)
#find /bootflash/ -printf %i %p
allow polaris_sort_files_t polaris_efi_files_t:dir { getattr open read search };

#stat -c %i %f %s %n /bootflash/EFI/UpdateCapsule/UpdateCapsuleFile.bin
allow polaris_sort_files_t polaris_efi_files_t:file getattr;
`)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissortfiles.te
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```

```

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#

policy_module(polarisioxman, 1.0);

gen_require(
 type polaris_ioxman_t;
)

polaris_btrace_data_manage(polaris_ioxman_t)
polaris_chasfs_manage(polaris_ioxman_t)
polaris_tdlresolve_read(polaris_ioxman_t)
polaris_tdlldb_list_dirs(polaris_ioxman_t)
polaris_cpld_read(polaris_ioxman_t)
polaris_lua_read(polaris_ioxman_t)
polaris_flashlib_read(polaris_ioxman_t)

polaris_ripc_sman_ui_serv_connect(polaris_ioxman_t)

polaris_db_tdlldb_dir_use(polaris_ioxman_t)

#allow access to /bootflash/iox/ files
polaris_iox_dir_search(polaris_ioxman_t)

corenet_tcp_connect_polaris_caf_api_port(polaris_ioxman_t)

allow read permissions for /etc/hosts file
sysnet_read_config(polaris_ioxman_t)

ioxman interacting with caf through api http interface and
is uses curl library to send requests to caf. curl wants
to do getsockopt with SOL_SOCKET,
allow polaris_ioxman_t self:tcp_socket getopt;

allow to get getattr of /proc file system
domain_read_all_domains_state(polaris_ioxman_t)

corecmd_exec_bin(polaris_ioxman_t)
corecmd_exec_shell(polaris_ioxman_t)

allow to run mount in its own domain; guestshell_set_netns.sh
needs it; also, read and exec the set_netns script.
ioxman_setup_guestshell_namespace invokes the script
using NAMESPACE_COMMAND
mount_domtrans(polaris_ioxman_t)
polaris_guestshell_files_read(polaris_ioxman_t)
polaris_guestshell_exec_files_exec(polaris_ioxman_t)

```

```

allow read of /etc/passwd
auth_use_nsswitch(polaris_ioxman_t)

guestshell_set_netns.sh calls ps command
ps needs access to /sys/devices/system/cpu/online
dev_read_sysfs(polaris_ioxman_t)
ps needs access to proc_t
kernel_read_system_state(polaris_ioxman_t)

modifies /bootflash/iox/iox_app/guestshell_iox.json
polaris_iox_files_manage(polaris_ioxman_t)

guestshell_set_netns.sh touches /var/run/netns/guestshell
files_pid_filetrans(polaris_ioxman_t, polaris_guestshell_var_run_t, file, "guestshell")
polaris_guestshell_var_run_files_manage(polaris_ioxman_t)

Read and write the all pty
term_use_generic_ptys(polaris_ioxman_t)

allow ioxman_syslib.sh to set uid/gid for screen
allow polaris_ioxman_t self:capability { dac_override setgid setuid };

ioxman execve virsh
gen_require(
 type virsh_t;
 type virsh_exec_t;
)
domtrans_pattern(polaris_ioxman_t, virsh_exec_t, virsh_t)
virsh needs to write into /tmp/rp/trace/iox_guestshell.log
polaris_btrace_data_manage(virsh_t)

ioxman is vman client over @vman_domain_socket socket
optional_policy(
 polaris_vman_use_client_socket(polaris_ioxman_t)
)

ioxman uses VS_OPER_DB from virtual_services_tbl_init
polaris_tdlbpersist_setup(polaris_ioxman_t)

polaris_tmp_tdlb_persist_setup(polaris_ioxman_t)

ioxman through libcurl library hit c-ares DNS code needs
udp sockets access
allow polaris_ioxman_t self:udp_socket connect;

logging_send_syslog_msg(polaris_ioxman_t)

read /opt/cisco/caf/config/system-config.ini

```

```

polaris_caf_files_read(polaris_ioxman_t)

virt_manage_sandbox_files(polaris_ioxman_t)

handle ioxman /tmp files like /tmp/iox_xml.dat
type polaris_iox_tmp_t;
files_tmp_file(polaris_iox_tmp_t)
polaris_iox_manage_tmp_files(polaris_ioxman_t)

by some strange reason ioxman munges files in /bootflash/tracelogs
please see iox_tracefile_restore in ioxman/src/im_serial.c
polaris_btrace_persistent_data_manage(polaris_ioxman_t)

virsh execved from ioxman inherits stdout from ioxman
gen_require(
 type polaris_ioxman_bt_t;
 type virsh_t;
)
allow virsh_t polaris_ioxman_bt_t:file write;

optional_policy(
gen_require(
 attribute polaris_domain;
 attribute polaris_extended_domain;
 type container_runtime_t;
)
typeattribute container_runtime_t polaris_domain;
typeattribute container_runtime_t polaris_extended_domain;
)

/usr/binos/conf/shell_exec.sh policy

polaris_utility_domain_template(iox_shell)

polaris_bexecute_domain(polaris_iox_shell_t, polaris_iox_shell_exec_t)
shell_exec call bexec.sh
polaris_bexecute_domtrans(polaris_iox_shell_t)
corecmd_exec_bin(polaris_iox_shell_t)
polaris_chasfs_read(polaris_iox_shell_t)
auth_use_nsswitch(polaris_iox_shell_t)
fs_getattr_tmpfs(polaris_iox_shell_t)

mount_domtrans(polaris_iox_shell_t)

inherit stdin from telnetd
telnet_use_ptys(polaris_iox_shell_t)

create files under /bootflash/iox

```



```

polaris_iox_files_manage(polaris_iox_shell_t)

executing guestshell.sh
polaris_guestshell_exec_files_exec(polaris_iox_shell_t)
polaris_guestshell_files_read(polaris_iox_shell_t)

executing "ip netns exec guestshell /usr/bin/ssh ..."
sysnet_exec_ifconfig(polaris_iox_shell_t)
fs_read_nsfs_files(polaris_iox_shell_t)
files_mouton_rootfs(polaris_iox_shell_t)
dev_mouton_sysfs(polaris_iox_shell_t)
allow polaris_iox_shell_t self:netlink_route_socket rw_netlink_socket_perms;
dev_mount_sysfs_fs(polaris_iox_shell_t)
dev_unmount_sysfs_fs(polaris_iox_shell_t)

executing ssh
corenet_tcp_connect_ssh_port(polaris_iox_shell_t)
ssh_exec(polaris_iox_shell_t)
allow polaris_iox_shell_t self:tcp_socket { connect create getattr getopt setopt shutdown };

ssh creates /root/.ssh directory
userdom_create_user_home_dirs(polaris_iox_shell_t)

read /etc/guestshell_rsa_key
polaris_guestshell_key_read(polaris_iox_shell_t)

work with sandbox files
polaris_sandbox_file_dir_list(polaris_iox_shell_t)

polaris_caf_var_run_files_manage(polaris_iox_shell_t)

shell_exec.sh invokes:
mkdir /tmp/.shell_exec
create /tmp/.shell_exec/*
type polaris_iox2iosd_tmp_t;
files_tmp_file(polaris_iox2iosd_tmp_t)
files_tmp_filetrans(polaris_iox_shell_t, polaris_iox2iosd_tmp_t, dir, ".shell_exec")
files_tmp_filetrans(polaris_iox_shell_t, polaris_iox2iosd_tmp_t, file)
#allow shell_exec to manage /tmp/.ncsshd_authorized_keys
polaris_ncsshd_keys_manage(polaris_iox_shell_t)
allow shell_exec to manage /tmp/.shell_exec/* files
polaris_iox2iosd_tmp_manage(polaris_iox_shell_t)
allow shell_exec to work with files created by iosd
polaris_iosd2iox_tmp_manage(polaris_iox_shell_t)
#ifdef(`nyquist_platform',`
Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_iox_shell_t)
')

```

```

ifdef(`passport_platform',`
Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_iox_shell_t)
')

allow polaris_iox_shell_t self:capability { chown dac_override fowner fsetid setgid setuid dac_read_search };
allow polaris_iox_shell_t self:cap_userns sys_admin;
allow polaris_iox_shell_t self:process setfscreate;

LOOK AT ME very fishy iox_shell executes
/bootflash/iox/repo-lxc/guestshell/rootfs_mnt/cisco/shell_exec.sh that
actually can be modified from container itself. File is recreated
each guestshell activation and it seems not executed afterwards.
Grant access for now. Need to look closely whether it could be exploited
in some way
virt_exec_sandbox_files(polaris_iox_shell_t)

ip command called from iox_shell, running it under
iox_shell domain, add required mounton on unlabeled_t
files_mounon_isid(polaris_iox_shell_t)

read guestshell net namespace file
fs_read_nsfs_files(polaris_ioxman_t)

need to create /bootflash/g_s_script/db.ini file
polaris_bootflash_manage(polaris_ioxman_t)
polaris_harddisk_manage(polaris_ioxman_t)

run_ioxn_secure_dir.sh policy
gen_require(`
 type polaris_iox_secure_dir_t;
')
corecmd_exec_bin(polaris_iox_secure_dir_t)
auth_use_nsswitch(polaris_iox_secure_dir_t)
polaris_caf_files_read(polaris_iox_secure_dir_t)
polaris_chasfs_manage(polaris_iox_secure_dir_t)
polaris_bootflash_manage(polaris_iox_secure_dir_t)
polaris_harddisk_manage(polaris_iox_secure_dir_t)
polaris_iox_files_manage(polaris_iox_secure_dir_t)

/bin/cat9k_ssd_auth_cmds.sh

polaris_utility_domain_template(ssd_auth)

corecmd_exec_bin(polaris_ssd_auth_t)
storage_getattr_fixed_disk_dev(polaris_ssd_auth_t)

#allow to read /etc/passwd

```

```

auth_use_nsswitch(polaris_ssd_auth_t)

fs_getattr_tmpfs(polaris_ssd_auth_t)

execute hdparam in its own domain
fstools_domtrans(polaris_ssd_auth_t)

polaris_use_btrace_fifo(polaris_ssd_auth_t)

type polaris_ssd_auth_tmp_t;
files_tmp_file(polaris_ssd_auth_tmp_t)
bash tmp files like /tmp/sh-thd.kxX3sc
files_tmp_filetrans(polaris_ssd_auth_t, polaris_ssd_auth_tmp_t, file)
manage_files_pattern(polaris_ssd_auth_t, polaris_ssd_auth_tmp_t, polaris_ssd_auth_tmp_t)
/tmp/ssd_blk_device created by udev
gen_require(
 type udev_t;
 type tmpfs_t;
 type tmp_t;
)
filetrans_pattern(udev_t, {tmpfs_t tmp_t}, polaris_ssd_auth_tmp_t, file, "ssd_blk_device")
polaris_getattr_harddisk(polaris_ssd_auth_t)

fs_read_cgroup_files(polaris_ioxman_t)

Allow ioxman to download package files using url
polaris_caf_tmp_files_manage(polaris_ioxman_t)
polaris_cli_fs_cmds_domtrans(polaris_ioxman_t)
ufs information captured by the chasfs utils
optional_policy(
polaris_ncd_tmp_read(polaris_ioxman_t)
)
gen_require(
 type polaris_fts_client_tmp_t;
)

manage_files_pattern(polaris_ioxman_t, polaris_fts_client_tmp_t, polaris_fts_client_tmp_t)
manage_dirs_pattern(polaris_ioxman_t, polaris_fts_client_tmp_t, polaris_fts_client_tmp_t)
allow polaris_ioxman_t tmp_t:file { create open unlink write };

get_orchestration_template in cgroup_init_common.sh reads
ovf-env.xml file from removable and varied
fs_read_removable_files(polaris_ioxman_t)
polaris_disk_varied_read(polaris_ioxman_t)

writes into /tmp/trace/resource.log
optional_policy(
polaris_vman_tmp_manage(polaris_ioxman_t)
)

```

```

)

watch over /tmp/udev/etc/udev/usbflash1 in iox_media_chasfs_watch
polaris_udev_tmp_read(polaris_ioxman_t)
polaris_udev_tmp_watch(polaris_ioxman_t)

ifdef(`nyquist_platform',`
Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_ioxman_t)
`)

dev_getattr_fs(polaris_iox_shell_t)
kernel_read_system_state(polaris_iox_shell_t)

gen_require(`
 type virt_lxc_var_run_t;
`)
read_files_pattern(polaris_ioxman_t, virt_lxc_var_run_t, virt_lxc_var_run_t)

#sys_resource denial is seen even on factory reset
allow polaris_ioxman_t self:capability sys_resource;

ifdef(`passport_platform',`
Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_ioxman_t)
`)

polaris_iosd_vcpu_read(polaris_ioxman_t)

work with files like /tmp/guestinfo_status.txt
polaris_iosd2iox_tmp_manage(polaris_ioxman_t)

gen_require(`
 type screen_var_run_t;
 type screen_exec_t;
`)

allow ioxman to set up ttys for screen
polaris_caf_tty_lnk_manage(polaris_ioxman_t)

allow ioxman_syslib.sh to invoke screen
screen_exec(polaris_ioxman_t)

add entrypoint to screen_exec/can_exec permissions
allow polaris_ioxman_t screen_exec_t:file entrypoint;

make sure /tmp/screens is labeled correctly
files_tmp_filetrans(polaris_ioxman_t, screen_var_run_t, dir, "screens")

```

```

allow ioxman to manage /tmp/screens/<appname>_con/aux.sid
manage_files_pattern(polaris_ioxman_t, screen_var_run_t, screen_var_run_t)

allow ioxman to manage sock_files and unix_stream_socket on screen
allow polaris_ioxman_t self:unix_stream_socket { create_socket_perms connectto };
manage_dirs_pattern(polaris_ioxman_t, screen_var_run_t, screen_var_run_t)
manage_sock_files_pattern(polaris_ioxman_t, screen_var_run_t, screen_var_run_t)

allow ioxman to transition into bexec domain
polaris_bexecute_domtrans(polaris_ioxman_t)
polaris_bexecute_domain(polaris_ioxman_t, screen_exec_t)
allow bexecute to access the /tmp/screens/*.sid files
gen_require(^
 type polaris_bexecute_t;
)
manage_files_pattern(polaris_bexecute_t, screen_var_run_t, screen_var_run_t)

allow shell_exec to manage /tmp/.ncsshd_authorized_keys
polaris_ncsshd_keys_manage(polaris_iox_shell_t)
polaris_iox2iosd_tmp_manage(polaris_iox_shell_t)

allow shell_exec to manage guestshell files
gen_require(^
 type container_file_t;
)
manage_files_pattern(polaris_iox_shell_t, container_file_t, container_file_t)

allow ioxman to setattr for /dev/pts relating to screen
gen_require(^
 type telnetd_devpts_t;
)
allow polaris_ioxman_t telnetd_devpts_t:chr_file setattr_chr_file_perms;

allow ioxman to access the /tmp/ttyF*. files
gen_require(^
 type fifo_var_run_t;
)
files_tmp_filetrans(polaris_ioxman_t, fifo_var_run_t, fifo_file)
manage_fifo_files_pattern(polaris_ioxman_t, fifo_var_run_t, fifo_var_run_t)

allow ioxman to access rootfs and sysfs
The same is needed when guestshell uses a passwordless SSH, when users do
like "guestshell run bash" from IOS and it provides a bash shell screen
in IOS.

gen_require(^
 type ssh_home_t;

```

)

```
ssh_filetrans_admin_home_content(polaris_iox_shell_t)
allow polaris_iox_shell_t ssh_home_t:dir {create search getattr};
dev_getattr_sysfs_fs(polaris_iox_shell_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisioxman.te

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```
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March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarismqipc, 1.0);
```

```
attribute polaris_mqipc;
```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismqipc.te

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#
```

```
/var/run/cli_agent\,pid -- gen_context(system_u:object_r:polaris_cli_agent_var_run_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscliagent.fc

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#
```

```
policy_module(polarisvxe, 1.0);
```

```
hanet driver used by vpcgw platform of VXE family
```

```

ifdef(`vpcgw_platform',`
type polaris_hanet_device_t;
dev_node(polaris_hanet_device_t)
')

on ultra in some cloud configuration runs dhclient utility
receive meta information from cloud provider, /var/lib/dhcp
directory is created by initrc_t
gen_require(`
 type dhcp_t;
 type initrc_t;
 type dhcp_state_t;
')
files_var_lib_filetrans({ dhcp_t initrc_t }, dhcp_state_t, dir, "dhcp")

during boot on misc cloud environment ultra image creates directory
in /tmp to keep information received from cloud provider. Since latter
it is copied into /varied directory let's assigned polaris_disk_varied_t
to them
gen_require(`
 type initrc_t;
 type polaris_disk_varied_t;
 type unconfined_service_t;
')
files_tmp_filetrans({ unconfined_service_t initrc_t }, polaris_disk_varied_t, dir, "ami")
files_tmp_filetrans({ unconfined_service_t initrc_t }, polaris_disk_varied_t, dir, "azure")
files_tmp_filetrans({ unconfined_service_t initrc_t }, polaris_disk_varied_t, dir, "gcp")

park policy for small polaris process umbrella_init.sh here
gen_require(`
 type polaris_umbrella_init_t;
')
polaris_bootflash_manage(polaris_umbrella_init_t)
corecmd_exec_bin(polaris_umbrella_init_t)
auth_use_nsswitch(polaris_umbrella_init_t)

define added to address issues related to dependency
on mcp-platform-tdl for db defines
Skip for vpcgw platform
ifndef(`vpcgw_platform',`
type polaris_gnmib_t;
')

type polaris_objstore_sem_t;
files_tmpfs_file(polaris_objstore_sem_t)

semaphore created by systemd-tmpfiles needs map permission
gen_require(`

```

```

 type systemd_tmpfiles_t;
)
mmap_files_pattern(systemd_tmpfiles_t, polaris_objstore_sem_t, polaris_objstore_sem_t)

on vxe all processes read grub_cisco_version in polaris_disk_varied_t
gen_require(
 attribute polaris_domain;
)
polaris_disk_varied_search(polaris_domain)

type polaris_grub_bios_t;
polaris_pfile_type(polaris_grub_bios_t)

type polaris_grubver_t;
polaris_pfile_type(polaris_grubver_t)

type polaris_vxeinstall_info_t;
polaris_pfile_type(polaris_vxeinstall_info_t)
gen_require(
 type unconfined_service_t;
 type polaris_disk_varied_t;
)
unconfined service create /boot/.install_info if does not exist yet
filetrans_pattern(unconfined_service_t, polaris_disk_varied_t, polaris_vxeinstall_info_t, file, ".install_info")

on C8KV all processes read grubenv in EFI disk partition
gen_require(
 attribute polaris_domain;
)
polaris_grub_efi_search(polaris_domain)

gen_require(
 type unconfined_service_t;
 type polaris_disk_varied_t;
 type polaris_obfl_data_t;
)
unconfined service create /boot/obfl_temp_k1/2/3 if does not exist yet
filetrans_pattern(unconfined_service_t, polaris_disk_varied_t, polaris_obfl_data_t, file, "obfl_temp_k1")
filetrans_pattern(unconfined_service_t, polaris_disk_varied_t, polaris_obfl_data_t, file, "obfl_temp_k2")
filetrans_pattern(unconfined_service_t, polaris_disk_varied_t, polaris_obfl_data_t, file, "obfl_temp_k3")

handle /tmp/vxe_disk_XXX_YYY files
gen_require(
 type unconfined_service_t;
)
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v1")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v2")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v3")

```



```
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v4")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v1")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v2")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v3")
polaris_boot_tmp_manage(unconfined_service_t)
```

```
/etc/init.d/sshd that runs under initrc_t through ssh-keygen
creates /config/.ssh directory if does not exist; /config
directory is typically bootflash, but on MBRv2/MBRv4/GPTv1/GPTv3
partition layouts it could be separate /config partition that is
under polaris_disk_config_t label
gen_require(
 type initrc_t;
 type ssh_home_t;
)
polaris_disk_config_filetrans(initrc_t, ssh_home_t, dir, ".ssh")
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisvxe.te
```

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```
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#
```

```
policy_module(polarisissumonitor, 1.0);
```

```
#####
install_issu_monitor
#####
```

```
polaris_process_domain_template(issu_monitor)
```

```
corecmd_exec_bin(polaris_issu_monitor_t)
```

```
allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_issu_monitor_t)
```

```
polaris_btrace_data_manage(polaris_issu_monitor_t)
polaris_chasfs_manage(polaris_issu_monitor_t)
polaris_cpld_read(polaris_issu_monitor_t)
polaris_proc_rmonbifo_read(polaris_issu_monitor_t)
polaris_boot_tmp_read(polaris_issu_monitor_t)
polaris_read_debug_conf(polaris_issu_monitor_t)
```

```

read and possibly create /bootflash/.installer/issu_crash dir
polaris_bootflash_manage(polaris_issu_monitor_t)

allow polaris_issu_monitor_t self:capability sys_resource;
allow polaris_issu_monitor_t self:process setpgid;

type polaris_issu_monitor_tmp_t;
files_tmp_file(polaris_issu_monitor_tmp_t)
files_tmp_filetrans(polaris_issu_monitor_t, polaris_issu_monitor_tmp_t, dir, "issu_mon_dir")
manage_files_pattern(polaris_issu_monitor_t, polaris_issu_monitor_tmp_t, polaris_issu_monitor_tmp_t)
manage_dirs_pattern(polaris_issu_monitor_t, polaris_issu_monitor_tmp_t, polaris_issu_monitor_tmp_t)
manage_fifo_files_pattern(polaris_issu_monitor_t, polaris_issu_monitor_tmp_t, polaris_issu_monitor_tmp_t)

#access to /tmp/ufs/harddisk
optional_policy(`
polaris_ncd_tmp_read(polaris_issu_monitor_t)
`)

access to /bootflash/.installer/issu_crash
polaris_disk_install_read(polaris_issu_monitor_t)

access to /tmp/sw/boot/rmonbifo/env_var.sh
polaris_rmonbifo_tmp_read(polaris_issu_monitor_t)

read /proc/cmdline
kernel_read_system_state(polaris_issu_monitor_t)

rm -rf /tmp/rp/issu_mon_dir
fs_getattr_tmpfs(polaris_issu_monitor_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissumonitor.te
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#
February 2018, Manohar Hungund
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#

policy_module(polarisact2, 1.0);

#####
ACT2 Chip Driver policy
#####

type polaris_act2_device_t;

```

```

dev_node(polaris_act2_device_t)

#####
/tmp/hw_entropy file.
Certain platforms save entropy from main board ACT-2 chip in this file.

type polaris_hw_entropy_t;
files_tmp_file(polaris_hw_entropy_t)
#####

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisact2.te
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#
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#

policy_module(polariscppha, 1.0);

gen_require(
 type polaris_cpp_ha_t;
)

polaris_btrace_data_manage(polaris_cpp_ha_t)
polaris_crft_data_manage(polaris_cpp_ha_t)
polaris_chasfs_manage(polaris_cpp_ha_t)
polaris_tdlresolve_read(polaris_cpp_ha_t)
polaris_tdlldb_list_dirs(polaris_cpp_ha_t)
polaris_cpld_read(polaris_cpp_ha_t)
polaris_flashlib_read(polaris_cpp_ha_t)

polaris_ripc_sman_ui_serv_connect(polaris_cpp_ha_t)

polaris_db_tdlldb_dir_use(polaris_cpp_ha_t)

polaris_cpp_process(polaris_cpp_ha_t)
polaris_cpp_dev_use(polaris_cpp_ha_t)

polaris_icc_broken_relocations(polaris_cpp_ha_t)

polaris_cpp_cavium_sdk_ipc_use(polaris_cpp_ha_t)

allow objstore access
polaris_disk_objstore_read(polaris_cpp_ha_t)

```

```
LOOK AT ME: raw memory access in cavium vendor SDK
related to octeon driver (BUG CSCvh58515)
#ifdef(`crankshaft_family',`
polaris_dev_mem_use(polaris_cpp_ha_t)
')
```

```
allow syslogging
logging_send_syslog_msg(polaris_cpp_ha_t)
```

```
optional_policy(`
polaris_cbdma_dev_use(polaris_cpp_ha_t)
')
polaris_cpld_dev_use(polaris_cpp_ha_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppha.te

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```
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#
```

```
policy_module(polariscppsp, 1.0);
```

```
gen_require(`
 type polaris_cpp_sp_t;
')
```

```
polaris_btrace_data_manage(polaris_cpp_sp_t)
polaris_crft_data_manage(polaris_cpp_sp_t)
polaris_chasfs_manage(polaris_cpp_sp_t)
polaris_tdlresolve_read(polaris_cpp_sp_t)
polaris_tdlldb_list_dirs(polaris_cpp_sp_t)
polaris_cpld_read(polaris_cpp_sp_t)
polaris_flashlib_read(polaris_cpp_sp_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_cpp_sp_t)
```

```
polaris_db_tdlldb_dir_use(polaris_cpp_sp_t)
```

```
polaris_cpp_process(polaris_cpp_sp_t)
polaris_cpp_dev_use(polaris_cpp_sp_t)
```

```
polaris_icc_broken_relocations(polaris_cpp_sp_t)
```

```
polaris_cpp_cavium_sdk_ipc_use(polaris_cpp_sp_t)
```

```
LOOK AT ME: raw memory access in cavium vendor SDK
```

```
related to octeon driver (BUG CSCvh58515)
```

```
ifdef(`crankshaft_family',`
```

```
polaris_dev_mem_use(polaris_cpp_sp_t)
```

```
`)
```

```
allow syslogging
```

```
logging_send_syslog_msg(polaris_cpp_sp_t)
```

```
optional_policy(`
```

```
polaris_cbdma_dev_use(polaris_cpp_sp_t)
```

```
`)
```

```
polaris_cpld_dev_use(polaris_cpp_sp_t)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppsp.te
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
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```

```
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```

```
#
```

```
/usr/binos/conf/reflector.sh -- gen_context(system_u:object_r:polaris_reflector_exec_t,s0)
```

```
/tmp/rp/reflector(/.*)? gen_context(system_u:object_r:polaris_reflector_tmp_t,s0)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisreflector.fc
```

```
No license file was found, but licenses were detected in source scan.
```

```
#
```

```
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```

```
#
```

```
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```
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```

```
#
```

```
policy_module(polarissifmgr, 1.0);
```

```
gen_require(`
```

```
 type polaris_sif_mgr_t;
```

```
`)
```

```

polaris_btrace_data_manage(polaris_sif_mgr_t)
polaris_crft_data_manage(polaris_sif_mgr_t)
polaris_chasfs_manage(polaris_sif_mgr_t)
polaris_tdlresolve_read(polaris_sif_mgr_t)
polaris_tdlldb_list_dirs(polaris_sif_mgr_t)
polaris_cpld_read(polaris_sif_mgr_t)
polaris_lua_read(polaris_sif_mgr_t)
polaris_flashlib_read(polaris_sif_mgr_t)

#If romvar is not set, Set Rommon env variable needs write permission
polaris_flashlib_write(polaris_sif_mgr_t)

polaris_ripc_sman_ui_serv_connect(polaris_sif_mgr_t)

corecmd_exec_bin(polaris_sif_mgr_t)
corecmd_exec_shell(polaris_sif_mgr_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_sif_mgr_t)

allow to read /proc/mtd
kernel_read_system_state(polaris_sif_mgr_t)

#allow write /proc/dplr_sesa
optional_policy(
 polaris_proc_sesa_create_write(polaris_sif_mgr_t)
)

access SERDES /tmp/serdes_asic_key_dir/*
polaris_serdes_asic_key_tmp_manage(polaris_sif_mgr_t)

allow read/write to /proc/irq/N/irq files
kernel_rw_irq_sysctls(polaris_sif_mgr_t)

work with /tmp files (/tmp/sm_post_result)
type polaris_sif_mgr_tmp_t;
files_tmp_file(polaris_sif_mgr_tmp_t)
files_tmp_filetrans(polaris_sif_mgr_t, polaris_sif_mgr_tmp_t, file, "sm_post_result")
files_tmp_filetrans(polaris_sif_mgr_t, polaris_sif_mgr_tmp_t, file, "fips_status")
files_tmp_filetrans(polaris_sif_mgr_t, polaris_sif_mgr_tmp_t, file, "sif_regdump_0")
files_tmp_filetrans(polaris_sif_mgr_t, polaris_sif_mgr_tmp_t, file, "sif_regdump_1")
manage_files_pattern(polaris_sif_mgr_t, tmp_t, polaris_sif_mgr_tmp_t)
polaris_cm_rp_tmp_manage(polaris_sif_mgr_t)

#allow ipc_lock when mmap64(..) a shared mememoy with MAP_LOCKED in dplr_pkt_drv_oob.c
allow polaris_sif_mgr_t self:capability { ipc_owner dac_override ipc_lock };

```

```

#allow read from /tmp/hw_entropy
polaris_hw_entropy_read(polaris_sif_mgr_t)

polaris_obfl_data_manage(polaris_sif_mgr_t)

/dev/dplr_intrpt usage
polaris_dplr_dev_use(polaris_sif_mgr_t)

/dev/dmammap usage
polaris_dmammap_dev_use(polaris_sif_mgr_t)

/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_sif_mgr_t)

polaris_lsmpi_dev_use(polaris_sif_mgr_t)

open /dev/ttyS0 console in sco_sys_init_sw_params
term_use_unallocated_ttys(polaris_sif_mgr_t)

polaris_socketat_nsfs_read(polaris_sif_mgr_t)

allow polaris_sif_mgr_t self:process setsched;

work with /dev/msi/Slot0/Doppler0/GroupN files
dev_rw_generic_chr_files(polaris_sif_mgr_t)
/dev/msi/Slot0/Doppler0/GroupN gets polaris_dplr_device_t label
at some point, but need above generic chr permission by some
reason, not clear need to look a bit more
polaris_dplr_dev_use(polaris_sif_mgr_t)

set out of band interface mac set_oobndif_mac
allow polaris_sif_mgr_t self:tcp_socket ioctl;

LOOK AT ME: raw memory write access
polaris_dev_mem_use(polaris_sif_mgr_t)

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_sif_mgr_t)
`)

LOOK AT ME: unsolicited creation of file in /bootflash
by CSCvm43512. Backout when CSCvm99282 is fixed
polaris_bootflash_manage(polaris_sif_mgr_t)
polaris_disk_bootflash_read_lnk(polaris_sif_mgr_t)

optional_policy(`

```

```
polaris_quake_i2c_manage(polaris_sif_mgr_t)
')

__get_nprocs opens /sys/devices/system/cpu/online
ifdef(`quake_platform',`
dev_read_sysfs(polaris_sif_mgr_t)
')
```

```
optional_policy(`
polaris_ngwc_scc_shm_manage(polaris_sif_mgr_t)
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissifmgr.te
```

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```
#
August 2017, Shawn Lu
#
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#
```

```
polariswncmgrd file contexts place holder
```

```
#gRPC certificate for ICap, written and read by wncmgrd
/bootflash/NACert.pem gen_context(system_u:object_r:polaris_icap_cert_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswncmgrd.fc
```

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```
dnl
dnl July 2020, Victor Kamensky
dnl
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```

```
dnl
dnl ISRV Platform Max Bay Limits
max_bay_map_set(`rp', `per_bay', 0)
max_bay_map_set(`cc', `per_bay', 3)
max_bay_map_set(`fp', `per_bay', 0)
```

```
max_bay_ripc_map_set(`rp', `per_bay', 0)
max_bay_ripc_map_set(`cc', `per_bay', 3)
max_bay_ripc_map_set(`fp', `per_bay', 0)
```

```
max_bay_ripc_map_set(`rp', `global', 0)
```



```
max_bay_ripc_map_set(`cc', `global', 3)
max_bay_ripc_map_set(`fp', `global', 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/isrvmaps.m4
```

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```
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#
```

```
policy_module(polarismcp, 1.0);
```

```
scooby device
type polaris_scooby_device_t;
dev_node(polaris_scooby_device_t)
```

```
spa devices i.e sys_platform_module_1ng
type polaris_spa_device_t;
dev_node(polaris_spa_device_t)
```

```
htdp device
type polaris_htdp_device_t;
dev_node(polaris_htdp_device_t)
```

```
epaN and epactrlN devices
type polaris_epa_device_t;
dev_node(polaris_epa_device_t)
```

```
luna_fpgs device
type polaris_luna_mbfpga_device_t;
dev_node(polaris_luna_mbfpga_device_t)
```

```
dash fpga device (/dev/dash_fpga)
type polaris_dash_device_t;
dev_node(polaris_dash_device_t)
```

```
astro device
type polaris_astro_device_t;
dev_node(polaris_astro_device_t)
```

```
cpp_il device
type polaris_cpp_il_device_t;
dev_node(polaris_cpp_il_device_t)
```

```

blzi_fpga device
type polaris_blzi_device_t;
dev_node(polaris_blzi_device_t)

oob_evfc device
type polaris_oob_evfc_device_t;
dev_node(polaris_oob_evfc_device_t)

ds31408 device
type polaris_ds31408_device_t;
dev_node(polaris_ds31408_device_t)

icp_ads_ctl device
Note that fugazi gets this from polarisqfp module
ifndef(^fugazi_platform',`
type polaris_icp_device_t;
dev_node(polaris_icp_device_t)
')

type polaris_cpp_htdp_device_t;
dev_node(polaris_cpp_htdp_device_t)

type polaris_cbdma_device_t;
dev_node(polaris_cbdma_device_t)

type polaris_n2_device_t;
dev_node(polaris_n2_device_t)

type polaris_cy2213_device_t;
dev_node(polaris_cy2213_device_t)

type polaris_vega_device_t;
dev_node(polaris_vega_device_t)

Fugazi makes use of fugazi_platform.tdl for IPCs and processes definition
and it uses mcp_platform.tdl for databases definition. The below symbols
are referred by mcp_platform.tdl but not fugazi_platform.tdl and hence these
type definitions.
ifdef(^fugazi_platform',`
type polaris_fnf_agg_t;
')

optional_policy(`
access to /dev/icp_XXX device on asr1k platforms
gen_require(`
 type polaris_cck_qat_t;
')
polaris_icp_dev_use(polaris_cck_qat_t)

```

```
dev_list_sysfs(polaris_cck_qat_t)
polaris_chasfs_read(polaris_cck_qat_t)
polaris_cpld_read(polaris_cck_qat_t)
polaris_tdlresolve_read(polaris_cck_qat_t)
')
```

```
Handling denial for rsync_t for socket -
comm="rsync" path="socket:[16784]" dev="sockfs" ino=16784
scontext=system_u:system_r:rsync_t:s0 tcontext=system_u:system_r:init_t:s0
gen_require(
 type rsync_t;
)
init_rw_stream_sockets(rsync_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismcp.te
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```

```
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#
```

```
polarisioxman file contexts place holder
```

```
/usr/binos/conf/shell_exec.sh -- gen_context(system_u:object_r:polaris_iox_shell_exec_t,s0)
```

```
/usr/binos/conf/run_ioxn_secure_dir.sh -- gen_context(system_u:object_r:polaris_iox_secure_dir_exec_t,s0)
```

```
/bin/cat9k_ssd_auth_cmds.sh -- gen_context(system_u:object_r:polaris_ssd_auth_exec_t,s0)
```

```
/tmp/trace/resource.log -- gen_context(system_u:object_r:polaris_iox_tmp_t,s0)
```

```
/tmp/screens(/.*) -- gen_context(system_u:object_r:screen_var_run_t,s0)
```

```
/tmp/.shell_exec(/.*) -- gen_context(system_u:object_r:polaris_iox2iosd_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisioxman.fc
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```

```
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#
```

```

policy_module(polarisbsm, 1.0);

gen_require(`
 type polaris_bsm_t;
`)

polaris_btrace_data_manage(polaris_bsm_t)
polaris_chasfs_manage(polaris_bsm_t)
polaris_tdlresolve_read(polaris_bsm_t)
polaris_tdlldb_list_dirs(polaris_bsm_t)
polaris_cpld_read(polaris_bsm_t)
polaris_flashlib_read(polaris_bsm_t)

polaris_ripc_sman_ui_serv_connect(polaris_bsm_t)

optional_policy(`
polaris_bde_dev_use(polaris_bsm_t)
`)

allow polaris_bsm_t self:capability sys_nice;
allow polaris_bsm_t self:process setsched;

need access to /sys/devices/system/cpu/online
dev_read_sysfs(polaris_bsm_t)

handling /var/tmp/bsm_bcm_shell
type polaris_bsm_bcm_shell_t;
files_type(polaris_bsm_bcm_shell_t)
gen_require(`
 type tmp_t;
`)
filetrans_pattern(polaris_bsm_t, tmp_t, polaris_bsm_bcm_shell_t, fifo_file, "bsm_bcm_shell")
manage_fifo_files_pattern(polaris_bsm_t, tmp_t, polaris_bsm_bcm_shell_t)

ifdef(`vxe_family',`
bind to BSM_AGENT_CLIENT_PORT port from bsm_tlv_init
corenet_tcp_bind_polaris_bsm_agent_client_port(polaris_bsm_t)
`)

LOOK AT ME: raw memory write access
polaris_dev_mem_use(polaris_bsm_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbsm.te
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#

```

```
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#
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#
```

```
/tmp/sm_post_result -- gen_context(system_u:object_r:polaris_sif_mgr_tmp_t,s0)
/tmp/fips_status -- gen_context(system_u:object_r:polaris_sif_mgr_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissifmgr.fc
```

No license file was found, but licenses were detected in source scan.

```
#
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#
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#
```

```
<summary>Polaris polarissucompcheck Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissucompcheck.if
```

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```
#
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#
```

```
policy_module(polarisngwcpplmmgr, 1.0);
```

```
gen_require(`
 type polaris_ngwc_plfm_mgr_t;
`)
```

```
polaris_btrace_data_manage(polaris_ngwc_plfm_mgr_t)
polaris_crft_data_manage(polaris_ngwc_plfm_mgr_t)
polaris_chasfs_manage(polaris_ngwc_plfm_mgr_t)
polaris_tdlresolve_read(polaris_ngwc_plfm_mgr_t)
polaris_tdlldb_list_dirs(polaris_ngwc_plfm_mgr_t)
polaris_cpld_read(polaris_ngwc_plfm_mgr_t)
polaris_lua_read(polaris_ngwc_plfm_mgr_t)
polaris_flashlib_read(polaris_ngwc_plfm_mgr_t)
```

```

polaris_ripc_sman_ui_serv_connect(polaris_ngwc_plfm_mgr_t)

corecmd_exec_bin(polaris_ngwc_plfm_mgr_t)
corecmd_exec_shell(polaris_ngwc_plfm_mgr_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_ngwc_plfm_mgr_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_ngwc_plfm_mgr_t)

allow polaris_ngwc_plfm_mgr_t self:capability { sys_rawio ipc_owner dac_override };
allow polaris_ngwc_plfm_mgr_t self:capability2 block_suspend;

polaris_obfl_data_manage(polaris_ngwc_plfm_mgr_t)

polaris_dyncfg_tmp_read(polaris_ngwc_plfm_mgr_t)

polaris_ngwc_shm_manage(polaris_ngwc_plfm_mgr_t)

/dev/dmabmap usage
polaris_dmabmap_dev_use(polaris_ngwc_plfm_mgr_t)

/dev/remap_mem0 usage
polaris_remap_mem_dev_use(polaris_ngwc_plfm_mgr_t)

open /dev/ttyS0 console in edison_platform_init
term_use_unallocated_ttys(polaris_ngwc_plfm_mgr_t)

polaris_disk_license_read(polaris_ngwc_plfm_mgr_t)

allow polaris_ngwc_plfm_mgr_t self:capability { chown fowner fsetid };

type polaris_ngwc_plfm_mgr_tmp_t;
files_tmp_file(polaris_ngwc_plfm_mgr_tmp_t)
files_tmp_filetrans(polaris_ngwc_plfm_mgr_t, polaris_ngwc_plfm_mgr_tmp_t, file, "pm_post_result")
files_tmp_filetrans(polaris_ngwc_plfm_mgr_t, polaris_ngwc_plfm_mgr_tmp_t, dir, "microcode_update")
files_tmp_filetrans(polaris_ngwc_plfm_mgr_t, polaris_ngwc_plfm_mgr_tmp_t, dir, "mcu_upgrading")
manage_files_pattern(polaris_ngwc_plfm_mgr_t, polaris_ngwc_plfm_mgr_tmp_t, polaris_ngwc_plfm_mgr_tmp_t)
manage_dirs_pattern(polaris_ngwc_plfm_mgr_t, polaris_ngwc_plfm_mgr_tmp_t, polaris_ngwc_plfm_mgr_tmp_t)

LOOK AT ME: raw memory write access
polaris_dev_mem_use(polaris_ngwc_plfm_mgr_t)

create /tmp/hw_entropy file and fill with info from act2
polaris_hw_entropy_create(polaris_ngwc_plfm_mgr_t)

polaris_boot_tmp_read(polaris_ngwc_plfm_mgr_t)

```

```

polaris_flashlib_write(polaris_ngwc_plfm_mgr_t)

check existence of /tmp/tam_cfg_done
polaris_tam_getattrs_tmp_dirs(polaris_ngwc_plfm_mgr_t)

LOOK AT ME: Allow access to bootflash /flash/tam_client_app.log. file access
remove after CSCvh66533 fixed
polaris_bootflash_manage(polaris_ngwc_plfm_mgr_t)

scans /sys/devices/pci0000:00/0000:00:00.0
dev_read_sysfs(polaris_ngwc_plfm_mgr_t)

rsync nvram_config file accross stack
#rsync_exec(polaris_ngwc_plfm_mgr_t)
gen_require(`
 type rsync_t;
`)
rsync_entry_domtrans(polaris_ngwc_plfm_mgr_t, rsync_t)
allow rsync_t polaris_ngwc_plfm_mgr_t:process sigchld;
write access to /dev/ttyS0
term_write_unallocated_ttys(rsync_t)

reads from, populates chasfs with values and deletes /tmp/package_biv_sums
polaris_kgv_data_manage(polaris_ngwc_plfm_mgr_t)

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_ngwc_plfm_mgr_t)
`)

platform manager moves 00001.nvram_config file to /bootflash/nvram_config
polaris_nvram_manage(polaris_ngwc_plfm_mgr_t)
allow polaris_ngwc_plfm_mgr_t self:process setfscreate;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcplfmmgr.te
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#

policy_module(polarisgrmgr, 1.0);

```

```
gen_require(
 type polaris_gr_mgr_t;
)
```

```
polaris_crft_data_manage(polaris_gr_mgr_t)
polaris_chasfs_manage(polaris_gr_mgr_t)
polaris_tdlresolve_read(polaris_gr_mgr_t)
polaris_cpld_read(polaris_gr_mgr_t)
polaris_lua_read(polaris_gr_mgr_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_gr_mgr_t)
```

```
allow polaris_gr_mgr_t self:capability { dac_override dac_read_search };
#DB persistence
polaris_tdlpersist_setup(polaris_gr_mgr_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisgrmgr.te
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```

```

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#
```

```
ngio devices
/dev/ngio[0-9]* -c gen_context(system_u:object_r:polaris_ngio_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisiomd.fc
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```

```

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#
```

```
/tmp/idope_svr gen_context(system_u:object_r:polaris_fed_debug_sock_t,s0)
/tmp/shfwd_svr gen_context(system_u:object_r:polaris_fed_debug_sock_t,s0)
```

```
/tmp/pktgen.txt gen_context(system_u:object_r:polaris_fed_debug_tmp_t,s0)
/tmp/DopeElam.sh gen_context(system_u:object_r:polaris_fed_debug_tmp_t,s0)
/tmp/MemDumpElam.sh gen_context(system_u:object_r:polaris_fed_debug_tmp_t,s0)
```



```
/dcmlog.txt -- gen_context(system_u:object_r:polaris_fed_debug_dcmlog_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwcfeddebug.fc
```

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```

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#
```

```
policy_module(polariscpld, 1.0);
```

```

CPLD Driver policy
#####
```

```
note polaris_sysfs_cpld_t is defined in kernel/devices.te, since genfscon statements
could be only in base policy
```

```
type polaris_cpld_device_t;
dev_node(polaris_cpld_device_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscpld.te
```

No license file was found, but licenses were detected in source scan.

```

August 2017, Shawn Lu

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#
```

```
policy_module(polarisrogued, 1.0);
```

```
gen_require(
 type polaris_rogued_t;
)
```

```
polaris_btrace_data_manage(polaris_rogued_t)
polaris_chasfs_manage(polaris_rogued_t)
polaris_tdlresolve_read(polaris_rogued_t)
polaris_tdlldb_list_dirs(polaris_rogued_t)
polaris_cpld_read(polaris_rogued_t)
polaris_lua_read(polaris_rogued_t)
```

```

polaris_flashlib_read(polaris_rogued_t)

polaris_ripc_sman_ui_serv_connect(polaris_rogued_t)

polaris_db_tdlldb_dir_use(polaris_rogued_t)

allow to use setrlimit
allow polaris_rogued_t self:process setrlimit;
allow polaris_rogued_t self:capability sys_resource;
allow polaris_rogued_t self:capability dac_override;

stuff related to vrf support of the socket
polaris_lfts_dev_use(polaris_rogued_t)
polaris_socketat_nsfs_read(polaris_rogued_t)

allow to open udp socket on RDLP port 6532
corenet_udp_bind_polaris_rdlp_port(polaris_rogued_t)
corenet_udp_bind_generic_node(polaris_rogued_t)
allow polaris_rogued_t self:udp_socket { create_socket_perms recv_msg send_msg };

reading images/ap_capabilities.xml
polaris_wlc_ap_images_read(polaris_rogued_t)

syslogs in RLDP
logging_send_syslog_msg(polaris_rogued_t)

#DB persistence
polaris_tdlldbpersist_setup(polaris_rogued_t)
polaris_tmp_tdlldb_persist_setup(polaris_rogued_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrogued.te
No license file was found, but licenses were detected in source scan.

#
March 2017, Victor Kamensky
#
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#

policy_module(polariscmm, 1.0);

gen_require(
 type polaris_cmm_t;
)

```

```
polaris_btrace_data_manage(polaris_cmm_t)
polaris_crft_data_manage(polaris_cmm_t)
polaris_chasfs_manage(polaris_cmm_t)
polaris_tdlresolve_read(polaris_cmm_t)
polaris_tdlldb_list_dirs(polaris_cmm_t)
polaris_cpld_read(polaris_cmm_t)
polaris_flashlib_read(polaris_cmm_t)

polaris_ripc_sman_ui_serv_connect(polaris_cmm_t)
```

```
allow polaris_cmm_t self:capability dac_override;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscmm.te
```

No license file was found, but licenses were detected in source scan.

```
dnl All rights reserved
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_base_ripc_if.m4
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_mqipc_fc.m4
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_process_fc.m4
```

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```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2016-2019 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
polarisofa file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisofa.fc
```

No license file was found, but licenses were detected in source scan.

```
#
```

```
March 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2016-2019 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
<summary>Polaris emd Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisemd.if
```

No license file was found, but licenses were detected in source scan.

```
#
June 2017, Victor Kamensky
#
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#

policy_module(polariscaf, 1.0);

gen_require(
 type polaris_caf_t;
 type polaris_caf_exec_t;
 type usr_t;
)

ifdef(`nyquist_platform',`
gen_require(
 type polaris_sioxcd_rp_t;
)
Allow read of /etc/passwd
auth_map_passwd(polaris_sioxcd_rp_t)

Allow usage of ls in helper script
corecmd_exec_bin(polaris_sioxcd_rp_t)

Allow sysfs read
dev_list_sysfs(polaris_sioxcd_rp_t)

Allow create/write/open of files under tmp
type polaris_sioxcd_rp_tmp_t;
files_tmp_file(polaris_sioxcd_rp_tmp_t)
files_tmp_filetrans(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, { dir file })
manage_dirs_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)
manage_files_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)
manage_fifo_files_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)

Allow losetup in helper script to run in its own domain
fstools_domtrans(polaris_sioxcd_rp_t)

Allow mount/umount in its own domain
mount_domtrans(polaris_sioxcd_rp_t)

Allow /tmp/sw/boot read
polaris_boot_tmp_read(polaris_sioxcd_rp_t)

Allow /tmp/tmppub read
```

```
polaris_btrace_tmppub_read(polaris_sioxcd_rp_t)

Allow iox_polaris.conf read
polaris_caf_files_read(polaris_sioxcd_rp_t)

Allow chasfs access
polaris_chasfs_manage(polaris_sioxcd_rp_t)

Allow /sys/devices/platform/cpld/board_vtype read
polaris_cpld_read(polaris_sioxcd_rp_t)

Allow debug.conf access
polaris_read_debug_conf(polaris_sioxcd_rp_t)

Allow cats /tmp/sw/boot/rmonbifo/boardsubtype
polaris_rmonbifo_tmp_read(polaris_sioxcd_rp_t)

Allow console logging
term_open_unallocated_ttys(polaris_sioxcd_rp_t)

Allow capability 1/24 access
allow polaris_sioxcd_rp_t self:capability { dac_override sys_resource };

Transition to chvrf domain needed by push_using_rsync
polaris_chvrf_domtrans(polaris_sioxcd_rp_t)

Allow flashutil
polaris_flashlib_read(polaris_sioxcd_rp_t)

logger needs to run pidof
dev_read_sysfs(polaris_sioxcd_rp_t)
kernel_read_system_state(polaris_sioxcd_rp_t)
domain_read_all_domains_state(polaris_sioxcd_rp_t)

Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_sioxcd_rp_t)

Allow ls /tmp/ufs/crashinfo
optional_policy(`
polaris_ncd_tmp_read(polaris_sioxcd_rp_t)
`)

Allow logger which is used for syslog messages
allow polaris_sioxcd_rp_t self:unix_dgram_socket { connect create };
logging_send_syslog_msg(polaris_sioxcd_rp_t)

Allow standby to access /dev/sda3
fs_getattr_xattr_fs(polaris_sioxcd_rp_t)
```

```

Allow getattr under iox_alt_hdd_mount_dir
polaris_iox_alt_hdd_getattr(polaris_sioxcd_rp_t)
')

polaris_chasfs_manage(polaris_caf_t)
polaris_btrace_data_manage(polaris_caf_t)
polaris_cpuld_read(polaris_caf_t)
polaris_boot_tmp_read(polaris_caf_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_caf_t)

corecmd_exec_bin(polaris_caf_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_caf_t)

run-caf.sh invokes startup.py. This leads to node_t:tcp_socket node_bind
corenet_tcp_bind_generic_node(polaris_caf_t)

allow polaris_caf_t self:capability { net_admin sys_resource };
allow polaris_caf_t self:tcp_socket { accept listen create_socket_perms };
allow polaris_caf_t self:udp_socket create_socket_perms;
allow polaris_caf_t self:unix_dgram_socket { create_socket_perms sendto };
allow polaris_caf_t self:cap_usersn { sys_admin sys_ptrace setgid setuid sys_chroot };

df needs to have getattr on many file/dir/fs
fs_getattr_all_fs(polaris_caf_t)
fs_getattr_all_files(polaris_caf_t)
files_getattr_all_dirs(polaris_caf_t)
dev_getattr_all_chr_files(polaris_caf_t)
files_getattr_all_mountpoints(polaris_caf_t)

df on "/" needs fs_t:filesystem getattr
fs_getattr_xattr_fs(polaris_caf_t)

allow execution of /usr/sbin/brctl
brctl_domtrans(polaris_caf_t)

#allow open/read/search cgroup files like /sys/fs/cgroup/cpu,cpuacct/machine
fs_read_cgroup_files(polaris_caf_t)
fs_list_cgroup_dirs(polaris_caf_t)

add new type for /guestshell files and allow CAF to manage them
type polaris_guestshell_t;
files_type(polaris_guestshell_t)
manage_files_pattern(polaris_caf_t, polaris_guestshell_t, polaris_guestshell_t)

```

```

manage_lnk_files_pattern(polaris_caf_t, polaris_guestshell_t, polaris_guestshell_t)
manage_dirs_pattern(polaris_caf_t, polaris_guestshell_t, polaris_guestshell_t)

#required to support, guestshell enable, which creates <iox-storage>/iox/repo/guestshell
relabelto_files_pattern(polaris_caf_t, polaris_guestshell_t, polaris_guestshell_t)

run_ioxn_caf.sh invokes run-caf.sh which executes "ip"
sysnet_domtrans_ifconfig(polaris_caf_t)
allow netns operations
sysnet_manage_ifconfig_run(polaris_caf_t)

libs_domtrans_ldconfig(polaris_caf_t)

add new type for /bootflash/iox files and allow CAF to manage them
type polaris_iox_files_t;
polaris_disk_type(polaris_iox_files_t)
polaris_iox_files_manage(polaris_caf_t)

need open, read, ioctl, getattr on /bootflash/debug.conf
polaris_read_debug_conf(polaris_caf_t)

run_ioxn_caf.sh cats /tmp/sw/boot/rmonbifo/boardsubtype
polaris_rmonbifo_tmp_read(polaris_caf_t)

pvsm_cpu.sh reads /tmp/cgroup.log
optional_policy(`
polaris_vman_tmp_manage(polaris_caf_t)
`)

allow to read /proc/cpuinfo
kernel_read_system_state(polaris_caf_t)

optional_policy(`
container_runtime_domtrans(polaris_caf_t)
`)

add new type for /opt/cisco/caf files and allow CAF to manage them
type polaris_caf_files_t;
files_type(polaris_caf_files_t)
files_root_filetrans(polaris_caf_t, polaris_caf_files_t, dir)
files_root_filetrans(polaris_caf_t, polaris_caf_exec_t, dir, "scripts")
manage_dirs_pattern(polaris_caf_t, polaris_caf_files_t, polaris_caf_files_t)
manage_files_pattern(polaris_caf_t, polaris_caf_files_t, polaris_caf_files_t)
manage_lnk_files_pattern(polaris_caf_t, polaris_caf_files_t, polaris_caf_files_t)

gen_require(`
 type polaris_hm_t;
`)

```

```

polaris_caf_files_read(polaris_hm_t)

this label is created for sharing of core file dirs between host and containers
type polaris_caf_core_files_t;
polaris_disk_type(polaris_caf_core_files_t)
transition /local files and dirs
files_root_filetrans(polaris_caf_t, polaris_caf_core_files_t, dir, "local")
polaris_btrace_data_manage(polaris_caf_core_files_t)
manage_files_pattern(polaris_caf_core_files_t, usr_t, usr_t)

manage local core files between host and container
polaris_caf_local_core_files_manage(polaris_caf_t)
polaris_caf_local_core_files_manage(brctl_t)

run_ioxn_caf.sh invokes startup.py that eventually through resourcemanager.py
calls cpu_count_logical function in order to get number of cores and which
needs read access to /sys/devices/system/cpu/online
dev_read_sysfs(polaris_caf_t)

run-caf.sh modifies iox_polaris.conf; backup is saved due to "sed-i.bak".
in order to preserve security context, setfscreate is invoked
allow polaris_caf_t self:process setfscreate;

work with /var/log/caf/ files
type polaris_caf_log_t;
logging_log_file(polaris_caf_log_t)
manage_files_pattern(polaris_caf_t, polaris_caf_log_t, polaris_caf_log_t)
manage_dirs_pattern(polaris_caf_t, polaris_caf_log_t, polaris_caf_log_t)
logging_log_filetrans(polaris_caf_t, polaris_caf_log_t, dir, "caf")
logging_log_filetrans(polaris_caf_t, polaris_caf_log_t, dir, "docker")

corenet_tcp_bind_polaris_caf_api_port(polaris_caf_t)

virt_stream_connect(polaris_caf_t)
virt_read_config(polaris_caf_t)

allow to get getattr of /proc file system
domain_read_all_domains_state(polaris_caf_t)

allow access to /etc/guestshell_rsa_key* files
type polaris_guestshell_ssh_key_t;
files_type(polaris_guestshell_ssh_key_t)
files_etc_filetrans(polaris_caf_t, polaris_guestshell_ssh_key_t, file, "guestshell_rsa_key")
files_etc_filetrans(polaris_caf_t, polaris_guestshell_ssh_key_t, file, "guestshell_rsa_key.pub")
manage_files_pattern(polaris_caf_t, polaris_guestshell_ssh_key_t, polaris_guestshell_ssh_key_t)

add new type for "internal" temp files created by underlying python modules when
user-level python scripts (e.g., run_ioxn_caf.sh, run-caf.sh, etc) performs init;

```



```

we are now creating them using TMPDIR=/tmp/caf; and, allow CAF to manage these
internal temp files; in addition, underlying python-infra invokes __mmap() that
somehow translates to.... execute stuff like "/tmp/caf/#97893 (deleted)"
type polaris_caf_tmp_files_t;
files_tmp_file(polaris_caf_tmp_files_t)
files_tmp_filetrans(polaris_caf_t, polaris_caf_tmp_files_t, dir)
files_tmp_filetrans(polaris_caf_t, polaris_caf_tmp_files_t, file)
manage_files_pattern(polaris_caf_t, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
manage_dirs_pattern(polaris_caf_t, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
python through libffi tries to mmap open file with PROT_EXEC, it triggers need
for execute permission
allow polaris_caf_t polaris_caf_tmp_files_t:file execute;
allow polaris_caf_t polaris_caf_tmp_files_t:file map;

python3 seems to do a setxattr syscall
A folder like /bootflash/iox/repo/guestshell/extract_archive
contains files that are extracted from a tarball and are
made polaris_caf_tmp_files_t because of the files_tmp_filetrans rule
relabel_files_pattern(polaris_caf_t, polaris_iox_files_t, polaris_iox_files_t)
relabel_files_pattern(polaris_caf_t, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)

allow to run e2fsck in its own domain
fstools_domtrans(polaris_caf_t)

allow to run mount in its own domain
mount_domtrans(polaris_caf_t)

add new type for /guestshell/*.sh files
type polaris_guestshell_exec_t;
files_type(polaris_guestshell_exec_t)

add new type for /var/run/netns/guestshell
type polaris_guestshell_var_run_t;
files_type(polaris_guestshell_var_run_t)

add new type for /var/run/cisco_cli
type polaris_caf_var_run_t;
files_pid_file(polaris_caf_var_run_t)
manage_dirs_pattern(polaris_caf_t, polaris_caf_var_run_t, polaris_caf_var_run_t)
manage_files_pattern(polaris_caf_t, polaris_caf_var_run_t, polaris_caf_var_run_t)
files_pid_filetrans(polaris_caf_t, polaris_caf_var_run_t, { file dir })

Intermediate step: When CAF unpacks the contents of the application
you upload, it will stage the contents somewhere and verify some checks
(filesystem check on the disk image, existence of several folders, etc.). Disk
images are mounted without any label since CAF has not generated security
labels yet for the app at this point. The disk gets unmounted and eventually
gets mounted again with the proper context/label.

```

```

type polaris_disk_caf_t;
polaris_disk_type(polaris_disk_caf_t)
list_dirs_pattern(polaris_caf_t, polaris_disk_caf_t, polaris_disk_caf_t)

allow polaris_caf_t self:capability { chown dac_override fowner fsetid setfcap sys_chroot sys_ptrace };
allow polaris_caf_t self:process setcap;
fs_read_nsfs_files(polaris_caf_t)

caf to manage loop device: finding free /dev/loopN device
dev_rw_loop_control(polaris_caf_t)

PLEASE LOOK AT ME
allow caf to read, write /dev/loopN devices that are
under fixed_disk_device_t label. It is pretty strong premission
and at this point it is only done for /dev/loopN devices.
Can we do better? i.e move /dev/loopN to some other label?
storage_manage_fixed_disk(polaris_caf_t)

caf executing chroot via bash
gen_require(
 type svirt_sandbox_file_t;
)
allow polaris_caf_t svirt_sandbox_file_t:file { execute execute_no_trans };

gen_require(
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
)
setattr_dirs_pattern(polaris_caf_t, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
replicating policy done for polaris_disk_bootflash_t
setattr_dirs_pattern(polaris_caf_t, polaris_disk_harddisk_t, polaris_disk_harddisk_t)

caf connects to its own port 8098
corenet_tcp_connect_polaris_caf_api_port(polaris_caf_t)

virt_manage_sandbox_files(polaris_caf_t)

kernel_read_network_state(polaris_caf_t)

polaris_bootflash_manage(polaris_caf_t)
polaris_bootflash_files_mmap(polaris_caf_t)
#allow polaris_disk_harddisk_t manage like polaris_disk_bootflash_t
polaris_harddisk_manage(polaris_caf_t)

caf execve virsh
gen_require(
 type virsh_t;
 type virsh_exec_t;

```

```

')
domtrans_pattern(polaris_caf_t, virsh_exec_t, virsh_t)
virsh needs to read /opt/cisco/caf/scripts/ieobcbr.xml
polaris_caf_files_read(virsh_t)

caf calls tipc-config that works with tipc sockets
allow polaris_caf_t self:socket create_socket_perms;
allow polaris_caf_t self:netlink_generic_socket { create_socket_perms sendto recvfrom };

get and set attrs on httpd_var_run_t under /bootflash/iox
gen_require(
 type httpd_var_run_t;
)
getattr_sock_files_pattern(polaris_caf_t, httpd_var_run_t, httpd_var_run_t)
setattr_sock_files_pattern(polaris_caf_t, httpd_var_run_t, httpd_var_run_t)
manage_dirs_pattern(polaris_caf_t, httpd_var_run_t, httpd_var_run_t)
allow TCP connection for http port e.g. Local Manager
corenet_tcp_connect_http_port(polaris_caf_t)

execute lvm commands, like lvs
lvm_domtrans(polaris_caf_t)

polaris_disk_crashinfo_getattr(polaris_caf_t)
optional_policy(
polaris_ncd_tmp_read(polaris_caf_t)
)

logging_send_syslog_msg(polaris_caf_t)

tries to load KLM like cuse, fuse, overlay
modutils_domtrans_insmod(polaris_caf_t)

modifies files under /var/www/features/iox
apache_manage_sys_content(polaris_caf_t)

caf reads version of ioxman from its executable
polaris_ioxman_exec_read(polaris_caf_t)

polaris_ioxman_show_version(polaris_caf_t)

type polaris_iox_alt_hdd_files_t;
files_type(polaris_iox_alt_hdd_files_t)
polaris_pfile_type(polaris_iox_alt_hdd_files_t)
polaris_iox_alt_hdd_manage(polaris_caf_t)

On stargazer platform /vol/disk0 is used by iox to create below dirs.
On nyquist platform /vol/usb1 with polaris_disk_harddisk_t is used
Transition them to appropriate labels.

```

```

gen_require(
 type container_var_lib_t;
)

filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t },
polaris_iox_files_t, dir, "iox")
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t },
polaris_caf_tmp_files_t, dir, "caf")
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t
polaris_iox_files_t }, container_var_lib_t, dir, "docker")
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t },
polaris_iox_files_t, dir, "iox_data_share")
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t },
polaris_iox_files_t, dir, "iox_host_data_share")

Allow files under guest-share directory which is shared between ios
and container
type polaris_iox_shared_files_t;
files_type(polaris_iox_shared_files_t)
polaris_pfile_type(polaris_iox_shared_files_t)
manage_dirs_pattern(polaris_caf_t, polaris_iox_shared_files_t, polaris_iox_shared_files_t)
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t polaris_iox_alt_hdd_files_t },
polaris_iox_shared_files_t, dir, "guest-share")

Allow signature verification of applications
gen_require(
 type polaris_code_verify_t;
)
polaris_iox_files_manage(polaris_code_verify_t)

allow caf to control /tmp/trace/resource.log
polaris_iox_manage_tmp_files(polaris_caf_t)

some utility running under caf needs access to /varied/ovf-env.xml
polaris_disk_varied_read(polaris_caf_t)

caf reads the udev information
gen_require(
 type udev_var_run_t;
)
manage_files_pattern(polaris_caf_t, udev_var_run_t, udev_var_run_t)

gen_require(
 type virtd_lxc_t;
)
allow polaris_caf_t virtd_lxc_t:process signull;

polaris_removable_manage(polaris_caf_t)

```

```

polaris_lm_tmp_read(polaris_caf_t)

caf modifies /etc/cgroup_params.txt
files_manage_etc_files(polaris_caf_t)

read /tmp/iox_override.conf created by ioxman
polaris_iox_read_tmp_files(polaris_caf_t)

python udev library used by caf
allow polaris_caf_t self:netlink_kobject_uevent_socket { bind create getattr setopt };

#need access to rawip socket by pd_iox.sh
allow polaris_caf_t self:capability { net_raw setgid };
allow polaris_caf_t self:rawip_socket { create getopt setopt };
LOOK AT ME caf leaks fifo file descriptors need permissions for
domains that started by it
gen_require(^
 type iptables_t;
)
allow iptables_t polaris_caf_t:fifo_file { read write append getattr };

allow iptables_t usersns permissions for IP accessed by the script guestshell_setup.sh
allow iptables_t self:cap_usersns { net_admin net_raw };

container_stream_connect(polaris_caf_t)

gen_require(^
 type pki_ca_port_t;
)
allow polaris_caf_t pki_ca_port_t:tcp_socket name_connect;

polaris_flashlib_read(polaris_caf_t)
polaris_flashlib_write(polaris_caf_t)
polaris_contdev_dev_read(polaris_caf_t)

gen_require(^
 type rsync_exec_t;
 type rsync_port_t;
)
allow polaris_caf_t rsync_exec_t:file { execute execute_no_trans getattr map open read };
allow polaris_caf_t rsync_port_t:tcp_socket name_connect;

IOX uses rsync to sync the data
gen_require(^
 type rsync_t;
)
rsync_entry_domtrans(polaris_caf_t, rsync_t)
polaris_manage_rsync_tmplog_dir(polaris_caf_t)

```

```

allow rsync_t polaris_caf_t:fifo_file { getattr write };

kernel_search_network_sysctl(polaris_caf_t)
kernel_rw_net_sysctls(polaris_caf_t)
dev_rw_sysfs(polaris_caf_t)

Allow run-caf.sh to configure byte_queue_limits/limit_min for KR port
gen_require(
 type sysfs_t;
)
allow polaris_caf_t sysfs_t:file create;
dev_manage_sysfs_dirs(polaris_caf_t)

CAF needs access to setup for containers
manage_dirs_pattern(polaris_caf_t, self, self)
fs_associate_proc(polaris_caf_t)

guestshell_setup.sh reads /proc/sys/kernel/core_pattern
kernel_read_usermodehelper_state(polaris_caf_t)
and then guestshell_setup.sh reads /tmp/corelink
gen_require(
 type initrc_tmp_t;
)
allow polaris_caf_t initrc_tmp_t:lnk_file read;

Beluga/Meraki container
ifdef(^ms_platform',`
polaris_iox_container_domtrans(polaris_caf_t)
)
Bottlenose/Meraki container
ifdef(^bottlenose_platform',`
polaris_iox_container_domtrans(polaris_caf_t)
)

#allow run_ioxn_caf.sh to modify /etc/docker/daemon.json, etc.
container_manage_config_files(polaris_caf_t)

Manage IOx Secure storage CC files
type polaris_iox_ss_disk_t;
files_type(polaris_iox_ss_disk_t)
polaris_pfile_type(polaris_iox_ss_disk_t)

#Guestshell management
virt_signull(polaris_caf_t)

gen_require(
 type ifconfig_t;

```

```

)
allow ifconfig_t users permissions for IP
allow ifconfig_t self:cap_users { net_admin sys_admin sys_ptrace };
allow ifconfig_t to transition into dhcp domain
sysnet_domtrans_dhcp(ifconfig_t)

Being an IOSPP client does not allow for setattr permissions
gen_require(
 type polaris_iosd_portal_app_lipc_t;
)
setattr_sock_files_pattern(polaris_caf_t, polaris_iosd_portal_app_lipc_t, polaris_iosd_portal_app_lipc_t)

#ifdef(`passport_platform',`

gen_require(
 type polaris_sioxcd_rp_t;
)

Allow read of /etc/passwd
auth_map_passwd(polaris_sioxcd_rp_t)
#
Allow usage of ls in helper script
corecmd_exec_bin(polaris_sioxcd_rp_t)

Allow sysfs read
dev_list_sysfs(polaris_sioxcd_rp_t)

Allow create/write/open of files under tmp
type polaris_sioxcd_rp_tmp_t;

files_tmp_file(polaris_sioxcd_rp_tmp_t)
files_tmp_filetrans(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, { dir file })
manage_dirs_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)
manage_files_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)
manage_fifo_files_pattern(polaris_sioxcd_rp_t, polaris_sioxcd_rp_tmp_t, polaris_sioxcd_rp_tmp_t)

Allow losetup in helper script to run in its own domain
fstools_domtrans(polaris_sioxcd_rp_t)
#
Allow mount/umount in its own domain
mount_domtrans(polaris_sioxcd_rp_t)
#
Allow /tmp/sw/boot read
polaris_boot_tmp_read(polaris_sioxcd_rp_t)

Allow /tmp/tmppub read
polaris_btrace_tmppub_read(polaris_sioxcd_rp_t)

```

```

Allow iox_polaris.conf read
polaris_caf_files_read(polaris_sioxcd_rp_t)
#
Allow chasfs access
polaris_chasfs_manage(polaris_sioxcd_rp_t)

Allow /sys/devices/platform/cpld/board_vtype read
polaris_cpld_read(polaris_sioxcd_rp_t)

Allow debug.conf access
polaris_read_debug_conf(polaris_sioxcd_rp_t)

Allow cats /tmp/sw/boot/rmonbifo/boardsubtype
polaris_rmonbifo_tmp_read(polaris_sioxcd_rp_t)

Allow console logging
term_open_unallocated_ttys(polaris_sioxcd_rp_t)

Allow capability 1/24 access
allow polaris_sioxcd_rp_t self:capability { dac_override sys_resource };

Transition to chvrf domain needed by push_using_rsync
polaris_chvrf_domtrans(polaris_sioxcd_rp_t)

Allow flashutil
polaris_flashlib_read(polaris_sioxcd_rp_t)

#iptables execute in its own domain
iptables_domtrans(polaris_caf_t)

logger needs to run pidof
dev_read_sysfs(polaris_sioxcd_rp_t)
kernel_read_system_state(polaris_sioxcd_rp_t)
domain_read_all_domains_state(polaris_sioxcd_rp_t)

Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_sioxcd_rp_t)

Allow ls /tmp/ufs/crashinfo
optional_policy(`
polaris_ncd_tmp_read(polaris_sioxcd_rp_t)
`)

Allow logger which is used for syslog messages
allow polaris_sioxcd_rp_t self:unix_dgram_socket { connect create };
logging_send_syslog_msg(polaris_sioxcd_rp_t)

Allow standby to access /dev/sda3

```



```

fs_getattr_xattr_fs(polaris_sioxcd_rp_t)

Allow getattr under iox_alt_hdd_mount_dir
polaris_iox_alt_hdd_getattr(polaris_sioxcd_rp_t
')

Allow sync_data to use chvrf
polaris_chvrf_domtrans(polaris_caf_t)

#tty device and link files under /dev
type polaris_caf_tty_file_t;
dev_node(polaris_caf_tty_file_t)
dev_filetrans(polaris_caf_t, polaris_caf_tty_file_t, lnk_file)
term_use_ptmx(polaris_caf_t)
polaris_caf_tty_lnk_manage(polaris_caf_t)
polaris_caf_chr_file_read(polaris_caf_t)

polaris_iosd_vcpu_read(polaris_caf_t)

Allow access starting/stopping iox
polaris_chasfs_read(iptables_t)
polaris_chasfs_read(ifconfig_t)
polaris_hman_use_fifo(polaris_caf_t)
iptables_domtrans(polaris_caf_t)

Allow application signature verification
polaris_code_verify_domtrans(polaris_caf_t)

#access /proc/rmonbifo file cat9k-ioxhelper.sh
polaris_proc_rmonbifo_read(polaris_caf_t)

gen_require(
 type dhcpc_t;
)
allow these users capabilities for dhcpc
allow dhcpc_t self:cap_users { net_raw net_bind_service };
allow CAF to transition to dhcpc e.g. dhclient_custom.sh
sysnet_domtrans_dhcpc(polaris_caf_t)
allow reading of dhcp configuration files e.g.
/vol/usb1/iox/repo-docker/perfsonar1/dhcp/dhcp_eth0.conf
polaris_caf_files_read(dhcpc_t)
allow writing of dhcp lease files e.g. eth0ip4.lease
polaris_iox_files_manage(dhcpc_t)
allow dhcpc domain to transition back into CAF e.g. dhclient_custom.sh
polaris_caf_domtrans(dhcpc_t)

Allow read container share files
container_read_share_files(polaris_caf_t)

```

```

Allow manage container files
gen_require(
 type container_file_t;
 type container_share_t;
 type container_log_t;
)
mmap_files_pattern(polaris_caf_t, container_file_t, container_file_t)
manage_files_pattern(polaris_caf_t, container_file_t, container_file_t)

manage_chr_files_pattern(polaris_caf_t, container_share_t, container_share_t)
manage_fifo_files_pattern(polaris_caf_t, container_share_t, container_share_t)
manage_sock_files_pattern(polaris_caf_t, container_share_t, container_share_t)

manage_files_pattern(polaris_caf_t, container_log_t, container_log_t)

Allow polaris caf to set attributes of device nodes of fuse devices
gen_require(
 type fuse_device_t;
)
allow polaris_caf_t fuse_device_t:chr_file setattr;

Allow polaris caf to set attributes of TUN/TAP virtual network device
gen_require(
 type tun_tap_device_t;
)
allow polaris_caf_t tun_tap_device_t:chr_file setattr;

Allow operations on fifo file
type fifo_var_run_t;
make sure /tmp/ttyF0 is labeled correctly
files_tmp_file(fifo_var_run_t)
files_tmp_filetrans(polaris_caf_t, fifo_var_run_t, fifo_file)
manage_fifo_files_pattern(polaris_caf_t, fifo_var_run_t, fifo_var_run_t)

allow udev read operations
polaris_udev_tmp_read(polaris_caf_t)

allow link file for tmpfs_t
allow polaris_caf_t tmpfs_t:lnk_file create;

#####
IOx Secure storage service policies
#####
optional_policy(
gen_require(
 type polaris_ioxss_rp_t;
 type polaris_sort_files_t;

```

```

 type polaris_iosd_t;
)
type polaris_ioxss_rp_tmp_t;
files_tmp_file(polaris_ioxss_rp_tmp_t)
files_tmp_filetrans(polaris_ioxss_rp_t, polaris_ioxss_rp_tmp_t, file, "ioxss_up")
polaris_ioxss_rp_tmp_manage(polaris_ioxss_rp_t)

polaris_chasfs_read(polaris_ioxss_rp_t)
polaris_lua_read(polaris_ioxss_rp_t)

manage_files_pattern(polaris_ioxss_rp_t, polaris_iox_ss_disk_t, polaris_iox_ss_disk_t)
allow polaris_sort_files_t polaris_iox_ss_disk_t:dir list_dir_perms;
allow polaris_iosd_t polaris_iox_ss_disk_t:dir list_dir_perms;

Allow polaris_sort_files_t getattr of iosd_portal_app_lipc socket file
polaris_iosd_portal_app_lipc_getattr(polaris_sort_files_t)

allow secure storage server to connect through tcp_socket on port 9000 from system-config.ini
gen_require(`
 type http_port_t;
)

allow polaris_ioxss_rp_t self:tcp_socket { bind create listen setopt };
corenet_tcp_bind_http_port(polaris_ioxss_rp_t);
allow polaris_ioxss_rp_t node_t:tcp_socket node_bind;

allow polaris_caf to process signal of dhcpc client
allow polaris_caf_t dhcpc_t:process signal;

allow secure storage server to connect through socket
allow polaris_ioxss_rp_t self:socket create_socket_perms;
)

optional_policy(`
Allow polaris_sort_files_t getattr of container fifo file
gen_require(`
 type polaris_sort_files_t;
 type container_file_t;
)
getattr_fifo_files_pattern(polaris_sort_files_t, container_file_t, container_file_t)
)

Clear iox handling
container_manage_lib_files(polaris_caf_t)
container_manage_lib_dirs(polaris_caf_t)
container_manage_share_files(polaris_caf_t)
container_manage_share_dirs(polaris_caf_t)
gen_require(`

```

```

 type polaris_vs_oper_db_tdlldb_t;
 type polaris_tdlldb_t;
)
manage_files_pattern(polaris_caf_t, polaris_tdlldb_t, polaris_vs_oper_db_tdlldb_t)

allow caf to read systemd unit files
systemd_read_unit_files(polaris_caf_t)

allow restorecon on iox_alt_hdd_mount_dir
seutil_domtrans_setfiles(polaris_caf_t)

filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_iox_alt_hdd_files_t,
file, "iox_alt_hdd.dsk")
filetrans_pattern(polaris_caf_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_iox_alt_hdd_files_t,
dir, "iox_alt_hdd_mount_dir")

allow ifconfig_t polaris_iox_files_t:file { read };

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscaf.te
No license file was found, but licenses were detected in source scan.

```

```

#
May 2017, Victor Kamensky
#
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#

<summary>Polaris confd Policy Rules.</summary>

```

```

#####
<summary>
Setup /dev/shm/confd directory and file, pid and shared memory.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confd_shm_setup',`
 gen_require(`
 type polaris_confd_shm_t;
 type tmpfs_t;
 `)
 fs_tmpfs_filetrans($1, polaris_confd_shm_t, dir, "confd")

```

```
manage_dirs_pattern($1, tmpfs_t, polaris_confd_shm_t)
manage_files_pattern($1, { tmpfs_t polaris_confd_shm_t }, polaris_confd_shm_t)
allow $1 polaris_confd_shm_t:file map;
')
```

```
#####
```

```
<summary>
Read /dev/shm/confd_shared_schema shared memory.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_confd_shared_schema_read`,`
 gen_require(`
 type polaris_confd_shm_t;
 type tmpfs_t;
 `)
 read_files_pattern($1, { tmpfs_t polaris_confd_shm_t } , polaris_confd_shm_t)
 allow $1 polaris_confd_shm_t:file map;
')
```

```
#####
```

```
<summary>
Watch confd_shm directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
```

```
interface(`polaris_confd_shared_schema_watch`,`
 gen_require(`
 type polaris_confd_shm_t;
 `)
 allow $1 polaris_confd_shm_t:dir watch;
')
```

```
#####
```

```
<summary>
Read /proc/cond_pid/exe file. Few dmi utilities do that by
some reason. Look at handle_confd_pid_available.
Read files and symlinks under /dev/shm/confd.
</summary>
```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_conf_d_read`,`
 gen_require(`
 type polaris_conf_d_t;
 `)
 read_files_pattern($1, polaris_conf_d_t, polaris_conf_d_t)
 read_lnk_files_pattern($1, polaris_conf_d_t, polaris_conf_d_t)
`)

#####
<summary>
Create /var/log/ndbutil directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_conf_d_ndbutil_create`,`
 gen_require(`
 type polaris_conf_d_ndbutil_lock_t;
 `)
 files_lock_filetrans($1, polaris_conf_d_ndbutil_lock_t, dir, "ndbutil")
 files_create_lock_dirs($1)
 manage_dirs_pattern($1, polaris_conf_d_ndbutil_lock_t, polaris_conf_d_ndbutil_lock_t)
 manage_files_pattern($1, polaris_conf_d_ndbutil_lock_t, polaris_conf_d_ndbutil_lock_t)
 create_dirs_pattern($1, polaris_conf_d_ndbutil_lock_t, polaris_conf_d_ndbutil_lock_t)
`)

#####
<summary>
Creates types for and rules for ndbutils files under /var/lock/ndbutil
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_ndbutil_t

```

```

</summary>
</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>
#
template(`polaris_ndbutil_lock_template`,`
 gen_require(`
 type polaris_confd_ndbutil_lock_t;
 `)
 type polaris_$2_ndbutil_t;
 files_type(polaris_$2_ndbutil_t)

 filetrans_pattern($1, polaris_confd_ndbutil_lock_t, polaris_$2_ndbutil_t, file, $3)
 manage_files_pattern($1, polaris_confd_ndbutil_lock_t, polaris_$2_ndbutil_t)

 allow $1 polaris_$2_ndbutil_t:file { watch watch_reads };
)

#####
<summary>
Execute a domain transition to run mmap_schema polaris process.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_mmap_schema_domtrans`,`
 gen_require(`
 type polaris_mmap_schema_t, polaris_mmap_schema_exec_t;
 `)

 domtrans_pattern($1, polaris_mmap_schema_exec_t, polaris_mmap_schema_t)
)

#####
<summary>
Execute a domain transition to run confd polaris process.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>

```

```

#
interface(`polaris_confdomtrans`,`
 gen_require(`
 type polaris_confdom_t, polaris_confdom_exec_t;
 `)

 domtrans_pattern($1, polaris_confdom_exec_t, polaris_confdom_t)
`)

#####
<summary>
Read confd log file (i.e /var/confd0/log/cia-confd.log). Used
by dmiaudthd to convert confd logs to btrace.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confdom_log_read`,`
 gen_require(`
 type polaris_confdom_var_t;
 `)
 read_files_pattern($1, polaris_confdom_var_t, polaris_confdom_var_t)
`)

#####
<summary>
Manage confd log file (i.e /var/confd0/log/cia-confd.log). Used
by pman to rotate logs into /bootflash/tracelogs.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confdom_log_manage`,`
 gen_require(`
 type polaris_confdom_var_t;
 `)
 manage_files_pattern($1, polaris_confdom_var_t, polaris_confdom_var_t)
`)

#####
<summary>
Execute dmi_ports_fetch in the caller domain.

```



```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`confd_exec_dmi_ports_fetch`,`
gen_require(`
type polaris_dmi_ports_fetch_exec_t;
`)

corecmd_search_bin($1)
can_exec($1, polaris_dmi_ports_fetch_exec_t)
`)

#####
<summary>
Manage confd /var/log files (i.e /var/log/confd)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confd_var_log_manage`,`
gen_require(`
type polaris_confd_var_log_t;
`)
logging_log_filetrans($1, polaris_confd_var_log_t, dir, "confd")
manage_dirs_pattern($1, var_log_t, polaris_confd_var_log_t)
manage_files_pattern($1, polaris_confd_var_log_t, polaris_confd_var_log_t)
`)

#####
<summary>
Read confd /var/log files (i.e /var/log/confd)
/bootflash/tracelogs/cia-netconf-trace* also has polaris_confd_var_log_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confd_var_log_read`,`
gen_require(`

```

```

 type polaris_conf_d_var_log_t;
 ')
 list_dirs_pattern($1, polaris_conf_d_var_log_t, polaris_conf_d_var_log_t)
 read_files_pattern($1, polaris_conf_d_var_log_t, polaris_conf_d_var_log_t)
)

```

```
#####
```

```

<summary>
Write into fifo file created by confd, typical case when
confd starts script under popen in different domain.
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#

```

```

interface(`polaris_conf_d_tmp_use_fifo`,`
gen_require(`
type polaris_conf_d_tmp_t;
)

```

```

)

```

```

)

```

```

#

```

```

interface(`polaris_conf_d_tmp_use_fifo`,`
gen_require(`
type polaris_conf_d_tmp_t;
)

```

```

)

```

```

)

```

```

)

```

```

read_fifo_files_pattern($1, polaris_conf_d_tmp_t, polaris_conf_d_tmp_t)
write_fifo_files_pattern($1, polaris_conf_d_tmp_t, polaris_conf_d_tmp_t)
)

```

```

)

```

```

)

```

```
#####
```

```

<summary>
Write into file created by confd, to deal with cases
confd starts script under popen in different domain and
file descriptor leaks into another domain. Since we cannot
modify confd to use O_CLOEXEC
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#

```

```

interface(`polaris_conf_d_tmp_use`,`
gen_require(`
type polaris_conf_d_tmp_t;
)

```

```

)

```

```

)

```

```

#

```

```

interface(`polaris_conf_d_tmp_use`,`
gen_require(`
type polaris_conf_d_tmp_t;
)

```

```

)

```

```

)

```

```

)

```

```

read_files_pattern($1, polaris_conf_d_tmp_t, polaris_conf_d_tmp_t)
write_files_pattern($1, polaris_conf_d_tmp_t, polaris_conf_d_tmp_t)
)

```

```

)

```

```

')

#####
<summary>
Provide access for file operations under /etc/ dir.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_conf_d_etc_read`,`
 gen_require(`
 type polaris_conf_d_etc_t;
 `)

 read_files_pattern($1, polaris_conf_d_etc_t, polaris_conf_d_etc_t)
)

```

```

#####
<summary>
Create an object in the /var directory under
polaris_conf_d_var_t label.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>
#
interface(`polaris_conf_d_var_filetrans`,`
 gen_require(`
 type polaris_conf_d_var_t;
 `)

 files_var_filetrans($1, polaris_conf_d_var_t, $2, $3)
)

```

```
#####
<summary>
Make the specified domain able to work with /var/confd0
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_confd_var_dir_manage`,`
 gen_require(`
 type polaris_confd_var_t;
 `)

 manage_dirs_pattern($1, polaris_confd_var_t, polaris_confd_var_t);
`)

#####
<summary>
Execute a domain transition to run admin_tech scripts of sdwan
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_admin_tech_domtrans`,`
 gen_require(`
 type polaris_admin_tech_t, polaris_admin_tech_exec_t;
 `)

 domtrans_pattern($1, polaris_admin_tech_exec_t, polaris_admin_tech_t)
`)

#####
<summary>
Read admin_tech files created under bootflash
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_admin_tech_data_read`,`
```

```

gen_require(
 type polaris_admin_tech_data_t;
)
read_files_pattern($1, polaris_admin_tech_data_t, polaris_admin_tech_data_t)
)

#####
<summary>
Manage admin_tech files created under bootflash
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface('polaris_admin_tech_data_manage',
 gen_require(
 type polaris_admin_tech_data_t;
)
 manage_files_pattern($1, polaris_admin_tech_data_t, polaris_admin_tech_data_t)
 manage_lnk_files_pattern($1, polaris_admin_tech_data_t, polaris_admin_tech_data_t)
 manage_dirs_pattern($1, polaris_admin_tech_data_t, polaris_admin_tech_data_t)

 allow $1 polaris_admin_tech_data_t:file watch;
)

#####
<summary>
Allow domain to be started by confd with
transition into specific service domain.
</summary>
<param name="domain">
<summary>
Type to be used to run utility.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
interface('polaris_conf_domain',
 gen_require(
 type polaris_conf_t;
)

 domtrans_pattern(polaris_conf_t, $2, $1)

```

)

#####

## <summary>

## Manage confd\_cli files under /tmp/confd\_cli.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_conf\_d\_cli\_tmp\_manage`,`

gen\_require(`

type polaris\_conf\_d\_cli\_tmp\_t;

`)

manage\_files\_pattern(\$1, polaris\_conf\_d\_cli\_tmp\_t, polaris\_conf\_d\_cli\_tmp\_t)

)

#####

## <summary>

## Manage vconfd files under /tmp/vconfd.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_vconf\_d\_tmp\_manage`,`

gen\_require(`

type polaris\_vconf\_d\_tmp\_t;

`)

manage\_dirs\_pattern(\$1, polaris\_vconf\_d\_tmp\_t, polaris\_vconf\_d\_tmp\_t)

manage\_files\_pattern(\$1, polaris\_vconf\_d\_tmp\_t, polaris\_vconf\_d\_tmp\_t)

)

#####

## <summary>

## Connect to confd port. Should be used only by utility

## domains that do not have TDL entry. Processes with TDL entries

## just need to register as confd pseudo service clients.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

```

#
interface(`polaris_conf_d_connect',`
 polaris_ripc_conf_d_ipc_connect($1)
`)

#####
<summary>
Use unix stream socket created by confd as standard I/O
descriptors. Need to look more, because so far it triggers only
getattr, append and ioctl permissions. If it would be real standard I/O
it would need read and write as well.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_conf_d_unix_stream_stdio_use',`
 gen_require(`
 type polaris_conf_d_t;
 `)
 allow $1 polaris_conf_d_t:unix_stream_socket { append getattr ioctl };
`)

#####
<summary>
Creates types and rules for a script that is started
by confd process.
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_t
</summary>
</param>
#
template(`polaris_vconf_d_domain_template',`
 polaris_utility_domain_template($1)

 polaris_conf_d_domain(polaris_$1_t, polaris_$1_exec_t)

 # access /etc/passwd
 auth_use_nsswitch(polaris_$1_t)

 # inherit unix stream as script stdio
 polaris_conf_d_unix_stream_stdio_use(polaris_$1_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisconfd.if

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

divert(-1)

include(`polaris\_process.m4')

include(`polaris\_database\_db.m4')

include(`polaris\_database\_db\_fc.m4')

include(`polaris\_max\_scope.m4')

divert(0)dnl

#

# This is a generated file! Instead of modifying this file,

# modify proper platform TDL file.

#

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_database\_fc.m4

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#

# February 2020, Victor Kamensky

#

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#

policy\_module(polarisinstallmgr, 1.0);

gen\_require(`

    type polaris\_install\_mgr\_t;

`)

polaris\_chasfs\_manage(polaris\_install\_mgr\_t)

polaris\_tdlresolve\_read(polaris\_install\_mgr\_t)

polaris\_cpld\_read(polaris\_install\_mgr\_t)

polaris\_flashlib\_read(polaris\_install\_mgr\_t)

polaris\_lua\_read(polaris\_install\_mgr\_t)



```

logging_send_syslog_msg(polaris_install_mgr_t)

polaris_ripc_sman_ui_serv_connect(polaris_install_mgr_t)

polaris_db_tdlb_dir_use(polaris_install_mgr_t)

read all files in persisten storage
polaris_persistent_read(polaris_install_mgr_t)

calls code_verify
polaris_code_verify_domtrans(polaris_install_mgr_t)
calls mount command
mount_domtrans(polaris_install_mgr_t)

allow access to gnmib image files
optional_policy(
polaris_gnmib_gnoi_images_read(polaris_install_mgr_t)
)

LOOK AT ME: /dev/mem access restriction will be removed after
CSCvu32649 is fixed using CSCvu32742.
code_sign_verify accesses /dev/mem: class=chr_file, {read, open, map}
to read the codesign key in storage
side effects: execute is also allowed
gen_require(
 type polaris_code_verify_t;
 type polaris_nvram_file_t;
)
dev_rx_raw_memory(polaris_code_verify_t)

read access to /bootflash/nvram_config on CLI "install remove inactivate"
read_files_pattern(polaris_code_verify_t, polaris_disk_bootflash_t, polaris_nvram_file_t)
getattr_files_pattern(polaris_code_verify_t, polaris_disk_bootflash_t, polaris_nvram_file_t)

open, read, map and getattr access of capsule-upgrade.log file
polaris_capsule_upgrade_log_use(polaris_code_verify_t)

calls install_mgr_helper_api.sh
corecmd_exec_bin(polaris_install_mgr_t)
corecmd_exec_shell(polaris_install_mgr_t)
auth_use_nsswitch(polaris_install_mgr_t)

/tmp/sw/inst_tmp_x handling
type polaris_install_mgr_tmp_t;
files_tmp_file(polaris_install_mgr_tmp_t)
gen_require(
 type tmp_t;
)

```

```

manage_dirs_pattern(polaris_install_mgr_t, tmp_t, polaris_install_mgr_tmp_t)
manage_dirs_pattern(polaris_install_mgr_t, polaris_install_mgr_tmp_t, polaris_install_mgr_tmp_t)
files_tmp_filetrans(polaris_install_mgr_t, polaris_install_mgr_tmp_t, dir, "inst_tmp_1")
files_tmp_filetrans(polaris_install_mgr_t, polaris_install_mgr_tmp_t, dir, "inst_tmp_2")

writes into /bootflash/.installer/watchlist
polaris_disk_install_manage(polaris_install_mgr_t)

install_mgr_monitor.c:add_prior_watches
polaris_persistent_watch(polaris_install_mgr_t)

watch over /tmp/patch
polaris_patch_data_watch(polaris_install_mgr_t)

polaris_repm_peer_mqipc_manage(polaris_install_mgr_t)

watches over /tmp for /tmp/booted appearance in
init_operation_mgmt_watches function
gen_require(
 type tmp_t;
)
allow polaris_install_mgr_t tmp_t:dir watch;

allow polaris_install_mgr_t self:capability sys_resource;

#install_mgr writes into /bootflash/.installer/watchlist and watches /bootflash/inot_fifo
polaris_install_disk_manage(polaris_install_mgr_t)

#install_mgr does search and get attribute operation on /tftp directory
gen_require(
 type tftpd_rw_t;
)
allow polaris_install_mgr_t tftpd_rw_t:dir { getattr search };

allow read access to iso9660
fs_read_iso9660_files(polaris_install_mgr_t)

accesses /proc/sys/vm/drop_caches
kernel_rw_vm_sysctls(polaris_install_mgr_t)

creates files under /tmp/pkg_cs_debug through install_helper
and verify_pkg shell function from common
polaris_pkg_cs_debug_manage(polaris_install_mgr_t)

for pluggable FS, allow the install manager to access files on them (it needs read and
write access).
gen_require(
 type removable_t;

```

```

)
allow polaris_install_mgr_t removable_t:dir { getattr open read search watch };
allow polaris_install_mgr_t removable_t:file { getattr open read };
allow polaris_install_mgr_t removable_t:lnk_file read;

#allow install_mgr to stat caf files in /vol/harddisk/caf, /bootflash/caf, etc.
polaris_caf_tmp_files_read(polaris_install_mgr_t)

install manager Cleanup related to inotify watches, Basically frees malloced memory
gen_require(`
 type root_t;
)
allow polaris_install_mgr_t root_t:dir watch;

install manager access to /guestshell
polaris_guestshell_files_read(polaris_install_mgr_t)

install manager access to /lib/systemd/systemd
polaris_init_access_check(polaris_install_mgr_t)

install manager reads dcmlog.txt
optional_policy(`
 gen_require(`
 type polaris_fed_debug_dcmlog_t;
)
 read_files_pattern(polaris_install_mgr_t, polaris_fed_debug_dcmlog_t, polaris_fed_debug_dcmlog_t)
)
install manager reads /firmware
polaris_firmware_read(polaris_install_mgr_t)

install manager reads /guestshell
gen_require(`
 type polaris_guestshell_t;
)
getattr_dirs_pattern(polaris_install_mgr_t, polaris_guestshell_t, polaris_guestshell_t)

install_manager reads /tmp/sw/boot during auto_upgrade
polaris_boot_tmp_read(polaris_install_mgr_t)

install_manager writes /tmp/sw/boot during auto_upgrade
polaris_boot_tmp_write(polaris_install_mgr_t)

install_manager reads /tmp/sw/boot/rmonbifo during auto_upgrade
polaris_rmonbifo_tmp_read(polaris_install_mgr_t)

install_manager reads /tmp/tmppub during auto_upgrade
polaris_btrace_tmppub_read(polaris_install_mgr_t)

```

```
install manager accesses /tmp/rsync_log_dir during auto_upgrade
polaris_manage_rsync_tmplog_dir(polaris_install_mgr_t)

install manager invokes mcp_chvrf.sh for rsync operations during auto_upgrade
polaris_chvrf_domtrans(polaris_install_mgr_t)

polaris_bexecute_domtrans(polaris_install_mgr_t)

ifdef(`ngwc_family',`
install_mgr needs to be able to execute the auto_upgrade_client_helper scripts
polaris_autoupgrade_domtrans(polaris_install_mgr_t)

read /tmp/etc/installer
polaris_autoupgrade_tmp_manage(polaris_install_mgr_t)
')

ifdef(`mcp_family',`
install_mgr needs to be able to execute the auto_upgrade_client_helper scripts
polaris_autoupgrade_domtrans(polaris_install_mgr_t)

read /tmp/etc/installer
polaris_autoupgrade_tmp_manage(polaris_install_mgr_t)
')

ifdef(`wlc_family',`
install_mgr needs to be able to execute the auto_upgrade_client_helper scripts
polaris_autoupgrade_domtrans(polaris_install_mgr_t)

read /tmp/etc/installer
polaris_autoupgrade_tmp_manage(polaris_install_mgr_t)
')

with "/bootflash"...this needs read and attr to access for logfile
polaris_read_user_file(polaris_install_mgr_t)
polaris_user_file_getattr(polaris_install_mgr_t)

auto upgrade server bind operation when install manager initialize auto upgrade server
corenet_tcp_bind_polaris_autoupgrade_port(polaris_install_mgr_t)

access to /tmp/etc
polaris_etc_list(polaris_install_mgr_t)

read access to /tmp/etc/installer
polaris_install_tmp_read(polaris_install_mgr_t)

polaris_script_errmsg_use(polaris_install_mgr_t)

install mgr calls install_abort.sh on rollback timer expiry
```

```

polaris_install_engine_domtrans(polaris_install_mgr_t)

/tmp/ufs/crashinfo access
optional_policy(`
polaris_ncd_tmp_read(polaris_install_mgr_t)
`)

read/write to /bootflash/.rollback_timer/install_abort_time
polaris_rbtimer_bootflash_manage(polaris_install_mgr_t)

allow polaris_install_mgr_t self:process setpgid;

optional_policy(`
 polaris_efi_files_list_dirs(polaris_install_mgr_t)
`)

walk all files on "install issu activate" and "install remove inactivate" CLI
files_read_all_files(polaris_install_mgr_t)

install mgr file descriptor leaks into mcp_chvrf.sh for rsync operation
gen_require(`
 type polaris_chvrf_t;
`)
allow polaris_chvrf_t polaris_install_mgr_t:file read;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisinstallmgr.te
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#
May 2017, Victor Kamensky
#
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#

policy_module(polarisconfd, 1.0);

gen_require(`
 type polaris_conf_d_t;
`)

confd-startup.sh calls confd_cmd to get_phase and other cases
that utilities under confd label connects to confd
polaris_rpc_conf_d_ipc_connect(polaris_conf_d_t)

#confd needs communicate over HTTP
corenet_tcp_bind_http_port(polaris_conf_d_t)

```

```

complex_main (port 5000) is used by apache
corenet_udp_bind_complex_main_port(polaris_conf_d_t)

corenet_tcp_bind_generic_node(polaris_conf_d_t)
allow polaris_conf_d_t self:tcp_socket { getattr getopt setopt bind create listen accept connect read write };

corenet_udp_bind_generic_node(polaris_conf_d_t)
allow polaris_conf_d_t self:udp_socket { bind connect create getattr getopt setopt };
corenet_udp_bind_polaris_conf_d_snmp_traps_port(polaris_conf_d_t)

logging_send_syslog_msg(polaris_conf_d_t)

polaris_chasfs_manage(polaris_conf_d_t)
polaris_btrace_data_manage(polaris_conf_d_t)
polaris_cpld_read(polaris_conf_d_t)
polaris_boot_tmp_read(polaris_conf_d_t)
polaris_rmonbifo_tmp_read(polaris_conf_d_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_conf_d_t)

confd-startup.sh process is shell script need permission to execute shell
and variety of small util commands under bin_t
corecmd_exec_shell(polaris_conf_d_t)
corecmd_exec_bin(polaris_conf_d_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_conf_d_t)

confdexec needs access to /sys/devices/system/cpu/online
dev_read_sysfs(polaris_conf_d_t)

allow polaris_conf_d_t self:capability { net_admin sys_resource };

allow read permissions for /etc/hosts file
sysnet_read_config(polaris_conf_d_t)

allow read permissions for /var/run/netns/8
fs_read_nsfs_files(polaris_conf_d_t)

work with /var/confd0/ files
type polaris_conf_d_var_t;
files_tmp_file(polaris_conf_d_var_t)
polaris_conf_d_var_filetrans(polaris_conf_d_t, dir, "confd0")
manage_files_pattern(polaris_conf_d_t, polaris_conf_d_var_t, polaris_conf_d_var_t)
manage_lnk_files_pattern(polaris_conf_d_t, polaris_conf_d_var_t, polaris_conf_d_var_t)
manage_dirs_pattern(polaris_conf_d_t, polaris_conf_d_var_t, polaris_conf_d_var_t)

```

```

erlang calls efile_fileinfo function (./erts/emulator/drivers/unix/unix_efile.c)
root directory. Inside of the function code calls 'access' function that check
access permission for R_OK and W_OK. W_OK triggers denial warning. Instead of
granting access let's mark it as dontaudit. Erlang will be fine with this
files_dontaudit_write_root_dirs(polaris_conf_d_t)

deals with /dev/shm/confd files (shared memory and pid)
type polaris_conf_d_shm_t;
files_tmpfs_file(polaris_conf_d_shm_t)

confd-startup.sh modifies confd.conf which is under polaris_conf_d_var_t label
sed -i /CONFD_FXS_CISCO_AUTOGEN_EWLC/d /var/confd0/confd.conf
allow polaris_conf_d_t self:process setfscreate;

type polaris_conf_d_ndbutl_lock_t;
files_lock_file(polaris_conf_d_ndbutl_lock_t)

#####
confd mmap_schema utility runs from systemd unit under polaris_conf_d_t label
#####
polaris_conf_d_shm_setup(polaris_conf_d_t)
create ndbutl directory under /var/lock
polaris_conf_d_ndbutl_create(polaris_conf_d_t)

Allow access to /crashinfo
polaris_disk_crashinfo_getattr(polaris_conf_d_t)

optional_policy(
confd-startup.sh on nyquist makes ls /tmp/ufs/crashinfo
polaris_ncd_tmp_read(polaris_conf_d_t)
)

confd-startup.sh reads /proc/cmdline
kernel_read_system_state(polaris_conf_d_t)

LOOK AT ME allow mapping of low addresses, that could be exploited
need to understand why; unfortunately confd symbols are not decodable
need to ask tail-f guys
ifdef(^tsn_platform',`
domain_mmap_low_uncond(polaris_conf_d_t)
gen_require(
 type polaris_conf_d_cli_t;
)
domain_mmap_low_uncond(polaris_conf_d_cli_t)
)
ifdef(^quake_platform',`
domain_mmap_low_uncond(polaris_conf_d_t)

```

```

')

polaris_mmap_schema_domtrans(polaris_confd_t)

mmap_schema process policy
gen_require(
 type polaris_mmap_schema_t;
)

polaris_btrace_data_manage(polaris_mmap_schema_t)
polaris_chasfs_read(polaris_mmap_schema_t)
polaris_cpld_read(polaris_mmap_schema_t)
polaris_flashlib_read(polaris_mmap_schema_t)

polaris_db_tdlldb_dir_use(polaris_mmap_schema_t)

polaris_confd_ndbutil_create(polaris_mmap_schema_t)
polaris_confd_shm_setup(polaris_mmap_schema_t)

connects to config mmap_schema is not TDL process, let
grant explicit permission to access corresponding port
polaris_ripc_confd_ipc_connect(polaris_mmap_schema_t)
allow polaris_mmap_schema_t self:tcp_socket { connect create setopt };
polaris_socketat_nsfs_read(polaris_mmap_schema_t)

allow polaris_mmap_schema_t self:capability dac_override;

polaris_tdlresolve_read(polaris_mmap_schema_t)
polaris_confd_read(polaris_mmap_schema_t)

polaris_ndbmand_ndbutil_manage(polaris_mmap_schema_t)

optional_policy(
 polaris_gnmib_ndbutil_lock(polaris_mmap_schema_t, ".l.schema_use.gnmib")
)

type polaris_confd_tmp_t;
files_tmp_file(polaris_confd_tmp_t)
polaris_systemd_tmpfiles_tmp_filetrans(polaris_confd_tmp_t, dir, "confd")
files_tmp_filetrans(polaris_confd_t, polaris_confd_tmp_t, dir, "confd")
manage_files_pattern(polaris_confd_t, tmp_t, polaris_confd_tmp_t)
manage_fifo_files_pattern(polaris_confd_t, tmp_t, polaris_confd_tmp_t)
manage_dirs_pattern(polaris_confd_t, tmp_t, polaris_confd_tmp_t)

posix_pathconf called from get_tmpdir calls starvfs over /tmp
fs_getattr_tmpfs(polaris_confd_t)

dmi_ports_fetch that runs under confd_t reads global.service.conf

```



```

polaris_tdlresolve_read(polaris_confd_t)
confd_exec_dmi_ports_fetch(polaris_confd_t)

confd-startup script reads /tmp/dmi.ds_config if it exists
polaris_psd_tmp_read(polaris_confd_t)

vip-confd-startup.sh related
figure out BOOT_ROLE in install_util.sh
polaris_read_packages_conf(polaris_confd_t)
touch /bootflash/sdwan/day0_oper.xml
allow polaris_confd_t self:capability dac_override;
polaris_bootflash_manage(polaris_confd_t)
/usr/bin/sw syncddb call uuidgen
dev_read_rand(polaris_confd_t)

polaris_dmiauthd_tmp_manage(polaris_confd_t)

PLEASE LOOK AT ME: overloaded use of /bootflash/.installer and
/bootflash/.sdwaninstaller directories. In controller mode cedge code loopback
mounts /bootflash/.sdwaninstallerfs file onto /bootflash/.sdwaninstaller and
creates /bootflash/.installer symbolic link to it. As result effective
/bootflash/.installer carries two meaning: used by polaris install infra for
regular install operations, and keep persistent state in controller mode. For
now /bootflash/.sdwaninstallerfs was forced to be mounted with
polaris_disk_install_t label, so installer policy would be happy, but confd
writes into it through /var/confd0 which is symbolic link to
/bootflash/.installer/images/pkg_boot_17.3.01/confd0 that means we need to
grant polaris_disk_install_manage to confd which is not good thing.
It would be much better if two different directories would be used.
polaris_disk_install_manage(polaris_confd_t)

/var/log/confd handling
type polaris_confd_var_log_t;
logging_log_file(polaris_confd_var_log_t)
polaris_confd_var_log_manage(polaris_confd_t)

/etc/version handling
type polaris_confd_etc_t;
files_config_file(polaris_confd_etc_t)
files_etc_filetrans(polaris_confd_t, polaris_confd_etc_t, file, "version")
gen_require(
 type etc_t;
)
manage_files_pattern(polaris_confd_t, etc_t, polaris_confd_etc_t)

"/usr/bin/sw syncddb" calls "confd_cmd -p 3010 -o -c "delete /software""
that invokes /usr/binos/conf/install_assist.sh
polaris_install_engine_domtrans(polaris_confd_t)

```

```

confd calls /usr/bin/sw that creates temp files in /tmp/cedge_sw_log
since it runs under same domain make sure that cedge_sw_log gets
right label
files_tmp_filetrans(polaris_conf_d_t, polaris_conf_d_tmp_t, dir, "cedge_sw_log")

/tmp/confd_booted created by vip-confd-start
files_tmp_filetrans(polaris_conf_d_t, polaris_conf_d_tmp_t, file, "cedge_booted")

runs flashutils to read rommon variables
polaris_flashlib_read(polaris_conf_d_t)

allow polaris_conf_d_t self:capability fowner;

optional_policy(`
work with /tmp/.econfd2sysmgr-ipc
polaris_econfd2sysmgr_tmp_manage(polaris_conf_d_t)
`)

confdexec calls dmidecode to get bios-vendor
dmidecode_domtrans(polaris_conf_d_t)

optional_policy(`
polaris_sw.sh called in confd context accesses
/etc/viptela/controller_version
polaris_cedge_etc_manage(polaris_conf_d_t)
`)

PLEASE LOOK AT ME confd tcp ports are supposed to be handle
through TDL pseudo services, that one it not
corenet_tcp_connect_polaris_conf_d_maapi_port(polaris_conf_d_t)

confd starts cmdptywrapper utility through erl_child_setup
that allocates free pty device using operations on /dev/ptms
allow polaris_conf_d_t self:capability { fsetid setgid };
term_getattr_pty_fs(polaris_conf_d_t)
term_setattr_generic_ptys(polaris_conf_d_t)
term_use_generic_ptys(polaris_conf_d_t)
term_use_ptmx(polaris_conf_d_t)

uses nice utility to start misc scripts
allow polaris_conf_d_t self:process setsched;

allow netconf_callhome to execute ncsshd under ncsshd domain
polaris_ncsshd_mgmt_domtrans(polaris_conf_d_t)

allow DmiAuth spawned by confd to access /tmp/.DmiAuth.socket
polaris_dmi_dmiauthd_dgram_send(polaris_conf_d_t)

```

```

the default port for NETCONF Call Home (SSH) is 4334,
and it is configurable by users
corenet_tcp_connect_all_ports(polaris_conf_d_t)
by default the port is selected by system, and it is configurable by users
corenet_tcp_bind_generic_port(polaris_conf_d_t)
netconf_callhome may create vrf-based netns on demand
polaris_vrf_netns_manage(polaris_conf_d_t)

cmdwrapper utility that started by confd calls xstat
allow polaris_conf_d_t self:capability setuid;

label for /tmp/vconfd temporary files created by binos/viptela/vconfd/*.sh
scripts created from viptela/vconfd/vconfd_script_cli_session.sh
type polaris_vconfd_tmp_t;
files_tmp_file(polaris_vconfd_tmp_t)
confd writes /tmp/vconfd/USID.XXX and /tmp/vconfd/THANDLE.YYY files
polaris_vconfd_tmp_manage(polaris_conf_d_t)

label for /tmp/confd_cli temporary files created by execute_conf_d_cli.sh
type polaris_conf_d_cli_tmp_t;
files_tmp_file(polaris_conf_d_cli_tmp_t)

execute_conf_d_cli creates /tmp/sh-thd moved to /tmp/confd_cli
files_tmp_filetrans({ polaris_conf_d_t polaris_conf_d_cli_t}, polaris_conf_d_cli_tmp_t, dir, "confd_cli")

execute_conf_d_cli.sh script policy
polaris_utility_domain_template(conf_d_cli)
polaris_bexecute_domain(polaris_conf_d_cli_t, polaris_conf_d_cli_exec_t)

polaris_chasfs_read(polaris_conf_d_cli_t)
corecmd_exec_shell(polaris_conf_d_t)
corecmd_exec_bin(polaris_conf_d_cli_t)
auth_use_nsswitch(polaris_conf_d_cli_t)
bash get_tmpdir statfs /tmp directory
fs_getattr_tmpfs(polaris_conf_d_cli_t)

polaris_conf_d_cli_tmp_manage(polaris_conf_d_cli_t)
polaris_vconfd_tmp_manage(polaris_conf_d_cli_t)
telnet_use_ptys(polaris_conf_d_cli_t)

polaris_ripc_conf_d_ipc_connect(polaris_conf_d_cli_t)

execute_conf_d_cli.sh -a -g PRIV00 runs grep over /bootflash/sdwan/.init_stage
polaris_bootflash_read(polaris_conf_d_cli_t)

execute_conf_d_cli.sh writes to "pipe:[24719894]"
polaris_dmi_ncsshd_fwd_use_fifo(polaris_conf_d_cli_t)

```

```

allow /usr/binos/conf/bexecute.sh for tcp_socket access
due to "/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc
/usr/binos/conf/bexecute.sh -c /bin/mcp_pkg_wrap rp_daemons
/usr/binos/conf/execute_co"
allow polaris_confcli_t polaris_dmi_ncsshd_fwd_t:tcp_socket ioctl;
#=====
admin-tech : scripts in binos/viptela/vconfd/*admin_tech*.sh
Invocation triggered here:
viptela/vconfd/viptela-actions.yang: tailf:exec "vconfd_script_admin_tech.sh"
#=====
polaris_vconfd_domain_template(admin_tech)

/bin/bash /usr/binos/conf/bshell.sh -S -c
show platform hardware qfp active infrastructure shared-memory
process cpp-control-pro....
polaris_bexecute_domtrans(polaris_admin_tech_t)

admin-tech launches "ps" via scripts
domain_read_all_domains_state(polaris_admin_tech_t)

See tracelogs accessed by vconfd_script_polaris_admin_tech_child.sh
polaris_btrace_data_manage_all(polaris_admin_tech_t)

various utilities like "find", "memaudit", etc needs this
files_getattr_all_files(polaris_admin_tech_t)
files_getattr_all_dirs(polaris_admin_tech_t)
fs_getattr_all_fs(polaris_admin_tech_t)
files_read_all_files(polaris_admin_tech_t)

'/bin/bash /usr/bin/memaudit' needs access to /proc/kmsg, /proc/mdstat, etc
dev_getattr_mtrr_dev(polaris_admin_tech_t)
kernel_read_all_proc(polaris_admin_tech_t)
dev_getattr_loop_control(polaris_admin_tech_t)

infra/memaudit/memaudit uses dmesg
dmesg_domtrans(polaris_admin_tech_t)
gen_require(
 type dmesg_t;
)
polaris_confcli_unix_stream_stdio_use(dmesg_t)

infra/memaudit/memaudit uses mount
mount_domtrans(polaris_admin_tech_t)

infra/memaudit/memaudit uses fdisk
fstools_domtrans(polaris_admin_tech_t)
polaris_nvram_read(polaris_admin_tech_t)
polaris_nvram_getattr(polaris_admin_tech_t)

```

```

infra/memaudit/memaudit writes to /proc/sys/vm/drop_caches
kernel_rw_vm_sysctls(polaris_admin_tech_t)

memaudit and smap needs 'getattr', 'search' on sysctl_irq_t:dir
kernel_read_irq_sysctls(polaris_admin_tech_t)

du -b -s /tmp/cc /tmp/rp /tmp/fp
files_getattr_all_sockets(polaris_admin_tech_t)
files_getattr_all_pipes(polaris_admin_tech_t)

df -Th -BM needs access to /run/netns/2
fs_getattr_nsfs_files(polaris_admin_tech_t)

ls /tmp/ufs//harddisk
maapi --clcmd --get-io --no-hidden show configuration commit list
corecmd_exec_bin(polaris_admin_tech_t)

bash vconfd_script_admin_tech.sh -u root -c cli executes:
1. map on /etc/passwd
auth_map_passwd(polaris_admin_tech_t)
2. hostname
hostname_exec(polaris_admin_tech_t)
3. journalctl
journalctl_domtrans(polaris_admin_tech_t)

journalctl writes to /tmp/vm4-bootuplog-20200903-175223-UTC.log
see vconfd_script_polaris_admin_tech_child.sh
gen_require(
 type journalctl_t;
)
manage_files_pattern(journalctl_t, polaris_admin_tech_tmp_t, polaris_admin_tech_tmp_t)
polaris_conf_unix_stream_stdio_use(journalctl_t)

admin_tech reads /tmp/chassis/cpld/chasfs/board_vtype on crankshaft(sdwan)
polaris_chasfs_read(polaris_admin_tech_t)

find -H /misc/scratch -name MEMORY_LOG_*.text
memaudit writes to /bootflash/MEMORY_LOG_2020-07-28-01:32:11.text
We also have 'mv -Z /bootflash/admintech /var/tech/ios'
admin_tech watches /tmp/chassis/local/rp/chasfs/etc/ios_admintech_done
type polaris_admin_tech_data_t;
polaris_disk_type(polaris_admin_tech_data_t)
polaris_bootflash_filetrans(polaris_admin_tech_t, polaris_admin_tech_data_t, dir)
polaris_bootflash_filetrans(polaris_admin_tech_t, polaris_admin_tech_data_t, file)
polaris_admin_tech_data_manage(polaris_admin_tech_t)

sdwan_tech_support.sh -o /var/tech/binos; work with /var/tech/ files

```

```

type polaris_admin_tech_var_t;
files_tmp_file(polaris_admin_tech_var_t)
files_var_filetrans(polaris_admin_tech_t, polaris_admin_tech_var_t, dir, "tech")
manage_files_pattern(polaris_admin_tech_t, polaris_admin_tech_var_t, polaris_admin_tech_var_t)
manage_dirs_pattern(polaris_admin_tech_t, polaris_admin_tech_var_t, polaris_admin_tech_var_t)

vconfd_script_polaris_admin_tech.sh invokes vlog "Requested admin-tech initiated."
vlog is implemented in viptela/Utils/vlog using logger; that needs
- ceate/connect unix_dgram_socket of type polaris_admin_tech_t
- read from devtmpfs of type devlog_t
- write to sock_file of type devlog_t
- sendto path="/run/systemd/journal/dev-log" of type unix_dgram_socket
logging_send_syslog_msg(polaris_admin_tech_t)

maapi --cli get paginate: this performs connect to confd socket
polaris_rpc_conf_d_ipc_connect(polaris_admin_tech_t)

reads /tmp/chassis/cpld/chasfs/board_vtype
on c8kv cpld is at /sys/bus/platform/devices/cpld which has sysfs_t LABEL
polaris_cpld_read(polaris_admin_tech_t)

handle various files created under /tmp
type polaris_admin_tech_tmp_t;
files_tmp_file(polaris_admin_tech_tmp_t)
files_tmp_filetrans(polaris_admin_tech_t, polaris_admin_tech_tmp_t, file)
manage_files_pattern(polaris_admin_tech_t, polaris_admin_tech_tmp_t, polaris_admin_tech_tmp_t)

As part of admin-tech generation on cEdges, vconfd_script_polaris_admin_tech.sh
invokes vconfd_script_polaris_admin_tech_child.sh which in turn invokes the
script sdwan_tech_support.sh. The sdwan_tech_support.sh passes the file
/tmp/sdwan_tech_support_command_file_out.txt to a bshell instance. The bshell
instance does open operation on the file. So bshell needs open allow
policy for /tmp/sdwan_tech_support_command_file_out.txt
gen_require(
 type polaris_bshell_t;
)
allow polaris_bshell_t polaris_admin_tech_tmp_t:file open;

maapi needs this.
allow polaris_admin_tech_t self:tcp_socket { getopt setopt create connect read write };

tar --ignore-failed-read -czf /home/vmanage-admin/vm4-20200903-055157-admin-tech.tar.gz
/tmp/fp/trace/cpp_cp_F0-0_TAN.20041_0.20
allow polaris_admin_tech_t self:capability dac_override;

awk /^Shared/ { v += $2 } END { print v } /proc/6384/smmaps
allow polaris_admin_tech_t self:capability sys_ptrace;

```

```

'top -n1 -b' creates /.config dir
TODO/LOOKATME: selinux team to review handling of this issue in a
common way for invoking top
allow polaris_admin_tech_t root_t:dir create;

"show installerfs" is invoked by vconfd_script_admin_tech_common.sh
this invokes vconfd_script_show_installerfs.sh via confd
let's execute this under install_show domain
polaris_install_show_domtrans(polaris_conf_d_t)

create_bootflash_snapshot() performs 'ls -l /bootflash/.installer'
polaris_disk_install_read(polaris_admin_tech_t)

vconfd_script_polaris_admin_tech_child.sh
mv /bootflash/admintech /var/tech/ios
allow polaris_admin_tech_t self:process setfscreate;

rm -rf $collated_ra (collated_log_*)

#Nutella-XE - Vedge image install
#/bin/sh /tmp/sw/rp/0/0/rp_security/mount/bin/sw syncddb
#mount -t vfat /dev/mmcblk0gp0p1 /gpp
mount_domtrans(polaris_conf_d_t)

#df /bootflash
fstools_domtrans(polaris_conf_d_t)

#Nutella-XE - Vedge image activate
#/usr/bin/flashutil --command unsetvar --name MIG_INT_STATE
polaris_flashlib_write(polaris_conf_d_t)

permit comm="ps" to "getattr" on dev="devtmpfs" for polaris_admin_tech_t
term_getattr_unallocated_ttys(polaris_admin_tech_t)

permit to access polaris_proc_rmonbifo_t by
/usr/bin/vconfd_script_admin_tech.sh
polaris_proc_rmonbifo_read(polaris_admin_tech_t)

permit to access/unlink /bootflash by polaris_admin_tech_t
polaris_bootflash_manage(polaris_admin_tech_t)

vconfd_script_admin_tech.sh executes 'top -n1 -b' which creates /.config dir
gen_require(
 type admin_home_t;
)
allow polaris_admin_tech_t admin_home_t:dir { add_name create write };

vconfd_script_admin_tech.sh sources vconfd_script_cli_session.sh and calls

```

```

start_cli_session() which writes to /tmp/vconfd/USID.XXX,
/tmp/vconfd/THANDLE.YYY and /tmp/vconfd/start_cli.XXXXXXXXXXX
polaris_vconfd_tmp_manage(polaris_admin_tech_t)

work with "/tmp/fp/pvp/work/inot_fifo"
polaris_pvp_stdin_read(polaris_admin_tech_t)

work with "/tmp/fp/trace/fifo/pvp_sh%fp_0_0_22607_fifo"
polaris_use_btrace_fifo(polaris_admin_tech_t)

access to tunnel interface from snapshot_cdb()
corenet_rw_tun_tap_dev(polaris_confd_t)

access to /tmp/bootstrap/sdwan/ciscosdwan_cloud_init.cfg
init_read_script_tmp_files(polaris_confd_t)

"vconfd_notifier security-clear-installed-cert" reads
/var/run/netns/default which is symlinked to /proc/1/ns/net
polaris_cedge_reset_ns(polaris_confd_t)

allow /usr/binos/conf/execute_confd_cli.sh to access polaris_disk_install_t
polaris_disk_install_read(polaris_confd_cli_t)

vconfd script ends up cleaning core files, most likely its
vconfd_script_polaris_admin_tech_child.sh, so it needs read/write
permission to polaris_core_file_t files.
polaris_core_file_manage(polaris_admin_tech_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisconfd.te
No license file was found, but licenses were detected in source scan.

#
OWNERS - Code Ownership
#
For information on the purpose and format of this file see:
https://polaris-git.cisco.com/csg/polaris/wiki/Code-Reviews
#
Copyright (c) 2019-2021 by Cisco Systems, Inc.
All rights reserved.
#

* @csg/polaris-selinux-dev

#iox team related files
polariscontainer* @csg/polaris-selinux-dev @csg/iox-selinux
polariscaf* @csg/polaris-selinux-dev @csg/iox-selinux
polarisgsdrp* @csg/polaris-selinux-dev @csg/iox-selinux

```



```
polarisioxman* @csg/polaris-selinux-dev @csg/iox-selinux
polarisvman* @csg/polaris-selinux-dev @csg/iox-selinux
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/OWNERS
```

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
Copyright (c) 2016-2019 by Cisco Systems, Inc.
All rights reserved
#
<summary>Polaris lm Policy Rules.</summary>
```

```
#####
<summary>
Read files of type polaris_lm_tmp_t (e.g., /tmp/iosd_level)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_lm_tmp_read`,`
 gen_require(`
 type polaris_lm_tmp_t;
 `)
 read_files_pattern($1, polaris_lm_tmp_t, polaris_lm_tmp_t)
`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislm.if
```

No license file was found, but licenses were detected in source scan.

```
#
August 2017, Shawn Lu
#
Copyright (c) 2017-2019 by Cisco Systems, Inc.
All rights reserved
#
<summary>Polaris nmspd Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnmspd.if
```

No license file was found, but licenses were detected in source scan.

```
dnl
dnl April 2018, Victor Kamensky
dnl
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
dnl All rights reserved
dnl
dnl
define(`polaris_database_aux',`dnl
#####
<summary>
Use $2 database.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<infoflow type="none"/>
#
interface(`polaris_db_tdlldb_$1_use",`
gen_require(
 type $2;
)

 polaris_tdlldb_use(dollarone, $2, $3)
)
)

define(`polaris_database',`dnl
polaris_database_aux(database_stem($1), database_label($1), $1)dnl
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_database\_db\_if.m4

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
Copyright (c) 2016-2021 by Cisco Systems, Inc.
All rights reserved
#

```

```
policy_module(polarishm, 1.0);
```

```

gen_require(
 type polaris_hm_t;
)

polaris_btrace_data_manage(polaris_hm_t)
polaris_chasfs_manage(polaris_hm_t)
polaris_tdlresolve_read(polaris_hm_t)
polaris_tdlldb_list_dirs(polaris_hm_t)
polaris_cpld_read(polaris_hm_t)
polaris_lua_read(polaris_hm_t)
polaris_flashlib_read(polaris_hm_t)

polaris_ripc_sman_ui_serv_connect(polaris_hm_t)

polaris_db_tdlldb_dir_use(polaris_hm_t)

files_getattr_all_files(polaris_hm_t)
files_getattr_all_dirs(polaris_hm_t)
gen_require(
 attribute non_security_file_type;
)
allow polaris_hm_t { non_security_file_type } :dir list_dir_perms;

hman need to read proc for all processes to collect CPU
utilization information
domain_read_all_domains_state(polaris_hm_t)
domain_signull_all_domains(polaris_hm_t)

kernel_read_system_state(polaris_hm_t)

hman needs to run "df /dev/shm" command
corecmd_exec_bin(polaris_hm_t)
corecmd_exec_shell(polaris_hm_t)

hman needs to operate on all maroon files
polaris_maroon_data_manage_all(polaris_hm_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_hm_t)

fs_getattr_tmpfs(polaris_hm_t)

work with /tmp files (/tmp/myhostname)
type polaris_hm_tmp_t;
files_tmp_file(polaris_hm_tmp_t)
manage_files_pattern(polaris_hm_t, tmp_t, polaris_hm_tmp_t)
files_tmp_filetrans(polaris_hm_t, polaris_hm_tmp_t, file, "myhostname")

```

```

allow polaris_hm_t self:capability { chown fsetid dac_override kill sys_resource sys_ptrace };
allow polaris_hm_t self:process setsched;
allow polaris_hm_t self:unix_dgram_socket create;
allow polaris_hm_t self:cap_userns { kill sys_ptrace };

polaris_boot_tmp_read(polaris_hm_t)

Allow write to flash. Needed for usb disable feature
ifdef(`ngwc_family',`
polaris_flashlib_write(polaris_hm_t)
')

"show platform software mount RP active" command needs attributes of
all file systems
fs_getattr_all_fs(polaris_hm_t)
above show command accesses /var/run/netns/2
fs_read_nsfs_files(polaris_hm_t)
reads /scratch link which is labeled as polaris_disk_bootflash_t
polaris_disk_bootflash_read_lnk(polaris_hm_t)
polaris_disk_harddisk_read_lnk(polaris_hm_t)

needed for "show platform software bound-uds RP active"
kernel_read_network_state(polaris_hm_t)

"show rom-monitor R0" needs content of /proc/rmonbifo/bootver;
please refer to hman_ui.tpp file
polaris_proc_rmonbifo_read(polaris_hm_t)

"show plat soft yang-management process r0" invokes hm_show_yang_proc_cb;
"show plat soft iox-service" invokes hm_iox_srvc_show_cb;
They invoke "ps -C" which needs access to /sys/devices/system/cpu/online
TODO: should we replace system() with something like hm_get_procs_with_name_running
dev_read_sysfs(polaris_hm_t)
"show platform software yang-management process state" invokes /bin/mcp_pkg_wrap,
which sources /tmp/sw/boot/rmonbifo/env_var.sh
polaris_rmonbifo_tmp_read(polaris_hm_t)
show iox-service requires reading of libvirt_ver of created under CAF context
optional_policy(`
polaris_caf_tmp_files_read(polaris_hm_t)
')
hardcoded policy for hm to df, per Victor
optional_policy(`
gen_require(`
type polaris_iosd_portal_dmi_lipc_t;
type polaris_iosd_portal_app_lipc_t;
')
allow polaris_hm_t { polaris_iosd_portal_dmi_lipc_t polaris_iosd_portal_app_lipc_t }:sock_file getattr;
')

```

```

during "show version installed" command
"grep -q srdriver /tmp/sw/rp/local/0/rp_base/iso" which is link to the universal image
polaris_bootflash_read(polaris_hm_t)
this is for calcsha.sh (invoked by the command above) but might work for others too
polaris_install_engine_domtrans(polaris_hm_t)
this if for hman to read and delete /tmp/version.info created by calcsha.sh in prev context type
polaris_install_tmp_read(polaris_hm_t)
gen_require(`
 type polaris_install_tmp_t;
`)
allow polaris_hm_t polaris_install_tmp_t:file unlink;

need open, read on /bootflash/packages.conf (grep sha1sum: /tmp/packages.conf)
polaris_read_packages_conf(polaris_hm_t)

This is created for hman to grant it access to /bootflash/topnmemuse
polaris_bootflash_manage(polaris_hm_t)

read /tmp/pkg_summary.txt file
polaris_pkg_summary_tmp_read(polaris_hm_t)

polaris_zram_getattr(polaris_hm_t)

optional_policy(`
polaris_ssd_auth_domtrans(polaris_hm_t)
`)

optional_policy(`
polaris_ssd_unmount_domtrans(polaris_hm_t)
`)

optional_policy(`
polaris_confdomtrans(polaris_hm_t)
`)

#####
show platform software process slot R0 monitor
mcp_monitor_process_batchmode.sh
/bin/sh /usr/binos/conf/bexec.sh -c /usr/binos/conf/mcp_monitor_process_batchmode.sh -n 1 -d 3 -l 0
#####

polaris_utility_domain_template(monitor_process)

polaris_bexecute_domtrans(polaris_hm_t)
polaris_bexecute_domain(polaris_monitor_process_t, polaris_monitor_process_exec_t)

mcp_monitor_process_batchmode.sh calls "top" command

```

```

"top" needs read/getattr access of various files in the system
domain_read_all_domains_state(polaris_monitor_process_t)

"top" needs access to /sys/devices/system/cpu/online, etc
dev_read_sysfs(polaris_monitor_process_t)

"top" need read access to /proc/meminfo, /proc/stat
kernel_read_system_state(polaris_monitor_process_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_monitor_process_t)

need write/ioctl/getattr access for pipes like "pipe:[118396]"
polaris_hman_use_fifo(polaris_monitor_process_t)

corecmd_exec_bin(polaris_monitor_process_t)

gen_require(
 type admin_home_t;
)
#top -b -n3 -d3 needs permission to create dir /.config ,write
#to files and add files
allow polaris_monitor_process_t admin_home_t:dir { add_name create write };
allow polaris_monitor_process_t self:capability sys_ptrace;
#####

#####
pkg_summary.sh : show version R0 installed
/bin/bash /usr/binos/conf/pkg_summary.sh -o /tmp/pkg_summary.txt -d model -P
#####

polaris_utility_domain_template(pkg_summary)

polaris_pkg_summary_domtrans(polaris_hm_t)

it executes find /tmp/sw -maxdepth 5 -mindepth 5 -name mount
files_getattr_all_dirs(polaris_pkg_summary_t)
files_getattr_all_files(polaris_pkg_summary_t)
files_read_all_dirs_except(polaris_pkg_summary_t)

polaris_chasfs_read(polaris_pkg_summary_t)
polaris_cpld_read(polaris_pkg_summary_t)
polaris_use_btrace_fifo(polaris_pkg_summary_t)
polaris_rmonbifo_tmp_read(polaris_pkg_summary_t)
polaris_btrace_data_manage(polaris_pkg_summary_t)
polaris_boot_tmp_read(polaris_pkg_summary_t)

need open, read on /bootflash/debug.conf

```

```

polaris_read_debug_conf(polaris_pkg_summary_t)

polaris_read_packages_conf(polaris_pkg_summary_t)

allow polaris_pkg_summary_t self:capability sys_resource;

corecmd_exec_bin(polaris_pkg_summary_t)

auth_use_nsswitch(polaris_pkg_summary_t)

polaris_disk_crashinfo_getattr(polaris_pkg_summary_t)

read /proc/cmdline
kernel_read_system_state(polaris_pkg_summary_t)

handle /tmp/pkg_summary.txt file
type polaris_pkg_summary_tmp_t;
files_tmp_file(polaris_pkg_summary_tmp_t)
files_tmp_filetrans(polaris_pkg_summary_t, polaris_pkg_summary_tmp_t, file)
manage_files_pattern(polaris_pkg_summary_t, polaris_pkg_summary_tmp_t, polaris_pkg_summary_tmp_t)

#####

#####

pkg_to_tree.sh : Generates a software tree based on a provisioning file.
/bin/bash /usr/binos/conf/pkg_to_tree.sh -c /tmp/packages.conf
-t /tmp/show_patch_provision_temp -p /tmp/sw/isos
-r /tmp/show_provision_temp -a -q
#####

polaris_utility_domain_template(pkg_to_tree)

gen_require(
 type unconfined_service_t;
)
polaris_pkg_to_tree_domtrans({unconfined_service_t polaris_hm_t})

files_getattr_all_files(polaris_pkg_to_tree_t)
polaris_harddisk_read(polaris_pkg_to_tree_t)
polaris_cpuid_read(polaris_pkg_to_tree_t)
polaris_use_btrace_fifo(polaris_pkg_to_tree_t)
polaris_rmonbifo_tmp_read(polaris_pkg_to_tree_t)
polaris_btrace_data_manage(polaris_pkg_to_tree_t)
polaris_boot_tmp_read(polaris_pkg_to_tree_t)
polaris_patch_data_manage(polaris_pkg_to_tree_t)

if being executed on other node, telnet /dev/ptsN might be used
as stdin/stdout

```

```

telnet_use_ptys(polaris_pkg_to_tree_t)

pkg_to_tree.sh creates/deletes directories and files under
/tmp/show_provision_temp
type polaris_show_provision_tmp_t;
files_tmp_file(polaris_show_provision_tmp_t)
polaris_show_provision_temp_manage(polaris_pkg_to_tree_t)

pkg_to_tree.sh verifies each package as it is mounted
polaris_code_verify_domtrans(polaris_pkg_to_tree_t)

corecmd_exec_bin(polaris_pkg_to_tree_t)

polaris_disk_crashinfo_getattr(polaris_pkg_to_tree_t)

manage the /tmp/lf symbolic link
type polaris_pkg_to_tree_tmp_t;
files_tmp_file(polaris_pkg_to_tree_tmp_t)
files_tmp_filetrans(polaris_pkg_to_tree_t, polaris_pkg_to_tree_tmp_t, lnk_file, "lf")
manage_lnk_files_pattern(polaris_pkg_to_tree_t, polaris_pkg_to_tree_tmp_t, polaris_pkg_to_tree_tmp_t)

permit pkg_to_tree.sh mounting to use conf/pkg files in bootflash
polaris_bootflash_read(polaris_pkg_to_tree_t)
polaris_disk_bootflash_search(polaris_pkg_to_tree_t)

we want to read the existing mounts in chasfs
polaris_chasfs_read(polaris_pkg_to_tree_t)

pkg_to_tree.sh interfaces with installer data, including ISSU files
polaris_install_tmp_log_write(polaris_pkg_to_tree_t)
polaris_sw_data_manage(polaris_pkg_to_tree_t)
polaris_read_packages_conf(polaris_pkg_to_tree_t)
polaris_issu_tmp_files_manage(polaris_pkg_to_tree_t)
polaris_install_tmp_manage(polaris_pkg_to_tree_t)

allow pkg_to_tree.sh to do the loopback mounts of packages and manage
mount links in tmp. This includes mapping mounted passwd file and
mounting sysfs. This is also needed to mount /mnt/sd3/iox_alt_hdd.dsk
mount_domtrans(polaris_pkg_to_tree_t)
auth_map_passwd(polaris_pkg_to_tree_t)
dev_list_sysfs(polaris_pkg_to_tree_t)
allow polaris_pkg_to_tree_t sysfs_t:file { getattr open read };
allow polaris_pkg_to_tree_t tmp_t:lnk_file { create rename unlink };

when expanding/installing super images, pkg_to_tree uses install_engine_exec_t
utilities like issu_check
polaris_install_engine_domtrans(polaris_pkg_to_tree_t)

```



```

#####
misc hman cli(s)
#####

hman needs access to /bootflash/.issu_loc_lock
polaris_issu_files_manage(polaris_hm_t)

hman process creates/deletes directories and files under
/tmp/show_provision_temp
polaris_show_provision_temp_manage(polaris_hm_t)

signal send during show platform software process slot R0 monitor
polaris_send_signal_to_bexecute(polaris_hm_t)

polaris_dyncfg_tmp_read(polaris_hm_t)

polaris_disk_crashinfo_getattr(polaris_hm_t)

setting up /dev/ttyS0 speed from hman_handle_console_baud_rate_change
term_use_unallocated_ttys(polaris_hm_t)

allow to send message to /dev/log
logging_send_syslog_msg(polaris_hm_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_hm_t)

hman starts agetty-iosd.service in case of nyquist stack
getty_systemctl(polaris_hm_t)

This block is policies for "sh pla so filesystem bootflash: de" CLI
polaris_utility_domain_template(cli_fs_cmds)

gen_require(
 type polaris_bexecute_t;
)
polaris_bexecute_domtrans(polaris_cli_fs_cmds_t)
polaris_cli_fs_cmds_domtrans(polaris_bexecute_t)
telnet_use_ptys(polaris_cli_fs_cmds_t)

Blanket permission for disk management for cli_fs_cmds (for show/erase fs)
polaris_persistent_manage(polaris_cli_fs_cmds_t)
permission to manage removable (seems pretty safe)
polaris_removable_manage(polaris_cli_fs_cmds_t)
polaris_getattr_removable(polaris_cli_fs_cmds_t)
fs_read_removable_symlinks(polaris_cli_fs_cmds_t)
btrace.sh needs these
polaris_boot_tmp_read(polaris_cli_fs_cmds_t)

```

```

polaris_btrace_tmppub_read(polaris_cli_fs_cmds_t)
this is for NFS access mounted in a dir of ncd context
optional_policy(
 polaris_ncd_tmp_read(polaris_cli_fs_cmds_t)
)

#need to access pipes like pipe:[107820]
polaris_hman_use_fifo(polaris_cli_fs_cmds_t)

df or stat the mount point
fs_getattr_nfs(polaris_cli_fs_cmds_t)
mkfs permissions via domtrans
fstools_domtrans(polaris_cli_fs_cmds_t)
runs NFS exportfs (copied from ncd)
rpc_read_exports(polaris_cli_fs_cmds_t)
rpc_write_exports(polaris_cli_fs_cmds_t)
rpc_manage_nfs_state_data_dir(polaris_cli_fs_cmds_t)
rpc_manage_nfs_state_data(polaris_cli_fs_cmds_t)
fs_rw_nfsd_fs(polaris_cli_fs_cmds_t)
kernel_rw_rpc_sysctls(polaris_cli_fs_cmds_t)
fs_getattr_xattr_fs(polaris_cli_fs_cmds_t)
rsync/remote_format perms (rsync borrowed from polariscrft.te)
polaris_udev_tmp_list_dirs(polaris_cli_fs_cmds_t)
gen_require(
 type rsync_exec_t;
 type rsync_port_t;
 type rsync_tmp_t;
)
allow polaris_cli_fs_cmds_t rsync_port_t:tcp_socket name_connect;
allow polaris_cli_fs_cmds_t rsync_exec_t:file { execute execute_no_trans getattr map open read };

allow polaris_cli_fs_cmds_t rsync_tmp_t:file open;

allow polaris_cli_fs_cmds_t self:capability { chown fsetid setgid };

Need to access /proc/self/fd/1 by platform_fs_operation.sh which is invoked by
/bin/bash/usr/binos/conf/mcp_cli_fs_cmds.sh show bootflash:all
fs_associate_proc(polaris_cli_fs_cmds_t)

polaris_cli_fs_cmds_domtrans(polaris_hm_t)

corecmd_exec_bin(polaris_cli_fs_cmds_t)
polaris_cpld_read(polaris_cli_fs_cmds_t)
polaris_chasfs_manage(polaris_cli_fs_cmds_t)
polaris_use_btrace_fifo(polaris_cli_fs_cmds_t)
polaris_rmonbifo_tmp_read(polaris_cli_fs_cmds_t)

auth_use_nsswitch(polaris_cli_fs_cmds_t)

```

```

allow polaris_cli_fs_cmds_t polaris_udev_tmp_files_t:file open;
polaris_udev_tmp_read(polaris_cli_fs_cmds_t)
#watch on modify /tmp/udev/etc/udev/usbflash1-2/udev-info for remote/stby usb device
polaris_udev_tmp_watch(polaris_cli_fs_cmds_t)

allow to run mount in its own domain
mount_domtrans(polaris_cli_fs_cmds_t)
runs systemctl to remount file system.
usb[01] fs_target remount service used.
systemd_exec_systemctl(polaris_cli_fs_cmds_t)
systemd_config_generic_services(polaris_cli_fs_cmds_t)

allow to run readlink -f /dev/bootflash1
storage_getattr_fixed_disk_dev(polaris_cli_fs_cmds_t)

allow "format" CLI to add/delete links in /dev/, and /; e.g., /dev/harddisk1 /harddisk
ifdef(`crankshaft_family',`
 gen_require(`
 type device_t;
 type root_t;
 type udev_t;
 ')
 #/dev/harddisk1 /dev/harddisk1 -> /dev/dm-0
 filetrans_pattern({udev_t polaris_cli_fs_cmds_t}, device_t, fixed_disk_device_t, lnk_file, "harddisk1")
 filetrans_pattern({udev_t polaris_cli_fs_cmds_t}, device_t, fixed_disk_device_t, lnk_file, "harddisk")
 #/harddisk -> /misc/scratch
 filetrans_pattern(polaris_cli_fs_cmds_t, root_t, polaris_disk_bootflash_t, lnk_file, "harddisk")

 manage_lnk_files_pattern(polaris_cli_fs_cmds_t, fixed_disk_device_t, fixed_disk_device_t)
')
seutil_domtrans_setfiles(polaris_cli_fs_cmds_t)
polaris_hman_use_fifo(setfiles_t)
need open, read on /bootflash/packages.conf
polaris_read_packages_conf(polaris_cli_fs_cmds_t)

"sed" needs access to /proc/cmdline
kernel_read_system_state(polaris_cli_fs_cmds_t)

work with /tmp files (/tmp/fs_lock_bootflash)
type polaris_cli_fs_cmds_tmp_t;
gen_require(`
 type tmp_t;
')
files_tmp_file(polaris_cli_fs_cmds_tmp_t)
manage_files_pattern(polaris_cli_fs_cmds_t, tmp_t, polaris_cli_fs_cmds_tmp_t)
files_tmp_filetrans(polaris_cli_fs_cmds_t, polaris_cli_fs_cmds_tmp_t, file)

```

```

#"find /vol/disk0/caf" when show CLI is excuted
polaris_caf_tmp_files_read(polaris_cli_fs_cmds_t)

#Caf and IOxMan-CLI interaction
polaris_caf_tmp_files_manage(polaris_cli_fs_cmds_t)

mcp_cli_fs_cmds.sh show webui: all runs df -P /webui
fs_getattr_tmpfs(polaris_cli_fs_cmds_t)

polaris_persistent_getattr(polaris_cli_fs_cmds_t)
fs_getattr_xattr_fs(polaris_cli_fs_cmds_t)
allow polaris_cli_fs_cmds_t self:capability dac_override;
allow polaris_cli_fs_cmds_t self:dir { add_name write };

allow caf access to mcp_cli_fs_cmds.sh for fsck on ngwc platforms
ifdef(`ngwc_family',`
domain_read_all_domains_state(polaris_cli_fs_cmds_t)
polaris_caf_domtrans(polaris_cli_fs_cmds_t)
polaris_caf_files_read(polaris_cli_fs_cmds_t)
dev_read_sysfs(polaris_cli_fs_cmds_t)
')

#####
fsck CLI using mcp_cli_fs_cmds.sh as tested on sparrow
#####
allow fsck in mcp_cli_fs_cmds.sh to execute udev in the udev domain
udev_domtrans(polaris_cli_fs_cmds_t)
allow crypsetup to be executed
lvm_domtrans(polaris_cli_fs_cmds_t)
allow fsck to run on bootflash
polaris_nvram_getattr(polaris_cli_fs_cmds_t)

during SDWAN admin-tech generation, fs_display_*() in mcp_cli_fs_cmds.sh is
invoked; this tries to find files like /bootflash/tracelogs/cia-netcon* with
LABEL polaris_conf_d_var_log_t
polaris_conf_d_var_log_read(polaris_cli_fs_cmds_t)
#####
hm calls df to figure out tmpfs size, on some platforms
where configfs is mounted it needs statfs access to it
gen_require(`
 type configfs_t;
')
allow polaris_hm_t configfs_t:dir getattr;

hm populates vrf_shm on behalf of iosd, and may create
and delete vrf-based netns
polaris_vrf_netns_manage(polaris_hm_t)
fs_unmount_nsfs(polaris_hm_t)

```

```

#read udev_info
polaris_udev_tmp_read(polaris_hm_t)

gen_require(
 type rsync_t;
)
allow rsync_t polaris_hm_t:fifo_file read;

#####
show platform software yang-management process monitor
mcp_monitor_dmi_proc.sh
/bin/bash /bin/mcp_pkg_wrap rp_daemons /usr/binos/conf/mcp_monitor_dmi_proc.sh
#####

polaris_utility_domain_template(monitor_dmi_process)

polaris_bexecute_domain(polaris_monitor_dmi_process_t, polaris_monitor_dmi_process_exec_t)

mcp_monitor_dmi_proc.sh calls "ps" command
"ps" needs read/getattr access of various files in the system
ps -eo comm,pid,s,vsize,rssize,%cpu,%mem,etime --sort=comm
domain_read_all_domains_state(polaris_monitor_dmi_process_t)

"ps" needs access to /proc/uptime
kernel_read_system_state(polaris_monitor_dmi_process_t)

"ps" needs access to /sys/devices/system/cpu/online, etc
dev_read_sysfs(polaris_monitor_dmi_process_t)

"ps" need read access to /proc
kernel_list_proc(polaris_monitor_dmi_process_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_monitor_dmi_process_t)

executes head command
corecmd_exec_bin(polaris_monitor_dmi_process_t)

sources cyan_api.sh
files_exec_usr_files(polaris_monitor_dmi_process_t)

/bin/bash /tmp/sw/rp/0/0/rp_daemons/mount/usr/binos/conf/mcp_monitor_dmi_proc.sh
corecmd_shell_entry_type(polaris_monitor_dmi_process_t)

need write/ioctl/getattr access for pipes like "pipe:[79843]"
polaris_hman_use_fifo(polaris_monitor_dmi_process_t)

```

```

read /etc/init.d/quad_sup_usb_infra.sh
init_read_script_files(polaris_cli_fs_cmds_t)
#This triggers access to /tmp/.flashlock and /dev/sda3
polaris_flashlib_lock(polaris_cli_fs_cmds_t)
#allow flash utility
polaris_flashlib_read(polaris_cli_fs_cmds_t)
/sys/bus/usb/drivers/usb/*/authorized is accessed (read and write) from hman.
For USB disable feature across all ngwc platforms needs authorized file to
be accessed.
ifdef(^ngwc_family';`
gen_require(`
type sysfs_t;
')
allow polaris_hm_t sysfs_t:file create;
dev_rw_sysfs(polaris_hm_t)
dev_manage_sysfs_dirs(polaris_hm_t)
')

work with /tmp files (/tmp/usb-disable)
polaris_iosd_usb_disable_tmp_manage(polaris_hm_t)

#need access to tmp files created under issu directory
polaris_issu_tmp_files_read(polaris_hm_t)

HMMAN calls for checking database compactability
tdlldb_epoch_test is requires access to /tmp/issu/provision/sw-running.txt
polaris_install_tmp_read(polaris_hm_t)

optional_policy(`
 polaris_efi_files_list_dirs(polaris_cli_fs_cmds_t)
')

Execute hdparam in its own domain
fstools_domtrans(polaris_hm_t)

Allow polaris_hm to get attributes of fixed disk
storage_getattr_fixed_disk_dev(polaris_hm_t)

Allow read to ssd auth tmp files /tmp/ssd_blk_device
polaris_read_ssd_tmp_files(polaris_hm_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarishm.te
No license file was found, but licenses were detected in source scan.

#
March 2017, Victor Kamensky
#

```

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#

## <summary>Polaris ngwc\_tbl\_mgr Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngwctblmgr.if

No license file was found, but licenses were detected in source scan.

#

# September 2017, Victor Kamensky

#

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#

## <summary>Polaris polarisbtman Policy Rules.</summary>

#####

## <summary>

## Execute fs tools in the btrace\_rotate domain.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed to transition.

## </summary>

## </param>

#

interface(`polaris\_btrace\_rotate\_domtrans`,

gen\_require(`

type polaris\_btman\_t, polaris\_btman\_exec\_t;

`)

corecmd\_search\_bin(\$1)

domtrans\_pattern(\$1, polaris\_btman\_exec\_t, polaris\_btman\_t)

')

#####

## <summary>

## Read /tmp/tmpub files/dirs

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

```

interface(`polaris_btrace_tmppub_read`,`
 gen_require(`
 type polaris_btrace_tmppub_t;
 `)

 read_files_pattern($1, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
 read_lnk_files_pattern($1, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
 list_dirs_pattern($1, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
)

#####
<summary>
Manage /tmp/tmppub files/dirs
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_btrace_tmppub_manage`,`
 gen_require(`
 type polaris_btrace_tmppub_t;
 `)

 manage_files_pattern($1, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
 manage_dirs_pattern($1, polaris_btrace_tmppub_t, polaris_btrace_tmppub_t)
)

#####
<summary>
Read and write all btman's fifo file, used as
standard input/output.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_use_btman_fifo`,`
 gen_require(`
 type polaris_btman_t;
 `)

 allow $1 polaris_btman_t:fifo_file { rw_term_perms lock append create unlink };
)

```



Found in path(s):  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisbtman.if  
No license file was found, but licenses were detected in source scan.

```

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<summary>Polaris webui Policy Rules.</summary>
```

```

<summary>
Read files under /webui/..., these are webui odm file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

interface(`polaris_read_webui_files`,
 gen_require(
 type polaris_webui_file_t;
)

 read_files_pattern($1, polaris_webui_file_t, polaris_webui_file_t)
 read_lnk_files_pattern($1, polaris_webui_file_t, polaris_webui_file_t)
)
```

Found in path(s):  
\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswebui.if  
No license file was found, but licenses were detected in source scan.

```

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/tmp/fp/tlddb(/.*)? gen_context(system_u:object_r:polaris_tlddb_t,s0)
/tmp/rp/tlddb(/.*)? gen_context(system_u:object_r:polaris_tlddb_t,s0)
/tmp/cc/tlddb(/.*)? gen_context(system_u:object_r:polaris_tlddb_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristddb.fc

No license file was found, but licenses were detected in source scan.

```
#
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#
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#

<summary>Polaris NVRAM Policy Rules.</summary>

#####
Polaris lsmpi
#####

#####
<summary>
Work (read, write, ioctl) with /dev/lsmpi device.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_lsmpi_dev_use',`
gen_require(`
 type device_t;
 type polaris_lsmpi_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_lsmpi_device_t)
 read_chr_files_pattern($1, device_t, polaris_lsmpi_device_t)
 allow $1 polaris_lsmpi_device_t:chr_file map;
`)

#####
<summary>
Read lsmpi sysctl file, ie one under /proc/sys/lsmpi and
/proc/sys/lsmpi_lodrv directories.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
```

```

<rolebase/>
#
interface(`polaris_lsmpi_sysctl_read`,`
gen_require(`
type polaris_sysctl_lsmpi_t;
`)
read_files_pattern($1, polaris_sysctl_lsmpi_t, polaris_sysctl_lsmpi_t)
`)

#####
<summary>
Read from /sys/devices/virtual/contdev sysfs files.
sys files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_contdev_dev_read`,`
gen_require(`
type polaris_sysfs_contdev_t;
type sysfs_t;
`)
read_files_pattern($1, polaris_sysfs_contdev_t, polaris_sysfs_contdev_t)
list_dirs_pattern($1, polaris_sysfs_contdev_t, polaris_sysfs_contdev_t)
genfscon statement specifically excludes symbolic links from
genfscon path specific entries. To workaround, let us allow
to follow sysfs_t symbolic links
allow $1 sysfs_t:lnk_file read;
`)

#####
<summary>
Write into /sys/devices/virtual/contdev sysfs files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_contdev_dev_write`,`
gen_require(`
type polaris_sysfs_contdev_t;
type sysfs_t;
`)

```

```

write_files_pattern($1, polaris_sysfs_contdev_t, polaris_sysfs_contdev_t)
genfscon statement specifically excludes symbolic links from
genfscon path specific entries. To workaround, let us allow
to follow sysfs_t symbolic links
allow $1 sysfs_t:lnk_file read;
)

#####
<summary>
Manage /sys/devices/virtual/contdev sysfs files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_manage_contdev_dev`,`
gen_require(`
type polaris_sysfs_contdev_t;
type sysfs_t;
)
manage_files_pattern($1, polaris_sysfs_contdev_t, polaris_sysfs_contdev_t)
manage_dirs_pattern($1, polaris_sysfs_contdev_t, polaris_sysfs_contdev_t)
genfscon statement specifically excludes symbolic links from
genfscon path specific entries. To workaround, let us allow
to follow sysfs_t symbolic links
allow $1 sysfs_t:lnk_file read;
)
#####
<summary>
Allow the specified domain to manage punt/inject socket
files. I.e /tmp/pi/dp_2_iosd_pi and /tmp/pi/iosd_2_dp_pi
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pi_uds_manage`,`
gen_require(`
type polaris_pi_uds_t;
)
manage_sock_files_pattern($1, polaris_pi_uds_t, polaris_pi_uds_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarislsmpi.if

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#

# March 2017, Victor Kamensky

#

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#

/usr/binos/conf/issu\_stack.sh -- gen\_context(system\_u:object\_r:polaris\_issu\_stack\_exec\_t,s0)

/tmp/issu\_stk(/.\*)? gen\_context(system\_u:object\_r:polaris\_issu\_stack\_tmp\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisissustack.fc

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#

# August 2017, Shawn Lu

#

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#

# polarisnmspd file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisnmspd.fc

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#

# Aug 2020, Sridhar C

#

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#

policy\_module(polarisxcopy, 1.0);

#####

## xcopy\_script.sh

#####

polaris\_utility\_domain\_template(xcopy\_script)

polaris\_bexecute\_domain(polaris\_xcopy\_script\_t, polaris\_xcopy\_script\_exec\_t)

```

xcopy_script.sh call other scripts through brelay.sh
polaris_bexecute_domtrans(polaris_xcopy_script_t)

polaris_chasfs_manage(polaris_xcopy_script_t)

xcopy calls curl/sshpass/scp command and support scp/http/https
gen_require(
 type polaris_curl_t;
 type ssh_exec_t;
 type ssh_home_t;
 type devpts_t;
)
polaris_curl_domtrans(polaris_xcopy_script_t)
corenet_tcp_connect_ssh_port(polaris_curl_t)
corenet_tcp_connect_http_port(polaris_curl_t)
corenet_tcp_connect_ssh_port(polaris_xcopy_script_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_xcopy_script_t)

read polaris vrf net namespace file
fs_read_nsfs_files(polaris_xcopy_script_t)

curl needs access to bootflash
polaris_bootflash_manage(polaris_curl_t)
polaris_bootflash_manage(polaris_xcopy_script_t)

also need to be able to ls /tmp/ufs/ on ngwc
optional_policy(
 polaris_ncd_tmp_read(polaris_xcopy_script_t)
)

Execute
corecmd_exec_bin(polaris_xcopy_script_t)

#uses kernel utilities like pidof, stat
domain_read_all_domains_state(polaris_xcopy_script_t)
kernel_list_proc(polaris_xcopy_script_t)

read /proc/cmdline
kernel_read_system_state(polaris_xcopy_script_t)
fs_getattr_tmpfs(polaris_xcopy_script_t)
fs_getattr_xattr_fs(polaris_xcopy_script_t)

xcopy started from the smand and needs fifo
polaris_smand_use_fifo(polaris_xcopy_script_t)

ping to check reachability

```

```

netutils_domtrans_ping(polaris_xcopy_script_t)
#
calls mcp_chvrf.sh for ping and curl
polaris_chvrf_domtrans(polaris_xcopy_script_t)

xcopy uses ps to find the curl process state
"ps" needs read access to /sys/devices/system/cpu/online
"ps" needs read access to /proc/uptime
dev_read_sysfs(polaris_xcopy_script_t)

Started by bexecute so it has its stdin set to telnet pty file
telnet_use_ptys(polaris_xcopy_script_t)

stdout is set to fifo set by rotte to capture output into btrace
btrace also need these policies :)
btrace_init also refer to /tmp/sw/boot/..
polaris_use_btrace_fifo(polaris_xcopy_script_t)
polaris_cpld_read(polaris_xcopy_script_t)
polaris_boot_tmp_read(polaris_xcopy_script_t)

Allow /tmp/xcopy/
type polaris_xcopy_tmp_t;
files_tmp_file(polaris_xcopy_tmp_t)
files_tmp_filetrans(polaris_xcopy_script_t, polaris_xcopy_tmp_t, { dir file })
polaris_xcopy_tmp_manage(polaris_xcopy_script_t)

Curl writes the progress...
polaris_xcopy_tmp_manage(polaris_curl_t)

PS command access ttyS1
term_getattr_unallocated_ttys(polaris_xcopy_script_t)

sshpass/scp
ssh_getattr_user_home_dir(polaris_xcopy_script_t)

sshpass uses the ptmx
term_use_ptmx(polaris_xcopy_script_t)
term_getattr_pty_fs(polaris_xcopy_script_t)

scp uses ssh
#allow polaris_xcopy_script_t ssh_exec_t:file { execute execute_no_trans map open read };
ssh_exec(polaris_xcopy_script_t)

allow polaris_xcopy_script_t self:capability {sys_resource fsetid};
allow polaris_xcopy_script_t self:process setfscreate;
allow polaris_xcopy_script_t ssh_home_t:dir { create search };
allow polaris_xcopy_script_t devpts_t:chr_file { getattr open read setattr write };

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisxcopy.te

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#

# April 2017, Victor Kamensky

#

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#

## <summary>Polaris dmi\_ncsshd\_fwd Policy Rules.</summary>

#####

## <summary>

## Connect to and send messages to dmi\_ncsshd\_bp

## tmp/.ncsshd\_bp.sock unix datagram sockets.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_dmi\_ncsshd\_fwd\_dgram\_send`,`

gen\_require(`

type polaris\_dmi\_ncsshd\_log\_t;

type polaris\_dmi\_ncsshd\_fwd\_t;

`)

allow \$1 self:unix\_stream\_socket {create\_socket\_perms};

allow \$1 polaris\_dmi\_ncsshd\_fwd\_t:unix\_stream\_socket {connectto};

write\_sock\_files\_pattern(\$1, polaris\_dmi\_ncsshd\_log\_t,polaris\_dmi\_ncsshd\_log\_t)

')

#####

## <summary>

## Write into fifo file created by dmi\_ncsshd\_fwd, typical case when

## hman starts script under popen.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

## <rolecap/>

#

interface(`polaris\_dmi\_ncsshd\_fwd\_use\_fifo`,`



```

gen_require(
 type polaris_dmi_ncsshd_fwd_t;
)

write_fifo_files_pattern($1, polaris_dmi_ncsshd_fwd_t, polaris_dmi_ncsshd_fwd_t)
)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmincsshdfwd.if
```

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```

dnl
dnl April 2018, Victor Kamensky
dnl
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dnl
define(`polaris_database_aux',`dnl
/tmp/rp/tlddb/[0-9]/$2 -- gen_context(system_u:object_r:$1,s0)
/tmp/fp/tlddb/[0-9]/$2 -- gen_context(system_u:object_r:$1,s0)
/tmp/cc/tlddb/[0-9]/$2 -- gen_context(system_u:object_r:$1,s0)
/tmp/rp/tlddb/[0-9]/$2.lock -- gen_context(system_u:object_r:$1,s0)
/tmp/fp/tlddb/[0-9]/$2.lock -- gen_context(system_u:object_r:$1,s0)
/tmp/cc/tlddb/[0-9]/$2.lock -- gen_context(system_u:object_r:$1,s0)
)

define(`polaris_database',`dnl
polaris_database_aux(database_label($1), $1)
)

define(`polaris_database_process',`)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_database_db_fc.m4
```

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```

#
June 2017, Victor Kamensky
#
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#

<summary>Polaris ioxman Policy Rules.</summary>

#####

<summary>
Manage ioxman temporary files and directories in /tmp.

```

```

Like /tmp/ios_xml.dat.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_manage_tmp_files`,`
 gen_require(`
 type polaris_iox_tmp_t;
 `)

 manage_files_pattern($1, polaris_iox_tmp_t, polaris_iox_tmp_t)
 files_tmp_filetrans($1, polaris_iox_tmp_t, file, "iox_xml.dat")
 files_tmp_filetrans($1, polaris_iox_tmp_t, file, "iox_override.conf")
 # /tmp/trace/resource.log can be created by ioxman/vman/caf
 # through sourcing in the family of the pvsm_*.sh scripts
 files_tmp_filetrans($1, polaris_iox_tmp_t, file, "resource.log")
)

```

```

#####
<summary>
Read ioxman temporary files and directories in /tmp.
Like /tmp/ios_xml.dat and /tmp/iox_override.conf
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_read_tmp_files`,`
 gen_require(`
 type polaris_iox_tmp_t;
 `)

 read_files_pattern($1, polaris_iox_tmp_t, polaris_iox_tmp_t)
)

```

```

#####
<summary>
Make the specified domain able to work with iosd2iox files
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>

```

```

</param>
#
interface(`polaris_iox2iosd_tmp_manage',`
 gen_require(`
 type polaris_iox2iosd_tmp_t;
 `)

 manage_dirs_pattern($1, polaris_iox2iosd_tmp_t, polaris_iox2iosd_tmp_t)
 manage_files_pattern($1, polaris_iox2iosd_tmp_t, polaris_iox2iosd_tmp_t)
)

```

```
#####
```

```

<summary>
Read ioxman executable file. Used by caf to read iosman
version.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_ioxman_exec_read',`
 gen_require(`
 type polaris_ioxman_exec_t;
 type bin_t;
 `)

 read_files_pattern($1, bin_t, polaris_ioxman_exec_t)
)

```

```
#####
```

```

<summary>
Allow the specified domain to get show_version information
from ioxman executable
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_ioxman_show_version',`
 gen_require(`
 type polaris_ioxman_exec_t;
 `)

 polaris_show_version($1, polaris_ioxman_exec_t)
)

```

```
#####
<summary>
Allow the specified domain to get show_version information
from dockerd and other container_runtime_t executables
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_container_runtime_show_version',`
 gen_require(`
 type container_runtime_exec_t;
 `)
 polaris_show_version($1, container_runtime_exec_t)
`)
```

```
#####
<summary>
Execute a domain transition to run cat9k_ssd_auth_cmds.sh
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_ssd_auth_domtrans',`
 gen_require(`
 type polaris_ssd_auth_t, polaris_ssd_auth_exec_t;
 `)

 domtrans_pattern($1, polaris_ssd_auth_exec_t, polaris_ssd_auth_t)
`)
```

```
#####
<summary>
Read ssd files in /tmp/ssd_blk_device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_read_ssd_tmp_files',`
```

```
gen_require(
 type polaris_ssd_auth_tmp_t;
)

read_files_pattern($1, polaris_ssd_auth_tmp_t, polaris_ssd_auth_tmp_t)
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisioxman.if

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```

Nov 2020, Swati Kumaro

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#
```

```
/dev/blzi_fpga -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_1pps -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_gps_1pps -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_lol_1pps -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_0 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_1 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_2 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_3 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_4 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
/dev/blzi_ts_interest_5 -c gen_context(system_u:object_r:polaris_blzi_device_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisptpdrp.fc

No license file was found, but licenses were detected in source scan.

```

January 2021, Gabriel Lee, Shawn Liu

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#
```

```
policy_module(polarisezmanage, 1.0);
```

```
type polaris_ezmanage_file_t;
files_type(polaris_ezmanage_file_t)
polaris_pfile_type(polaris_ezmanage_file_t)
```

```
polaris_process_domain_template(ezmanage)
```

```

Allow ezManage script to be executed by systemd
gen_require(
 type unconfined_service_t;
)

polaris_ezmanage_domtrans(unconfined_service_t)

Allow ezManage file and directory access
polaris_manage_ezmanage_files(polaris_ezmanage_t)

Allow ezManage socket access
allow polaris_ezmanage_t self:unix_dgram_socket { connected_socket_perms sendto };

Allow read of /etc/passwd
auth_use_nsswitch(polaris_ezmanage_t)

ezManage python script needs access to USB ttys for modem AT channel
term_use_usb_ttys(polaris_ezmanage_t)

ezManage python script needs /usr/bin/python3 execution and may also call other generic system bin utilities
corecmd_exec_bin(polaris_ezmanage_t)

ezManage needs to access /bootflash/ciscosdwan.cfg and a variably named tar file in /bootflash/modem_firmware
polaris_bootflash_filetrans(polaris_ezmanage_t, polaris_ezmanage_file_t, file, "ciscosdwan.cfg")
polaris_bootflash_filetrans(polaris_ezmanage_t, polaris_ezmanage_file_t, file, "modem_firmware.tar.gz")

ezManage socket file is created in /var/run
type polaris_ezmanage_var_run_t;
files_pid_file(polaris_ezmanage_var_run_t)
files_pid_filetrans(polaris_ezmanage_t, polaris_ezmanage_var_run_t, sock_file, "cwan_ezmanage_py_server")

Allow ezManage to access its socket file in /var/run
polaris_manage_ezmanage_var_run_files(polaris_ezmanage_t)

Allow ezManage to access ngiolite socket file in /var/run
gen_require(
 type polaris_cwan_svr_var_run_t;
)
rw_sock_files_pattern(polaris_ezmanage_t, polaris_cwan_svr_var_run_t, polaris_cwan_svr_var_run_t)

Allow ezManage to access ngiolite dgram_socket
gen_require(
 type polaris_ngiolite_t;
)
allow polaris_ezmanage_t polaris_ngiolite_t:unix_dgram_socket sendto;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisezmanage.te

```

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```
#
March 2017, Victor Kamensky
#
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#

<summary>Polaris dbm Policy Rules.</summary>

#####
<summary>
Setup /bootflash/.dbpersist directory and content.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tdlpersist_setup`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 type polaris_disk_dbm_t;
 `)
 filetrans_pattern($1, polaris_disk_bootflash_t, polaris_disk_dbm_t, dir, ".dbpersist")
 # allow creation of /bootflash/.dbpersist directory
 manage_dirs_pattern($1, polaris_disk_bootflash_t, polaris_disk_dbm_t)
 # dbm can manage files inside of its own polaris_disk_dbm_t directories
 manage_files_pattern($1, polaris_disk_dbm_t, polaris_disk_dbm_t)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdbm.if

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```
#
May 2017, Victor Kamensky
#
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#

polarismdtpubd file contexts place holder
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismdtpubd.fc

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```
#
February 2020, Victor Kamensky
#
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#

policy_module(polaristtm, 1.0);

gen_require(
 type polaris_ttm_t;
)
polaris_chasfs_read(polaris_ttm_t)
polaris_cpld_read(polaris_ttm_t)

logging_send_syslog_msg(polaris_ttm_t)

vconfd_load_shared_schemas
polaris_conf_d_shared_schema_read(polaris_ttm_t)

/var/run/.ttmd socket and pid
type polaris_ttm_var_run_t;
files_pid_file(polaris_ttm_var_run_t)
manage_files_pattern(polaris_ttm_t, polaris_ttm_var_run_t, polaris_ttm_var_run_t)
manage_sock_files_pattern(polaris_ttm_t, polaris_ttm_var_run_t, polaris_ttm_var_run_t)
files_pid_filetrans(polaris_ttm_t, polaris_ttm_var_run_t, { file sock_file })

allow /usr/binos/bin/ttmd to acces polaris_tdlresolve_t and
#
polaris_global_service_t
polaris_tdlresolve_manage(polaris_ttm_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristtm.te
```

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```
#
February 2020, Victor Kamensky
#
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#
```

```
policy_module(polarissdavicproxy, 1.0);
```

```
gen_require(
 type polaris_sdavicproxy_t;
```



```

)

btrace_application_start
polaris_chasfs_read(polaris_sdavc_proxy_t)
polaris_tdlresolve_read(polaris_sdavc_proxy_t)
polaris_cpld_read(polaris_sdavc_proxy_t)

Allow SDAVC exports using UDP socket.
allow polaris_sdavc_proxy_t self:udp_socket create_socket_perms;

Change namespace to allow network communication with vManage
(process_namespace_network_change_internal - opens /var/run/netns/*)
polaris_cedge_set_ns(polaris_sdavc_proxy_t)

Reset the namespace back to default (process_namespace_network_default opens /proc/1/ns/net)
polaris_cedge_reset_ns(polaris_sdavc_proxy_t)

type polaris_sdavc_proxy_files_t;
files_type(polaris_sdavc_proxy_files_t)
polaris_pfile_type(polaris_sdavc_proxy_files_t)

Create /bootflash/sdavc directory, Write, Read & Removed files (For SDAVC imports)
polaris_bootflash_filetrans(polaris_sdavc_proxy_t, polaris_sdavc_proxy_files_t, dir, "sdavc")
polaris_bootflash_filetrans(polaris_iosd_t, polaris_sdavc_proxy_files_t, dir, "sdavc")
polaris_sdavc_proxy_manage(polaris_sdavc_proxy_t)

IOSd process also should have access to /bootflash/sdavc directory
gen_require(
 type polaris_iosd_t;
)
polaris_sdavc_proxy_manage(polaris_iosd_t)

Allow SDAVC imports (HTTP GET, PUT) we use /usr/bin/curl executable.
Exe: curl -f -s --connect-time 10 -o /bootflash/sdavc/.... -w% {http_code} http://<user>:<pw>@<vManage system
ip>:<port>
Run CURL in its domain so it wont have all sdavcproxy permissions.

gen_require(
 type polaris_curl_t;
)
polaris_curl_domtrans(polaris_sdavc_proxy_t)
corenet_tcp_connect_generic_port(polaris_curl_t)

cURL process also should have access to /bootflash/sdavc directory
polaris_sdavc_proxy_manage(polaris_curl_t)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissdaveproxy.te
```

```
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```

```
#
```

```
Sep 2020, Sridhar C
```

```
#
```

```
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```

```
All rights reserved
```

```
#
```

```
/usr/binos/conf/xcopy_script.sh -- gen_context(system_u:object_r:polaris_xcopy_script_exec_t,s0)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisxcopy.fc
```

```
No license file was found, but licenses were detected in source scan.
```

```
dnl
```

```
dnl April 2018, Victor Kamensky
```

```
dnl
```

```
dnl Copyright (c) 2018-2019 by Cisco Systems, Inc.
```

```
dnl All rights reserved
```

```
dnl
```

```
divert(-1)
```

```
include(`polaris_process.m4')
```

```
dnl Stub out plaris process
```

```
define(`polaris_process',`')
```

```
dnl Stub out mqipc
```

```
define(`polaris_mqipc_service_server',`')
```

```
define(`polaris_mqipc_service_client',`')
```

```
define(`polaris_mqipc_service_server_elastic_client',`')
```

```
dnl Stub out lipc
```

```
define(`polaris_lipc_service_server',`')
```

```
define(`polaris_lipc_service_client',`')
```

```
include(`polaris_ipc_ripc.m4')
```

```
include(`polaris_ipc_base_ripc_te.m4')
```

```
dnl Stub out non existent one
```

```
define(`polaris_websocket_service_server',`')
```

```
define(`polaris_cipc_service_server',`')
```

```
include(`polaris_max_scope.m4')
```

```
divert(0)dnl
```

```
#
```

```
This is a generated file! Instead of modifying this file,
modify proper platform TDL file.
#
```

```
policy_module(autopolarisplatformipcbase, 1.0);
```

```
gen_require(`
 attribute port_type;
 attribute defined_port_type;
")
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_base_te.m4
```

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```

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#
```

```
policy_module(polarisdroputil, 1.0);
```

```
polaris_process_domain_template(droputil)
```

```
corecmd_exec_bin(polaris_droputil_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_droputil_t)
```

```
allow read of /etc/passwd
auth_use_nsswitch(polaris_droputil_t)
```

```
run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_droputil_t)
```

```
work with /tmp files
type polaris_droputil_tmp_t;
files_tmp_file(polaris_droputil_tmp_t)
manage_dirs_pattern(polaris_droputil_t, tmp_t, polaris_droputil_tmp_t)
manage_files_pattern(polaris_droputil_t, polaris_droputil_tmp_t, polaris_droputil_tmp_t)
manage_fifo_files_pattern(polaris_droputil_t, polaris_droputil_tmp_t, polaris_droputil_tmp_t)
manage_lnk_files_pattern(polaris_droputil_t, polaris_droputil_tmp_t, polaris_droputil_tmp_t)
files_tmp_filetrans(polaris_droputil_t, polaris_droputil_tmp_t, { file dir })
```

```
on some platform /tmp/rp/dropbox is created by binos service
that runs under initrc_t
```

```

gen_require(
 type initrc_t;
)
files_tmp_filetrans(initrc_t, polaris_droputil_tmp_t, dir, "dropbox")

allow polaris_droputil_t self:capability { sys_resource dac_override };
allow polaris_droputil_t self:process setpgid;

polaris_btrace_data_manage(polaris_droputil_t)
polaris_cpld_read(polaris_droputil_t)
polaris_chasfs_manage(polaris_droputil_t)
polaris_boot_tmp_read(polaris_droputil_t)
polaris_read_debug_conf(polaris_droputil_t)
polaris_disk_crashinfo_getattr(polaris_droputil_t)
polaris_rmonbifo_tmp_read(polaris_droputil_t)

runs systemctl start reflector.service
systemd_exec_systemctl(polaris_droputil_t)

PLEASE LOOK AT ME need to have separate label for reflector.service
allow only to start if, do it once copy of reflector.service is fixed
systemd_config_generic_services(polaris_droputil_t)

droputil.sh delets /tmp/rp/droputil/so-del-stage/rp/0
fs_getattr_tmpfs(polaris_droputil_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdroputil.te
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#
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#

policy_module(polarisofa, 1.0);

gen_require(
 type polaris_ofa_t;
)

polaris_btrace_data_manage(polaris_ofa_t)
polaris_crft_data_manage(polaris_ofa_t)
polaris_chasfs_manage(polaris_ofa_t)
polaris_tdlresolve_read(polaris_ofa_t)
polaris_tdlldb_list_dirs(polaris_ofa_t)

```

```
polaris_cpuld_read(polaris_ofa_t)
polaris_flashlib_read(polaris_ofa_t)
```

```
allow polaris_ofa_t self:capability sys_admin;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisofa.te
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```

```
#
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#
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#

/bootflash labels
/bootflash(/.*)? gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
/bootflash/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/bootflash/.ssh/ssh_host.*_key\pub gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)
/bootflash/tracelogs(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/tan(/.*)? gen_context(system_u:object_r:polaris_btrace_data_t,s0)
/bootflash/core(/.*)? gen_context(system_u:object_r:polaris_core_file_t,s0)
/bootflash/debug.conf gen_context(system_u:object_r:polaris_debug_conf_t,s0)
/bootflash/packages.conf gen_context(system_u:object_r:polaris_packages_conf_t,s0)

/objstore
/objstore(/.*)? gen_context(system_u:object_r:polaris_disk_objstore_t,s0)
/dev/shm/sem\objstore_sem gen_context(system_u:object_r:polaris_objstore_sem_t,s0)

hanet driver used by vpcgw platform of VXE family
#ifdef(`vpcgw_platform',`
/dev/hanet -c gen_context(system_u:object_r:polaris_hanet_device_t,s0)
')

/csl_p_0
/csl_p_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)

/csl_p_1.context
/csl_p_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)

/csl_s_0.context
/csl_s_0(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)

/csl_s_1.context
/csl_s_1(/.*)? gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)
```

```

/varied
/varied(/.*)? gen_context(system_u:object_r:polaris_disk_varied_t,s0)
/varied/.install_info gen_context(system_u:object_r:polaris_vxeinstall_info_t,s0)
/varied/obfl.* gen_context(system_u:object_r:polaris_obfl_data_t,s0)
/varied/grub_cisco_version gen_context(system_u:object_r:polaris_grubver_t,s0)
/varied/grub(/.*)? gen_context(system_u:object_r:boot_t,s0)
/varied/grub2(/.*)? gen_context(system_u:object_r:polaris_grub_bios_t,s0)
/varied/vcpu_template.txt gen_context(system_u:object_r:polaris_iosd_vcpu_t,s0)

/sbin/grub* gen_context(system_u:object_r:bootloader_exec_t,s0)

/grubenv
/bootefi(/.*)? gen_context(system_u:object_r:polaris_grub_efi_t, s0)

from /lib/tmpfiles.d/binos-vxe.conf
/lic0 -l gen_context(system_u:object_r:polaris_disk_csl_p_t,s0)
/lic1 -l gen_context(system_u:object_r:polaris_disk_csl_s_t,s0)

umbrella_ini.sh executable label
/usr/binos/conf/umbrella_init.sh -- gen_context(system_u:object_r:polaris_umbrella_init_exec_t,s0)

#
On ultra_us /cpld_util.sh creates /tmp/chassis. Put this script into the initexec_t domain so
chasfs transitions properly.
#
/cpld_util.sh gen_context(system_u:object_r:initrc_exec_t,s0)

/config labels
/config(/.*)? gen_context(system_u:object_r:polaris_disk_config_t,s0)
/config/.ssh(/.*)? gen_context(system_u:object_r:ssh_home_t,s0)
/config/.ssh/ssh_host.*_key*.pub gen_context(system_u:object_r:sshd_key_t,s0)
/config/.ssh/ssh_host.*_key gen_context(system_u:object_r:sshd_key_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisvxe.fc

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```

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#

```

policy\_module(polarisboot, 1.0);

#####

# /tmp/sw/boot policy

```
#####
type polaris_boot_tmp_t;
files_tmp_file(polaris_boot_tmp_t)
gen_require(
 attribute domain;
)
files_tmp_filetrans(domain, polaris_boot_tmp_t, dir, "boot")
/tmp/sw/isos
files_tmp_filetrans(domain, polaris_boot_tmp_t, dir, "isos")

dmesg command is executed in its own domain and result is store
into /tmp/sw/boot/dmesg file
gen_require(
 type dmesg_t;
)
polaris_boot_tmp_write(dmesg_t)

/tmp/reload_reason copied from /bootflash/.prst_sync/reload_info
files_tmp_filetrans(domain, polaris_boot_tmp_t, file, "reload_reason")

/tmp/bootup_timestamp created by /etc/init.d/binos
gen_require(
 type initrc_t;
 type init_t;
)
files_tmp_filetrans({ initrc_t init_t }, polaris_boot_tmp_t, file, "bootup_timestamp")

type polaris_boot_file_t;
files_type(polaris_boot_file_t)
polaris_pfile_type(polaris_boot_file_t)
gen_require(
 type polaris_disk_bootflash_t;
)
filetrans_pattern(domain, polaris_disk_bootflash_t, polaris_boot_file_t, file, "reload_info")
filetrans_pattern(domain, polaris_disk_bootflash_t, polaris_boot_file_t, file, "stack_reload_info")
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisboot.te

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```
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#
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscfgmgr.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscxp.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmiportsfetch.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisftm.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdbgd.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfpm.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisvdaemon.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristtm.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisomp.fc
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisinstallmgr.fc
```

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```
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#
```

```
<summary>Polaris Common Policy Rules.</summary>
```

```
#####
```

```
Polaris common
```

```
#####
```

```
#####
```

```
<summary>
```

```
Create a domain for long running Polaris processes in
```

```
confined mode.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<param name="entry_point">
```

```
<summary>
```

```
Type of the program to be used as an entry point to this domain.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_process_domain_confined',`
```

```
gen_require(`
```

```
type unconfined_service_t;
```

```
`)
```

```
init_daemon_domain($1, $2)
```

```
polaris process now started by pman, which still runs
```



```

under unconfined label
type_transition unconfined_service_t $2:process $1;
allow unconfined_service_t $1:process transition;
allow $1 unconfined_service_t:process sigchld;

polaris_pman_entry($1, $2)

gen_require(`
 attribute polaris_domain;
 attribute polaris_exec_domain;
 attribute polaris_extended_domain;
`)
typeattribute $1 polaris_domain, polaris_extended_domain;
typeattribute $2 polaris_exec_domain;

allow all process to check whether kernel ksm is enabled
polaris_ksm_run_check($1)
)

#####
<summary>
Create a domain for long running Polaris processes. Note
depending on policy build setting it could be confined or
not confined
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
#
interface(`polaris_process_domain`,`

the default is to confine all domains
polaris_process_domain_confined($1, $2)

#
if the domain is in the permissive map, then set it to be confined
permissive. if the domain is in the confined map, then there really
isnt much else to do but leave it confined. if the domain isnt in
the permissive or confined maps then determine if the domain should
be unconfined.
#

```

```

 ifelse(permissive_domain($1), $1, `polaris_permissive_domain_setup($1)',
 confined_domain($1), $1, `',
 `polaris_domain_maybe_unconfined($1)')
)

```

```

#####
<summary>
Create a domain for utility Polaris processes in
confined mode.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
#
interface(`polaris_utility_domain_confined',`
 domain_type($1)
 domain_entry_file($1, $2)
 role system_r types $1;

 gen_require(`
 attribute polaris_domain;
 attribute polaris_exec_domain;
 attribute polaris_extended_domain;
 ')
 typeattribute $1 polaris_domain, polaris_extended_domain;
 typeattribute $2 polaris_exec_domain;

 # allow all process to check whether kernel ksm is enabled
 polaris_ksm_run_check($1)
)

```

```

#####
<summary>
Create a domain for utility Polaris processes. Note
depending on policy build setting it could be confined or
not confined
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>

```

```

</param>
<param name="entry_point">
<summary>
Type of the program to be used as an entry point to this domain.
</summary>
</param>
#
interface(`polaris_utility_domain`,`

 # the default is to confine all domains
 polaris_utility_domain_confined($1, $2)

 #
 # if the domain is in the permissive map, then set it to be confined
 # permissive. if the domain is in the confined map, then there really
 # isnt much else to do but leave it confined. if the domain isnt in
 # the permissive or confined maps then determine if the domain should
 # be unconfined.
 #
 ifelse(permissive_domain($1), $1, `polaris_permissive_domain_setup($1)',
 confined_domain($1), $1, `',
 `polaris_domain_maybe_unconfined($1)')
)

#####
<summary>
Creates types and rules for a basic
polaris process domain.
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_t
</summary>
</param>
#
template(`polaris_process_domain_template`,`
 type polaris_$1_t;
 type polaris_$1_exec_t;

 polaris_process_domain(polaris_$1_t, polaris_$1_exec_t)
 ifdef(polaris_permissive,`
 permissive polaris_$1_t;
 `)
)

polaris_btrace_data_client_template($1)
polaris_maroon_data_client_template($1)
polaris_crft_data_client_template($1)
polaris_process_proc_kpageflags_template($1)

```

```

 polaris_process_uswap_access(polaris_${1}_t, $1, "$1")
)

#####
<summary>
Creates types and rules for a basic
polaris process domain.
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_t
</summary>
</param>
#
template(`polaris_utility_domain_template`,`
 type polaris_${1}_t;
 type polaris_${1}_exec_t;

 polaris_utility_domain(polaris_${1}_t, polaris_${1}_exec_t)
 ifdef(polaris_permissive,`
 permissive polaris_${1}_t;
 `)
)

 polaris_btrace_data_client_template($1)
 polaris_maroon_data_client_template($1)
 polaris_crft_data_client_template($1)
 polaris_process_proc_kpageflags_template($1)
)

#####
<summary>
Allow the specified domain to execute polaris domain
process in the caller domain.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_exec`,`
 gen_require(`
 attribute polaris_exec_domain;
 `)

 can_exec($1, polaris_exec_domain)
)

```

```
#####
<summary>
Allow the specified domain to read polaris domain
executable file. I.e to get information from executables
like binary trace info, trace key etc
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_read_exec_domain`,`
 gen_require(`
 attribute polaris_exec_domain;
 type bin_t;
 `)

 read_files_pattern($1, bin_t, polaris_exec_domain)
`)
```

```
#####
<summary>
Allow the specified domain to receive signals from any
polaris process.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_receive_signal_from_domain`,`
 gen_require(`
 attribute polaris_domain;
 `)

 allow polaris_domain $1:process signal_perms;
`)
```

```
#####
<summary>
Systemd-tmpfiles utility creates an object
in the tmp directories, with a private type using a type
transition.
Note rules to create files and directories which are
performed by systemd-tmpfiles reside in /lib/tmpfiles.d/
```

```

directory. And polaris specific rules are in binos.conf file.
Note systemd-tmpfiles utility would use label from file_contexts
to restore proper label. I.e the same effect could be achived by
placing proper .fc expression.
</summary>
<param name="private type">
<summary>
The type of the object to be created.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name">
<summary>
The name of the object being created.
</summary>
</param>
#
interface(`polaris_systemd_tmpfiles_tmp_filetrans',`
 gen_require(`
 type systemd_tmpfiles_t;
 ')
 files_tmp_filetrans(systemd_tmpfiles_t, $1, $2, $3)
`)

#####
<summary>
socketat through get_netns_fd function call access
/proc/pid/ns/net file
##
Implementation notes:
##
wants to read /proc/pid/ns/net but gets denial because our 3.10 kernel
does not support nsfs yet, so /proc/pid/ns/net is marked as proc_t instead
of be nsfs_t. For now allow read access to proc_t through
kernel_system_state_reader attribute. Try to drop it in latter kernels
type=AVC msg=audit(1479574148.450:70): avc: denied { open } for pid=27619 comm="smd"
path="net:[4026531957]" dev="proc" ino=4026531957 scontext=system_u:system_r:polaris_smd_t:s0
tcontext=system_u:object_r:proc_t:s0 tclass=file
in 4.4 /proc/pid/ns/net inode is under nsfs_t, polaris_smd_t needs to
open, getattr, and read from it
</summary>
<param name="domain">
<summary>
Domain allowed access.

```

```

</summary>
</param>
#
interface(`polaris_socketat_nsfs_read`,`
 kernel_read_system_state($1)
 fs_read_nsfs_files($1)
 gen_require(`
 type ifconfig_var_run_t;
 `)
 list_dirs_pattern($1, ifconfig_var_run_t, ifconfig_var_run_t)
`)

```

```
#####
```

```

<summary>
All namespace related operation to switch name space
is covered under this macro.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_namespace_set_netns_with_etc`,`
 files_mounon_isid($1)
 files_mounon_rootfs($1)
 dev_mount_sysfs_fs($1)
 dev_unmount_sysfs_fs($1)
 sysnet_read_config($1)
 sysnet_write_config($1)
 sysnet_manage_config_dirs($1)
 files_rw_etc_files($1)
 allow $1 net_conf_t:file mounon;
 allow $1 etc_t:file mounon;
 allow $1 self:capability sys_chroot;
`)

```

```
#####
```

```

<summary>
process can execute libeiutil build_config_directory function
##
Implementation notes:
build_config_directory function from mgmt/libeiutil/src/eiutil.c
calls glibc nftw function, which effectively walks whole file tree
and execute given call back. While function is executed it needs
access to all files and directories attributes also it wants to
search all directories. But we will not grant search access to
security_file_type, instead we will dontaudit those. Anyway no

```

```
relevant config file should be under security_file_type directory.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_libeiutil_build_config_directory`,`
```

```
files_getattr_all_files($1)
```

```
files_getattr_all_dirs($1)
```

```
files_read_all_symlinks($1)
```

```
files_list_non_security($1)
```

```
files_dontaudit_list_security_dirs($1)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Allow the specified domain to read write from i2c device.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_i2c_use`,`
```

```
gen_require(`
```

```
type device_t;
```

```
type polaris_i2c_device_t;
```

```
`)
```

```
rw_chr_files_pattern($1, device_t, polaris_i2c_device_t)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Work (read, write, ioctl) with /dev/remap_mem0
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_remap_mem_dev_use`,`
```

```
gen_require(`
```



```

 type device_t;
type polaris_remap_mem_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_remap_mem_device_t)
 read_chr_files_pattern($1, device_t, polaris_remap_mem_device_t)
 allow $1 polaris_remap_mem_device_t:chr_file map;
)

#####
<summary>
Allow the specified domain to read firmware files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_firmware_read`,`
 gen_require(`
 type polaris_firmware_t;
 `)

 read_files_pattern($1, polaris_firmware_t, polaris_firmware_t)
 # /firmware/* are link files, allow to follow symbolic link
 allow $1 polaris_firmware_t:lnk_file read;
 allow $1 polaris_firmware_t:dir read;
)

#####
<summary>
Allow the specified domain to manage firmware files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_firmware_manage`,`
 gen_require(`
 type polaris_firmware_t;
 `)

 manage_files_pattern($1, polaris_firmware_t, polaris_firmware_t)
 manage_lnk_files_pattern($1, polaris_firmware_t, polaris_firmware_t)
 manage_dirs_pattern($1, polaris_firmware_t, polaris_firmware_t)
)

```

```
#####
<summary>
Allow the specified domain to getattr of firmware files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_firmware_getattr`,`
 gen_require(`
 type polaris_firmware_t;
 `)

 getattr_files_pattern($1, polaris_firmware_t, polaris_firmware_t)
)

#####
<summary>
Allow the specified domain to map of firmware files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_firmware_map`,`
 gen_require(`
 type polaris_firmware_t;
 `)

 read_files_pattern($1, polaris_firmware_t, polaris_firmware_t)
 allow $1 polaris_firmware_t:file map;
)

#####
<summary>
Allow the specified domain to write relocations into text segment, deals
with icc broken relocations.
##
LOOK AT ME:
Basically it deals with denials like this:
type=AVC msg=audit(1475815369.598:3): avc: denied { execmod } for pid=4929 comm="cman_fp"
path="/tmp/sw/mount/csr1000v-mono-universalk9.2016-10-
06_20.15_kamensky.SSA.pkg/usr/cpp/lib64/libcpp_client_ha_oor.so" dev="loop0" ino=7683
```

```

scontext=system_u:system_r:unconfined_service_t:s0 tcontext=system_u:object_r:lib_t:s0 tclass=file
It happens because icc generates code with relocations in text segment and
run-time linker is dealing with it by doing mprotect(WRITE), relocatings,
mprotect(NO WRITE). Remove once icc compiled is fixed
##
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_icc_broken_relocations`,`
 gen_require(`
 type lib_t;
 `)

 allow $1 lib_t:file execmod;
)

#####
<summary>
Allow the specified domain to work with /dev/mem
##
LOOK AT ME!!! LOOK AT ME!!! Missing driver: application works
with /dev/mem directy
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dev_mem_use`,`
 dev_read_raw_memory($1)
 dev_write_raw_memory($1)
 allow $1 self:capability sys_rawio;
 gen_require(`
 type memory_device_t;
 `)
 allow $1 memory_device_t:chr_file map;
)

#####
<summary>
Append to /tmp/etc file. First usage to update xinetd.conf
files.
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_etc_append`,`
gen_require(`
type polaris_etc_t;
`)
append_files_pattern($1, polaris_etc_t, polaris_etc_t)
`)

```

```
#####
```

```

<summary>
Search /tmp/etc directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_etc_search`,`
gen_require(`
type polaris_etc_t;
`)
search_dirs_pattern($1, polaris_etc_t, polaris_etc_t)
`)

```

```
#####
```

```

<summary>
List the contents of /etc directories.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_etc_list`,`
gen_require(`
type polaris_etc_t;
`)

allow $1 polaris_etc_t:dir list_dir_perms;
`)

```

```
#####
<summary>
Allow domain to attach to TUN devices created by ifconfig_t subject.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`ifconfig_attach_tun_iface`,`
gen_require(`
type ifconfig_t;
`)

allow $1 ifconfig_t:tun_socket relabelfrom;
allow $1 self:tun_socket relabelto;
')
```

```
#####
<summary>
Perms used by pidof
binos/infra/systemd/scripts/errmsg.sh, might needs /dev/ttyS0
access.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`pidof_use`,`
FIXME or fix labeling
/sys/devices/system/cpu/online should be labeled cpu_online_t
but for some reason this did not happen, grant perms for both
dev_read_sysfs($1)
dev_read_cpu_online($1)
/proc scan
domain_read_all_domains_state($1)
kernel_list_proc($1)
')
```

```
#####
<summary>
Script can execute errmsg function from
binos/infra/systemd/scripts/errmsg.sh, might needs /dev/ttyS0
access.
```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_script_errmsg_use`,`
 # send to syslog (journal), iosd outputs to console if up
 logging_send_syslog_msg($1)
 # check if iosd is up and find its pid and if ttyS0 is opened
 pidof_use($1)
 # if FDs dont have ttyS0 it sends to console itself
 term_use_unallocated_ttys($1)
`)

#####
<summary>
Allow the specified domain to read ebf (explicit
bindind) files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ebf_map`,`
 gen_require(`
 type polaris_ebf_t;
 `)

 read_files_pattern($1, polaris_ebf_t, polaris_ebf_t)
 allow $1 polaris_ebf_t:file map;
`)

#####
<summary>
Allow the specified domain to execute show_version command
for given executable label
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="subject_exec">

```

```

<summary>
Domain of executable that version can be checked
</summary>
</param>
#
interface(`polaris_show_version',`
 read_files_pattern($1, $2, $2)
 allow $1 $2:file map;
`)

#####
<summary>
Configure the polaris domain as permissive
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_permissive_domain_setup',`
 gen_require(`
 type $1;
 `)

 permissive $1;

)

#####
<summary>
Creates types and rules for process access to uswap feature.
Ability to create file/folder under /bootflash/.USWAP/"FRU", and
map file.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="stem">
<summary>
Stem for the object label. Name is constructed as
polaris_"stem"_uswap_files_t. It should be the short
form of the process name.

```

```

E.g., for IOSd polaris_iosd_uswap_files_t.
</summary>
</param>
<param name="name">
<summary>
The name of the object being created.
Name of the folder created by the process for
creating the uswap files.
</summary>
</param>
#
template(`polaris_process_uswap_access`,`
 gen_require(`
 type polaris_uswap_files_t;
 `)
 type polaris_$2_uswap_files_t;
 files_type(polaris_$2_uswap_files_t)
 polaris_pfile_type(polaris_$2_uswap_files_t)

 filetrans_pattern($1, polaris_uswap_files_t, polaris_$2_uswap_files_t, { file dir})
 manage_dirs_pattern($1, polaris_$2_uswap_files_t, polaris_$2_uswap_files_t)
 manage_files_pattern($1, polaris_$2_uswap_files_t, polaris_$2_uswap_files_t)
 manage_lnk_files_pattern($1, polaris_$2_uswap_files_t, polaris_$2_uswap_files_t)
 allow $1 polaris_$2_uswap_files_t:file map;

 # allow access to pvp to clean-up the process related uswap file/folder
 gen_require(`
 type polaris_pvp_t;
 `)
 allow polaris_pvp_t polaris_$2_uswap_files_t:dir { read remove_name rmdir write };
 allow polaris_pvp_t polaris_$2_uswap_files_t:file unlink;
)

#####
<summary>
Allow process access to to access page related files such as "/proc/kpageflags"
</summary>
<param name="stem">
<summary>
Stem for the domain. Name is constructed as polaris_stem_t
</summary>
</param>
#
template(`polaris_process_proc_kpageflags_template`,`
 gen_require(`
 type proc_t;
 `)
 allow polaris_$1_t proc_t:file { open read };

```



)

```

<summary>
transition context of fman(rp/fp) created iptbl tmp files related to acl mgmt.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

interface(`polaris_fman_acl_iptbl_tmp_file`,`
 gen_require(`
 type polaris_iptbl_tmp_t;
 `)
 files_tmp_filetrans($1, polaris_iptbl_tmp_t, file, "iptbl.v4")
 files_tmp_filetrans($1, polaris_iptbl_tmp_t, file, "iptbl.v6")
 manage_files_pattern($1, polaris_iptbl_tmp_t, polaris_iptbl_tmp_t)
`)
)
```

```

<summary>
Manage files/folders in /tmp/rsync_log_dir.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

interface(`polaris_manage_rsync_tmplog_dir`,`
 gen_require(`
 type polaris_rsync_tmp_t;
 `)
 manage_files_pattern($1, polaris_rsync_tmp_t, polaris_rsync_tmp_t)
 manage_dirs_pattern($1, polaris_rsync_tmp_t, polaris_rsync_tmp_t)
`)
)
```

```

<summary>
Manage cerr shared memory /dev/shm/cerrno_dll.
</summary>
<param name="domain">
<summary>
Domain allowed access.
```

```

</summary>
</param>
#
interface(`polaris_cerr_shm_manage',`
 gen_require(`
 type tmpfs_t;
 type polaris_cerr_shm_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_cerr_shm_t)
 allow $1 polaris_cerr_shm_t:file map;
 fs_tmpfs_filetrans($1, polaris_cerr_shm_t, file, "cerno_dll")
)

#####
<summary>
Manage shared memory for vrf - /dev/shm/vrf_shm.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vrf_shm_manage',`
 gen_require(`
 type tmpfs_t;
 type polaris_vrf_shm_t;
 `)
 fs_getattr_tmpfs($1)
 manage_files_pattern($1, tmpfs_t, polaris_vrf_shm_t)
 allow $1 polaris_vrf_shm_t:file map;
 filetrans_pattern($1, tmpfs_t, polaris_vrf_shm_t, file, "vrf_shm")
)

#####
<summary>
On-demand creation of vrf-based netns using "ip netns".
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vrf_netns_manage',`
 polaris_vrf_shm_manage($1)
)

```

```

kernel_rw_net_sysctls($1)
polaris_lfts_dev_use($1)

sysnet_exec_ifconfig($1)
sysnet_manage_ifconfig_run($1)
gen_require(`
 type ifconfig_var_run_t;
`)
allow $1 ifconfig_var_run_t:file { create mounton open read };
allow $1 ifconfig_var_run_t:dir mounton;

gen_require(`
 type polaris_ip_linux_port_var_t;
`)
read_files_pattern($1, var_t, polaris_ip_linux_port_var_t)
getattr_files_pattern($1, var_t, polaris_ip_linux_port_var_t)
`)

#####
<summary>
Allow read/write of network state directory files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
##
#
interface(`polaris_kernel_rw_network_state_files`,`
gen_require(`
 type proc_net_t;
`)

rw_files_pattern($1, proc_net_t, proc_net_t)
`)
#
#####
<summary>
Allow the specified domain to send signals to
Binos shell
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_send_signal_to_shell`,`
 gen_require(`
 type polaris_shell_t;
 `)

 allow $1 polaris_shell_t:process signal_perms;
)

#####
<summary>
Execute curl in the curl domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_curl_domtrans`,`
 gen_require(`
 type polaris_curl_t, polaris_curl_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_curl_exec_t, polaris_curl_t)
)

#####
<summary>
Manage files and directories in /tmp directory with rsync_tmp_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`rsync_tmp_manage`,`
 gen_require(`
 type rsync_tmp_t;
 `)

 manage_dirs_pattern($1, rsync_tmp_t, rsync_tmp_t)
 manage_files_pattern($1, rsync_tmp_t, rsync_tmp_t)
 manage_lnk_files_pattern($1, rsync_tmp_t, rsync_tmp_t)
 manage_fifo_files_pattern($1, rsync_tmp_t, rsync_tmp_t)
)

#####

```

```

<summary>
Allow the specified domain to read /tmp/ldwm_envelope file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_ldwm_envelope_read`,`
 gen_require(`
 type polaris_ldwm_envelope_tmp_t;
 `)

 read_files_pattern($1, polaris_ldwm_envelope_tmp_t, polaris_ldwm_envelope_tmp_t)
`)

#####
<summary>
This is copied from polarisngwc.if since other platforms may also
read/write /sys/devices files. In addition to ngwc, tsn requires it.
Write into /sys/devices/virtual/misc/ggpiio/gpio_out_assert sysfs files.
or /sys/devices/platform/cpn-110-master/cpn-110-master sysfs
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_ggpiio_dev_read_write`,`
 gen_require(`
 type polaris_sysfs_ggpiio_t;
 `)

 read_files_pattern($1, polaris_sysfs_ggpiio_t, polaris_sysfs_ggpiio_t)
 write_files_pattern($1, polaris_sysfs_ggpiio_t, polaris_sysfs_ggpiio_t)
`)

#####
<summary>
Manage files under /bootflash/certs , cert files for AP
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_wlc_ap_cert_manage`,`
 gen_require(`

```

```

 type polaris_ap_cert_file_t;
 ')

 manage_files_pattern($1, polaris_ap_cert_file_t, polaris_ap_cert_file_t)
 manage_dirs_pattern($1, polaris_ap_cert_file_t, polaris_ap_cert_file_t)

 ')

#####
<summary>
Manage SERDES key directoy and files
SERDES library stores info in /tmp/serdes_asic_key_dir/*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_serdes_asic_key_tmp_manage',`
 gen_require(`
 type polaris_serdes_asic_key_tmp_t;
 ')

 files_tmp_filetrans($1, polaris_serdes_asic_key_tmp_t, {dir file}, "serdes_asic_key_dir")

 manage_dirs_pattern($1, {tmp_t polaris_serdes_asic_key_tmp_t}, polaris_serdes_asic_key_tmp_t)
 manage_files_pattern($1, polaris_serdes_asic_key_tmp_t, polaris_serdes_asic_key_tmp_t)
 ')

#####
<summary>
Manage polaris_tech_support_tmp_t in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_tech_support_tmp_read',`
 gen_require(`
 type polaris_tech_support_tmp_t;
 ')

 read_files_pattern($1, polaris_tech_support_tmp_t, polaris_tech_support_tmp_t)
 ')

#####

```

```

<summary>
Getattr of any file under /proc/*/fd/?. Typically
run by lsof.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_proc_fd_all_getattr`,`

 domain_read_all_domains_state($1)
 files_getattr_all_files($1)
 files_getattr_all_dirs($1)
 files_getattr_all_sockets($1)
 files_getattr_all_pipes($1)
 files_getattr_all_chr_files($1)
 files_getattr_all_symlinks($1)
 files_read_all_dirs_except($1)
 dev_getattr_all_chr_files($1)
 dev_getattr_all_blk_files($1)
 dev_getattr_mtrr_dev($1)

 # misc socket and fifo files got created under label of its process domain
 # and since domain labels are not in file_type attribute, need special
 # permission
 gen_require(`
 attribute domain;
 `)
 allow $1 domain:{socket socket_class_set fifo_file} getattr;
 # access sysctl_rpc_t
 kernel_read_rpc_sysctls($1)
`)

#####
<summary>
Manage files and directories sysfs, This should only be used
if the interface needs sysfs_t create access. Otherwise please use
dev_rw_sysfs
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_sysfs_manage`,`

```

```

gen_require(
 type sysfs_t;
)
manage_files_pattern($1, sysfs_t, sysfs_t)
)

#####
<summary>
Check access to the init/systemd executable.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_init_access_check`,`
gen_require(
 type init_exec_t;
)
init_access_check($1)
allow $1 init_exec_t:file {open read};
allow $1 init_exec_t:lnk_file read_lnk_file_perms;
)

#####
<summary>
Manage polaris_manage_rommon_info in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
interface(`polaris_manage_rommon_info`,`
gen_require(
 type polaris_rommon_info_tmp_t;
)
manage_files_pattern($1, polaris_rommon_info_tmp_t, polaris_rommon_info_tmp_t)
)

#####
<summary>
Allow the specified domain to manage tamlib debug file /bootflash/tamlib_dbg_log
</summary>
<param name="domain">
<summary>
Domain allowed access.

```



```

</summary>
</param>
#
interface(`polaris_tamlib_dbg_file_manage`,`
 gen_require(`
 type polaris_tamlib_dbg_file_t;
 `)
 filetrans_pattern($1, polaris_disk_bootflash_t, polaris_tamlib_dbg_file_t, file, "tamlib_dbg_log")
 manage_files_pattern($1, polaris_tamlib_dbg_file_t, polaris_tamlib_dbg_file_t)
`)

#####
<summary>
Allow access to /dev/DDR
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_DDR_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_DDR_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_DDR_device_t)
 read_chr_files_pattern($1, device_t, polaris_DDR_device_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscommon.if

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```

#
July 2017, Victor Kamensky
#
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#

```

```

<summary>Polaris tams_rp Policy Rules.</summary>

```

```

#####
<summary>
Allow polaris_tams_rp_t unix stream socket connect
</summary>
<param name="domain">

```

```
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tams_rp_socket_connect`,`
 gen_require(`
 type polaris_tams_rp_t;
 `)
 allow $1 polaris_tams_rp_t:unix_stream_socket connectto;
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristamsrp.if

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```
#
August 2017, Shawn Lu
#
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#
```

```
polariswncd file contexts place holder
```

```
/mnt/images(/.*)? gen_context(system_u:object_r:polaris_wlc_ap_images_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswncd.fc

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```
#
March 2017, Victor Kamensky
#
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#
```

```
/harddisk /harddisk -> /misc/scratch
```

```
/harddisk gen_context(system_u:object_r:polaris_disk_harddisk_t,s0)
```

```
/misc/scratch gen_context(system_u:object_r:polaris_disk_bootflash_t,s0)
```

```
/usb0 gen_context(system_u:object_r:removable_t,s0)
```

```
/usb1 gen_context(system_u:object_r:removable_t,s0)
```

```
/misc/usb0 gen_context(system_u:object_r:removable_t,s0)
```

```
/misc/usb1 gen_context(system_u:object_r:removable_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisstorage.fc

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# July 2017, Victor Kamensky

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#

/tmp/tam\_cfg\_done(/.\*)? gen\_context(system\_u:object\_r:polaris\_tam\_tmp\_t,s0)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisesgtamcfg.fc

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#

# February 2020, Victor Kamensky

#

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#

## <summary>Polaris omp Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisomp.if

No license file was found, but licenses were detected in source scan.

#

# March 2017, Victor Kamensky

#

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#

## <summary>Polaris TDLDB Policy Rules.</summary>

#####

# Polaris tdldb (infra/tdllib)

#####

#####

## <summary>

## Make specified domain as one of tdldb types.

## </summary>

## <param name="domain">

## <summary>

```

The domain serving as polaris_tlddb type
</summary>
</param>
#
interface(`polaris_tlddb_type`,`
 gen_require(`
 attribute polaris_tlddb;
 `)
 typeattribute $1 polaris_tlddb;
files_type($1)
`)

#####
<summary>
List directories in /tmp/[rp]fp[cc]/tlddb directories.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tlddb_list_dirs`,`
 gen_require(`
 type polaris_tlddb_t;
 `)
 list_dirs_pattern($1, polaris_tlddb_t, polaris_tlddb_t)
`)

#####
<summary>
Use tlddb database files in /tmp/[rp]fp[cc]/tlddb
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="database_label">
<summary>
Database file label.
</summary>
</param>
<param name="object">
<summary>
Database file name. Also used to derive lock file name.
</summary>
</param>

```

```

#
interface(`polaris_tdlldb_use`,`
gen_require(`
type polaris_tdlldb_t;
 type tmp_t;
)
manage_dirs_pattern($1, polaris_tdlldb_t, polaris_tdlldb_t)
manage_files_pattern($1, polaris_tdlldb_t, $2)
allow $1 $2:file map;
allow $1 polaris_tdlldb_t:file lock;
type_transition $1 polaris_tdlldb_t : file $2 "$3";
type_transition $1 polaris_tdlldb_t : file $2 "$3.lock";

manage /var/tmp/tdlddb_ene_fifo.0xYYYYYY files - it seems there is
no way to assign separate label to them
manage_fifo_files_pattern($1, tmp_t, tmp_t)

tdlldb_database_handle_open_internal through libuuid calls
uuid_generate_time_generic, which needs access to udp socket
once it reaches get_node_id function
allow $1 self:udp_socket { create ioctl };
)

#####
<summary>
Setup tdlldb database persistent files in
/tmp/[rp|fp|cc]/tdlddb/persist-config
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="database_label">
<summary>
Database file label.
</summary>
</param>
<param name="object">
<summary>
Database file name. Also used to derive lock file name.
</summary>
</param>
#
interface(`polaris_tmp_tdlldb_persist_setup`,`
gen_require(`
type polaris_tdlldb_t;
type polaris_tdlldb_persist_t;

```

```
)
filetrans_pattern($1, polaris_tdlldb_t, polaris_tdlldb_persist_t, dir, "persistent-config")
allow creation of /tmp/rp/tdlddb/persistent-config
manage_dirs_pattern($1, polaris_tdlldb_t, polaris_tdlldb_persist_t)
Manage files inside of its own polaris_tdlldb_persist_t directories
manage_files_pattern($1, polaris_tdlldb_persist_t, polaris_tdlldb_persist_t)
)
```

```
#####
```

```
<summary>
Manage tdlldb directories
</summary>
<param name="domain">
<summary>
The domain serving as polaris_tdlldb type
</summary>
</param>
#
```

```
interface(`polaris_tdlldb_manage_dirs`,`
 gen_require(`
 type polaris_tdlldb_t;
 `)
 manage_dirs_pattern($1, polaris_tdlldb_t, polaris_tdlldb_t)
)
```

```
#####
```

```
<summary>
Use polaris_dir_db_tdlldb_t database.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<infoflow type="none"/>
#
```

```
interface(`polaris_dir_db_tdlldb_dir_use`,`
 gen_require(`
 type polaris_dir_db_tdlldb_t;
 `)

 polaris_tdlldb_use($1, polaris_dir_db_tdlldb_t, DB_DIR)
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristdlldb.if

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```

#
August 2017, Shawn Lu
#
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#

policy_module(polariswncd, 1.0);

gen_require(
 type polaris_wncd_t;
)

polaris_btrace_data_manage(polaris_wncd_t)
polaris_crft_data_manage(polaris_wncd_t)
polaris_chasfs_manage(polaris_wncd_t)
polaris_tdlresolve_read(polaris_wncd_t)
polaris_tdlldb_list_dirs(polaris_wncd_t)
polaris_cpld_read(polaris_wncd_t)
polaris_lua_read(polaris_wncd_t)
polaris_flashlib_read(polaris_wncd_t)

polaris_ripc_sman_ui_serv_connect(polaris_wncd_t)

polaris_db_tdlldb_dir_use(polaris_wncd_t)

#wncd need setrlimit to change limit of resource
allow polaris_wncd_t self:process setrlimit;
allow polaris_wncd_t self:capability sys_resource;

#allow tcp connection from http port
allow polaris_wncd_t self:capability net_bind_service;
corenet_tcp_bind_http_port(polaris_wncd_t)

#allow udp for dhcpd
corenet_udp_bind_dhcpd_port(polaris_wncd_t)
corenet_udp_bind_generic_node(polaris_wncd_t)
allow polaris_wncd_t self:udp_socket { create_socket_perms recv_msg send_msg };

#allow AF_PACKET
allow polaris_wncd_t self:capability net_raw;
allow polaris_wncd_t self:packet_socket { create_socket_perms recv_msg send_msg };

required in function ewlc_capwap_dgram_srvr_state_update()
allow polaris_wncd_t self:rawip_socket { create_socket_perms setopt ioctl };

corenet_raw_bind_generic_node(polaris_wncd_t)

```

```

gen_require(
 type port_t;
)
allow polaris_wncd_t port_t:rawip_socket name_bind;

#allow to read /etc/passwd
auth_use_nsswitch(polaris_wncd_t)

#stuff related to vrf support of the socket
polaris_lfts_dev_use(polaris_wncd_t)
polaris_socketat_nsfs_read(polaris_wncd_t)

#each instance of wncd has a devshell support
corenet_tcp_bind_polaris_wncd_devshell_port(polaris_wncd_t)

extra instances of wncd do set up cyan database for given elastic number
polaris_dyncfg_setup(polaris_wncd_t)

allow polaris_wncd_t self:capability dac_override;

wncd does ionotify for /bootflash/apple_device_map.xml file in
wsa_notif_register_filepath function
polaris_bootflash_read(polaris_wncd_t)
polaris_persistent_watch(polaris_wncd_t)

manage pem certificates on /bootflash
polaris_persistent_manage(polaris_wncd_t)

for /dev/shm/cerrno_dll
polaris_cerr_shm_manage(polaris_wncd_t)

#####
For ewlc, wncd and wncmgrd needs access to files under /mnt/images/...these
are related to AccessPoint images
#####

type polaris_wlc_ap_images_t;
files_type(polaris_wlc_ap_images_t)

wncd calls ewlc_get_ap_sw_version() to open/read
/tmp/sw/rp/0/0/rp_wlc/mount/mnt/images/ap.pri/version.info
call-chain: main -> ewlc_app_context_init -> wncd_evlib_app_init_cb ->
ewlc_capwapac_lib_init -> capwapac_init_default_config -> ewlc_get_ap_sw_version
polaris_wlc_ap_images_read(polaris_wncd_t)

polaris_odm_clnt2svr_mqipc_create(polaris_wncd_t)

wncd works with AF_NETLINK NLMSG_APP_SIP ewlc_sip_netlink_sock_init

```



```

allow polaris_wncd_t self:netlink_socket create_socket_perms;

logging_send_syslog_msg(polaris_wncd_t)

binds to mdns port from mdns_ipv4_socket_init function
corenet_udp_bind_mdns_port(polaris_wncd_t)

bind CAPWAP control and data
corenet_udp_bind_polaris_capwap_ctr_port(polaris_wncd_t)
corenet_udp_bind_polaris_capwap_data_port(polaris_wncd_t)

#allow read/write/mmap access to awips file
gen_require(
type polaris_awips_signature_file_t;
)
allow polaris_wncd_t polaris_awips_signature_file_t:file { map read open getattr unlink };

allow read / write / unlink access to /bootflash/certs
polaris_wlc_ap_cert_manage(polaris_wncd_t)

wncd ewlc-lisp interaction module, connect to lisp map-server on port 4342
corenet_tcp_connect_lisp_cons_control_port(polaris_wncd_t)

binds to mdns bcp port from mdns bcp function
corenet_udp_bind_mdns_bcp_port(polaris_wncd_t)

#DB persistence
polaris_tdlbpersist_setup(polaris_wncd_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariswncd.te

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```

#
July 2018, Victor Kamensky
#
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#

```

## <summary>Polaris ngwc\_fed\_debug Policy Rules.</summary>

#####

## <summary>

## Connect to and send messages to /tmp/idope\_svr and

## /tmp/shfwd\_svr unix datagram sockets.

## </summary>

## <param name="domain">

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fed_debug_sock_write`,
 gen_require(`
 type polaris_fed_debug_sock_t;
 type polaris_ngwc_fed_debug_mgr_t;
 type tmp_t;
 `)

 allow $1 self:unix_stream_socket {create_socket_perms};
 allow $1 polaris_ngwc_fed_debug_mgr_t:unix_stream_socket {connectto};
 write_sock_files_pattern($1, tmp_t, polaris_fed_debug_sock_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngwcfeddebug.if

No license file was found, but licenses were detected in source scan.

```

#
March 2017, Victor Kamensky
#
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#

```

```

policy_module(polarispsd, 1.0);

```

```

gen_require(`
 type polaris_psd_t;
`)

```

```

polaris_btrace_data_manage(polaris_psd_t)
polaris_crft_data_manage(polaris_psd_t)
polaris_chasfs_manage(polaris_psd_t)
polaris_tdlresolve_read(polaris_psd_t)
polaris_tdlldb_list_dirs(polaris_psd_t)
polaris_cpld_read(polaris_psd_t)
polaris_flashlib_read(polaris_psd_t)

```

```

polaris_ripc_sman_ui_serv_connect(polaris_psd_t)

```

```

polaris_db_tdlldb_dir_use(polaris_psd_t)

```

```

allow read of /etc/passwd
auth_use_nsswitch(polaris_psd_t)

```

```

allow to read /proc/meminfo
kernel_read_system_state(polaris_psd_t)

psd wants to run /usr/binos/bin/cfgwr command
corecmd_exec_bin(polaris_psd_t)
corecmd_exec_shell(polaris_psd_t)

provide objstore access
polaris_disk_objstore_read(polaris_psd_t)

work with /tmp files (/tmp/sh-thd-*)
type polaris_psd_tmp_t;
files_tmp_file(polaris_psd_tmp_t)
files_tmp_filetrans(polaris_psd_t, polaris_psd_tmp_t, file)
manage_files_pattern(polaris_psd_t, polaris_psd_tmp_t, polaris_psd_tmp_t)

polaris_obfl_data_read(polaris_psd_t)

allow polaris_psd_t self:capability { fsetid };

allow polaris_psd_t self:capability { dac_override chown };
allow polaris_psd_t self:netlink_route_socket rw_netlink_socket_perms;

logging_send_syslog_msg(polaris_psd_t)

#psd need detect which terminal to use as console, need read permission to ttyS*
psd need read/write grub configure file /boot/grub/menu.*: read /boot/grub/menu.bak
, generate /boot/grub/menu.list
read access to bootflash for bin file loading
ifdef(`vxe_family',`
term_use_unallocated_ttys(polaris_psd_t)
polaris_legacy_grub_manage(polaris_psd_t)
polaris_bootflash_read(polaris_psd_t)
polaris_disk_varied_read(polaris_psd_t)
`)
ifdef(`wlc_family',`
term_use_unallocated_ttys(polaris_psd_t)
bootloader_rw_config(polaris_psd_t)
polaris_disk_varied_read(polaris_psd_t)
`)
ifdef(`vwlc_platform',`
polaris_legacy_grub_manage(polaris_psd_t)
polaris_bootflash_read(polaris_psd_t)
`)

polaris_disk_csl_manage(polaris_psd_t)

```

```

fs_read_nsfs_files(polaris_psd_t)

polaris_dyncfg_tmp_read(polaris_psd_t)

polaris_read_packages_conf(polaris_psd_t)

handling /tmp/restconf
type polaris_restconf_t;
files_tmp_file(polaris_restconf_t)

files_tmp_filetrans(polaris_psd_t, polaris_restconf_t, dir, "restconf")
polaris_restconf_manage(polaris_psd_t)

handling /tmp/.ncsshd_authorized_keys
type polaris_ncsshd_keys_t;
files_tmp_file(polaris_ncsshd_keys_t);

files_tmp_filetrans(polaris_psd_t, polaris_ncsshd_keys_t, dir, ".ncsshd_authorized_keys")
polaris_ncsshd_keys_manage(polaris_psd_t)

polaris_tmp_tdlb_persist_setup(polaris_psd_t)

polaris_tdlb_persist_setup(polaris_psd_t)

write mem updates the grub config files
optional_policy('
polaris_grubcfg_manage(polaris_psd_t)
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispsd.te

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```

#
February 2020, Victor Kamensky
#
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#

<summary>Polaris fpm Policy Rules.</summary>

#####
<summary>
Write fpm /var/run socket file
</summary>
<param name="domain">
<summary>
```

```

Domain allowed access.
</summary>
</param>
#
interface(`polaris_fpm_var_sock_write`,`
 gen_require(`
 type polaris_fpm_t;
 type polaris_fpm_var_run_t;
 type var_run_t;
 `)
 write_sock_files_pattern($1, var_run_t, polaris_fpm_var_run_t)
 allow $1 polaris_fpm_t:unix_stream_socket { connectto };
)

#####
<summary>
Manage mqipc fpm2fmrp shared memory file in /dev/shm directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fpm2fmrp_mqipc_use`,`
 gen_require(`
 type polaris_fpm2fmrp_mqipc_t;
 `)
 polaris_mqipc_use($1, polaris_fpm2fmrp_mqipc_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfpm.if

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```

#
Oct 2020, Xin Xiang
#
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#

```

## <summary>Polaris Doppler Policy Rules.</summary>

```

#####
<summary>
Work (read, write, ioctl) with /dev/dmabap
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dmammap_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_dmammap_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_dmammap_device_t)
 read_chr_files_pattern($1, device_t, polaris_dmammap_device_t)
 allow $1 polaris_dmammap_device_t:chr_file map;
`)

```

```

#####
<summary>
Work (read, write, ioctl) with /dev/dmamap
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dplr_dev_use`,`
 gen_require(`
 type device_t;
 type polaris_dplr_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_dplr_device_t)
 read_chr_files_pattern($1, device_t, polaris_dplr_device_t)
 allow $1 polaris_dplr_device_t:chr_file map;
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisdoppler.if

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```

#
March 2017, Victor Kamensky
#
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#

```

/usr/binos/conf/pvp.sh -- gen\_context(system\_u:object\_r:polaris\_pvp\_exec\_t,s0)

```

/tmp/sw/rp/max_elastic_bays -- gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)
/tmp/iosd_memory_share -- gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)

/tmp/cc/0(/.*)? gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)
/tmp/cc/.*/pvp(/.*)? gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)
/tmp/fp/pvp(/.*)? gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)
/tmp/rp/pvp/oir/sw_lic_service(/.*)? gen_context(system_u:object_r:polaris_chasfs_t,s0)
/tmp/rp/pvp/oir/sw_csl_service(/.*)? gen_context(system_u:object_r:polaris_chasfs_t,s0)
/tmp/rp/pvp/oir/rp_.*(/.*)? gen_context(system_u:object_r:polaris_chasfs_t,s0)
/tmp/rp/pvp(/.*)? gen_context(system_u:object_r:polaris_pvp_tmp_t,s0)

/tmp/rp/pvp/sai_process(/.*)? gen_context(system_u:object_r:polaris_pvp_sai_t,s0)
/tmp/fp/pvp/sai_process(/.*)? gen_context(system_u:object_r:polaris_pvp_sai_t,s0)
/tmp/cc/.*/pvp/sai_process(/.*)? gen_context(system_u:object_r:polaris_pvp_sai_t,s0)

/tmp/rp/pvp/process_state(/.*)? gen_context(system_u:object_r:polaris_process_state_t,s0)
/tmp/fp/pvp/process_state(/.*)? gen_context(system_u:object_r:polaris_process_state_t,s0)
/tmp/cc/pvp/process_state(/.*)? gen_context(system_u:object_r:polaris_process_state_t,s0)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispvp.fc
```

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```

#
August 2017, Shawn Lu
#
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#

```

```
policy_module(polariswlc, 1.0);
```

```
hanet driver used by vwlc, is there better place for it?
```

```

type polaris_hanet_device_t;
dev_node(polaris_hanet_device_t)

```

```

gen_require(
 type polaris_wlc_ap_images_t;
 type mnt_t;
 attribute polaris_extended_domain;
)

```

```
transition when /mnt/images is created
```

```
filetrans_pattern(polaris_extended_domain, mnt_t, polaris_wlc_ap_images_t, dir, "images")
```

```
epaN and epactrlN devices
```

```

type polaris_epa_device_t;
dev_node(polaris_epa_device_t)

```

```

luna_fpgs device
type polaris_luna_mbfpga_device_t;
dev_node(polaris_luna_mbfpga_device_t)

astro device
type polaris_astro_device_t;
dev_node(polaris_astro_device_t)

cpp_il device
type polaris_cpp_il_device_t;
dev_node(polaris_cpp_il_device_t)

oob_evfc device
type polaris_oob_evfc_device_t;
dev_node(polaris_oob_evfc_device_t)

on vwlc all processes read grub_cisco_version in polaris_disk_varied_t
gen_require(
 attribute polaris_domain;
)
polaris_disk_varied_search(polaris_domain)

/dev/sfp-ktr device
type polaris_sfp_katar_device_t;
dev_node(polaris_sfp_katar_device_t)

handle /tmp/vxe_disk_XXX_YYY files
ifdef(^vwlc_platform',`
gen_require(
 type unconfined_service_t;
)
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v1")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v2")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v3")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_mbr_v4")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v1")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v2")
polaris_boot_tmp_filetrans(unconfined_service_t, file, "vxe_disk_gpt_v3")
polaris_boot_tmp_manage(unconfined_service_t)
)
type polaris_grubver_t;
polaris_pfile_type(polaris_grubver_t)

type polaris_grub_bios_t;
polaris_pfile_type(polaris_grub_bios_t)

#on vWLC, all processes read grubenv from EFI disk partition.

```



```
gen_require(
 attribute polaris_domain;
)
polaris_vwlc_grub_efi_search(polaris_domain)
```

```
type polaris_vwlcinstall_info_t;
polaris_pfile_type(polaris_vwlcinstall_info_t)
```

```
gen_require(
 type unconfined_service_t;
 type polaris_disk_varied_t;
)
unconfined service create /boot/.install_info if does not exist yet
filetrans_pattern(unconfined_service_t, polaris_disk_varied_t, polaris_vwlcinstall_info_t, file, ".install_info")
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswlc.te
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```

```

March 2017, Victor Kamensky

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#
```

```
/tmp/sw/boot/rmonbifo(/.*)? gen_context(system_u:object_r:polaris_rmonbifo_tmp_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrmonbifo.fc
No license file was found, but licenses were detected in source scan.
```

```

March 2017, Victor Kamensky

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#
```

```
polarisbtlogger file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbtlogger.fc
No license file was found, but licenses were detected in source scan.
```

```

March 2017, Victor Kamensky
```

```

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#

policy_module(polarisnifmgr, 1.0);

gen_require(`
 type polaris_nif_mgr_t;
`)

polaris_ripc_sman_ui_serv_connect(polaris_nif_mgr_t)

polaris_btrace_data_manage(polaris_nif_mgr_t)
polaris_crft_data_manage(polaris_nif_mgr_t)
polaris_chasfs_manage(polaris_nif_mgr_t)
polaris_tdlresolve_read(polaris_nif_mgr_t)
polaris_tdlldb_list_dirs(polaris_nif_mgr_t)
polaris_cpld_read(polaris_nif_mgr_t)
polaris_lua_read(polaris_nif_mgr_t)
polaris_flashlib_read(polaris_nif_mgr_t)

#If romvar is not set, Set Rommon env variable needs write permission
polaris_flashlib_write(polaris_nif_mgr_t)

logging_send_syslog_msg(polaris_nif_mgr_t)

set out of band interface mac set_oobndif_mac
allow polaris_nif_mgr_t self:tcp_socket ioctl;

communication between the nif manager and fed use directories under /tmp/sv
polaris_sv_tmp_use(polaris_nif_mgr_t)

/dev/shm/sdm access
optional_policy(`
polaris_sdm_shm_manage(polaris_nif_mgr_t)
`)

open /dev/ttyS0 console in sco_sys_init_sw_params
term_use_unallocated_ttys(polaris_nif_mgr_t)

allow create and write access to the /proc/*_sesa file

gen_require(`
type polaris_proc_sesa_t;
`)
polaris_proc_sesa_create_write(polaris_nif_mgr_t)

```

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\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisnifmgr.te

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#

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#

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#

policy\_module(polarisdmiopdatamgrd, 1.0);

gen\_require(^

    type polaris\_dmi\_opdatamgrd\_t;

')

# allow to get getattr of /proc file system

domain\_read\_all\_domains\_state(polaris\_dmi\_opdatamgrd\_t)

# work with /var/log/dmi/ files

type polaris\_dmi\_var\_log\_t;

logging\_log\_file(polaris\_dmi\_var\_log\_t)

manage\_files\_pattern(polaris\_dmi\_opdatamgrd\_t, polaris\_dmi\_var\_log\_t, polaris\_dmi\_var\_log\_t)

manage\_dirs\_pattern(polaris\_dmi\_opdatamgrd\_t, polaris\_dmi\_var\_log\_t, polaris\_dmi\_var\_log\_t)

logging\_log\_filetrans(polaris\_dmi\_opdatamgrd\_t, polaris\_dmi\_var\_log\_t, dir, "dmi")

polaris\_chasfs\_manage(polaris\_dmi\_opdatamgrd\_t)

polaris\_btrace\_data\_manage(polaris\_dmi\_opdatamgrd\_t)

polaris\_cpld\_read(polaris\_dmi\_opdatamgrd\_t)

polaris\_boot\_tmp\_read(polaris\_dmi\_opdatamgrd\_t)

# run ldd, which in turns execve "ld.so --verify"

libs\_exec\_ld\_so(polaris\_dmi\_opdatamgrd\_t)

# this (opdatamgrd.sh) process is shell script need permission to execute shell

# and variety of small util commands under bin\_t

corecmd\_exec\_shell(polaris\_dmi\_opdatamgrd\_t)

corecmd\_exec\_bin(polaris\_dmi\_opdatamgrd\_t)

# allow read of /etc/passwd

# passwd\_file\_t:file { getattr open read };

auth\_use\_nsswitch(polaris\_dmi\_opdatamgrd\_t)

# opdatamgrd.sh calls ps command

# ps needs access to /sys/devices/system/cpu/online

dev\_read\_sysfs(polaris\_dmi\_opdatamgrd\_t)

```

ps needs access to proc_t
kernel_read_system_state(polaris_dmi_opdatamgrd_t)

allow polaris_dmi_opdatamgrd_t self:capability { sys_resource dac_override };

handling of /tmp/stream-parsers
type polaris_dmi_parser_t;
files_tmp_file(polaris_dmi_parser_t)
files_tmp_filetrans(polaris_dmi_opdatamgrd_t, polaris_dmi_parser_t, dir, "stream-parsers")
manage_dirs_pattern(polaris_dmi_opdatamgrd_t, tmp_t, polaris_dmi_parser_t)
manage_files_pattern(polaris_dmi_opdatamgrd_t, polaris_dmi_parser_t, polaris_dmi_parser_t)

mount_domtrans(polaris_dmi_opdatamgrd_t)

confd_cli runs under our label
allow polaris_dmi_opdatamgrd_t self:tcp_socket create_socket_perms;

runs ps that wants to have access to containers files
optional_policy(`
polaris_disk_vman_dir_list(polaris_dmi_opdatamgrd_t)
`)
polaris_sandbox_file_dir_list(polaris_dmi_opdatamgrd_t)
polaris_sandbox_file_getattr(polaris_dmi_opdatamgrd_t)

runs find to search all 'parse.*' files
find . -perm /111 -name parse.* -exec basename {} ;
LOOK AT ME it seems that it does search on customer visible
directories, can and whether customer supposed to be
able give parse.* files to dmi opdatamgrd, could it
be exploited?
files_getattr_all_files(polaris_dmi_opdatamgrd_t)
files_getattr_all_dirs(polaris_dmi_opdatamgrd_t)

access to /dev/pts/0
ssh_use_ptys(polaris_dmi_opdatamgrd_t)

directly work with to /dev/ttyS1
term_use_unallocated_ttys(polaris_dmi_opdatamgrd_t)

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* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmiopdatamgrd.te
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```

```

#

<summary>Polaris ngwc_fed Policy Rules.</summary>

#####

<summary>
Connect to and send messages to /tmp/dbgmn_log_sv unit
datagram socket.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fed_sock_write`,`
 gen_require(`
 type polaris_fed_sock_t;
 type polaris_ngwc_fed_t;
 type tmp_t;
 `)

 allow $1 self:unix_stream_socket {create_socket_perms};
 allow $1 polaris_ngwc_fed_t:unix_stream_socket {connectto};
 write_sock_files_pattern($1, tmp_t, polaris_fed_sock_t)
)

#####

<summary>
Allow the specified domain able to read fed /tmp files.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
<param name="object">
<summary>
File name in /tmp that the fed domain creates and other domains
access.
</summary>
</param>
#
interface(`polaris_fed_tmp_files_read`,`
 gen_require(`
 type polaris_fed_tmp_t;
 `)
)

```

```

 read_files_pattern($1, polaris_fed_tmp_t, polaris_fed_tmp_t)
)

#####
<summary>
Allow to read and write /tmp/epc_ws/fed_to_wif_pipe file.
</summary>
<param name="domain">
<summary>
epc_ws_liaison and ngwc-fed pipe interaction.
</summary>
</param>
#
interface(`polaris_fed_shm_file_read`,`
 gen_require(`
 type polaris_ngwc_fed_t;
 `)

 allow $1 polaris_ngwc_fed_t:shm { associate read unix_read unix_write write };
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngwcfed.if

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```

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#

```

# polarismobilityd file contexts place holder

Found in path(s):

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```

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#

```

policy\_module(polarisdmivtyserverutild, 1.0);

```

gen_require(`

```

```

 type polaris_dmi_vtyserverutild_t;
)

polaris_btrace_data_manage(polaris_dmi_vtyserverutild_t)
polaris_chasfs_manage(polaris_dmi_vtyserverutild_t)
polaris_tdlresolve_read(polaris_dmi_vtyserverutild_t)
polaris_tdlldb_list_dirs(polaris_dmi_vtyserverutild_t)
polaris_cpld_read(polaris_dmi_vtyserverutild_t)
polaris_flashlib_read(polaris_dmi_vtyserverutild_t)

allow polaris_dmi_vtyserverutild_t self:socket { connect create read write };

type polaris_dmi_vtyserverutild_tmp_t;
files_tmp_file(polaris_dmi_vtyserverutild_tmp_t)
files_tmp_filetrans(polaris_dmi_vtyserverutild_t, polaris_dmi_vtyserverutild_tmp_t, fifo_file, ".DMI_FIFO")
manage_fifo_files_pattern(polaris_dmi_vtyserverutild_t,
polaris_dmi_vtyserverutild_tmp_t,polaris_dmi_vtyserverutild_tmp_t)

logging_send_syslog_msg(polaris_dmi_vtyserverutild_t)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmi_vtyserverutild.te
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```

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```

define(`mqipc_stem', `translit(patsubst($1, `~mqipc$', ``), `-', `_)')
define(`mqipc_label', `format(`polaris_%s_mqipc_t', mqipc_stem($1))')

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/polaris_ipc_mqipc.m4
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```

#

# November 2020, Christine Hwang

#

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#

## <summary>Polaris Cabo GNSS Policy Rules.</summary>

#####

## <summary>

```

Work (read, write, ioctl) with /dev/ttyS1
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cabo_gnss_dev_use',`
 gen_require(`
 type device_t;
 type polaris_cabo_gnss_device_t;
 `)
 write_chr_files_pattern($1, device_t, polaris_cabo_gnss_device_t)
 read_chr_files_pattern($1, device_t, polaris_cabo_gnss_device_t)
 allow $1 polaris_cabo_gnss_device_t:chr_file map;
)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscabognss.if
```

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```

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#

```

```
policy_module(polaristservice, 1.0);
```

```
polaris_process_domain_template(tservice_telnet)
```

```
polaris_process_domain_template(tservice_ssh)
```

```
gen_require(`
 type inetd_exec_t, inetd_t;
)

```

```
domtrans_pattern(polaris_tservice_telnet_t, inetd_exec_t, inetd_t)
```

```

polaris_chasfs_manage(polaris_tservice_telnet_t)
polaris_btrace_data_manage(polaris_tservice_telnet_t)
polaris_cpld_read(polaris_tservice_telnet_t)
polaris_boot_tmp_read(polaris_tservice_telnet_t)
polaris_rmonbifo_tmp_read(polaris_tservice_telnet_t)

```

```
corecmd_exec_shell(polaris_tservice_telnet_t)
```

```
corecmd_exec_bin(polaris_tservice_telnet_t)
```



```

allow read of /etc/passwd
auth_use_nsswitch(polaris_tservice_telnet_t)

dmidecode_domtrans(polaris_tservice_telnet_t)

allow polaris_tservice_telnet_t self:capability sys_resource;
kernel_read_system_state(polaris_tservice_telnet_t)

gen_require(
 type initrc_exec_t, initrc_t;
)
domtrans_pattern(polaris_tservice_telnet_t, initrc_exec_t, initrc_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_tservice_telnet_t)

/bin/sh /usr/binos/conf/mcp_chvrf.sh eobc /usr/sbin/xinetd -f
/tmp/chassis/local/rp/chasfs/rp/0/0/etc/telnet/xinetd_telnetd.conf
polaris_chvrf_domtrans(polaris_tservice_telnet_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristservice.te
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#

<summary>Polaris WLC Platform Policy Rules.</summary>

#####
<summary>
Work (read, write, ioctl) with /dev/hanet
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_hanet_dev_use',`
gen_require(
 type device_t;
 type polaris_hanet_device_t;

```

```

)
 write_chr_files_pattern($1, device_t, polaris_hanet_device_t)
 read_chr_files_pattern($1, device_t, polaris_hanet_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/epa[0-9]* and
/dev/epactrl[0-9]*
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_epa_dev_use`,`
gen_require(`
 type device_t;
 type polaris_epa_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_epa_device_t)
 read_chr_files_pattern($1, device_t, polaris_epa_device_t)
 allow $1 polaris_epa_device_t:chr_file map;
)

#####
<summary>
Work (read, write, ioctl) with /dev/luna_mbfpga device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_luna_mbfpga_dev_use`,`
gen_require(`
 type device_t;
 type polaris_luna_mbfpga_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_luna_mbfpga_device_t)
 read_chr_files_pattern($1, device_t, polaris_luna_mbfpga_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/astro device

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_astro_dev_use',`
gen_require(`
 type device_t;
 type polaris_astro_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_astro_device_t)
 read_chr_files_pattern($1, device_t, polaris_astro_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/cpp_il device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_cpp_il_dev_use',`
gen_require(`
 type device_t;
 type polaris_cpp_il_device_t;
`)
 write_chr_files_pattern($1, device_t, polaris_cpp_il_device_t)
 read_chr_files_pattern($1, device_t, polaris_cpp_il_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/oob_evfc device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_oob_evfc_dev_use',`
gen_require(`
 type device_t;

```

```

type polaris_oob_evfc_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_oob_evfc_device_t)
 read_chr_files_pattern($1, device_t, polaris_oob_evfc_device_t)
)

#####
<summary>
Work (read, write, ioctl) with /dev/sfp-ktr device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sfp_katar_dev_use`,`
gen_require(`
 type device_t;
 type polaris_sfp_katar_device_t;
)
 write_chr_files_pattern($1, device_t, polaris_sfp_katar_device_t)
 read_chr_files_pattern($1, device_t, polaris_sfp_katar_device_t)
)

#####
<summary>
Read vWLC install info files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vwlcinstall_info_read`,`
gen_require(`
 type polaris_vwlcinstall_info_t;
)
 read_files_pattern($1, polaris_vwlcinstall_info_t, polaris_vwlcinstall_info_t)
 list_dirs_pattern($1, polaris_vwlcinstall_info_t, polaris_vwlcinstall_info_t)
)

#####
<summary>
Read /dev/vda1 device the efi partition
</summary>
<param name="domain">

```

```

<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vwlc_grub_info_read`,`
gen_require(`
type polaris_grubver_t;
type polaris_grub_bios_t;
type polaris_grub_efi_t;
`)
read_files_pattern($1, polaris_grubver_t, polaris_grubver_t)
read_files_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
read_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
list_dirs_pattern($1, polaris_grubver_t, polaris_grubver_t)
list_dirs_pattern($1, polaris_grub_bios_t, polaris_grub_bios_t)
list_dirs_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
`)

```

```
#####
```

```

<summary>
Search /dev/vda1 device the efi partition
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vwlc_grub_efi_search`,`
gen_require(`
type polaris_grub_efi_t;
`)
search_dirs_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
`)

```

```
#####
```

```

<summary>
Work (read, write, ioctl) with /dev/vda1 device
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_vwlc_grub_efi_use`,`
gen_require(`

```

```
type polaris_grub_efi_t;
')
write_chr_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
read_chr_files_pattern($1, polaris_grub_efi_t, polaris_grub_efi_t)
')
```

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```
define(`database_stem', `translit(patsubst($1, `_DB$', `'), `A-Z', `a-z'))
```

```
define(`database_label', `format(`polaris_%s_db_tdlldb_t', database_stem($1))')
```

```
define(`database_use_map', `defn(format(`database_use_map[%s-%s]", `$1', `$2'))')
```

```
define(`database_use_map_set', `define(format(`database_use_map[%s-%s]", `$1', `$2'), `$3'))')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_database\_db.m4

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#

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#

```
policy_module(polarisdmi_dmi_authd, 1.0);
```

```
gen_require(`
```

```
 type polaris_dmi_dmi_authd_t;
```

```
`)
```

```
polaris_btrace_data_manage(polaris_dmi_dmi_authd_t)
```

```
polaris_crft_data_manage(polaris_dmi_dmi_authd_t)
```

```
polaris_chasfs_manage(polaris_dmi_dmi_authd_t)
```

```
polaris_tdlresolve_read(polaris_dmi_dmi_authd_t)
```

```
polaris_tdlldb_list_dirs(polaris_dmi_dmi_authd_t)
```

```
polaris_cpld_read(polaris_dmi_dmi_authd_t)
```

```
polaris_flashlib_read(polaris_dmi_dmi_authd_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_dmi_dmi_authd_t)
```

```

polaris_db_tdlldb_dir_use(polaris_dmi_dmiauthd_t)

dmiauthd creates and binds to /tmp/.DmiAuth.socket unix socket
type polaris_dmi_dmiauthd_tmp_t;
files_tmp_file(polaris_dmi_dmiauthd_tmp_t)
files_tmp_filetrans(polaris_dmi_dmiauthd_t, polaris_dmi_dmiauthd_tmp_t, { sock_file fifo_file })
manage_sock_files_pattern(polaris_dmi_dmiauthd_t, polaris_dmi_dmiauthd_tmp_t, polaris_dmi_dmiauthd_tmp_t)
manage_fifo_files_pattern(polaris_dmi_dmiauthd_t, polaris_dmi_dmiauthd_tmp_t, polaris_dmi_dmiauthd_tmp_t)

dmiauthd creates diagnostic files in /tmp/netconf-yang-diag
type polaris_dmi_dmiauthd_tmp_diags_t;
files_tmp_file(polaris_dmi_dmiauthd_tmp_diags_t)
files_tmp_filetrans(polaris_dmi_dmiauthd_t, polaris_dmi_dmiauthd_tmp_diags_t, dir, "netconf-yang-diag")
polaris_dmiauthd_tmp_diags_manage(polaris_dmi_dmiauthd_t)

logging_send_syslog_msg(polaris_dmi_dmiauthd_t)

read confd log file and push into btrace
polaris_confd_log_read(polaris_dmi_dmiauthd_t)

from dmilib iospl_connect through libiospl iospl_token_read_from_file
iospl_token_read_from_file reads /tmp/rp/.iospl_dmiauthd
polaris_dmiauthd_token_read(polaris_dmi_dmiauthd_t)

gen_require(
 type polaris_confd_tmp_t;
)
This is applicable to wireless platforms running in standby monitoring mode
wherein dmiauthd create temporary files in /tmp/confd upon switchover and
trigger ConfD restart.
manage_files_pattern(polaris_dmi_dmiauthd_t, polaris_confd_tmp_t, polaris_confd_tmp_t)
manage_dirs_pattern(polaris_dmi_dmiauthd_t, polaris_confd_tmp_t, polaris_confd_tmp_t)

#####
"show netconf-yang diagnostics [all | last | message]" invokes
/usr/binos/conf/dmid_diag_logs.sh
#####

polaris_utility_domain_template(dmid_diag_logs)

polaris_bexecute_domtrans(polaris_dmi_dmiauthd_t)
polaris_bexecute_domain(polaris_dmid_diag_logs_t, polaris_dmid_diag_logs_exec_t)

signal sent during the show cmd
polaris_send_signal_to_bexecute(polaris_dmi_dmiauthd_t)

read files in /tmp/netconf-yang-diag

```

```

polaris_dmiauthd_tmp_diags_read(polaris_dmid_diag_logs_t)

need write/ioctl/getattr access for pipes
polaris_dmiauthd_use_fifo(polaris_dmid_diag_logs_t)

polaris_use_btrace_fifo(polaris_dmid_diag_logs_t)
polaris_btrace_data_manage(polaris_dmid_diag_logs_t)
polaris_chasfs_read(polaris_dmid_diag_logs_t)
polaris_cpld_read(polaris_dmid_diag_logs_t)
dev_read_sysfs(polaris_dmid_diag_logs_t)
auth_use_nsswitch(polaris_dmid_diag_logs_t)
polaris_boot_tmp_read(polaris_dmid_diag_logs_t)
fs_getattr_tmpfs(polaris_dmid_diag_logs_t)

bash tmp files, such as /tmp/sh-thd-1599654988
type polaris_dmid_diag_logs_tmp_t;
files_tmp_file(polaris_dmid_diag_logs_tmp_t)
files_tmp_filetrans(polaris_dmid_diag_logs_t, polaris_dmid_diag_logs_tmp_t, file)
manage_files_pattern(polaris_dmid_diag_logs_t, polaris_dmid_diag_logs_tmp_t, polaris_dmid_diag_logs_tmp_t)

execute /bin/sed
corecmd_exec_bin(polaris_dmid_diag_logs_t)

#####
Allow diagnostics feature to create log file in bootflash
#####

execute /bin/tar
corecmd_exec_bin(polaris_dmi_dmiauthd_t)
tar reads /etc/passwd
auth_use_nsswitch(polaris_dmi_dmiauthd_t)
create log file in bootflash
polaris_bootflash_manage(polaris_dmi_dmiauthd_t)

#####

allow polaris_dmi_dmiauthd_t self:capability sys_resource;

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmidmiauthd.te
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#
May 2017, Victor Kamensky
#
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#

```



```

/opt/confd/bin/confd -- gen_context(system_u:object_r:polaris_confd_exec_t,s0)
/opt/confd/lib/confd/lib/core/confd/priv/mmap_schema --
gen_context(system_u:object_r:polaris_mmap_schema_exec_t,s0)
/usr/binos/bin/vip-confd-startup.sh -- gen_context(system_u:object_r:polaris_confd_exec_t,s0)
/usr/bin/vconfd_script_cdb_backup.sh -- gen_context(system_u:object_r:polaris_confd_exec_t,s0)
/usr/binos/conf/execute_conf_d_cli.sh -- gen_context(system_u:object_r:polaris_confd_cli_exec_t,s0)
/usr/binos/conf/confd_logs.sh -- gen_context(system_u:object_r:polaris_confd_exec_t,s0)
/var/confd0(/.*)? gen_context(system_u:object_r:polaris_confd_var_t,s0)
/dev/shm/confd(/.*)? gen_context(system_u:object_r:polaris_confd_shm_t,s0)
/tmp/confd(/.*)? gen_context(system_u:object_r:polaris_confd_tmp_t,s0)
/tmp/confd_cli(/.*)? gen_context(system_u:object_r:polaris_confd_cli_tmp_t,s0)
/tmp/vconfd(/.*)? gen_context(system_u:object_r:polaris_vconfd_tmp_t,s0)

/usr/bin/vconfd_script_*.admin_tech.*\sh -- gen_context(system_u:object_r:polaris_admin_tech_exec_t,s0)
/var/tech(/.*)? gen_context(system_u:object_r:polaris_admin_tech_var_t,s0)

/bootflash/admintech gen_context(system_u:object_r:polaris_admin_tech_data_t,s0)
/bootflash/admintech_trace gen_context(system_u:object_r:polaris_admin_tech_data_t,s0)
/bootflash/MEMORY_LOG_*.text gen_context(system_u:object_r:polaris_admin_tech_data_t,s0)
/bootflash/collated_log_* gen_context(system_u:object_r:polaris_admin_tech_data_t,s0)

/bootflash/tracelogs/cia-netconf-trace\.* gen_context(system_u:object_r:polaris_conf_d_var_log_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisconfd.fc

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```

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September 2017, Victor Kamensky
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#

```

policy\_module(polarisunconfined, 1.0);

```

<desc>
<p>
IOSd runs in unconfined mode
</p>
</desc>
gen_tunable(polaris_unconfined_iosd, true)

```

```

<desc>
<p>
All polaris processes except IOSd runs in unconfined mode
</p>

```

```

</desc>
gen_tunable(polaris_unconfined_all, true)

gen_require(
 type apmd_t;
 type auditd_t;
 type inetd_t;
 type init_t;
 type initrc_t;
 type journalctl_t;
 type rpcbind_t;
 type rpcd_t;
 type sshd_t;
 type syslogd_t;
 type telnetd_t;
 type udev_t;
 type virt_d_t;
 type virtlogd_t;
 type vmtools_t;
 type ifconfig_t;
 type setfiles_t;
 type iptables_t;
 type virsh_t;
 type svirt_t;
 type svirt_lxc_net_t;
 type virt_d_lxc_t;
)

polaris_domain_maybe_unconfined(apmd_t)
polaris_domain_maybe_unconfined(auditd_t)
polaris_domain_maybe_unconfined(inetd_t)
polaris_domain_maybe_unconfined(init_t)
polaris_domain_maybe_unconfined(initrc_t)
polaris_domain_maybe_unconfined(journalctl_t)
polaris_domain_maybe_unconfined(rpcbind_t)
polaris_domain_maybe_unconfined(rpcd_t)
polaris_domain_maybe_unconfined(sshd_t)
polaris_domain_maybe_unconfined(syslogd_t)
polaris_domain_maybe_unconfined(telnetd_t)
polaris_domain_maybe_unconfined(udev_t)
polaris_domain_maybe_unconfined(virt_d_t)
polaris_domain_maybe_unconfined(virtlogd_t)
polaris_domain_maybe_unconfined(vmtools_t)
polaris_domain_maybe_unconfined(ifconfig_t)
polaris_domain_maybe_unconfined(setfiles_t)
polaris_domain_maybe_unconfined(iptables_t)
polaris_domain_maybe_unconfined(virsh_t)
polaris_domain_maybe_unconfined(svirt_t)

```

```
polaris_domain_maybe_unconfined(svirt_lxc_net_t)
polaris_domain_maybe_unconfined(virt_d_lxc_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisunconfined.te
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```

```
#
July 2020, Victor Kamensky
#
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#
```

```
/tmp/HTX-IOX(/.*)? gen_context(system_u:object_r:polaris_htx_iox_tmp_t,s0)
```

```
/dev/sppi_memif htx works with
/dev/sppi_memif -c gen_context(system_u:object_r:polaris_sppi_memif_device_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarishtx.fc
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```

```
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March 2017, Victor Kamensky
#
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#
```

```
/usr/binos/conf/periodic.sh -- gen_context(system_u:object_r:polaris_periodic_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisperiodic.fc
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```

```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarislua, 1.0);
```

```
#####
Lua policy
#####
```

```
type polaris_lua_file_t;
files_type(polaris_lua_file_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarislua.te
```

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```
#
November 2020, Christine Hwang
#
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#
```

```
policy_module(polariscabognss, 1.0);
```

```
gen_require(
 type polaris_cabo_gnss_t;
)
```

```
polaris_btrace_data_manage(polaris_cabo_gnss_t)
polaris_chasfs_manage(polaris_cabo_gnss_t)
polaris_tdlresolve_read(polaris_cabo_gnss_t)
polaris_cpld_read(polaris_cabo_gnss_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_cabo_gnss_t)
```

```
Allow sysfs read for platform ID and
r/w on /sys/class/gpio/export
polaris_sysfs_manage(polaris_cabo_gnss_t)
dev_manage_sysfs_dirs(polaris_cabo_gnss_t)
```

```
Allow Cabo GNSS to access/modify to GPS GPIO
polaris_ggpio_dev_read_write(polaris_cabo_gnss_t)
```

```
Allow Cabo GNSS access to /dev/ppp0
dev_rw_realtime_clock(polaris_cabo_gnss_t)
```

```
allow system time capability to check for system timeout
allow polaris_cabo_gnss_t self:capability sys_time;
```

```
Label Cabo GNSS TTY device
type polaris_cabo_gnss_device_t;
dev_node(polaris_cabo_gnss_device_t)
```

```
polaris_cabo_gnss_dev_use(polaris_cabo_gnss_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscabognss.te

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dnl

dnl April 2018, Victor Kamensky

dnl

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dnl

dnl WLC Platform Max Bay Limits

max\_bay\_map\_set(^rp', `per\_bay', 0)

max\_bay\_map\_set(^cc', `per\_bay', 1)

max\_bay\_map\_set(^fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(^rp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(^cc', `per\_bay', 1)

max\_bay\_ripc\_map\_set(^fp', `per\_bay', 0)

max\_bay\_ripc\_map\_set(^rp', `global', 0)

max\_bay\_ripc\_map\_set(^cc', `global', 1)

max\_bay\_ripc\_map\_set(^fp', `global', 0)

dnl in elastic scope each process has its own value

max\_elastic\_map\_set(^rp', `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(^cc', `elastic', BPROC\_ODM, 1)

max\_elastic\_map\_set(^fp', `elasite', BPROC\_ODM, 1)

max\_elastic\_map\_set(^rp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(^cc', `elastic', BPROC\_WNCD, 7)

max\_elastic\_map\_set(^fp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(^rp', `elastic', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(^cc', `elastic', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(^fp', `elasite', BPROC\_ODM, 1)

max\_elastic\_ripc\_map\_set(^rp', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(^cc', `elastic', BPROC\_WNCD, 7)

max\_elastic\_ripc\_map\_set(^fp', `elastic', BPROC\_WNCD, 7)

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/wlcmapi.m4

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#

# August 2017, Shawn Lu

#

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#

## <summary>Polaris rogued Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrogued.if

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#

# August 2017, Victor Kamensky

#

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#

## <summary>Polaris flashcheck Policy Rules.</summary>

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisflashcheck.if

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#

# March 2017, Victor Kamensky

#

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#

policy\_module(polarissmd, 1.0);

```
gen_require(
 type polaris_smd_t;
)
```

#####

# mqipc manual, one that missing in platform tdl file

#####

polaris\_btrace\_data\_manage(polaris\_smd\_t)

polaris\_crft\_data\_manage(polaris\_smd\_t)

polaris\_chasfs\_manage(polaris\_smd\_t)

polaris\_tdlresolve\_read(polaris\_smd\_t)

polaris\_tdlldb\_list\_dirs(polaris\_smd\_t)

polaris\_cpld\_read(polaris\_smd\_t)

polaris\_lua\_read(polaris\_smd\_t)

polaris\_flashlib\_read(polaris\_smd\_t)

polaris\_ripc\_sman\_ui\_serv\_connect(polaris\_smd\_t)

```

working with smd persistent/ disk files
type polaris_smd_disk_t;
polaris_disk_type(polaris_smd_disk_t)

manage_files_pattern(polaris_smd_t, polaris_smd_disk_t, polaris_smd_disk_t)

polaris_db_tdlldb_dir_use(polaris_smd_t)

access to persist tdlldb (e.g. .dbpersist)
polaris_tdlldbpersist_setup(polaris_smd_t)

for /dev/shm/cerrno_dell
polaris_cerr_shm_manage(polaris_smd_t)

ifdef(`nyquist_platform',`
gen_require(`
 type polaris_bt_logger_smd_mqipc_t;
')
smd may start first and create this mqipc channel
polaris_mqipc_create_name(polaris_smd_t, polaris_bt_logger_smd_mqipc_t, bt_logger_smd)
')

polaris_lfts_dev_use(polaris_smd_t)

allow polaris_smd_t self:capability { sys_resource net_bind_service };

polaris_socketat_nsfs_read(polaris_smd_t)

allow polaris_smd_t self:process setrlimit;

corenet_tcp_bind_polaris_smd_devshell_port(polaris_smd_t)
corenet_tcp_bind_generic_node(polaris_smd_t)
allow polaris_smd_t self:tcp_socket { getattr setopt getopt bind create listen accept connect read write
name_connect };
allow polaris_smd_t self:capability { net_admin sys_admin };

allow polaris_smd_t self:udp_socket { create_socket_perms recv_msg send_msg };
#smutil_msg_event_cb_handler() uses netlink
allow polaris_smd_t self:netlink_socket { bind create };

LOOK AT ME: now smd may open arbitrary port on forwarding VRF (16)
but in SELinux there is no way to differentiate between port spaces
accross VRFs or namespaces. For now let's grant smd_t access to all ports
regardless of VRF. In future investigate ways to be more restrictive
corenet_udp_bind_generic_port(polaris_smd_t)
corenet_udp_sendrecv_generic_port(polaris_smd_t)
LOOK AT ME: grants access to udp_bind on any node, but if we can

```

```

be more specific and bind only to forwarding VRF related interfaces
corenet_udp_bind_generic_node(polaris_smd_t)

smd want to listent on http port 80 on VRF_FWD, for webauth code please see
smd/webauth/src/webauth_io.c
corenet_tcp_bind_http_port(polaris_smd_t)

allow polaris_smd_t self:capability dac_override;

logging_send_syslog_msg(polaris_smd_t)

allow polaris_smd_t self:capability net_raw;
allow polaris_smd_t self:packet_socket { create_socket_perms recv_msg send_msg };

for access to disk html files (for webauth)
polaris_persistent_read(polaris_smd_t)

transition for dc_profile_dir to polaris_smd_disk_t
gen_require(
 type initrc_t;
)
polaris_bootflash_filetrans(initrc_t, polaris_smd_disk_t, dir, "dc_profile_dir")

SANET is listening on http port(CSCvb41802)
Hence, it needs to follow the same rule as nginx is using in polarisnginx.te
FIXME: add interface to allow bind to port 1025-65535
corenet_tcp_bind_all_ports(polaris_smd_t)

polaris_issu_tmp_files_read(polaris_smd_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissmd.te
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February 2020, Victor Kamensky
#
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#

/usr/binos/conf/cedge-tanman.sh -- gen_context(system_u:object_r:polaris_cedge_tanman_exec_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscedgetanman.fc
No license file was found, but licenses were detected in source scan.

#

```



```
March 2017, Victor Kamensky
#
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#

/usr/binos/conf/droputil.sh -- gen_context(system_u:object_r:polaris_droputil_exec_t,s0)

/tmp/rp/dropbox(/.*)? gen_context(system_u:object_r:polaris_droputil_tmp_t,s0)
/tmp/rp/droputil(/.*)? gen_context(system_u:object_r:polaris_droputil_tmp_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdroputil.fc
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March 2017, Victor Kamensky
#
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#

policy_module(polarisvman, 1.0);

gen_require(
 type polaris_vman_t;
)

polaris_btrace_data_manage(polaris_vman_t)
polaris_crft_data_manage(polaris_vman_t)
polaris_chasfs_manage(polaris_vman_t)
polaris_tdlresolve_read(polaris_vman_t)
polaris_tdlldb_list_dirs(polaris_vman_t)
polaris_cpld_read(polaris_vman_t)
polaris_flashlib_read(polaris_vman_t)

polaris_ripc_sman_ui_serv_connect(polaris_vman_t)

polaris_db_tdlldb_dir_use(polaris_vman_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_vman_t)

polaris_rmonbifo_tmp_read(polaris_vman_t)
polaris_boot_tmp_read(polaris_vman_t)

logging_send_syslog_msg(polaris_vman_t)
```

```

modutils_read_module_deps(polaris_vman_t)
modutils_read_module_config(polaris_vman_t)
modutils_manage_module_config(polaris_vman_t)
modutils_domtrans_insmod(polaris_vman_t)
files_read_kernel_modules(polaris_vman_t)

corecmd_exec_bin(polaris_vman_t)
corecmd_exec_shell(polaris_vman_t)

ifconfig related, ifconfig is executed in its own context
sysnet_domtrans_ifconfig(polaris_vman_t)

VMAN calls vman_set_congestion_control_multiplex when the count
of the bridge users reaches 2 and needs write permissions on
contdev_multiplex
dev_rw_sysfs(polaris_vman_t)
fs_getattr_xattr_fs(polaris_vman_t)

virt_stream_connect(polaris_vman_t)
virt_read_pid_files(polaris_vman_t)

fs_rw_cgroup_files(polaris_vman_t)
kernel_read_system_state(polaris_vman_t)
allow vman to read /dev/pts/*
term_use_generic_ptys(polaris_vman_t)
#allow polaris_vman_t polaris_udev_tmp_files_t:file open;
polaris_udev_tmp_read(polaris_vman_t)
#allow vman to run brctl in it's own domain
brctl_domtrans(polaris_vman_t)
#allow vman to run /sbin/fsck in script
fstools_domtrans(polaris_vman_t)
#allow vman to mount rootfs on polaris_disk_vman_t
allow polaris_vman_t polaris_disk_vman_t:dir mounton;
fs_mount_xattr_fs(polaris_vman_t)
#allow vman have capability for modify owner of the file
allow polaris_vman_t self:capability { chown fowner fsetid };
#allow vman to bind to unreserved tcp ports while it searches for
#port available to guest console to listen on
corenet_tcp_bind_unreserved_ports(polaris_vman_t)

working with vman /var/ files
type polaris_var_vman_t;
files_tmp_file(polaris_var_vman_t)
files_var_filetrans(polaris_vman_t, polaris_var_vman_t, dir, "virtual-instance")
manage_files_pattern(polaris_vman_t, polaris_var_vman_t, polaris_var_vman_t)
manage_dirs_pattern(polaris_vman_t, polaris_var_vman_t, polaris_var_vman_t)
manage_sock_files_pattern(polaris_vman_t, polaris_var_vman_t, polaris_var_vman_t)

```

```

working with vman persitsten files
type polaris_disk_vman_t;
polaris_disk_type(polaris_disk_vman_t)

gen_require(
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
)
filetrans_pattern(polaris_vman_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_disk_vman_t, dir,
"virtual-instance")
filetrans_pattern(polaris_vman_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_disk_vman_t, file,
"virtual-instance.conf")
filetrans_pattern(polaris_vman_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_disk_vman_t, dir,
"vman_fdb")

allow creation of /bootflash/virtual-instance.conf file
manage_files_pattern(polaris_vman_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_disk_vman_t)
allow creation of /bootflash/virtual-instance and /bootflash/vman_fdb directories
manage_dirs_pattern(polaris_vman_t, { polaris_disk_bootflash_t polaris_disk_harddisk_t }, polaris_disk_vman_t)
vman can manage files inside of its own polaris_disk_vman_t directories
manage_files_pattern(polaris_vman_t, polaris_disk_vman_t, polaris_disk_vman_t)

after all above transition we need to grant vman right to work with any
persistent storage file since it needs to access and write .ova files
polaris_persistent_manage(polaris_vman_t)

vman uses netlink socket to talk to lxc watchdog driver
please see binos/vman/src/vman_lxc_wd.c
allow polaris_vman_t self:netlink_generic_socket { create_socket_perms sendto recvfrom};

vman calls tipc-config which in turns wants to create AF_TIPC socket
allow polaris_vman_t self:socket create_socket_perms;

vman uses 'ip netns exec 0 ifconfig -a' command which in turns switches
network namespace and need access to /proc/pid/ns/net file
fs_read_nsfs_files(polaris_vman_t)

this label is created to exchange log related information between container and host.
type polaris_vman_log_t;
By making this label belong to polaris persistent storage combined with vman inheriting rights
to manage polaris_disk via polaris_persistent_manage(), vman gains rights to manage below dirs.
polaris_disk_type(polaris_vman_log_t)
filetrans_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_log_t, dir, "UtdIpsAlert-IOX")
filetrans_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_log_t, dir, "UtdUrf-IOX")
filetrans_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_log_t, dir, "UtdAmp-IOX")
filetrans_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_log_t, dir, "UtdTls-IOX")
filetrans_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_log_t, dir, "UtdLogMappings-IOX")
allow polaris_vman_t polaris_vman_log_t:dir mounton;

```

```

Allow vman to work with /bootflash/virtual-instance/UTD/rootfs
optional_policy(
 gen_require(
 type container_file_t;
)
 allow polaris_vman_t container_file_t:filesystem { getattr unmount };
)

Allow vman/ioxman to work with /tmp/HTX-IOX
optional_policy(
 gen_require(
 type polaris_htx_iox_tmp_t;
)
 allow polaris_vman_t polaris_htx_iox_tmp_t:dir { getattr mounton open read };
)

Allow vman to mount /tmp/binos-IOX
optional_policy(
 gen_require(
 type polaris_qfp_memif_t;
)
 allow polaris_vman_t polaris_qfp_memif_t:dir mounton;
)

vman_init.sh operates on /tmp/vman files
type polaris_vman_tmp_t;
files_tmp_file(polaris_vman_tmp_t)
files_tmp_filetrans(polaris_vman_t, polaris_vman_tmp_t, { file dir })
polaris_systemd_tmpfiles_tmp_filetrans(polaris_vman_tmp_t, dir, "vman")
manage_files_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_tmp_t)
manage_dirs_pattern(polaris_vman_t, polaris_vman_tmp_t, polaris_vman_tmp_t)

allow vman to work with /tmp/xml
fs_remount_tmpfs(polaris_vman_t)
fs_unmount_tmpfs(polaris_vman_t)
fs_unmount_xattr_fs(polaris_vman_t)
allow polaris_vman_t polaris_vman_tmp_t:dir mounton;
optional_policy(
 polaris_cedge_xml_tmp_manage(polaris_vman_t)
)

relabel /bootflash/virtual-instance/UTD/tmpstaging to /dev/loopX
gen_require(
 type iso9660_t;
)
allow polaris_vman_t iso9660_t:filesystem { relabelfrom };

```

```

configure /proc/sys/net/ipv4/conf/dpbr_0/arp_announce
kernel_search_network_sysctl(polaris_vman_t)
kernel_rw_net_sysctls(polaris_vman_t)
#configure e.g. /proc/sys/vm/nr_hugepages
kernel_rw_vm_sysctls(polaris_vman_t)

need to do bind mount of /bootflash/SHARED-IOX
mount_domtrans(polaris_vman_t)

vman accessing files under /tmp created by initrc like /tmp/gdev/md0/gdev-info
init_read_script_tmp_files(polaris_vman_t)

#DB persistence
polaris_tldbpersist_setup(polaris_vman_t)

polaris_tmp_tlddb_persist_setup(polaris_vman_t)

gen_require(
 type initrc_t;
)
files_tmp_filetrans(initrc_t, polaris_vman_tmp_t, file, "cgroup.log")

dmidecode_domtrans(polaris_vman_t)

read /etc/libvirt/libvirt.conf
virt_read_config(polaris_vman_t)

vman_cgroup_yaml.sh through prep_csr_kumo (binos_functions-pd) checks for
ovf-env.xml file existence in variety of directories including
/cdrom0/ovf-env.xml
fs_read_iso9660_files(polaris_vman_t)

allow vman to manage loop device: finding free /dev/loopN device
note vman code iterated over all /dev/loop* devices and try to lock
them. As part of that iteration it tries /dev/loop_control
what it should do instead is to use /dev/loop_control to get free
device
dev_rw_loop_control(polaris_vman_t)

PLEASE LOOK AT ME
allow vman to read, write /dev/loopN devices that are
under fixed_disk_device_t label. It is pretty strong premission
and at this point it is only done for /dev/loopN devices.
Can we do better? i.e move /dev/loopN to some other label?
storage_manage_fixed_disk(polaris_vman_t)

when /bootflash or /harddisk are 100% full
allow polaris_vman_t self:capability sys_resource;

```

```

allow VMAN to move disk.img to the disk
allow polaris_vman_t self:process setfscreate;

vman mounts directories on behalf of guest containers, it uses
specified context for guest directories, need permission to
relabel, mount, etc.
fs_relabelfrom_xattr_fs(polaris_vman_t)
virt_relabel_sandbox_filesystem(polaris_vman_t)
virt_mounton_sandbox_file(polaris_vman_t)
virt_manage_sandbox_files(polaris_vman_t)
gen_require(
 type svirt_sandbox_file_t;
)
allow polaris_vman_t svirt_sandbox_file_t:filesystem mount;

/tmp/.flashlock operations from tdllib_startup_cfg_ignored, mcp_getmonvar
allow polaris_vman_t self:capability dac_override;

allow vman to stat /dev/kvm, executed by vman_common_init function
dev_getattr_kvm_dev(polaris_vman_t)

vman in getfs_info_by_mediatype function inspects files in /tmp/gdev
gen_require(
 type udev_tmp_t;
)
read_files_pattern(polaris_vman_t, udev_tmp_t, udev_tmp_t)

/usr/binos/conf/vman_exec.sh policy

polaris_utility_domain_template(vman_shell)

polaris_bexecute_domain(polaris_vman_shell_t, polaris_vman_shell_exec_t)
vman_exec.sh calls mcp_chvrf.sh
polaris_chvrf_domtrans(polaris_vman_shell_t)
mcp_chvrf.sh calls vman_exec.sh back and then it call bexec.sh
polaris_bexecute_domtrans(polaris_vman_shell_t)
corecmd_exec_bin(polaris_vman_shell_t)

inherits stdin from telnetd
telnet_use_ptys(polaris_vman_shell_t)
#allow use of ptys for vman tech support
telnet_use_ptys(polaris_vman_tech_t)

optional_policy(
reads /opt/cisco/caf/config/system-config.ini
polaris_caf_files_read(polaris_vman_t)
)

```

```

vman_is_machine_type_initialized clone needs cap_userns sys_admin
allow polaris_vman_t self:cap_userns sys_admin;

vman_cgroup_yaml.sh searches for ovf-env.xml on cdrom0
fs_read_removable_files(polaris_vman_t)

vman starts vman_init.sh that in turns calls virsh
gen_require(
 type virsh_t;
 type virsh_exec_t;
)
domtrans_pattern(polaris_vman_t, virsh_exec_t, virsh_t)

polaris_bexecute_domtrans(polaris_vman_t)
polaris_send_signal_to_bexecute(polaris_vman_t)

gen_require(
 type polaris_chvrf_t;
)
inherited as stdin/stdout from vman
polaris_vman_use_fifo(polaris_chvrf_t)

vman calls code_sign_verify VmanPackage
polaris_code_verify_domtrans(polaris_vman_t)

vm_net_dev_utilization reads /proc/2962/net/dev
kernel_read_network_state(polaris_vman_t)

polaris_iosd_vcpu_read(polaris_vman_t)

/usr/binos/conf/cgroup_reports.sh
polaris_utility_domain_template(cgroup_reports)

polaris_bexecute_domain(polaris_cgroup_reports_t, polaris_cgroup_reports_exec_t)
polaris_bexecute_domtrans(polaris_cgroup_reports_t)
inherited as stdin/stdout from vman
polaris_vman_use_fifo(polaris_cgroup_reports_t)

corecmd_exec_bin(polaris_cgroup_reports_t)
auth_use_nsswitch(polaris_cgroup_reports_t)

fs_read_cgroup_files(polaris_cgroup_reports_t)
fs_list_cgroup_dirs(polaris_cgroup_reports_t)

cgroup_reports.sh creates misc files under /tmp
type polaris_cgroup_reports_tmp_t;
files_type(polaris_cgroup_reports_tmp_t)

```

```

files_tmp_filetrans(polaris_cgroup_reports_t, polaris_cgroup_reports_tmp_t, file)
manage_files_pattern(polaris_cgroup_reports_t, polaris_cgroup_reports_tmp_t, polaris_cgroup_reports_tmp_t)
fs_getattr_tmpfs(polaris_cgroup_reports_t)

/usr/binos/conf/vman_techsupport.sh
polaris_utility_domain_template(vman_tech)

polaris_bexecute_domain(polaris_vman_tech_t, polaris_vman_tech_exec_t)
polaris_bexecute_domtrans(polaris_vman_tech_t)
inherited as stdin/sdtout from vman
polaris_vman_use_fifo(polaris_vman_tech_t)

vman_techsupport.sh starts virsh -c qemu:///system list --all
gen_require(
 type virsh_t;
 type virsh_exec_t;
)
domtrans_pattern(polaris_vman_tech_t, virsh_exec_t, virsh_t)

starts ip link show
sysnet_domtrans_ifconfig(polaris_vman_tech_t)

starts brctl show
brctl_domtrans(polaris_vman_tech_t)

corecmd_exec_bin(polaris_vman_tech_t)
auth_use_nsswitch(polaris_vman_tech_t)

polaris_proc_rmonbifo_read(polaris_vman_tech_t)
polaris_chasfs_read(polaris_vman_tech_t)
polaris_cpld_read(polaris_vman_tech_t)

starts ps aux
kernel_read_system_state(polaris_vman_tech_t)
domain_read_all_domains_state(polaris_vman_tech_t)
dev_read_sysfs(polaris_vman_tech_t)
getattr of stdin/stdout of misc processes
term_getattr_unallocated_ttys(polaris_vman_tech_t)
term_read_console(polaris_vman_tech_t)

reads /bootflash/virtual-instance/
polaris_disk_vman_read(polaris_vman_tech_t)

find /etc/libvirt/lxc -name *.xml -print
virt_read_config(polaris_vman_tech_t)
no interface that lists virt_etc_rw_t dir
gen_require(
 type virt_etc_rw_t;

```



```

)
list_dirs_pattern(polaris_vman_tech_t, virt_etc_rw_t, virt_etc_rw_t)

find /var/run/libvirt -name *.xml -maxdepth 2 -print
virt_read_pid_files(polaris_vman_tech_t)
no interface that lists virt_var_run_t dir
gen_require(
 type virt_var_run_t;
)
list_dirs_pattern(polaris_vman_tech_t, virt_var_run_t, virt_var_run_t)
no interface that lists virt_lxc_var_run_t dir
gen_require(
 type virt_lxc_var_run_t;
)
list_dirs_pattern(polaris_vman_tech_t, virt_lxc_var_run_t, virt_lxc_var_run_t)
no interface that lists qemu_var_run_t dir
gen_require(
 type qemu_var_run_t;
)
list_dirs_pattern(polaris_vman_tech_t, qemu_var_run_t, qemu_var_run_t)
#allow read of /run/libvirt/qemu
read_files_pattern(polaris_vman_tech_t, qemu_var_run_t, qemu_var_run_t)

by some strange reason /var/run/libvirt/network is under dnsmasq_var_run_t label
dnsmasq_read_pid_files(polaris_vman_tech_t)
no interface that lists dnsmasq_var_run_t dir
gen_require(
 type dnsmasq_var_run_t;
)
list_dirs_pattern(polaris_vman_tech_t, dnsmasq_var_run_t, dnsmasq_var_run_t)

polaris_vman_var_read(polaris_vman_tech_t)

cat /proc/net/dev
kernel_read_network_state(polaris_vman_tech_t)

find /sys/class/net -name intsvc* -type d -print
dev_list_sysfs(polaris_vman_tech_t)

grep over /varied/ovf-env.xml
polaris_disk_varied_read(polaris_vman_tech_t)

writes into /tmp/vman_techsupport
polaris_vman_tmp_manage(polaris_vman_tech_t)

find over /sys/fs/cgroup/memory/machine
fs_list_cgroup_dirs(polaris_vman_tech_t)
cat /sys/fs/cgroup/memory/machine/memory.limit_in_bytes

```

```

fs_read_cgroup_files(polaris_vman_tech_t)

runs df command
fs_getattr_xattr_fs(polaris_vman_tech_t)
fs_getattr_all_fs(polaris_vman_tech_t)
files_getattr_all_dirs(polaris_vman_tech_t)
getattr over /run/netns/2
fs_read_nsfs_files(polaris_vman_tech_t)

check existence of vman btrace file before passing it to btdecode
polaris_vman_bt_getattr(polaris_vman_tech_t)
check existence of pman btrace file for vman before passing it to btdecode
polaris_pman_bt_getattr(polaris_vman_tech_t)

vman_techsupport.sh creates misc files under /tmp
type polaris_vman_tech_tmp_t;
files_type(polaris_vman_tech_tmp_t)
files_tmp_filetrans(polaris_vman_tech_t, polaris_vman_tech_tmp_t, file)
manage_files_pattern(polaris_vman_tech_t, polaris_vman_tech_tmp_t, polaris_vman_tech_tmp_t)

#allow vman tech support to read container logs including listing dirs
gen_require(
 type virt_log_t;
)
list_dirs_pattern(polaris_vman_tech_t, virt_log_t, virt_log_t)
virt_read_log(polaris_vman_tech_t)

allow vman to access /etc/passwd
auth_map_passwd(polaris_vman_shell_t)

#vman does lvm storage management e.g. vman_libvirt_strg_available_by_pool
lvm_domtrans(polaris_vman_t)

#Allow read of pid files e.g. /run/udev/data/b7:34
udev_read_pid_files(polaris_vman_t)

#allow vman to connect to the WAAS container for serial vman_register_socket
polaris_waas_stream_connect(polaris_vman_t)

allow vman to pgrep
allow to get getattr of /proc file system
domain_read_all_domains_state(polaris_vman_t)

allow vman to kill LXC container process that hasn't shutdown
inspite of a shutdown command
gen_require(
 type virtd_lxc_t;

```

```
)
polaris_vman_kill_process(virt_d_lxc_t)
```

```
allow vman to rsync using ioxman_syslib.sh
rsync_entry_type(polaris_vman_t)
corenet_tcp_connect_rsync_port(polaris_vman_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisvman.te
No license file was found, but licenses were detected in source scan.
```

```

March 2017, Victor Kamensky

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#
```

```
/tmp/.ncsshd_authorized_keys(/.*)? gen_context(system_u:object_r:polaris_ncsshd_keys_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispsd.fc
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```

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#
```

```
<summary>Polaris Btrace Policy Rules.</summary>
```

```

Obfl policy
#####
```

```

<summary>
Read obfl files (under /obfl, /varied/obfl, etc)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
```

```

interface(`polaris_obfl_data_read`,`
gen_require(`
type polaris_obfl_data_t;
type root_t;
`)

read_inlk_files_pattern($1, root_t, polaris_obfl_data_t)
read_files_pattern($1, polaris_obfl_data_t, polaris_obfl_data_t)
list_dirs_pattern($1, polaris_obfl_data_t, polaris_obfl_data_t)
allow $1 polaris_obfl_data_t:file map;
`)

#####
<summary>
Manage obfl files (under /obfl, /varied/obfl, etc
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_obfl_data_manage`,`
gen_require(`
type polaris_obfl_data_t;
type root_t;
type var_t;
`)

read_inlk_files_pattern($1, root_t, polaris_obfl_data_t)
manage_files_pattern($1, { var_t polaris_obfl_data_t }, polaris_obfl_data_t)
manage_dirs_pattern($1, { var_t polaris_obfl_data_t }, polaris_obfl_data_t)
allow $1 polaris_obfl_data_t:file map;
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisobfl.if

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```

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#
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#
<summary>Polaris Btrace Policy Rules.</summary>

```

```
#####
RPC policy
#####

#####
<summary>
Work with ripc
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_ripc',`
 corenet_tcp_bind_generic_node($1)
 allow $1 self:tcp_socket { getattr setopt getopt bind create listen accept connect read write };
 # bipc would like to issue "setsockopt(sock, SOL_SOCKET, SO_VRF," which requires
 # net_admin and sys_admin capabilities
 allow $1 self:capability { net_admin sys_admin };

 polaris_socketat_nsfs_read($1)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisripc.if  
 No license file was found, but licenses were detected in source scan.

```
#
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#
```

```
/tmp/sw/boot(/.*)? gen_context(system_u:object_r:polaris_boot_tmp_t,s0)
/tmp/sw/iso(/.*)? gen_context(system_u:object_r:polaris_boot_tmp_t,s0)
/tmp/bootup_timestamp gen_context(system_u:object_r:polaris_boot_tmp_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisboot.fc  
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```
#
December 2019, Victor Kamensky
#
```

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#

# polarisservicemgr file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisservicemgr.fc

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#

# March 2017, Victor Kamensky

#

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#

## <summary>Polaris polarisboothelper Policy Rules.</summary>

#####

## <summary>

## Read any regular file/directory from /tmp/udev.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_udev\_tmp\_read`,`

gen\_require(`

type polaris\_udev\_tmp\_files\_t;

`)

read\_files\_pattern(\$1, polaris\_udev\_tmp\_files\_t, polaris\_udev\_tmp\_files\_t)

list\_dirs\_pattern(\$1, polaris\_udev\_tmp\_files\_t, polaris\_udev\_tmp\_files\_t)

`)

#####

## <summary>

## Manage any regular file/directory from /tmp/udev.

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_udev\_tmp\_manage`,`

```

gen_require(
 type polaris_udev_tmp_files_t;
)
manage_dirs_pattern($1, polaris_udev_tmp_files_t, polaris_udev_tmp_files_t)
manage_files_pattern($1, polaris_udev_tmp_files_t, polaris_udev_tmp_files_t)
)

```

```
#####
```

```

<summary>
Listdir of any regular directory from /tmp/udev.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_udev_tmp_list_dirs`,`
 gen_require(
 type polaris_udev_tmp_files_t;
)
 list_dirs_pattern($1, polaris_udev_tmp_files_t, polaris_udev_tmp_files_t)
)

```

```
#####
```

```

<summary>
Watch udev_tmp_files directories and files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#

```

```

interface(`polaris_udev_tmp_watch`,`
 gen_require(
 type polaris_udev_tmp_files_t;
)
 allow $1 polaris_udev_tmp_files_t:{ dir file } watch;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisboothelper.if  
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```

#
March 2017, Victor Kamensky

```

```
#
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#

/usr/cpp/bin/cpp_driver -- gen_context(system_u:object_r:polaris_cpp_driver_exec_t,s0)
/usr/cpp/bin/cpp_driver_ledp -- gen_context(system_u:object_r:polaris_cpp_driver_exec_t,s0)
/usr/cpp/bin/cpp_driver_us_ledp -- gen_context(system_u:object_r:polaris_cpp_driver_exec_t,s0)
/usr/cpp/bin/cpp_driver_vwlc -- gen_context(system_u:object_r:polaris_cpp_driver_exec_t,s0)
/usr/cpp/bin/cpp_driver_vwlc_ledp -- gen_context(system_u:object_r:polaris_cpp_driver_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppdriver.fc

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```
#
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#
```

```
/usr/binos/conf/mcp_monitor_process_batchmode.sh --
gen_context(system_u:object_r:polaris_monitor_process_exec_t,s0)
/usr/binos/conf/pkg_summary.sh -- gen_context(system_u:object_r:polaris_pkg_summary_exec_t,s0)
/usr/binos/conf/pkg_to_tree.sh -- gen_context(system_u:object_r:polaris_pkg_to_tree_exec_t,s0)

/tmp/myhostname gen_context(system_u:object_r:polaris_hm_tmp_t,s0)
/tmp/show_provision_tmp(/.*)? gen_context(system_u:object_r:polaris_show_provision_tmp_t,s0)
/tmp/fs_lock_bootflash gen_context(system_u:object_r:polaris_cli_fs_cmds_tmp_t,s0)
used by "sh pla so filesystem bootflash: de" CLI
/usr/binos/conf/mcp_cli_fs_cmds.sh -- gen_context(system_u:object_r:polaris_cli_fs_cmds_exec_t,s0)
used by "show platform software yang-management process monitor" CLI
/usr/binos/conf/mcp_monitor_dmi_proc.sh --
gen_context(system_u:object_r:polaris_monitor_dmi_process_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarishm.fc

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```
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August 2017, Shawn Lu
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#
```

```
<summary>Polaris odm Policy Rules.</summary>
```



```
#####
<summary>
Mqipc channel in sub directory and multiple servers on TDL
channel is not supported by autogen code. ODM odm_clnt2svr_data
channel is one of those. Allow domain to be one server on it.
ODM elastic value is 2 now, add more if need in the future.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="mqipc_label">
<summary>
Mqipc channel file label.
</summary>
</param>
#
interface(`polaris_odm_clnt2svr_mqipc_create`,`
 gen_require(`
 type polaris_odm_client2server_data_mqipc_t;
 `)
 polaris_mqipc_create_name_dir($1, polaris_odm_client2server_data_mqipc_t, odm_clnt2svr_data-b1)
 polaris_mqipc_create_name_dir($1, polaris_odm_client2server_data_mqipc_t, odm_clnt2svr_data-b0)
 polaris_mqipc_create_name_dir($1, polaris_odm_client2server_data_mqipc_t, odm_clnt2svr_data)
`)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisodm.if

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```
#
February 2020, Victor Kamensky
#
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#
```

```
<summary>Polaris install_mgr Policy Rules.</summary>
```

```
#####
<summary>
Read /tmp/sw/inst_tmp_1 files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
```

```

</summary>
</param>
#
interface(`polaris_install_mgr_tmp_read`,`
gen_require(`
type polaris_install_mgr_tmp_t;
`)
list_dirs_pattern($1, polaris_install_mgr_tmp_t, polaris_install_mgr_tmp_t)
read_files_pattern($1, polaris_install_mgr_tmp_t, polaris_install_mgr_tmp_t)
read_lnk_files_pattern($1, polaris_install_mgr_tmp_t, polaris_install_mgr_tmp_t)
`)

#####
<summary>
Read/Write /.installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_install_disk_manage`,`
gen_require(`
type polaris_disk_bootflash_t;
type polaris_disk_install_t;
`)

filetrans_pattern(polaris_install_mgr_t,polaris_disk_bootflash_t, polaris_disk_install_t, dir, ".installer")
filetrans_pattern(polaris_install_mgr_t,polaris_disk_bootflash_t, polaris_disk_install_t, fifo_file, "inot_fifo")
manage_dirs_pattern($1, {polaris_disk_bootflash_t polaris_disk_install_t}, polaris_disk_install_t)
manage_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
manage_fifo_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
`)

#####
<summary>
Read /bootflash/.installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_install_disk_read`,`
gen_require(`
type polaris_disk_install_t;

```

```

)

read_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
)

#####
<summary>
Read copylog files (location varies by platform)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_read_user_file`,`
 gen_require(`
 type polaris_user_file_t;
 type device_t;
 `)

 read_blk_files_pattern($1, device_t, polaris_user_file_t)
 read_files_pattern($1, polaris_user_file_t, polaris_user_file_t)
 read_lnk_files_pattern($1, polaris_user_file_t, polaris_user_file_t)
)

#####
<summary>
getattr for copylog files (location varies by platform)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_user_file_getattr`,`
 gen_require(`
 type polaris_user_file_t;
 type device_t;
 `)

 getattr_files_pattern($1, polaris_user_file_t, polaris_user_file_t)
)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisinstallmgr.if
```

```
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```

```
#
```

```
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```

```
#
```

```
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```
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```

```
#
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisjvm.fc
```

```
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```

```
dnl
```

```
dnl April 2018, Victor Kamensky
```

```
dnl
```

```
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```
dnl All rights reserved
```

```
dnl
```

```
dnl Crankshaft (Overlord, Utah, Goldbeach, Neptune, TSN and Supernova) Platform Max Bay Limits
```

```
max_bay_map_set(`rp', `per_bay', 0)
```

```
max_bay_map_set(`cc', `per_bay', 19)
```

```
max_bay_map_set(`fp', `per_bay', 0)
```

```
max_bay_ripc_map_set(`rp', `per_bay', 0)
```

```
max_bay_ripc_map_set(`cc', `per_bay', 19)
```

```
max_bay_ripc_map_set(`fp', `per_bay', 0)
```

```
max_bay_ripc_map_set(`rp', `global', 0)
```

```
max_bay_ripc_map_set(`cc', `global', 19)
```

```
max_bay_ripc_map_set(`fp', `global', 0)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/crankshaftmaps.m4
```

```
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```

```
#
```

```
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```

```
#
```

```
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```

```
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```

```
#
```

```
/usr/bin/vconfd_script_reboot\sh -- gen_context(system_u:object_r:polaris_vconfd_reboot_exec_t,s0)
```

```
/usr/bin/vconfd_script_if_reset\sh -- gen_context(system_u:object_r:polaris_vconfd_ifreset_exec_t,s0)
```

```
/usr/bin/vconfd_script_get_config\sh -- gen_context(system_u:object_r:polaris_vconfd_cfg_exec_t,s0)
```

```

/usr/bin/vconfd_script_vmanage_list_stats\sh --
gen_context(system_u:object_r:polaris_vconfd_history_exec_t,s0)
/usr/bin/vconfd_script_vmanage_clear_stats\sh --
gen_context(system_u:object_r:polaris_vconfd_history_exec_t,s0)
/usr/bin/vconfd_script_activate\sh -- gen_context(system_u:object_r:polaris_vconfd_software_exec_t,s0)
/usr/bin/mcp_upgrade_wrapper\sh -- gen_context(system_u:object_r:polaris_vconfd_software_exec_t,s0)
/usr/bin/vconfd_script_nms_action\sh -- gen_context(system_u:object_r:polaris_vconfd_nms_exec_t,s0)
/usr/bin/vconfd_script_add_chassis_numbers_to_ztp\sh --
gen_context(system_u:object_r:polaris_vconfd_device_exec_t,s0)
/usr/bin/vconfd_script_remove_chassis_numbers_from_ztp\sh --
gen_context(system_u:object_r:polaris_vconfd_device_exec_t,s0)
/usr/bin/vconfd_script_upload_chassis_number_file\sh --
gen_context(system_u:object_r:polaris_vconfd_device_exec_t,s0)
/usr/bin/reset-conf -- gen_context(system_u:object_r:polaris_vconfd_reset_exec_t,s0)
/usr/bin/reset-logs -- gen_context(system_u:object_r:polaris_vconfd_reset_exec_t,s0)
/usr/bin/patch\sh -- gen_context(system_u:object_r:polaris_vconfd_software_exec_t,s0)
/usr/bin/vconfd_script_reset_vsmart_serial_list\sh --
gen_context(system_u:object_r:polaris_vconfd_reset_exec_t,s0)

/usr/bin/vconfd_script_cert\sh -- gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_show_cert\sh -- gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_show_root_ca_cert\sh --
gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_upload_root_ca_cert_chain\sh --
gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_uninstall_root_ca_cert_chain\sh --
gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_tlsproxy_install_certs\sh --
gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)
/usr/bin/vconfd_script_tlsproxy_remove_certs\sh --
gen_context(system_u:object_r:polaris_vconfd_cert_exec_t,s0)

/usr/bin/vconfd_script_csr\sh -- gen_context(system_u:object_r:polaris_vconfd_csr_exec_t,s0)
/usr/bin/vconfd_script_show_csr\sh -- gen_context(system_u:object_r:polaris_vconfd_csr_exec_t,s0)
/usr/bin/vconfd_script_sign_csr\sh -- gen_context(system_u:object_r:polaris_vconfd_csr_exec_t,s0)
/usr/bin/vconfd_script_upload_vsmart_serial_numbers\sh --
gen_context(system_u:object_r:polaris_vconfd_serialnum_exec_t,s0)
/usr/bin/vconfd_script_upload_vedge_serial_numbers\sh --
gen_context(system_u:object_r:polaris_vconfd_serialnum_exec_t,s0)
/usr/bin/vconfd_script_fetch_core_info\sh -- gen_context(system_u:object_r:polaris_vconfd_crash_exec_t,s0)
admin-tech scripts skipped defined in some other place
/usr/bin/list_crashtech_files\sh -- gen_context(system_u:object_r:polaris_vconfd_crash_exec_t,s0)
/usr/bin/vconfd_script_unlock_user\sh -- gen_context(system_u:object_r:polaris_vconfd_aaa_exec_t,s0)
/usr/bin/vconfd_script_set_password\sh -- gen_context(system_u:object_r:polaris_vconfd_aaa_exec_t,s0)
/usr/bin/vconfd_script_container\sh -- gen_context(system_u:object_r:polaris_vconfd_contr_exec_t,s0)
/usr/bin/polaris_iox_precheck\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_install\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_upgrade\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)

```

```
/usr/bin/polaris_iox_uninstall\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_reset\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_postcheck\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_download\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_remove\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_iox_activate\sh -- gen_context(system_u:object_r:polaris_vconfd_iox_exec_t,s0)
/usr/bin/polaris_utd_sigupdate\sh -- gen_context(system_u:object_r:polaris_vconfd_utd_exec_t,s0)
/usr/bin/polaris_geo_db_update\sh -- gen_context(system_u:object_r:polaris_vconfd_geo_exec_t,s0)
/usr/bin/vconfd_script_vping\sh -- gen_context(system_u:object_r:polaris_vconfd_net_exec_t,s0)
/usr/bin/vconfd_script_vnping\sh -- gen_context(system_u:object_r:polaris_vconfd_net_exec_t,s0)
/usr/bin/vconfd_script_vtraceroute\sh -- gen_context(system_u:object_r:polaris_vconfd_net_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscedge.fc

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#
```

```
policy_module(polaristdlresolve, 1.0);
```

```
#####
TDLresolve policy
#####
gen_require(
 attribute polaris_extended_domain;
)
```

```
type polaris_tdlresolve_t;
files_type(polaris_tdlresolve_t)
```

```
files_tmp_filetrans(polaris_extended_domain, polaris_tdlresolve_t, dir, "tdlresolve")
tdl_boottime.sh uses /tmp/tdlresolve_tmp for some temp files
which are moved into /tmp/tdlresolve latter
files_tmp_filetrans(polaris_extended_domain, polaris_tdlresolve_t, dir, "tdlresolve_tmp")
```

```
type polaris_global_service_t;
files_type(polaris_global_service_t);
```

```
#####
rsync policy
#####
gen_require(
 type rsync_t;
```

```
 type polaris_btrace_base_t;
)
#tdl_cleanup_epochs.sh uses btrace
allow rsync_t polaris_btrace_base_t:file map;
#rsync invokes tdl_cleanup_epochs.sh as part of this set /proc/[pid]/oom_score_adj is done
allow rsync_t self:capability sys_resource;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristdlresolve.te
```

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#
```

```
policy_module(polarisqfp, 1.0);
```

```
polaris_process_domain_template(qfp)
```

```
polaris_cpp_process(polaris_qfp_t)
polaris_cpp_dev_use(polaris_qfp_t)
polaris_btrace_data_manage(polaris_qfp_t)
polaris_crft_data_manage(polaris_qfp_t)
polaris_chasfs_manage(polaris_qfp_t)
polaris_lsmpi_dev_use(polaris_qfp_t)
polaris_persistent_list_dirs(polaris_qfp_t);
```

```
allow for hot add on azure
```

```
kernel_read_irq_sysctls(polaris_iodbd_t)
```

```
kernel_rw_irq_sysctls(polaris_iodbd_t)
```

```
allow read variety of system information from sysfs, as well as write
```

```
into configuration of some pcie devices
```

```
type=AVC msg=audit(1479597040.739:218): avc: denied { write } for pid=30997 comm="ucode_ctl_rx"
```

```
name="config" dev="sysfs" ino=22363 scontext=system_u:system_r:polaris_qfp_t:s0
```

```
tcontext=system_u:object_r:sysfs_t:s0 tclass=file
```

```
dev_rw_sysfs(polaris_qfp_t)
```

```
allow to send message to /dev/log
```

```
logging_send_syslog_msg(polaris_qfp_t)
```

```
allow access to uio devices like /dev/uio0
```

```
dev_rw_userio_dev(polaris_qfp_t)
```

```
Platforms with QAT v1.7 need map permission also
```

```

qae device (/dev/icp_adf_ctl)
type polaris_icp_device_t;
dev_node(polaris_icp_device_t)

allow polaris_qfp_t userio_device_t:chr_file map;

allow to read /proc/meminfo
kernel_read_system_state(polaris_qfp_t)

qfp FIA (Feature Invocation Array) resides in /dev/shm/cpp_ucose_dram
Those are set of instructions assembled by cpp control plane and passed
to qfp to execute.
polaris_cpp_tmpfs_exec(polaris_qfp_t)

qfp /var/run pid file
type polaris_qfp_var_run_t;
files_pid_file(polaris_qfp_var_run_t)
manage_files_pattern(polaris_qfp_t, polaris_qfp_var_run_t, polaris_qfp_var_run_t)
manage_dirs_pattern(polaris_qfp_t, polaris_qfp_var_run_t, polaris_qfp_var_run_t)
files_pid_filetrans(polaris_qfp_t, polaris_qfp_var_run_t, { file dir })
mmap /var/run/dpdk/rte/config
allow polaris_qfp_t polaris_qfp_var_run_t:file map;

qfp memif directory and file
type polaris_qfp_memif_t;
files_tmp_file(polaris_qfp_memif_t);
qfp memif interface for binos clients in /tmp/memif
files_tmp_filetrans(polaris_qfp_t, polaris_qfp_memif_t, dir, "memif")
creates /tmp/binos-IOX/memif
files_tmp_filetrans(polaris_qfp_t, polaris_qfp_memif_t, dir, "binos-IOX")
polaris_qfp_memif_manage(polaris_qfp_t)
qfp memif interface for container in /bootflash/SHARED-IOX/memif
polaris_disk_type(polaris_qfp_memif_t)
gen_require(
 type polaris_disk_bootflash_t;
)
filetrans_pattern(polaris_qfp_t, polaris_disk_bootflash_t, polaris_qfp_memif_t, dir, "memif")

work with /bootflash/SHARED-IOX/memif/memif-dp-svr
polaris_utdl_container_dgram_send(polaris_qfp_t)

work (create/open/read/write) with hugetlbf files
fs_manage_hugetlbf_dirs(polaris_qfp_t)
fs_rw_hugetlbf_files(polaris_qfp_t)
gen_require(
 type hugetlbf_t;
)
allow polaris_qfp_t hugetlbf_t:file create;

```



```

dpdk may unlinks unneeded pages in unmap_unneeded_hugepages function
allow polaris_qfp_t hugetlbfs_t:file unlink;

allow polaris_qfp_t self:capability { sys_rawio sys_nice sys_admin };
allow polaris_qfp_t self:process setsched;

is_nic_netmap_capable function, which is used by vnic_cfg_port, needs socket to
work with interface parameters
allow polaris_qfp_t self:udp_socket create_socket_perms;

ifdef(`crankshaft_family',`
polaris_icc_broken_relocations(polaris_qfp_t)
')

access to /dev/dash_XXX devices on cranshaft platforms
optional_policy(`
 polaris_dash_dev_use(polaris_qfp_t)
')

netmap device (/dev/netmap)
type polaris_netmap_device_t;
dev_node(polaris_netmap_device_t)

polaris_netmap_dev_use(polaris_qfp_t)

access to /dev/icp_XXX device on crankshaft platforms
optional_policy(`
 polaris_icp_dev_use(polaris_qfp_t)
')

netmap device (/dev/svc_eng_puntNN)
type polaris_sep_device_t;
dev_node(polaris_sep_device_t)

polaris_svc_eng_punt_dev_use(polaris_qfp_t)

transition and access to /var/log/cdal-tsn-info.log
ifdef(`tsn_platform',`
 polaris_qfp_log_manage("cdal-tsn-info.log")
')

transition and access to /var/log/cdal-tsn-info.log
ifdef(`blackheart_platform',`
 polaris_qfp_log_manage("cdal-tsn-info.log")
')

aventus needs access to /sys/devices/platform/cpn-110-master/cpn-110-master
for boot configuration

```

```

transition and access to /var/log/cdal-tsn-info.log
ifdef(^aventus_platform',`
gen_require(`
 type syslogd_t;
 `)
polaris_qfp_log_manage("cdal-tsn-info.log")
polaris_ggpio_dev_read_write(polaris_qfp_t)
polaris_ggpio_dev_read_write(syslogd_t)
`)

transition and access to /var/log/cdal-tsn-info.log
ifdef(^cabo_platform',`
 polaris_qfp_log_manage("cdal-tsn-info.log")
`)

transition and access to /var/log/cdal-tsn-info.log
ifdef(^supernova_platform',`
 polaris_qfp_log_manage("cdal-tsn-info.log")
`)

LOOK AT ME: qfp process links libcrypto.so.1.0.0 which has DT_TEXTREL
that should be addressed by CSCvj99896, once that is fixed remove below
under CSCvj99905.
gen_require(`
 type lib_t;
 `)

allow polaris_qfp_t lib_t:file execmod;

LOOK AT ME: qfp process on TSN LE has executable stack with GNU_STACK marked RWE
that should be addressed by CSCvk66808, once that is fixed remove below
under CSCvk66832.
ifdef(^tsn_platform',`
allow polaris_qfp_t self:process execmem;
`)

lsmpi replacement punt/inject over domain sockets
polaris_pi_uds_manage(polaris_qfp_t)
polaris_iosd_dgram_send(polaris_qfp_t)

dpdk code reads CPU model specific register (MSR)
dev_read_cpuid(polaris_qfp_t)

dpdk code in rte_mp_channel_init function creates and works
with /var/run/dpdk/rte/mp_socket socket
manage_sock_files_pattern(polaris_qfp_t, polaris_qfp_var_run_t, polaris_qfp_var_run_t)

dpdk code in dev_uev_socket_fd_create creates and work with

```

```

netlink_kobject_uevent_socket socket
Note: radium with QAT v1.7 requires getattr and setopt
allow polaris_qfp_t self:netlink_kobject_uevent_socket { getattr setopt bind create };

hal_random32_init calls hw_random32_init and it opens /dev/random
dev_read_rand(polaris_qfp_t)

gen_require(
 type sysfs_t;
)
mmap_files_pattern(polaris_qfp_t, sysfs_t, sysfs_t)

LOOK AT ME: remove after CSCvs34007 fixed
qfp runs hidedir hide /bootflash/SHARED-IOX/memif
corecmd_exec_bin(polaris_qfp_t)
corecmd_exec_shell(polaris_qfp_t)
auth_use_nsswitch(polaris_qfp_t)

CSR & C8KV use infiniband and tun/tap devices for Azure
type polaris_infiniband_device_t;
dev_node(polaris_infiniband_device_t)

polaris_infiniband_dev_use(polaris_qfp_t)

kernel_request_load_module(polaris_qfp_t)
allow polaris_qfp_t self:netlink_rdma_socket { bind create setopt };
allow polaris_qfp_t self:capability { ipc_lock net_admin net_raw };
allow polaris_qfp_t self:netlink_route_socket rw_netlink_socket_perms;
allow polaris_qfp_t self:tun_socket { create relabelfrom relabelto };
corenet_rw_tun_tap_dev(polaris_qfp_t)

CSR Azure IO model requies read access
gen_require(
 type proc_net_t;
)
allow polaris_qfp_t proc_net_t:file { read };

manange MLX NIC socket files in /var/tmp/net_mlx5*
type polaris_qfp_var_tmp_t;
files_tmp_file(polaris_qfp_var_tmp_t);
files_tmp_filetrans(polaris_qfp_t, polaris_qfp_var_tmp_t, { sock_file })
manage_sock_files_pattern(polaris_qfp_t, polaris_qfp_var_tmp_t, polaris_qfp_var_tmp_t)

rm from coreutils-8.30 wants to know filesystem type
fs_getattr_xattr_fs(polaris_qfp_t)

allow create of dir /bootflash/SHARED-IOX on first install of VM

```

```
create_dirs_pattern(polaris_qfp_t, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
```

```
polaris_cpld_read(polaris_qfp_t, polaris_sysfs_cpld_t, polaris_sysfs_cpld_t)
```

```
tsn needs access to /sys/devices/platform/cpn-110-master/cpn-110-master
```

```
for boot configuration
```

```
ifdef(^tsn_platform',`
```

```
 polaris_ggpio_dev_read_write(polaris_qfp_t)
```

```
')
```

```
blackheart needs access to /sys/devices/platform/cpn-110-master/cpn-110-master
```

```
for boot configuration
```

```
ifdef(^blackheart_platform',`
```

```
 polaris_ggpio_dev_read_write(polaris_qfp_t)
```

```
')
```

```
sparrow needs access to /sys/devices/platform/cpn-110-master/cpn-110-master
```

```
for boot configuration
```

```
Also needs access to cdal-tsn-info.log
```

```
ifdef(^sparrow_platform',`
```

```
 polaris_qfp_log_manage("cdal-tsn-info.log")
```

```
 polaris_ggpio_dev_read_write(polaris_qfp_t)
```

```
')
```

```
ucode also needs access to ttyUSB4
```

```
ifdef(^cabo_platform',`
```

```
 term_use_usb_ttys(polaris_qfp_t)
```

```
')
```

```
qfp starts /usr/binos/bin/net_hotremove-vxe.sh
```

```
init_read_script_files(polaris_qfp_t)
```

```
access to /dev/dash_xxx devices on cranshaft platforms
```

```
optional_policy(`
```

```
 polaris_htx_dgram_send(polaris_qfp_t)
```

```
')
```

```
net_hotremove-vxe.sh that works with /tmp/iodb
```

```
polaris_iodb_tmp_manage(polaris_qfp_t)
```

```
net_hotremove-vxe.sh sends signal to iodbd.sh
```

```
gen_require(`
```

```
 type polaris_iodbd_t;
```

```
')
```

```
allow polaris_qfp_t polaris_iodbd_t:process signal;
```

```
net_hotremove-vxe.sh reads /proc/sys/vm/nr_hugepages
```

```
kernel_read_vm_sysctls(polaris_qfp_t)
```

```

long running helper script iodbd.sh
polaris_process_domain_template(iodbd)

iodbd.sh started by /etc/init.d/binos that runs under initrc_t
gen_require(
 type initrc_t;
)
polaris_iodbd_domtrans(initrc_t)

polaris_boot_tmp_read(polaris_iodbd_t)
polaris_chasfs_manage(polaris_iodbd_t)
polaris_cpld_read(polaris_iodbd_t)
polaris_rmonbifo_tmp_read(polaris_iodbd_t)

auth_use_nsswitch(polaris_iodbd_t)
corecmd_exec_bin(polaris_iodbd_t)

hot add interfaces virtio/sriov
dev_manage_sysfs_dirs(polaris_iodbd_t)
polaris_sysfs_manage(polaris_iodbd_t)

write into sysfs file like /sys/devices/pci0000:00/0000:00:03.2/config
dev_rw_sysfs(polaris_iodbd_t)

read/write /run/dpdk/rte/config
manage_files_pattern(polaris_iodbd_t, polaris_qfp_var_run_t, polaris_qfp_var_run_t)

lspci reads /etc/modprobe.d
modutils_read_module_config(polaris_iodbd_t)
lspci reads /lib/modules/5.4.40/modules.softdep
files_read_kernel_modules(polaris_iodbd_t)
files_map_kernel_modules(polaris_iodbd_t)

runs dmidecode
dmidecode_domtrans(polaris_iodbd_t)
dmidecode when run in this context needs access initrc stdin/stdout
gen_require(
 type dmidecode_t;
)
init_rw_stream_sockets(dmidecode_t)

calls ethtool -i intsvc0
sysnet_domtrans_ifconfig(polaris_iodbd_t)

reads /etc/rc.d/init.d/binos_functions-pd-iodb
init_read_script_files(polaris_iodbd_t)

read /proc/sys/vm/nr_hugepages

```

```

kernel_read_vm_sysctls(polaris_iodbd_t)

cat /sys/class/net/intsvc0/address
dev_read_sysfs(polaris_iodbd_t)

read /proc/cmdline
kernel_read_system_state(polaris_iodbd_t)

polaris_iodb_tmp_manage(polaris_iodbd_t)

type polaris_iodb_tmp_t;
files_tmp_file(polaris_iodb_tmp_t)

/tmp/iodb is created by /etc/init.d/binos that runs under initrc_t
gen_require(
 type initrc_t;
)
files_tmp_filetrans(initrc_t, polaris_iodb_tmp_t, dir, "iodb")
polaris_iodb_tmp_manage(initrc_t)

udev_t can drop entries into /tmpi/iodb to process
gen_require(
 type udev_t;
)
polaris_iodb_tmp_manage(udev_t)

Radium and Thallium need to check rommon version when initializing static
interface table (access /proc/rmonbifo).
optional_policy(
 polaris_proc_rmonbifo_read(polaris_qfp_t)
)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisqfp.te
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March 2017, Victor Kamensky
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#

<summary>Polaris cpp_ha Policy Rules.</summary>

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscppha.if

```

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```

March 2017, Victor Kamensky

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#
```

```
policy_module(polarisngwctblmgr, 1.0);
```

```
gen_require(
 type polaris_ngwc_tbl_mgr_t;
)
```

```
polaris_btrace_data_manage(polaris_ngwc_tbl_mgr_t)
polaris_crft_data_manage(polaris_ngwc_tbl_mgr_t)
polaris_chasfs_manage(polaris_ngwc_tbl_mgr_t)
polaris_tdlresolve_read(polaris_ngwc_tbl_mgr_t)
polaris_tdlldb_list_dirs(polaris_ngwc_tbl_mgr_t)
polaris_cpld_read(polaris_ngwc_tbl_mgr_t)
polaris_lua_read(polaris_ngwc_tbl_mgr_t)
polaris_flashlib_read(polaris_ngwc_tbl_mgr_t)
```

```
polaris_ripc_sman_ui_serv_connect(polaris_ngwc_tbl_mgr_t)
```

```
allow polaris_ngwc_tbl_mgr_t self:capability dac_override;
```

```
polaris_dyncfg_tmp_read(polaris_ngwc_tbl_mgr_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisngwctblmgr.te
```

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```

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#
```

```
polarisfmanrp file contexts place holder
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisfmanrp.fc
```

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```
dnl
```

dnl April 2018, Victor Kamensky

dnl

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dnl

```
define(^polaris_ripc_service_server_aux,'`dnl
```

```
polaris_ripc_$2_bind($3)
```

```
polaris_ripc($3)
```

```
')
```

```
define(^polaris_ripc_service_server_full,'`dnl
```

```
polaris_ripc_service_server_aux(ripc_label($1), ripc_stem($1), process_label($2))
```

```
')
```

```
define(^polaris_ripc_service_server,'`dnl
```

```
ifelse(ripc_type_map($1), `', `polaris_ripc_service_server_full($1, $2, $3, $4, $5)')
```

```
ripc_type_map_set(ripc_label($1), process_label($2))
```

```
')
```

```
define(^polaris_ripc_service_client_aux,'`dnl
```

```
polaris_ripc($3)
```

```
polaris_ripc_$2_connect($3)
```

```
')
```

```
define(^polaris_ripc_service_client,'`dnl
```

```
polaris_ripc_service_client_aux(ripc_label($1), ripc_stem($1), process_label($2))dnl
```

```
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/m4/polaris\_ipc\_ripc\_te.m4

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#

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#

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#

```
/usr/binos/conf/audit_log.sh -- gen_context(system_u:object_r:polaris_audit_log_exec_t,s0)
```

```
/usr/binos/conf/audit_snapshot.sh -- gen_context(system_u:object_r:polaris_audit_log_exec_t,s0)
```

```
/tmp/package_biv_sums -- gen_context(system_u:object_r:polaris_kgv_data_t,s0)
```

```
/usr/bin/code_sign_verify -- gen_context(system_u:object_r:polaris_code_verify_exec_t,s0)
```

```
/usr/sbin/boot_verify_package -- gen_context(system_u:object_r:polaris_code_verify_exec_t,s0)
```

```
/usr/sbin/kgv_update -- gen_context(system_u:object_r:polaris_code_verify_exec_t,s0)
```

```
/dev/shm/sem\updatepcr8d_msg_sem gen_context(system_u:object_r:polaris_code_verify_tmpfs_t,s0)
```



```
/dev/aikido
/dev/aikido -c gen_context(system_u:object_r:polaris_aikido_device_t,s0)

/usr/binos/conf/mcp_upgrade_hwprg.sh gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_hwprg_fpga.sh gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_hwprg_cpld.sh gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_hwprg_cmds.sh gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_hwprg_utils.sh gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)
/usr/binos/bin/tam_fw_upgrade gen_context(system_u:object_r:polaris_hw_upgrade_exec_t,s0)

/usr/binos/conf/mcp_upgrade_rommon.sh gen_context(system_u:object_r:polaris_rom_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_rommon_cmds.sh gen_context(system_u:object_r:polaris_rom_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_rommon_helper.sh gen_context(system_u:object_r:polaris_rom_upgrade_exec_t,s0)
/usr/binos/conf/mcp_upgrade_rommon_x86.sh gen_context(system_u:object_r:polaris_rom_upgrade_exec_t,s0)

/dev/scansta -c gen_context(system_u:object_r:polaris_scansta_device_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polaristws.fc

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```
#
June 2020, Cuiyan Ma
#
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#

policy_module(polarisissucompcheck, 1.0);
polaris_process_domain_template(issu_comp_check)

corecmd_exec_bin(polaris_issu_comp_check_t)
corecmd_exec_shell(polaris_issu_comp_check_t)

polaris_chasfs_manage(polaris_issu_comp_check_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_issu_comp_check_t)

For reading tracekey from /tmp/tmp/pub/tracekey_cache/usr/bin/rotee
polaris_btrace_tmppub_read(polaris_issu_comp_check_t)

For reading /sys/devices/platform/cpld/platform_type
polaris_cpld_read(polaris_issu_comp_check_t)

For reading /tmp/sw/boot/pkginfo
polaris_boot_tmp_read(polaris_issu_comp_check_t)
```

```

For ls on /tmp/ufs/crashinfo
optional_policy(
polaris_ncd_tmp_read(polaris_issu_comp_check_t)
)

work with /tmp files
type polaris_issu_comp_check_tmp_t;
files_tmp_file(polaris_issu_comp_check_tmp_t)
manage_dirs_pattern(polaris_issu_comp_check_t, tmp_t, polaris_issu_comp_check_tmp_t)
manage_files_pattern(polaris_issu_comp_check_t, polaris_issu_comp_check_tmp_t,
polaris_issu_comp_check_tmp_t)
files_tmp_filetrans(polaris_issu_comp_check_t, polaris_issu_comp_check_tmp_t, { file dir })

For using push_using_rsync
polaris_chvrf_domtrans(polaris_issu_comp_check_t)

gen_require(
 type rsync_t;
)
rsync_entry_domtrans(polaris_issu_comp_check_t, rsync_t)
polaris_manage_rsync_tmplog_dir(polaris_issu_comp_check_t)

rsync inherits issu_comp_check.sh's stdout/stderr fifo files
allow rsync_t polaris_issu_comp_check_t:fifo_file write;

allow polaris_issu_comp_check_t self:capability sys_resource;

reads /tmp/remote_sw_verinfo.txt
gen_require(
 type rsync_tmp_t;
)
read_files_pattern(polaris_issu_comp_check_t, rsync_tmp_t, rsync_tmp_t)

use of errmsg.sh
polaris_script_errmsg_use(polaris_issu_comp_check_t)

hwutil modifies /sys/bus/i2c/drivers/pca9548/1-0076/reg_control
TODO: label sysfs so that reg control gets its own label
dev_rw_sysfs(polaris_issu_comp_check_t)

allow locking of /tmp/sysctrl_i2c.lck
TODO: this file probably deserves its own label when created by cm_rp
polaris_cm_rp_tmp_manage(polaris_issu_comp_check_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissucompcheck.te
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```

```
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April 2017, Victor Kamensky
#
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#

<summary>Polaris dmi_opdatamgrd Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisdmiopdatamgrd.if
```

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```
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May 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisptcd, 1.0);
```

```
gen_require(
 type polaris_pttcd_t;
)
```

```
polaris_btrace_data_manage(polaris_pttcd_t)
polaris_crft_data_manage(polaris_pttcd_t)
polaris_chasfs_manage(polaris_pttcd_t)
polaris_tdlresolve_read(polaris_pttcd_t)
polaris_tdlldb_list_dirs(polaris_pttcd_t)
polaris_lua_read(polaris_pttcd_t)
polaris_flashlib_read(polaris_pttcd_t)
```

```
auth_use_nsswitch(polaris_pttcd_t)
polaris_cpld_read(polaris_pttcd_t)
```

```
allow polaris_pttcd_t self:netlink_route_socket r_netlink_socket_perms;
```

```
polaris_disk_bootflash_search(polaris_pttcd_t)
polaris_bootflash_manage(polaris_pttcd_t)
polaris_persistent_getattr(polaris_pttcd_t)
```

```
type polaris_pttcd_tmp_t;
files_tmp_file(polaris_pttcd_tmp_t)
polaris_systemd_tmpfiles_tmp_filetrans(polaris_pttcd_tmp_t, dir, "interceptor")
gen_require(
 type polaris_btrace_tmppub_t;
```

```
)
manage_dirs_pattern(polaris_pttcd_t, { polaris_pttcd_tmp_t polaris_btrace_tmppub_t }, polaris_pttcd_tmp_t)
manage_files_pattern(polaris_pttcd_t, { polaris_pttcd_tmp_t polaris_btrace_tmppub_t }, polaris_pttcd_tmp_t)
manage_lnk_files_pattern(polaris_pttcd_t, { polaris_pttcd_tmp_t polaris_btrace_tmppub_t }, polaris_pttcd_tmp_t)
```

```
allow polaris_pttcd_t self:tcp_socket create_stream_socket_perms;
allow polaris_pttcd_t self:udp_socket create_socket_perms;
```

```
corenet_tcp_bind_generic_node(polaris_pttcd_t)
corenet_tcp_bind_polaris_pttcd_port(polaris_pttcd_t)
corenet_tcp_connect_polaris_pttcd_port(polaris_pttcd_t)
corenet_udp_sendrecv_polaris_pttcd_port(polaris_pttcd_t)
```

```
sysnet_read_config(polaris_pttcd_t)
```

```
allow polaris_pttcd_t self:capability sys_resource;
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispttcd.te
```

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```
#
August 2017, Shawn Lu
#
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#
```

```
policy_module(polarisrrmmgr, 1.0);
```

```
gen_require(^
 type polaris_rrm_mgr_t;
')
```

```
polaris_btrace_data_manage(polaris_rrm_mgr_t)
polaris_chasfs_manage(polaris_rrm_mgr_t)
polaris_tdlresolve_read(polaris_rrm_mgr_t)
polaris_tdlldb_list_dirs(polaris_rrm_mgr_t)
polaris_cpld_read(polaris_rrm_mgr_t)
polaris_lua_read(polaris_rrm_mgr_t)
polaris_flashlib_read(polaris_rrm_mgr_t)
```

```
polaris_rpc_sman_ui_serv_connect(polaris_rrm_mgr_t)
```

```
polaris_db_tdlldb_dir_use(polaris_rrm_mgr_t)
```

```
allow to use setrlimit
allow polaris_rrm_mgr_t self:process setrlimit;
```

```

allow polaris_rrm_mgr_t self:capability sys_resource;
allow polaris_rrm_mgr_t self:capability dac_override;

stuff related to vrf support of the socket
polaris_lfts_dev_use(polaris_rrm_mgr_t)
polaris_socketat_nsfs_read(polaris_rrm_mgr_t)

allow to open udp socket on port 12134
corenet_udp_bind_polaris_rrm_mgr_port(polaris_rrm_mgr_t)
corenet_udp_bind_generic_node(polaris_rrm_mgr_t)
allow polaris_rrm_mgr_t self:udp_socket { create_socket_perms recv_msg send_msg };

corenet_udp_bind_polaris_rrm_clnt_port(polaris_rrm_mgr_t)

polaris_odm_clnt2svr_mqipc_create(polaris_rrm_mgr_t)

access "/bootflash/.dbpersist"
polaris_tdlldbpersist_setup(polaris_rrm_mgr_t)

access /tmp/rp/tdldb/persistent-config/ dir and files in this dir
polaris_tmp_tdlldb_persist_setup(polaris_rrm_mgr_t)

logging_send_syslog_msg(polaris_rrm_mgr_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisrrmmgr.te
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April 2017, Victor Kamensky
#
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#

policy_module(polariscyan, 1.0);

dyncfg_setup.sh runs under cmand label

polaris_process_domain_template(dyncfg)

polaris_btrace_data_manage(polaris_dyncfg_t)
polaris_cpld_read(polaris_dyncfg_t)
polaris_lua_read(polaris_dyncfg_t)
polaris_cpld_dev_use(polaris_dyncfg_t)
polaris_rmonbifo_tmp_read(polaris_dyncfg_t)
polaris_chasfs_read(polaris_dyncfg_t)

```

```

this script works with /tmp/dyncfg files
type polaris_dyncfg_tmp_t;
files_tmp_file(polaris_dyncfg_tmp_t)

files_tmp_filetrans(polaris_dyncfg_t, polaris_dyncfg_tmp_t, dir, "cyan")
files_tmp_filetrans(polaris_dyncfg_t, polaris_dyncfg_tmp_t, file)

manage_files_pattern(polaris_dyncfg_t, polaris_dyncfg_tmp_t, polaris_dyncfg_tmp_t)
manage_dirs_pattern(polaris_dyncfg_t, polaris_dyncfg_tmp_t, polaris_dyncfg_tmp_t)
manage_lnk_files_pattern(polaris_dyncfg_t, polaris_dyncfg_tmp_t, polaris_dyncfg_tmp_t)

corecmd_exec_bin(polaris_dyncfg_t)
corecmd_exec_shell(polaris_dyncfg_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_dyncfg_t)

allow to read /proc/meminfo
kernel_read_system_state(polaris_dyncfg_t)

dyncfg_setup calls luajit and luajit needs execute JIT generated code
allow polaris_dyncfg_t self:process execmem;

allow objstore access
polaris_disk_objstore_read(polaris_dyncfg_t)

type polaris_dyncfg_log_t;
files_tmp_file(polaris_dyncfg_log_t)

gen_require(`
 attribute polaris_domain;
`)

filetrans_pattern(polaris_domain, polaris_dyncfg_tmp_t, polaris_dyncfg_log_t, file, "cyan.log")
filetrans_pattern(polaris_domain, polaris_dyncfg_tmp_t, polaris_dyncfg_log_t, file, "cyan_runtime.log")
files_tmp_filetrans(polaris_domain, polaris_dyncfg_log_t, file, "cyan.lock")
manage_files_pattern(polaris_domain, polaris_dyncfg_tmp_t, polaris_dyncfg_log_t)

polaris_dyncfg_tmp_read(polaris_domain)

on utah need to get model info
optional_policy(`
 polaris_dash_dev_use(polaris_dyncfg_t)
`)

#access to /dev/dash_fpga device on fugazi platform
ifdef(^fugazi_platform`,`
 polaris_dash_dev_mcp_use(polaris_dyncfg_t)

```

```

')

allow search and read under /tmp/boot directory
polaris_boot_tmp_read(polaris_dynconf_t)

logging_send_syslog_msg(polaris_dynconf_t)

dynconf needs access to idprom. Idprom is accessed differently depending on
platform

on utah idprom is in quack chip: hw_esg_read_midplane_idprom
on platforms with idprom in quack chip need access to
quack device as part of hw_esg_read_midplane_idprom call.
ifdef(`crankshaft_family',`
polaris_quack_dev_use(polaris_dynconf_t)
')
ifdef(`starfleet_platform',`
polaris_quack_dev_use(polaris_dynconf_t)
')

on 1ng idprom is i2c device in sysfs like:
/sys/devices/pci0000:00/0000:00:1f.3/i2c-0/i2c-1/1-0056/eeprom
on ultra it is still emulated by i2c driver like:
/sys/devices/i2c-0/i2c-1/1-0056/eeprom
dev_rw_sysfs(polaris_dynconf_t)

on nyquist and 1ng idprom value retrieved by flashlib and needs dac_override
allow polaris_dynconf_t self:capability dac_override;
polaris_flashlib_read(polaris_dynconf_t)

LOOK AT ME on quake even rommon var read operation needs write access
i.e flashutil -c getvar -N MODEL_NUM does open with O_RDWR
ifdef(`quake_platform',`
polaris_flashlib_write(polaris_dynconf_t)
')

In chassis_attrs.lua method THIS.WIRELESS checks whether wireless package is installed
by opening (why open, not stat) wncmgrd binary.
optional_policy(`
 gen_require(`
 type polaris_wncmgrd_exec_t;
 ')
 read_files_pattern(polaris_dynconf_t, bin_t, polaris_wncmgrd_exec_t)
')

lua/cyan/vwlc_chassis_attrs.lua needs to read /bootflash/rommon_vars file on vwlc
ifdef(`wlc_family',`

```

```

polaris_bootflash_read(polaris_dyncfg_t)
')

lua/cyan/vwlc_chassis_attrs.lua needs to read /boot/vcpu_template file on vwlc
ifdef(^wlc_family',`
polaris_disk_varied_read(polaris_dyncfg_t)
')

on macallan passport SUP card idprom is in act2 chip.
hw_passport_read_midplane_idprom invoked from cyan_init
reads /dev/act2 device.
ifdef(^ngwc_family',`
polaris_act2_dev_use(polaris_dyncfg_t)
')

ifdef(^passport_platform',`
open /dev/ttyS0 console in hw_passport_read_midplane_idprom, invoked by
cyaninit
term_use_unallocated_ttys(polaris_dyncfg_t)
')

during wlc subpackage install cyan_init.sh called from
C9800-Wireless_startup_script.sh script and output redirected
into some install_tmp file
ifdef(^ngwc_family',`
polaris_install_tmp_log_write(polaris_dyncfg_t)
')

/dev/aikido access
polaris_aikido_dev_use(polaris_dyncfg_t)

gen_require(^
 type rsync_t;
')

rsync_entry_domtrans(polaris_dyncfg_t, rsync_t)
corenet_tcp_connect_rsync_port(polaris_dyncfg_t)

ifdef(^sumatra_platform',`
LOOK AT ME: After direct usage of /dev/mem is removed (CSCvw80796)
/dev/mem
polaris_dev_mem_use(polaris_dyncfg_t)
')

For Cabo, allow for stronger permissions to access env_var
ifdef(^cabo_platform',`
polaris_proc_rmonbifo_read(polaris_dyncfg_t)
')

```



```
For Cabo, also allow access to i2c-0
ifdef(`cabo_platform',`
polaris_i2c_use(polaris_dyncfg_t)
')
```

```
/dev/i2c-0 access
ifdef(`petra_platform',`
polaris_i2c_use(polaris_dyncfg_t)
')
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscyan.te

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```
#
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#
```

```
policy_module(polarisflashcheck, 1.0);
```

```
gen_require(`
 type polaris_flashcheck_t;
')
```

```
allow read of /etc/passwd
auth_use_nsswitch(polaris_flashcheck_t)
```

```
corecmd_exec_bin(polaris_flashcheck_t)
```

```
allow to read /proc/meminfo
kernel_read_system_state(polaris_flashcheck_t)
```

```
uses pidof
domain_read_all_domains_state(polaris_flashcheck_t)
dev_read_sysfs(polaris_flashcheck_t)
```

```
df on "/" needs fs_t.filesystem getattr
fs_getattr_xattr_fs(polaris_flashcheck_t)
```

```
polaris_btrace_data_manage(polaris_flashcheck_t)
polaris_chasfs_manage(polaris_flashcheck_t)
polaris_cpld_read(polaris_flashcheck_t)
```

```
polaris_read_debug_conf(polaris_flashcheck_t)
```

```

polaris_boot_tmp_read(polaris_flashcheck_t)

logging_send_syslog_msg(polaris_flashcheck_t)

directly output to /dev/ttyS0
term_use_unallocated_ttys(polaris_flashcheck_t)

polaris_bootflash_read(polaris_flashcheck_t)

allow polaris_flashcheck_t self:capability { sys_resource dac_override };

pidof needs below
allow polaris_flashcheck_t self:capability sys_ptrace;

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_flashcheck_t)

access of crashinfo dir for flash_check.sh, it does source of pglobals.sh
which needs acces to /crashinfo
polaris_disk_crashinfo_getattr(polaris_flashcheck_t)

this is for NFS access mounted in a dir of ncd context
optional_policy(`
 polaris_ncd_tmp_read(polaris_flashcheck_t)
`)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisflashcheck.te
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#

<summary>Polaris caf Policy Rules.</summary>

#####
<summary>
Read /bootflash/iox/ files or harddisk IOX files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>

```

```

#
interface(`polaris_iox_files_read',`
 gen_require(`
 type polaris_iox_files_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type polaris_iox_shared_files_t;
 type polaris_iox_alt_hdd_files_t;
 ')

 read_files_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 list_dirs_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 allow $1 polaris_iox_files_t:file map;

')

#####
<summary>
Manage /bootflash/iox/ files or harddisk IOX files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_iox_files_manage',`
 gen_require(`
 type polaris_iox_files_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type polaris_iox_shared_files_t;
 type polaris_iox_alt_hdd_files_t;
 ')

 manage_files_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 manage_dirs_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 manage_lnk_files_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 allow $1 polaris_iox_files_t:file map;

')

```

```
#####
<summary>
List /bootflash/iox/ dir or hardisk IOX dir
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_dir_list`,`
 gen_require(`
 type polaris_iox_files_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type httpd_var_run_t;
 type polaris_caf_var_run_t;
 type polaris_iox_shared_files_t;
 type polaris_iox_alt_hdd_files_t;
 `)

 list_dirs_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
 polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_iox_files_t)
 list_dirs_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
 polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, httpd_var_run_t)
 list_dirs_pattern($1, { polaris_iox_files_t polaris_disk_bootflash_t polaris_disk_harddisk_t
 polaris_iox_shared_files_t polaris_iox_alt_hdd_files_t }, polaris_caf_var_run_t)

)

#####
<summary>
Search /bootflash/iox/ dir or harddisk IOX
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iox_dir_search`,`
 gen_require(`
 type polaris_iox_files_t;
 type polaris_iox_shared_files_t;
 `)

 search_dirs_pattern($1, polaris_iox_files_t, polaris_iox_files_t)

)

```

```
#####
<summary>
Read files like /guestshell/guestshell_set_netns.sh
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_guestshell_files_read`,`
 gen_require(`
 type polaris_guestshell_t;
 type polaris_iox_shared_files_t;
 `)

 read_files_pattern($1, { polaris_guestshell_t polaris_iox_shared_files_t }, polaris_guestshell_t)
 read_inh_files_pattern($1, { polaris_guestshell_t polaris_iox_shared_files_t }, polaris_guestshell_t)
)

```

```
#####
<summary>
Execute files with polaris_guestshell_exec_t type
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_guestshell_exec_files_exec`,`
 gen_require(`
 type polaris_guestshell_exec_t;
 `)

 exec_files_pattern($1, polaris_guestshell_exec_t, polaris_guestshell_exec_t)
)

```

```
#####
<summary>
Manage /var/run/netns/guestshell files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>

```

```

</param>
<rolebase/>
#
interface(`polaris_guestshell_var_run_files_manage`,`
 gen_require(`
 type polaris_guestshell_var_run_t;
 type var_run_t;
 `)

 manage_files_pattern($1, { polaris_guestshell_var_run_t var_run_t }, polaris_guestshell_var_run_t)
 manage_dirs_pattern($1, { polaris_guestshell_var_run_t var_run_t }, polaris_guestshell_var_run_t)
)

```

```
#####
```

```

<summary>
Read CAF tmp files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_caf_tmp_files_read`,`
 gen_require(`
 type polaris_caf_tmp_files_t;
 `)

 read_files_pattern($1, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
 read_lnk_files_pattern($1, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
 list_dirs_pattern($1, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
)

```

```
#####
```

```

<summary>
Manage CAF tmp files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_caf_tmp_files_manage`,`
 gen_require(`
 type polaris_caf_tmp_files_t;
 `)

 manage_files_pattern($1, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
 manage_dirs_pattern($1, polaris_caf_tmp_files_t, polaris_caf_tmp_files_t)
)

```

)

#####

## <summary>

## Getattr CAF tmp files

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_caf\_tmp\_files\_getattr`,`

gen\_require(`

type polaris\_caf\_tmp\_files\_t;

`)

getattr\_files\_pattern(\$1, polaris\_caf\_tmp\_files\_t, polaris\_caf\_tmp\_files\_t)

)

#####

## <summary>

## Read CAF files. Typically at /opt/cisco/caf/

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_caf\_files\_read`,`

gen\_require(`

type polaris\_caf\_files\_t;

`)

read\_files\_pattern(\$1, polaris\_caf\_files\_t, polaris\_caf\_files\_t)

read\_lnk\_files\_pattern(\$1, polaris\_caf\_files\_t, polaris\_caf\_files\_t)

list\_dirs\_pattern(\$1, polaris\_caf\_files\_t, polaris\_caf\_files\_t)

)

#####

## <summary>

## Manage .../guestshell/rootfs\_mnt/cisco/cisco\_cli/

## This files are used to communicate between guestshell container

## iosd, and shell\_exec.sh

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

```

</summary>
</param>
<rolebase/>
#
interface(`polaris_caf_var_run_files_manage`,`
optional_policy(`
 gen_require(`
 type polaris_caf_var_run_t;
 `)

 manage_files_pattern($1, polaris_caf_var_run_t, polaris_caf_var_run_t)
 manage_dirs_pattern($1, polaris_caf_var_run_t, polaris_caf_var_run_t)
`)
)

```

```
#####
```

```

<summary>
Read /etc/guestshell_rsa_key file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_guestshell_key_read`,`
 gen_require(`
 type etc_t;
 type polaris_guestshell_ssh_key_t;
 `)

 read_files_pattern($1, etc_t, polaris_guestshell_ssh_key_t)
)

```

```
#####
```

```

<summary>
Manage .../local/local1/core_dir/
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_caf_local_core_files_manage`,`
optional_policy(`

```



```

gen_require(
 type polaris_caf_core_files_t;
)

manage_files_pattern($1, polaris_caf_core_files_t, polaris_caf_core_files_t)
manage_dirs_pattern($1, polaris_caf_core_files_t, polaris_caf_core_files_t)
manage_lnk_files_pattern($1, polaris_caf_core_files_t, polaris_caf_core_files_t)
)
)

#####
<summary>
Manage /mnt/sd3/iox_alt_hdd.dsk and
/mnt/sd3/iox_alt_hdd_mount_dir
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(polaris_iox_alt_hdd_manage,`
optional_policy(
 gen_require(
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type polaris_iox_alt_hdd_files_t;
)

 manage_files_pattern($1, polaris_iox_alt_hdd_files_t, polaris_iox_alt_hdd_files_t)
 manage_dirs_pattern($1, polaris_iox_alt_hdd_files_t, polaris_iox_alt_hdd_files_t)
)
)

#####
<summary>
Getattr alternate harddisk files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(polaris_iox_alt_hdd_getattr,`
 gen_require(
 type polaris_iox_alt_hdd_files_t;

```

```

 ')

 allow $1 polaris_iox_alt_hdd_files_t:filesystem getattr;
')

#####
<summary>
Manage tty device link files. Typically at /dev/
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_caf_tty_lnk_manage`,`
 gen_require(`
 type polaris_caf_tty_file_t;
 `)

 create_lnk_files_pattern($1, polaris_caf_tty_file_t, polaris_caf_tty_file_t)
 read_lnk_files_pattern($1, polaris_caf_tty_file_t, polaris_caf_tty_file_t)
 delete_lnk_files_pattern($1, polaris_caf_tty_file_t, polaris_caf_tty_file_t)
)

#####
<summary>
Manage tty device chr files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_caf_chr_file_read`,`
 gen_require(`
 type devpts_t;
 `)

 setattr_chr_files_pattern($1, devpts_t, devpts_t)
 read_chr_files_pattern($1, devpts_t, devpts_t)
)

#####
<summary>
Execute caf in the polaris_caf domain.
</summary>

```

```

<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_caf_domtrans`,`
gen_require(`
type polaris_caf_t, polaris_caf_exec_t;
`)

domtrans_pattern($1, polaris_caf_exec_t, polaris_caf_t)
`)

#####
<summary>
Provide process signal perms.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_caf_proc_signal_perms`,`
gen_require(`
type polaris_caf_t;
`)

allow $1 polaris_caf_t:process sigkill;
`)

#####
<summary>
Write/read /tmp/ioxss_up file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_ioxss_rp_tmp_manage`,`
gen_require(`
type polaris_ioxss_rp_tmp_t;
`)

manage_files_pattern($1, { polaris_ioxss_rp_tmp_t }, polaris_ioxss_rp_tmp_t)
`)

```

```

)

#####
<summary>
Getattr of iosd_portal_app_lipc socket file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_iosd_portal_app_lipc_getattr`,
 gen_require(`
 type polaris_iosd_portal_app_lipc_t;
 `)
 getattr_sock_files_pattern($1, polaris_iosd_portal_app_lipc_t, polaris_iosd_portal_app_lipc_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscsaf.if

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#

```

```

/usr/cpp/bin/cpp_cp_svr -- gen_context(system_u:object_r:polaris_cpp_cp_exec_t,s0)
/usr/cpp/bin/cpp_cp_svr_ledp -- gen_context(system_u:object_r:polaris_cpp_cp_exec_t,s0)
/usr/cpp/bin/cpp_cp_svr_us_ledp -- gen_context(system_u:object_r:polaris_cpp_cp_exec_t,s0)
/usr/cpp/bin/cpp_cp_svr_vwlc -- gen_context(system_u:object_r:polaris_cpp_cp_exec_t,s0)
/usr/cpp/bin/cpp_cp_svr_vwlc_ledp -- gen_context(system_u:object_r:polaris_cpp_cp_exec_t,s0)
/usr/binos/conf/geo_ipv4_db -- gen_context(system_u:object_r:polaris_geodb_files_t,s0)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscppcp.fc

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```

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```

```
polarisnifmgr file contexts place holder
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisnifmgr.fc
```

```
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```

```
#
```

```
November 2017, Victor Kamensky
```

```
#
```

```
Copyright (c) 2017-2021 by Cisco Systems, Inc.
```

```
All rights reserved
```

```
#
```

```
policy_module(polarisgmib, 1.0);
```

```
gen_require(`
 type polaris_gnmib_t;
`)
)
```

```
polaris_btrace_data_manage(polaris_gnmib_t)
polaris_crft_data_manage(polaris_gnmib_t)
polaris_chasfs_manage(polaris_gnmib_t)
polaris_tdlresolve_read(polaris_gnmib_t)
polaris_tdlldb_list_dirs(polaris_gnmib_t)
polaris_cpld_read(polaris_gnmib_t)
polaris_lua_read(polaris_gnmib_t)
polaris_flashlib_read(polaris_gnmib_t)
```

```
polaris_db_tdlldb_dir_use(polaris_gnmib_t)
```

```
optional_policy(`
deals with /dev/shm/confd setup (schema and pid)
polaris_confd_shm_setup(polaris_gnmib_t)
and allow read shared schema
polaris_confd_shared_schema_read(polaris_gnmib_t)
from evconfd_dynamic_load
polaris_confd_shared_schema_watch(polaris_gnmib_t)
read /proc/confd_pid/exe file
polaris_confd_read(polaris_gnmib_t)
`)
)
```

```
allow polaris_gnmib_t self:capability dac_override;
```

```
logging_send_syslog_msg(polaris_gnmib_t)
```

```
create ndbutil directory under /var/lock
polaris_confd_ndbutil_create(polaris_gnmib_t)
```

```

polaris_ndbutil_lock_template(polaris_gnmib_t, gnmib, ".l.schema_use.gnmib")

grpc library through sysconf accesses /sys/devices/system/cpu
to get number of CPUs
dev_read_sysfs(polaris_gnmib_t)

gnmib uses multiple (configurable) tcp ports for secure and insecure mode
corenet_tcp_bind_generic_port(polaris_gnmib_t)
allow polaris_gnmib_t self:tcp_socket { shutdown };
corenet_tcp_connect_all_ports(polaris_gnmib_t)

iosp_token_read_from_file reads /tmp/rp/.iosp_gnmib
polaris_gnmib_token_read(polaris_gnmib_t)

gnmib creates /var/tmp/gnmib.pid
type polaris_gnmib_var_t;
files_tmp_file(polaris_gnmib_var_t);
files_tmp_filetrans(polaris_gnmib_t, polaris_gnmib_var_t, file, "gnmib.pid");
manage_files_pattern(polaris_gnmib_t, polaris_gnmib_var_t, polaris_gnmib_var_t)
manage_dirs_pattern(polaris_gnmib_t, polaris_gnmib_var_t, polaris_gnmib_var_t)
manage_lnk_files_pattern(polaris_gnmib_t, polaris_gnmib_var_t, polaris_gnmib_var_t)

read access to /dev/random
dev_read_rand(polaris_gnmib_t)

kernel_read_net_sysctls(polaris_gnmib_t)

type polaris_gnmib_gnoi_images_t;
files_type(polaris_gnmib_gnoi_images_t);
polaris_bootflash_filetrans(polaris_gnmib_t, polaris_gnmib_gnoi_images_t, file,);
manage_files_pattern(polaris_gnmib_t, polaris_disk_bootflash_t, polaris_gnmib_gnoi_images_t)

need to execute install engine scripts
polaris_install_engine_domtrans(polaris_gnmib_t)

need access to shell to execute install scripts
corecmd_exec_shell(polaris_gnmib_t)
corecmd_exec_bin(polaris_gnmib_t)

install script needs rmonbifo
polaris_rmonbifo_tmp_read(polaris_gnmib_t)

not sure why this is needed
auth_map_passwd(polaris_gnmib_t)

#DB persistence
polaris_tdldbpersist_setup(polaris_gnmib_t)

```

```

polaris_tmp_tdlldb_persist_setup(polaris_gnmib_t)

allow polaris_gnmib_t self:capability sys_resource;

needed to fstat and check space when transferring image for os.proto install rpc
fs_getattr_xattr_fs(polaris_gnmib_t)

needed by gnmib ui because uipeer heartbeat timer accesses TDL epoch files
polaris_issu_tmp_files_read(polaris_gnmib_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisgnmib.te
No license file was found, but licenses were detected in source scan.

#
October 2019, Patrick O'Halloran
#
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#

/usr/binos/conf/mcp_crft_request.sh -- gen_context(system_u:object_r:polaris_crft_request_exec_t,s0)

#NGWC - nyquist, edison, bigbang
/mnt/sd3/user/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/mnt/sd3/user/.CRFT/[0-9]*(.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/mnt/sd3/user/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)

#NGWC - macallan, starfleet
/flash1/user/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash1/user/.CRFT/[0-9]*(.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash1/user/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)

#MCP, QWLC
/vol/harddisk/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/vol/harddisk/.CRFT/[0-9]*(.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/vol/harddisk/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)

#VXE, WLC, CRANKSHAFT, MCP
/bootflash/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/bootflash/.CRFT/[0-9]*(.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/bootflash/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)

#CRANKSHAFT - blackheart, sparrow
/flash1/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash1/.CRFT/[0-9]*(.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash1/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)

```

```
#PETRA - petra
USER is a reserved selinux keyword - escape it like this
/flash10/USE[R]/.CRFT(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash10/USE[R]/.CRFT/[0-9]*(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
/flash10/USE[R]/.CRFT/archive(/.*)? gen_context(system_u:object_r:polaris_crft_data_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscrft.fc

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

# polariscmm file contexts place holder

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscmm.fc

No license file was found, but licenses were detected in source scan.

```
#
July 2017, Victor Kamensky
#
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#
```

## <summary>Polaris install Policy Rules.</summary>

#####

```
<summary>
Read polaris_sw_data_t, effectively path to read polaris
base image packages
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sw_data_read',`
gen_require(`
type polaris_sw_data_t;
type tmp_t;
`
)
```



```
read_files_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
read_lnk_files_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
list_dirs_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
')
```

```
#####
```

```
<summary>
Map polaris_sw_data_t, effectively path to map polaris
base image packages
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sw_data_map`,`
gen_require(`
type polaris_sw_data_t;
')
allow $1 polaris_sw_data_t:file map;
')
```

```
#####
```

```
<summary>
Manage polaris_sw_data_t, effectively path to set up polaris
base image packages house holding
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_sw_data_manage`,`
gen_require(`
type polaris_sw_data_t;
type tmp_t;
')
manage_files_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
manage_lnk_files_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
manage_dirs_pattern($1, { tmp_t polaris_sw_data_t }, polaris_sw_data_t)
allow $1 polaris_sw_data_t:dir mounton;
')
```

```
#####
```

```
<summary>
```

```

Read polaris_patch_data_t, effectively path to read polaris
smu patch or optional packages
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_patch_data_read`,`
gen_require(`
type polaris_patch_data_t;
type tmp_t;
`)
read_files_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
read_lnk_files_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
list_dirs_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
`)

#####
<summary>
Manage polaris_patch_data_t, effectively path to set up polaris
smu patch or optional packages house holding
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_patch_data_manage`,`
gen_require(`
type polaris_patch_data_t;
type tmp_t;
`)
manage_files_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
manage_lnk_files_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
manage_dirs_pattern($1, { tmp_t polaris_patch_data_t }, polaris_patch_data_t)
`)

#####
<summary>
Watch patch_data directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>

```

```

</param>
<rolebase/>
#
interface(`polaris_patch_data_watch',`
gen_require(`
type polaris_patch_data_t;
)
allow $1 polaris_patch_data_t:dir watch;
)

#####
<summary>
Write into tmp files created by install_show.sh
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_show_tmp_write',`
gen_require(`
type polaris_install_show_tmp_t;
type tmp_t;
)
write_files_pattern($1, { tmp_t polaris_install_show_tmp_t }, polaris_install_show_tmp_t)
)

#####
<summary>
Read tmp files created by install_show.sh
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_show_tmp_read',`
gen_require(`
type polaris_install_show_tmp_t;
type tmp_t;
)
read_files_pattern($1, { tmp_t polaris_install_show_tmp_t }, polaris_install_show_tmp_t)
)

#####

```

```

<summary>
Manage tmp installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_install_show_tmp_manage',`
gen_require(`
type polaris_install_show_tmp_t;
`)
manage_dirs_pattern($1, polaris_install_show_tmp_t, polaris_install_show_tmp_t)
manage_files_pattern($1, polaris_install_show_tmp_t, polaris_install_show_tmp_t)
manage_lnk_files_pattern($1, polaris_install_show_tmp_t, polaris_install_show_tmp_t)
`)

#####
<summary>
Manage /bootflash/.issu_loc_lock files
TODO: provfunc.sh and hman have reference to /bootflash/$ISSU_LOCAL_LOCK_FILE.
For now, I am keeping manage_dirs_pattern for polaris_disk_bootflash_t.
Need to re-visit so that callers to this macro do not have write-permission
to all of bootflash..
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_issu_files_manage',`
gen_require(`
type polaris_issu_files_t;
type polaris_disk_bootflash_t;
`)

filetrans_pattern($1, polaris_disk_bootflash_t, polaris_issu_files_t, file, ".issu_loc_lock")
manage_files_pattern($1, polaris_issu_files_t, polaris_issu_files_t)
manage_dirs_pattern($1, polaris_disk_bootflash_t, polaris_issu_files_t)
`)

#####
<summary>
Manage ISSU tmp files, allowing to record and
check upgrade progress

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_issu_tmp_files_manage`,`
gen_require(`
type polaris_issu_tmp_files_t;
type tmp_t;
`)
manage_files_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
manage_lnk_files_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
manage_dirs_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
)

```

```
#####
```

```

<summary>
Write/read any regular file/directory from /bootflash/.install
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_install_manage`,`
gen_require(`
type polaris_disk_install_t;
`)
manage_dirs_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
manage_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
manage_lnk_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
allow $1 polaris_disk_install_t:dir watch;
)

```

```
#####
```

```

<summary>
Read any regular file/directory from /bootflash/.install
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_install_read`,`

```

```

gen_require(
 type polaris_disk_install_t;
)
search_dirs_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
read_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
read_lnk_files_pattern($1, polaris_disk_install_t, polaris_disk_install_t)
allow $1 polaris_disk_install_t:dir {watch read};
)

```

```
#####
```

```

<summary>
Get attributes of any regular file/directory from /bootflash/.install
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_disk_install_fs_getattr`,`
 gen_require(
 type polaris_disk_install_t;
)
 allow $1 polaris_disk_install_t:filesystem getattr;
)

```

```
#####
```

```

<summary>
Manage /tmp/installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_install_tmp_manage`,`
 gen_require(
 type polaris_install_tmp_t;
)
 manage_dirs_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
 manage_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
 manage_lnk_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
 manage_fifo_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
)

```

```
#####
```

```
<summary>
```

```

Read /tmp/installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_install_tmp_read`,`
gen_require(`
type polaris_install_tmp_t;
`)
list_dirs_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
read_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
read_lnk_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
allow $1 polaris_install_tmp_t:dir watch;
allow $1 polaris_install_tmp_t:file map;
`)

#####
<summary>
Execute install related scripts in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_engine_domtrans`,`
gen_require(`
type polaris_install_engine_t, polaris_install_engine_exec_t;
`)

domtrans_pattern($1, polaris_install_engine_exec_t, polaris_install_engine_t)
`)

#####
<summary>
Write into tmp log files created by install engine
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_tmp_log_write`,`

```

```

gen_require(
 type polaris_install_tmp_log_t;
)
write_files_pattern($1, polaris_install_tmp_log_t, polaris_install_tmp_log_t)
)

#####
<summary>
Execute install selinux related scripts in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_selinux_domtrans`,`
 gen_require(
 type polaris_install_selinux_t, polaris_install_selinux_exec_t;
)

 domtrans_pattern($1, polaris_install_selinux_exec_t, polaris_install_selinux_t)
)

#####
<summary>
Execute wireless install related scripts in its own domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_wireless_domtrans`,`
 gen_require(
 type polaris_install_wireless_t, polaris_install_wireless_exec_t;
)

 domtrans_pattern($1, polaris_install_wireless_exec_t, polaris_install_wireless_t)
)

#####
<summary>
Execute install show scripts in its own domain.
</summary>
<param name="domain">
<summary>

```



```

Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_show_domtrans`,`
 gen_require(`
 type polaris_install_show_t, polaris_install_show_exec_t;
 `)

 domtrans_pattern($1, polaris_install_show_exec_t, polaris_install_show_t)
`)

```

```
#####
```

```

<summary>
Allow the specified domain to manage KGV data files
I.e under /tmp/pkg_cs_debug created by function verify_pkg
common scripts file.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_pkg_cs_debug_manage`,`
 gen_require(`
 type polaris_pkg_cs_debug_t;
 `)
 files_tmp_filetrans($1, polaris_pkg_cs_debug_t, dir, "pkg_cs_debug")
 fs_tmpfs_filetrans($1, polaris_pkg_cs_debug_t, dir, "pkg_cs_debug")
 manage_dirs_pattern($1, polaris_pkg_cs_debug_t, polaris_pkg_cs_debug_t)
 manage_files_pattern($1, polaris_pkg_cs_debug_t, polaris_pkg_cs_debug_t)
`)

```

```
#####
```

```

<summary>
Manage /file which is generated on "flock -u file /tmp/sysctrl_i2c.lck"
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_i2c_lock_file_manage`,`
 gen_require(`
 type polaris_i2c_lock_file_t;
 `)

```

```

 manage_dirs_pattern($1, polaris_i2c_lock_file_t, polaris_i2c_lock_file_t)
 manage_files_pattern($1, polaris_i2c_lock_file_t, polaris_i2c_lock_file_t)
)

#####
<summary>
write /tmp/installer files and directories
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_install_tmp_write`,`
 gen_require(`
 type polaris_install_tmp_t;
 `)
 write_files_pattern($1, polaris_install_tmp_t, polaris_install_tmp_t)
 allow $1 polaris_install_tmp_t:dir watch;
)

#####
<summary>
Read/Write /.images files and directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_install_images_manage`,`
 gen_require(`
 type polaris_install_images_t;
 `)

 manage_dirs_pattern($1, polaris_install_images_t, polaris_install_images_t)
 manage_files_pattern($1, polaris_install_images_t, polaris_install_images_t)
)

#####
<summary>
Read ISSU tmp files
</summary>
<param name="domain">
<summary>
Domain allowed access.

```

```

</summary>
</param>
#
interface(`polaris_issu_tmp_files_read`,`
gen_require(`
type polaris_issu_tmp_files_t;
type tmp_t;
`)
list_dirs_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
read_files_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
read_lnk_files_pattern($1, { tmp_t polaris_issu_tmp_files_t }, polaris_issu_tmp_files_t)
allow $1 polaris_issu_tmp_files_t:file map;
`)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisinstall.if
```

No license file was found, but licenses were detected in source scan.

```

#
August 2017, Shawn Lu
#
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#

```

```
policy_module(polarisodm, 1.0);
```

```

gen_require(`
type polaris_odm_t;
`)

```

```

polaris_btrace_data_manage(polaris_odm_t)
polaris_crft_data_manage(polaris_odm_t)
polaris_chasfs_manage(polaris_odm_t)
polaris_tdlresolve_read(polaris_odm_t)
polaris_tdlldb_list_dirs(polaris_odm_t)
polaris_cpld_read(polaris_odm_t)
polaris_lua_read(polaris_odm_t)
polaris_flashlib_read(polaris_odm_t)

```

```
polaris_ripc_sman_ui_serv_connect(polaris_odm_t)
```

```
polaris_db_tdlldb_dir_use(polaris_odm_t)
```

```

allow setrlimit
allow polaris_odm_t self:capability sys_resource;
allow polaris_odm_t self:process setrlimit;
allow polaris_odm_t self:capability dac_override;

```

```
odm_svr2clnt_data uses subdirectory for channels needs explicit rule
to allow it. ODM elastic value is 2 now, add more if need in the
future.
gen_require(
 type polaris_odm_server2client_data_mqipc_t;
)
polaris_mqipc_create_name_dir(polaris_odm_t, polaris_odm_server2client_data_mqipc_t, odm_svr2clnt_data-b1)
polaris_mqipc_create_name_dir(polaris_odm_t, polaris_odm_server2client_data_mqipc_t, odm_svr2clnt_data-b0)
polaris_mqipc_create_name_dir(polaris_odm_t, polaris_odm_server2client_data_mqipc_t, odm_svr2clnt_data)

logging_send_syslog_msg(polaris_odm_t)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisodm.te

No license file was found, but licenses were detected in source scan.

```
#
March 2017, Victor Kamensky
#
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#
```

```
<summary>Polaris polarisreflector Policy Rules.</summary>
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisreflector.if

No license file was found, but licenses were detected in source scan.

```
#
June 2017, Victor Kamensky
#
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#
```

```
policy_module(polariscontainer, 1.0);
```

```
polaris_default_container_t type for not labeled container
polaris_container_domain_template(default)
```

```
polaris_utd_container_t type for snort container
polaris_container_domain_template(utd)
polaris_utd_container(polaris_utd_container_t)
```

```
polaris_utdl_container_t type for snort container, that has
legacy configuration, need more permissions
```

```

polaris_container_domain_template(utdl)
polaris_utd_container(polaris_utdl_container_t)

manage /tmp/xml/{Utd*} dirs
polaris_vman_log_files_manage(polaris_utdl_container_t)
optional_policy(
 polaris_cedge_xml_tmp_manage(polaris_utdl_container_t)
)

allow polaris_utdl_container_t ramfs_t:file map;

polaris_iox_container_watch(polaris_utdl_container_t)

work with memif
optional_policy(
 polaris_qfp_dgram_send(polaris_utdl_container_t)
)

creates /tmp/HTX-IOX/sw-htx-service
optional_policy(
 polaris_htx_iox_tmp_manage(polaris_utdl_container_t)
)
optional_policy(
 polaris_htx_use_client_socket(polaris_utdl_container_t)
)

allow container to work with /tmp/binos-IOX
optional_policy(
 polaris_qfp_memif_manage(polaris_utdl_container_t)
)

snort works with /dev/shm/SPO_DAQ_MMAP_OBJ_
fs_exec_tmpfs_files(polaris_utdl_container_t)

allow container to work with /tmp/xml/* files
optional_policy(
 polaris_vman_tmp_manage(polaris_utdl_container_t)
)

gen_require(
 type container_file_t;
)
polaris_disk_type(container_file_t)

legacy utd (snort) container in /etc/init.d/rc.local does unconditional
mount of ramfs on /tmp/snortlogs
fs_mount_ramfs(polaris_utdl_container_t)
legacy utd (snort) container in /etc/init.d/rc.local does unconditional

```

```

mount of tmpfs on /dev/shm
fs_mount_tmpfs(polaris_utdl_container_t)
fs_manage_tmpfs_dirs(polaris_utdl_container_t)
fs_manage_tmpfs_files(polaris_utdl_container_t)
fs_manage_tmpfs_symlinks(polaris_utdl_container_t)

Allow ramfs access to utd container
fs_manage_ramfs_dirs(polaris_utdl_container_t)
fs_manage_ramfs_files(polaris_utdl_container_t)

Allow link file access from cron to crond
kernel_read_state(polaris_utdl_container_t)

Allow Snort
allow polaris_utdl_container_t self:packet_socket map;

polaris_iox_container_t type for generic IOx containers
polaris_container_domain_template(iox)

fs_mount_tmpfs(polaris_iox_container_t)
fs_manage_tmpfs_dirs(polaris_iox_container_t)
fs_manage_tmpfs_files(polaris_iox_container_t)
fs_manage_tmpfs_symlinks(polaris_iox_container_t)
fs_manage_tmpfs_sockets(polaris_iox_container_t)
fs_manage_tmpfs_fifo_files is missing
gen_require(
 type tmpfs_t;
)
manage_fifo_files_pattern(polaris_iox_container_t, tmpfs_t, tmpfs_t)
fs_mounon_tmpfs(polaris_iox_container_t)
container systemd file mmaps tmpfs_t, i.e /usr/lib/systemd/systemd-journald
allow polaris_iox_container_t tmpfs_t:file map;

container reads ip netns identity <pid>
fs_read_nsfs_files(polaris_iox_container_t)

container systemd does remount of some file systems
gen_require(
 type svirt_sandbox_file_t;
)
allow polaris_iox_container_t svirt_sandbox_file_t:filesystem { remount };

polaris_caf_var_run_files_manage(polaris_iox_container_t)
permit access to /local core files between host and container
polaris_caf_local_core_files_manage(polaris_iox_container_t)

allow polaris_iox_container_t self:cap_usersn { chown dac_override dac_read_search fsetid setgid setpcap setuid
sys_admin sys_boot };

```

```

gen_require(
 type devpts_t;
 type polaris_iox_container_t;
 type container_runtime_t;
 class fifo_file { getattr ioctl read write };
 class chr_file { getattr ioctl open read setattr write };
)

#===== polaris_iox_container_t =====
allow polaris_iox_container_t container_runtime_t:fifo_file { getattr setattr ioctl open read write };
allow polaris_iox_container_t devpts_t:chr_file { getattr ioctl open read setattr write };

Normally lipc denials are addressed by code that is generated from TDL.
I.e if process need to access lipc service it just need to be listed as 'client' of proper TDL service.
If in this case iox_container process does not have its own TDL proc_def entry,
therefore we use autogenerated polaris_lipc_iosd_portal_app_write macro/interface.
Marking this policy optional, so that if platform TDL does not have proper service defined
then polaris_lipc_iosd_portal_app_write won't be generated, but container policy still would compile.
optional_policy(
 gen_require(
 type polaris_iosd_t;
)
 polaris_lipc_iosd_portal_app_write(polaris_iox_container_t, polaris_iosd_t)
)

docker_exec_lib(polaris_iox_container_t)
fs_exec_hugetlbfs_files(polaris_iox_container_t)
kernel_read_ring_buffer(polaris_iox_container_t)
dev_read_sysfs(polaris_iox_container_t)
polaris_iox_container_watch(polaris_iox_container_t)

polaris_sdavc_container_t type for SDAVC container, that has
legacy configuration, need more permissions

polaris_container_domain_template(sdavc)
polaris_utd_container(polaris_sdavc_container_t)

manage /tmp/xml/{SDAVC*} dirs
polaris_vman_log_files_manage(polaris_sdavc_container_t)

legacy SDAVC container in /etc/init.d/rc.local does unconditional
mount of tmpfs on /dev/shm
fs_mount_tmpfs(polaris_sdavc_container_t)

container systemd mounton tmpfs_t & tmpfs management
fs_mounton_tmpfs(polaris_sdavc_container_t)
fs_manage_tmpfs_dirs(polaris_sdavc_container_t)

```

```

fs_manage_tmpfs_files(polaris_sdavc_container_t)
fs_manage_tmpfs_symlinks(polaris_sdavc_container_t)
fs_manage_tmpfs_sockets(polaris_sdavc_container_t)
manage_fifo_files_pattern(polaris_sdavc_container_t, tmpfs_t, tmpfs_t)
container systemd file mmaps tmpfs_t, i.e /usr/lib/systemd/systemd-journald
allow polaris_sdavc_container_t tmpfs_t:file map;
Add watch on tmpfs_t/container_t dir/files
polaris_iox_container_watch(polaris_sdavc_container_t)

map/mount/write hugetlbf files
gen_require(
 type hugetlbf_t;
)
allow polaris_sdavc_container_t hugetlbf_t:filesystem mount;
allow polaris_sdavc_container_t hugetlbf_t:file map;
fs_manage_hugetlbf_dirs(polaris_sdavc_container_t)

Allow syslog_mod operation on kernel_t
kernel_clear_ring_buffer(polaris_sdavc_container_t)

Allow tcpdump
allow polaris_sdavc_container_t self:packet_socket map;
allow polaris_utdl_container_t self:packet_socket map;

add in the docker files labels to polaris_disk_type
gen_require(
 type container_var_lib_t;
 type container_share_t;
 type container_log_t;
)
polaris_disk_type(container_var_lib_t)
polaris_disk_type(container_share_t)
polaris_disk_type(container_log_t)

polaris_waas_container_t type for WAAS KVM
polaris_kvm_domain_template(waas)

#Allow rw block files access to /dev/lvm_raid
storage_dontaudit_write_fixed_disk(polaris_waas_container_t)
storage_dontaudit_read_fixed_disk(polaris_waas_container_t)
#Manage hugetlbf files/dirs
fs_manage_hugetlbf_dirs(polaris_waas_container_t)
manage_files_pattern(polaris_waas_container_t, hugetlbf_t, hugetlbf_t)
fs_exec_hugetlbf_files(polaris_waas_container_t)

#allow access of /dev/kvm device

```



```

dev_rw_kvm(polaris_waas_container_t)

#allow domain to search/write to virlogd_t
polaris_vman_virtlog_allow(polaris_waas_container_t)

Allow for guest-share
gen_require(
 type polaris_iox_shared_files_t;
)
manage_files_pattern(polaris_iox_container_t, polaris_iox_shared_files_t, polaris_iox_shared_files_t)

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscontainer.te
No license file was found, but licenses were detected in source scan.

```

```

#
March 2017, Victor Kamensky
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#

<summary>Polaris polarispvp Policy Rules.</summary>

```

```

#####
<summary>
Execute a domain transition to run pvp.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_pvp_domtrans`,
 gen_require(
 type polaris_pvp_t, polaris_pvp_exec_t;
)

 domtrans_pattern($1, polaris_pvp_exec_t, polaris_pvp_t)
)

```

```

#####
<summary>
Manage pvp temporary files and directories in /tmp.
</summary>
<param name="domain">
<summary>

```

```

Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_manage_tmp_files`,`
 gen_require(`
 type polaris_pvp_tmp_t;
 `)

 manage_files_pattern($1, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
 manage_dirs_pattern($1, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
 manage_fifo_files_pattern($1, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
)

#####
<summary>
Manage pvp process_state files and directories in
/tmp/[rp|fp|cc]/pvp/process_state.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_manage_process_state_files`,`
 gen_require(`
 type polaris_process_state_t;
 `)

 manage_files_pattern($1, polaris_process_state_t, polaris_process_state_t)
)

#####
<summary>
Getattr dirs pvp temporary files and directories in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_getattrs_tmp_dirs`,`
 gen_require(`
 type tmp_t;
 type polaris_pvp_tmp_t;
 `)
)

```

```

 getattr_dirs_pattern($1, tmp_t, polaris_pvp_tmp_t)
)

#####
<summary>
Read from pvp stdin. Should be granted to scripts spawned
from pvp with domain transition. pvp stdin (0) points to fifo
file like /tmp/rp/pvp/work/inot_fifo
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_stdin_read`,`
 gen_require(`
 type polaris_pvp_tmp_t;
 `)

 read_fifo_files_pattern($1, polaris_pvp_tmp_t, polaris_pvp_tmp_t)
)

#####
<summary>
Read pvp temporary files and directories in /tmp.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_read_tmp_files`,`
 gen_require(`
 type tmp_t;
 type polaris_pvp_tmp_t;
 `)

 rw_files_pattern($1, { tmp_t polaris_pvp_tmp_t }, polaris_pvp_tmp_t)
)

#####
<summary>
Read pvp SAI files under
/tmp/[rp|fp|cc/*]/pvp/sai_process.
</summary>

```

```

<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_read_sai_files`,`
gen_require(`
type polaris_pvp_sai_t;
`)
read_files_pattern($1, polaris_pvp_sai_t, polaris_pvp_sai_t)
list_dirs_pattern($1, polaris_pvp_sai_t, polaris_pvp_sai_t)
allow $1 polaris_pvp_sai_t:dir watch;
`)

#####
<summary>
Delete pvp SAI dirs and files under
/tmp/[rp|fp|cc/*]/pvp/sai_process.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pvp_delete_sai_files`,`
gen_require(`
type polaris_pvp_sai_t;
`)
allow $1 polaris_pvp_sai_t:dir { remove_name rmdir write };
allow $1 polaris_pvp_sai_t:file unlink;
`)

#####
<summary>
Watch pvp process_state directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_process_state_watch`,`
gen_require(`
type polaris_process_state_t;

```

```
)
 allow $1 polaris_process_state_t:dir watch;
)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarispvp.if

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```
#
March 2017, Victor Kamensky
#
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#
```

```
policy_module(polarisrmonbifo, 1.0);
```

```
#####
Polaris Rmonbifo Driver policy
#####
```

```
note polaris_proc_rmonbifo_t is defined in kernel/kernel.te, since genfscon
statements could be only in base policy
```

```
type polaris_rmonbifo_tmp_t;
files_type(polaris_rmonbifo_tmp_t)
```

```
polaris_systemd_tmpfiles_tmp_filetrans(polaris_rmonbifo_tmp_t, dir, "rmonbifo")
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisrmonbifo.te

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```
#
February 2020, Victor Kamensky
#
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#
```

```
/bootflash/sdavc(/.*)? gen_context(system_u:object_r:polaris_sdavc_proxy_files_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarissdavicproxy.fc

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```
#
August 2017, Shawn Lu
```

```
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#

polarisodm file contexts place holder

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisodm.fc
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#

/usr/binos/conf/auto_upgrade_client.sh -- gen_context(system_u:object_r:polaris_autoupgrade_exec_t,s0)
/usr/binos/conf/auto_upgrade_helper.sh -- gen_context(system_u:object_r:polaris_autoupgrade_exec_t,s0)
/usr/binos/conf/auto_upgrade_trigger.sh -- gen_context(system_u:object_r:polaris_autoupgrade_exec_t,s0)
/usr/binos/conf/auto_upgrade_client_helper.sh -- gen_context(system_u:object_r:polaris_autoupgrade_exec_t,s0)

/tmp/etc/installer gen_context(system_u:object_r:polaris_autoupgrade_tmp_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisautoupgrade.fc
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#
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#
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#

polariswstatsd file contexts place holder

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswstatsd.fc
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#
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#
```

```

/usr/binos/conf/bexecute.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/bin/bexecute -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
still exists for backward compatibility
/tmp/etc/bexecute -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/bexec.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/brelay.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/bin/brelay -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/ioucon.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/runin.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/runin_exec_proc.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/runon.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)
/usr/binos/conf/in.telnetd.sh -- gen_context(system_u:object_r:polaris_bexecute_exec_t,s0)

/usr/binos/conf/brelay_console.sh -- gen_context(system_u:object_r:polaris_bconsole_exec_t,s0)

mcp_chvrf.sh used by some systemd units to switch vrf (ip namespace)
of xinetd that drives brelay service
/usr/binos/conf/mcp_chvrf.sh -- gen_context(system_u:object_r:polaris_chvrf_exec_t,s0)

used by "request platform software system shell" CLI
/usr/binos/conf/mcp_record_shell.sh -- gen_context(system_u:object_r:polaris_platform_shell_exec_t,s0)
/usr/binos/conf/mcp_shell.sh -- gen_context(system_u:object_r:polaris_shell_exec_t,s0)

used by "sh pla so process memory r0 name iosd maps" CLI
/usr/binos/conf/mcp_process_maps.sh -- gen_context(system_u:object_r:polaris_process_maps_exec_t,s0)

used by "req platform software console attach switch standby R0" CLI
/usr/binos/conf/mcp_console_attach.sh -- gen_context(system_u:object_r:polaris_mcp_console_attach_exec_t,s0)
/usr/binos/bin/ioucon -- gen_context(system_u:object_r:polaris_ioucon_exec_t,s0)

ngio_module_session.sh used by "hw-module session" CLI
/usr/binos/conf/ngio_module_session.sh -- gen_context(system_u:object_r:polaris_ngio_module_session_exec_t,s0)

#used by "upgrade rom-monitor capsule primary switch 1 R0" CLI
/usr/binos/conf/cat9k-primary-capsule-upgrade.sh --
gen_context(system_u:object_r:polaris_capsule_upgrade_exec_t,s0)

/usr/binos/conf/cat9k-capsule-upgrade.sh -- gen_context(system_u:object_r:polaris_capsule_upgrade_exec_t,s0)

/mnt/sd3/user/capsule-upgrade.log -- gen_context(system_u:object_r:polaris_capsule_upgrade_log_t,s0)
/usr/binos/conf/mcp_dmesg_service.sh -- gen_context(system_u:object_r:polaris_mcp_dmesg_exec_t,s0)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbexecute.fc
No license file was found, but licenses were detected in source scan.

#

```

# August 2017, Shawn Lu

#

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#

## <summary>Polaris wncd Policy Rules.</summary>

#####

## <summary>

## Read files under /mnt/images/...these are related to AccessPoint images

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_wlc\_ap\_images\_read`,`

gen\_require(  
type polaris\_wlc\_ap\_images\_t;  
)

read\_files\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)  
read\_lnk\_files\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)  
list\_dirs\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)  
allow \$1 polaris\_wlc\_ap\_images\_t:file map;  
)

## <summary>

## Manage files under /mnt/images/...these are related to AccessPoint images

## </summary>

## <param name="domain">

## <summary>

## Domain allowed access.

## </summary>

## </param>

#

interface(`polaris\_wlc\_ap\_images\_manage`,`

gen\_require(  
type polaris\_wlc\_ap\_images\_t;  
type mnt\_t;  
)

manage\_files\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)  
manage\_lnk\_files\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)  
manage\_dirs\_pattern(\$1, polaris\_wlc\_ap\_images\_t, polaris\_wlc\_ap\_images\_t)



```
transition when /mnt/images is created
filetrans_pattern($1, mnt_t, polaris_wlc_ap_images_t, dir, "images")
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariswncd.if
```

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```
#
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#
```

```
<summary>Polaris esg_tam_cfg Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Getattr dirs pvp temporary directories in /tmp.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
#
```

```
interface(`polaris_tam_getattr_tmp_dirs`,`
```

```
gen_require(`
```

```
type tmp_t;
```

```
type polaris_tam_tmp_t;
```

```
`)
```

```
getattr_dirs_pattern($1, tmp_t, polaris_tam_tmp_t)
```

```
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisesgtamcfg.if
```

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```
#
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#
```

```
<summary>Polaris MQIPC Policy Rules.</summary>
```

```

#####
Polaris mqipc (infra/mqipc)
#####

#####
<summary>
Make specified domain as one of mqipc types.
</summary>
<param name="domain">
<summary>
The domain serving as polaris_mqipc type
</summary>
</param>
#
interface(`polaris_mqipc_type',`
 gen_require(`
 attribute polaris_mqipc;
 `)
 typeattribute $1 polaris_mqipc;
files_type($1)
`)

#####
<summary>
Manage mqipc shared memory file in /dev/shm directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="mqipc_label">
<summary>
Mqipc file label.
</summary>
</param>
<param name="object">
<summary>
Mqipc channel file name stem. It is used to derive set of file names
used by MQIPC.
</summary>
</param>
#
interface(`polaris_mqipc_create_name',`
 gen_require(`
 type tmpfs_t;
 type tmp_t;

```

```

)
manage_files_pattern($1, tmpfs_t, $2)
allow $1 $2:file map;
type_transition $1 tmpfs_t : file $2 "mq.-$3";
manage_fifo_files_pattern($1, tmp_t, $2)
type_transition $1 tmp_t : fifo_file $2 "mq_ene_fifo.-$3";
type_transition $1 tmp_t : fifo_file $2 "mq_fnf_fifo.-$3";
fs_getattr_tmpfs($1)
)

#####
<summary>
Manage mqipc shared memory file in /dev/shm/dir directory
where dir is also derived from object parameter used as stem. It
should be used only in cases where mqipc server operates with
chanell under subdirectory. TDL autogeneration does not pick up
this so interface call should be added explicitly.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="mqipc_label">
<summary>
Database file label.
</summary>
</param>
<param name="object">
<summary>
Mqipc file name stem. It is used to derive set of file names
used by MQIPC.
</summary>
</param>
#
interface(`polaris_mqipc_create_name_dir`,`
gen_require(`
type tmpfs_t;
 type tmp_t;
)
manage_files_pattern($1, { tmpfs_t $2 }, $2)
allow $1 $2:file map;
manage_dirs_pattern($1, tmpfs_t, $2)
type_transition $1 tmpfs_t : { file dir } $2 "mq.-$3";
manage_fifo_files_pattern($1, { tmp_t $2 }, $2)
type_transition $1 tmp_t : fifo_file $2 "mq_ene_fifo.-$3";
type_transition $1 tmp_t : fifo_file $2 "mq_fnf_fifo.-$3";
fs_getattr_tmpfs($1)

```

```

)

#####
<summary>
Manage mqipc shared memory file in /dev/shm directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="mqipc_label">
<summary>
Mqipc channel file label.
</summary>
</param>
#
interface(`polaris_mqipc_use`,
gen_require(
type tmpfs_t;
)
read_files_pattern($1, { tmpfs_t $2 }, $2)
write_files_pattern($1, { tmpfs_t $2 }, $2)
read_fifo_files_pattern($1, { tmp_t $2 }, $2)
write_fifo_files_pattern($1, { tmp_t $2 }, $2)
fs_getattr_tmpfs($1)
allow $1 $2:file map;
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarismqipc.if

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```

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March 2017, Victor Kamensky
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#

<summary>Polaris issu_stack Policy Rules.</summary>

```

```

#####
<summary>
Manage tmp files created by issu_stack.
</summary>
<param name="domain">
<summary>

```

```

Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_issu_stack_tmp_manage',`
 gen_require(`
 type polaris_issu_stack_tmp_t;
 ')

 manage_files_pattern($1, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)
 manage_lnk_files_pattern($1, polaris_issu_stack_tmp_t, polaris_issu_stack_tmp_t)
')

```

Found in path(s):

```

* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisissustack.if
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```

```

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March 2017, Victor Kamensky
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#
<summary>Polaris Tmp Boot Policy Rules.</summary>

```

```

#####
/tmp/sw/boot policy
#####

```

```

#####
<summary>
Read /tmp/sw/boot files. Does not cover rmonbifo file under
/tmp/sw/boot/rmonbifo. For those use polaris_rmonbifo_tmp_read interface
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_boot_tmp_read',`
 gen_require(`
 type polaris_boot_tmp_t;
 ')

 read_files_pattern($1, polaris_boot_tmp_t, polaris_boot_tmp_t)
')

```

```
#####
<summary>
Write /tmp/sw/boot files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_boot_tmp_write',`
gen_require(`
type polaris_boot_tmp_t;
`)
write_files_pattern($1, polaris_boot_tmp_t, polaris_boot_tmp_t)
`
)
```

```
#####
<summary>
Map any polaris_boot_tmp_t file, needed during install.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_boot_tmp_map',`
gen_require(`
type polaris_boot_tmp_t;
`)
allow $1 polaris_boot_tmp_t:file map;
`
)
```

```
#####
<summary>
Manage /tmp/sw/boot files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_boot_tmp_manage',`
gen_require(`
```

```

type polaris_boot_tmp_t;
)
 manage_files_pattern($1, polaris_boot_tmp_t, polaris_boot_tmp_t)
)

```

```
#####
```

```

<summary>
Create an polaris_boot_tmp_t object
in tmpfs_t, tmp_t directories.
##
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>
#

```

```

interface(`polaris_boot_tmp_filetrans`,`
gen_require(`
 type polaris_boot_tmp_t;
)
 fs_tmpfs_filetrans($1, polaris_boot_tmp_t, $2, $3)
 files_tmp_filetrans($1, polaris_boot_tmp_t, $2, $3)
)

```

```
#####
```

```

<summary>
Manage partition disk device that contains rommon image.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_rommon_device_manage`,`
gen_require(`

```

```

 type device_t;
 type polaris_rommon_device_t;
)
 manage_blk_files_pattern($1, device_t, polaris_rommon_device_t)
 manage_chr_files_pattern($1, device_t, polaris_rommon_device_t)
)

```

```
#####
```

```

<summary>
Read partition disk device that contains rommon image.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_rommon_device_read`,`
 gen_require(`
 type device_t;
 type polaris_rommon_device_t;
 `)
 read_blk_files_pattern($1, device_t, polaris_rommon_device_t)
 read_chr_files_pattern($1, device_t, polaris_rommon_device_t)
)

```

```
#####
```

```

<summary>
Manage /bootflash/.prst_sync/reload_info
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_boot_file_manage`,`
 gen_require(`
 type polaris_boot_file_t;
 `)
 manage_files_pattern($1, polaris_boot_file_t, polaris_boot_file_t)
)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisboot.if

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```
#
```



```
February 2020, Victor Kamensky
#
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#

policy_module(polariscedge_tanman, 1.0);

why /usr/binos/conf/cedge-tanman.sh is not described in TDL?
polaris_process_domain_template(cedge_tanman)

polaris_boot_tmp_read(polaris_cedge_tanman_t)
polaris_chasfs_read(polaris_cedge_tanman_t)
polaris_cpld_read(polaris_cedge_tanman_t)
polaris_read_debug_conf(polaris_cedge_tanman_t)
polaris_use_btrace_fifo(polaris_cedge_tanman_t)

corecmd_exec_bin(polaris_cedge_tanman_t)
corecmd_exec_shell(polaris_cedge_tanman_t)
auth_use_nsswitch(polaris_cedge_tanman_t)

/tmp/tan handling
type polaris_cedge_tanman_tmp_t;
files_tmp_file(polaris_cedge_tanman_tmp_t)
gen_require(
 type tmp_t;
)
manage_dirs_pattern(polaris_cedge_tanman_t, tmp_t, polaris_cedge_tanman_tmp_t)
manage_fifo_files_pattern(polaris_cedge_tanman_t, polaris_cedge_tanman_tmp_t, polaris_cedge_tanman_tmp_t)
files_tmp_filetrans(polaris_cedge_tanman_t, polaris_cedge_tanman_tmp_t, dir, "tan")

calls du -sk /tmp/xml/System
fs_getattr_tmpfs(polaris_cedge_tanman_t)

work with /tmp/xml
polaris_cedge_xml_tmp_manage(polaris_cedge_tanman_t)

work with /tmp/tmp
polaris_cedge_tmp_manage(polaris_cedge_tanman_t)

polaris_btrace_tmppub_read(polaris_cedge_tanman_t)

allow polaris_cedge_tanman_t self:capability sys_resource;

calls nice
allow polaris_cedge_tanman_t self:process setsched;

runs inotifywait -mrq --format %f: -e moved_to /bootflash/tracelogs
```

```
and removes files in /bootflash/tracelogs
polaris_btrace_persistent_data_manage(polaris_cedge_tanman_t)
```

```
runs ps -eaf
ps needs access to proc_t
kernel_read_system_state(polaris_cedge_tanman_t)
ps needs access to state of all domains
domain_read_all_domains_state(polaris_cedge_tanman_t)
"ps" needs read access to /sys/devices/system/cpu/online
"ps" needs read access to /proc/uptime
dev_read_sysfs(polaris_cedge_tanman_t)
```

```
watch over /bootflash/tracelogs
polaris_btrace_data_watch(polaris_cedge_tanman_t)
```

```
watches over /tmp for /tmp/booted appearance
gen_require(`
 type tmp_t;
`)
allow polaris_cedge_tanman_t tmp_t:dir watch;
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscedgetanman.te

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```
#
Aug 2020, Sridhar
#
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#
```

```
<summary>Polaris tlscd process Policy Rules.</summary>
```

```
<summary>
Allow the specified domain to manage UDS socket
files. I.e /tmp/tlscd/
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_tlscd_uds_manage',`
 gen_require(`
 type polaris_tlscd_uds_t;
 `)

```

```
manage_sock_files_pattern($1, polaris_tlsd_uds_t, polaris_tlsd_uds_t)
')
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristlsd.if
```

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dnl

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dnl

dnl Same as Nyquist

dnl

dnl Nyquist Platform Max Bay Limits

```
max_bay_map_set(`rp', `per_bay', 0)
```

```
max_bay_map_set(`cc', `per_bay', 0)
```

```
max_bay_map_set(`fp', `per_bay', 0)
```

dnl in elastic scope each process has its own value

```
max_elastic_map_set(`rp', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_ODM, 0)
```

```
max_elastic_map_set(`fp', `elasitc', BPROC_ODM, 0)
```

```
max_elastic_map_set(`rp', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`cc', `elastic', BPROC_WNCD, 0)
```

```
max_elastic_map_set(`fp', `elastic', BPROC_WNCD, 0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/msmaps.m4
```

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#

# September 2017, Victor Kamensky

#

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#

```
<summary>Polaris polarisunconfined Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Make the specified type usable
```

```
to be conditionally unconfined.
```

```
</summary>
```

```
<param name="domain">
```

```

<summary>
Type to be used for conditionally unconfined.
</summary>
</param>
#
interface(`polaris_domain_storage_unconfined_type`,
 gen_require(`
 attribute polaris_storage_unconfined_type;
 `)
 typeattribute $1 polaris_storage_unconfined_type;
)

#####
<summary>
Mark domain unconfined, if polaris_unconfined build
macro is defined. Or if polaris_unconfined_conditional
macro is defined make domain unconfined only if
polaris_unconfined_all SELinux boolean is set on.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_domain_maybe_unconfined`,
 ifdef(`polaris_unconfined`,
 unconfined_domain($1)
 `)

 ifdef(`polaris_unconfined_conditional`,
 polaris_domain_storage_unconfined_type($1)

 tunable_policy(`polaris_unconfined_all`,
 polaris_unconfined_domain($1)
 `)
 `)
 #implicitly confined domain being made permissive
 permissive $1;
)

#####
<summary>
Mark iosd domain unconfined, if polaris_iosd_unconfined
build macro is defined. Or if polaris_iosd_unconfined_conditional
macro is defined make domain unconfined only if

```

```

polaris_unconfined_iosd SELinux boolean is set on.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_iosd_maybe_unconfined',`
 ifdef(`polaris_iosd_unconfined',`
 unconfined_domain($1)
 `)

 ifdef(`polaris_iosd_unconfined_conditional',`
 polaris_domain_storage_unconfined_type($1)

 tunable_policy(`polaris_unconfined_iosd',`
 polaris_unconfined_domain($1)
 `)
 `)
`)

#####
<summary>
Unconfined access to kernel module resources.
Like kernel_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_kernel_unconfined',`
 gen_require(`
 attribute proc_type;
 attribute sysctl_type;
 type kernel_t;
 type unlabeled_t;
 type proc_kcore_t;
 type proc_kmsg_t;
 `)

 allow $1 { proc_type - proc_kcore_t - proc_kmsg_t } :{ file } ~entrypoint;
 allow $1 { proc_type - proc_kcore_t - proc_kmsg_t } :{ dir lnk_file } *;

 allow $1 sysctl_type:{ file } ~entrypoint;

```

```

allow $1 sysctl_type:{ dir lnk_file } *;

allow $1 kernel_t:system *;

allow $1 unlabeled_t:{ dir lnk_file sock_file fifo_file chr_file blk_file } *;
allow $1 unlabeled_t:file ~entrypoint;
allow $1 unlabeled_t:filesystem *;
allow $1 unlabeled_t:association *;
allow $1 unlabeled_t:packet *;
allow $1 unlabeled_t:process ~{ ptrace transition dyntransition execmem execstack execheap };

LOOK AT ME
kernel_load_module($1)
')

#####
<summary>
Unconfined access to network objects.
Like corenet_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
The domain allowed access.
</summary>
</param>
#
interface(`polaris_corenet_unconfined',`
gen_require(`
 attribute node_type;
 attribute netif_type;
 attribute packet_type;
 attribute port_type;
)

allow $1 node_type:node *;
allow $1 netif_type:netif *;
allow $1 packet_type:packet *;
allow $1 port_type:dccp_socket { send_msg rcv_msg name_connect };
allow $1 port_type:tcp_socket { send_msg rcv_msg name_connect };
allow $1 port_type:udp_socket { send_msg rcv_msg };

Bind to any network address.
allow $1 port_type:{ dccp_socket tcp_socket udp_socket rawip_socket } name_bind;
allow $1 node_type:{ dccp_socket tcp_socket udp_socket rawip_socket } node_bind;

)

#####

```

```

<summary>
Unconfined access to devices.
Like dev_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_dev_unconfined`,`
gen_require(`
attribute device_node;
 type memory_device_t;
 type mtrr_device_t;
)

allow $1 self:capability sys_rawio;
allow $1 { device_node - memory_device_t } :{ blk_file lnk_file } *;
allow $1 { device_node - memory_device_t } :{ file chr_file } ~{ execmod entrypoint };
allow $1 mtrr_device_t:file ~{ execmod entrypoint };
dev_getattr_all($1

)

```

```

#####
<summary>
Unconfined access to domains.
Like domain_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_domain_unconfined`,`
gen_require(`
attribute domain;
)

Use/sendto/connectto sockets created by any domain.
allow $1 domain:{ socket_class_set socket key_socket } *;

allow $1 domain:system all_system_perms;
Use descriptors and pipes created by any domain.
allow $1 domain:fd use;

```

```

allow $1 domain:fifo_file rw_file_perms;

allow $1 $1:dbus send_msg;

Act upon any other process.
allow $1 domain:process ~{ ptrace transition dyntransition execmem execstack execheap setcurrent };
allow $1 domain:process ptrace;

Create/access any System V IPC objects.
allow $1 domain:{ sem msgq shm } *;
allow $1 domain:msg { send receive };

For /proc/pid
allow $1 domain:dir list_dir_perms;
allow $1 domain:file rw_file_perms;
allow $1 domain:lnk_file { read_lnk_file_perms ioctl lock };

act on all domains keys
allow $1 domain:key *;

pass constraints
typeattribute $1 can_change_object_identity;
typeattribute $1 set_curr_context;
typeattribute $1 process_uncond_exempt;

mcs_process_set_categories($1)

userdom_filetrans_home_content($1)
')

#####
<summary>
Unconfined access to files.
Like files_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_files_unconfined',`
gen_require(`
attribute file_type;
type shadow_t;
')

```



```

Create/access any file in a labeled filesystem;
allow $1 { file_type - shadow_t }:{ file chr_file } ~{ execmod entrypoint relabelto };
allow $1 file_type:{ dir lnk_file sock_file fifo_file blk_file } *;
allow $1 file_type:service *;

Mount/unmount any filesystem with the context= option.
allow $1 file_type:filesystem all_filesystem_perms;
)

```

```
#####
```

```

<summary>
Unconfined access to filesystems
Like fs_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_fs_unconfined`,`
gen_require(`
 attribute filesystem_type;
)

```

```
allow $1 filesystem_type:filesystem all_filesystem_perms;
```

```

Create/access other files. fs_type is to pick up various
pseudo filesystem types that are applied to both the filesystem
and its files.
allow $1 filesystem_type:{ file } ~entrypoint;
allow $1 filesystem_type:{ dir lnk_file sock_file fifo_file chr_file blk_file } *;
)

```

```
#####
```

```

<summary>
Unconfined access to the SELinux kernel security server.
Like selinux_unconfined but without typeattribute use.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_selinux_unconfined`,`
gen_require(`

```

```

 attribute boolean_type;
 type security_t;
 type secure_mode_policyload_t;
)

 # use SELinuxfs
 allow $1 security_t:dir list_dir_perms;
 allow $1 security_t:file rw_file_perms;
 allow $1 boolean_type:file read_file_perms;
 allow $1 { boolean_type -secure_mode_policyload_t }:file write_file_perms;

 # Access the security API.
 allow $1 security_t:security ~{ load_policy setenforce setbool setseccommand };

 ifdef(`distro_rhel4',`
 # needed for systems without audit support
 auditallow $1 security_t:security setbool;
 ')

 # selinux_set_all_booleans($1)
 # selinux_load_policy($1)
 # selinux_set_parameters($1)
 # selinux_set_enforce_mode($1)
 ')

#####
<summary>
Make the specified domain unconfined.
</summary>
<param name="domain">
<summary>
Domain to make unconfined.
</summary>
</param>
#
interface(`polaris_unconfined_domain',`
 gen_require(`
 class dbus all_dbus_perms;
 class nscd all_nscd_perms;
 class passwd all_passwd_perms;
 ')

 # Use any Linux capability.

 allow $1 self:capability ~{ sys_module };
 allow $1 self:capability2 ~{ mac_admin mac_override };

```

```
allow $1 self:fifo_file { manage_fifo_file_perms relabelfrom relabelto };
```

```
Transition to myself, to make get_ordered_context_list happy.
```

```
allow $1 self:process { dyntransition transition };
```

```
Write access is for setting attributes under /proc/self/attr.
```

```
allow $1 self:file rw_file_perms;
```

```
allow $1 self:dir rw_dir_perms;
```

```
Userland object managers
```

```
allow $1 self:nscd all_nscd_perms;
```

```
allow $1 self:dbus all_dbus_perms;
```

```
allow $1 self:passwd all_passwd_perms;
```

```
allow $1 self:association all_association_perms;
```

```
allow $1 self:socket_class_set create_socket_perms;
```

```
polaris_kernel_unconfined($1)
```

```
polaris_corenet_unconfined($1)
```

```
polaris_dev_unconfined($1)
```

```
polaris_domain_unconfined($1)
```

```
polaris_files_unconfined($1)
```

```
polaris_fs_unconfined($1)
```

```
polaris_selinux_unconfined($1)
```

```
systemd_config_all_services($1)
```

```
in unconfined_domain_noaudit its under not deny_execmem
```

```
allow $1 self:process execmem;
```

```
domain_mmap_low($1)
```

```
#
```

```
ubac_process_exempt($1)
```

```
#
```

```
optional_policy(`
```

```
auth_unconfined($1)
```

```
`)
```

```
#
```

```
optional_policy(`
```

```
Communicate via dbusd.
```

```
dbus_system_bus_unconfined($1)
```

```
dbus_unconfined($1)
```

```
`)
```

```
#
```

```
optional_policy(`
```

```
ipsec_setcontext_default_spd($1)
```

```
ipsec_match_default_spd($1)
```

```
`)
```

```
#
```

```

optional_policy(`
nscd_unconfined($1)
')
#
optional_policy(`
seutil_create_bin_policy($1)
seutil_relabelto_bin_policy($1)
')
#
optional_policy(`
storage_unconfined($1)
')
#
optional_policy(`
xserver_unconfined($1)
')
')

#####
<summary>
Make the specified domain able to work with cpp /tmp/cpp_ifdev_rep and
/tmp/cpp_ifdev_req pipe files.
</summary>
<param name="type">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_unconfined_service_fifo_file_manage',`
 gen_require(`
 type unconfined_service_t;
 ')

 manage_fifo_files_pattern($1, unconfined_service_t, unconfined_service_t)
')

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisunconfined.if

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```

#
March 2019, Shikhar Dogra
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#

```

```

policy_module(polarisfmancc, 1.0);

gen_require(
 type polaris_fman_cc_t;
)

polaris_btrace_data_manage(polaris_fman_cc_t)
polaris_crft_data_manage(polaris_fman_cc_t)
polaris_chasfs_manage(polaris_fman_cc_t)
polaris_tdlresolve_read(polaris_fman_cc_t)
polaris_tdlldb_list_dirs(polaris_fman_cc_t)
polaris_cpld_read(polaris_fman_cc_t)
polaris_lua_read(polaris_fman_cc_t)
polaris_flashlib_read(polaris_fman_cc_t)
polaris_cpld_dev_use(polaris_fman_cc_t)

allow to send message to /dev/log
logging_send_syslog_msg(polaris_fman_cc_t)

ISR Nightwatch module accesses libraries compiled with icc
polaris_icc_broken_relocations(polaris_fman_cc_t)

cpp bleeds into switching platforms through fman_fp and fed
apparently even on nyquist fed creates /tmp/cpp_anon_db
polaris_cpp_process(polaris_fman_cc_t)
polaris_cpp_tmp_files_use(polaris_fman_cc_t)

type polaris_iosd_fmanrp_mqipc_t;
polaris_mqipc_type(polaris_iosd_fmanrp_mqipc_t)

polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0)
polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0-cc0)
polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0-cc1)
polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0-cc2)
polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0-cc3)
polaris_mqipc_create_name(polaris_fman_cc_t, polaris_iosd_fmanrp_mqipc_t, iosd-thr-fmanrp-R0:0-cc4)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfmancc.te

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dnl

dnl May 2020, Swati Kumari

dnl

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dnl

dnl rpx86 Platform Max Bay Limits

```
max_bay_map_set(rp, `per_bay', 0)
max_bay_map_set(cc, `per_bay', 5)
max_bay_map_set(fp, `per_bay', 2)
```

```
min_bay_ripc_map_set(rp, `per_bay', 0)
min_bay_ripc_map_set(cc, `per_bay', 1)
min_bay_ripc_map_set(fp, `per_bay', 0)
```

```
max_bay_ripc_map_set(rp, `per_bay', 2)
max_bay_ripc_map_set(cc, `per_bay', 6)
max_bay_ripc_map_set(fp, `per_bay', 2)
```

```
min_bay_ripc_map_set(rp, `global', 0)
min_bay_ripc_map_set(cc, `global', 1)
min_bay_ripc_map_set(fp, `global', 0)
```

```
max_bay_ripc_map_set(rp, `global', 2)
max_bay_ripc_map_set(cc, `global', 6)
max_bay_ripc_map_set(fp, `global', 2)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/m4/rpx86maps.m4
```

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#
```

```
<summary>Polaris polarispsvp Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarispsvp.if
```

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```
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#
```

```
/tmp/tmppub(/.*)? gen_context(system_u:object_r:polaris_btrace_tmppub_t,s0)
```

```
btrace utility to rotate logs
```

```
/usr/binos/bin/btman_rotate_immediate -- gen_context(system_u:object_r:polaris_btman_exec_t,s0)
```

```
btrace utility to dump meta data
/usr/bin/dump_btrace_meta -- gen_context(system_u:object_r:polaris_btman_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisbtman.fc
```

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```
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#
```

```
policy_module(polarisnvrnram, 1.0);
```

```
#####
NVRAM
#####
```

```
ifdef(^ngwc_family',`
suppose that in edison case nvrnram is not in partition
type polaris_nvrnram_file_t;
files_type(polaris_nvrnram_file_t)
allow nvrnram file reside on persistent storage
polaris_pfile_type(polaris_nvrnram_file_t)
`)
```

```
ifdef(^blackheart_platform',`
gen_require(`
 type polaris_nvrnram_file_t;
 type polaris_iosd_t;
`)
files_type(polaris_nvrnram_file_t)
allow nvrnram file reside on persistent storage
polaris_pfile_type(polaris_nvrnram_file_t)
allow polaris_iosd_t polaris_nvrnram_file_t:filesystem getattr;
`)
```

```
ifdef(^sparrow_platform',`
gen_require(`
 type polaris_nvrnram_file_t;
 type polaris_iosd_t;
`)
files_type(polaris_nvrnram_file_t)
allow nvrnram file reside on persistent storage
polaris_pfile_type(polaris_nvrnram_file_t)
```

```

allow polaris_iosd_t polaris_nvram_file_t:filesystem getattr;
)

ifdef(`aventus_platform',`
gen_require(`
 type polaris_nvram_file_t;
 type polaris_iosd_t;
)
files_type(polaris_nvram_file_t)
allow nvram file reside on persistent storage
polaris_pfile_type(polaris_nvram_file_t)
allow polaris_iosd_t polaris_nvram_file_t:filesystem getattr;
)

ifdef(`cabo_platform',`
gen_require(`
 type polaris_nvram_file_t;
 type polaris_iosd_t;
)
files_type(polaris_nvram_file_t)
allow nvram file reside on persistent storage
polaris_pfile_type(polaris_nvram_file_t)
allow polaris_iosd_t polaris_nvram_file_t:filesystem getattr;
)

ifdef(`petra_platform',`
type polaris_nvram_file_t;
files_type(polaris_nvram_file_t)
suppose that in edison case nvram is not in partition
gen_require(`
 type polaris_iosd_t;
)
allow nvram file reside on persistent storage
polaris_pfile_type(polaris_nvram_file_t)
allow polaris_iosd_t polaris_nvram_file_t:filesystem getattr;
)

```

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```

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#

```



```
<summary>Polaris cyp Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polariscyp.if
```

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```
#
```

```
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```

```
#
```

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```
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```

```
#
```

```
policy_module(polarischasfs, 1.0);
```

```
#####
```

```
Chasfs policy
```

```
#####
```

```
gen_require(^
```

```
 attribute domain;
```

```
')
```

```
type polaris_chasfs_t;
```

```
files_type(polaris_chasfs_t)
```

```
files_tmp_filetrans(domain, polaris_chasfs_t, dir, "chassis")
```

```
files_tmp_filetrans(domain, polaris_chasfs_t, lnk_file, "chasfs")
```

```
LOOK AT ME: on ultra /tmp/cc/chasfs is created as directory, but
```

```
on other platforms it is symbolic to /tmp/chassis/local/cc/chasfs
```

```
as it happens for rp and fp. Would it be better to fix ultra
```

```
script(s)?
```

```
files_tmp_filetrans(domain, polaris_chasfs_t, dir, "chasfs")
```

```
cpld-symlink.service, creates /tmp/chassis while /tmp is
```

```
still tmpfs_t, ie before systemd-tmpfiles runs and had a
```

```
chance to set tmp_t label on /tmp
```

```
gen_require(^
```

```
 type initrc_t;
```

```
')
```

```
fs_tmpfs_filetrans(initrc_t, polaris_chasfs_t, dir, "chassis")
```

```
init_script_tmp_filetrans(domain, polaris_chasfs_t, dir, "chasfs")
```

```
#####
```

```
chasync
```

```
#####
```

```
polaris_process_domain_template(chasync)
```

```

corecmd_exec_bin(polaris_chasync_t)

allow read of /etc/group and /etc/passwd
auth_use_nsswitch(polaris_chasync_t)

polaris_btrace_data_manage(polaris_chasync_t)
polaris_chasfs_manage(polaris_chasync_t)
polaris_cpld_read(polaris_chasync_t)
polaris_boot_tmp_read(polaris_chasync_t)
polaris_read_debug_conf(polaris_chasync_t)
polaris_rmonbifo_tmp_read(polaris_chasync_t)
polaris_proc_rmonbifo_read(polaris_chasync_t)

polaris_disk_bootflash_read_lnk(polaris_chasync_t)
polaris_disk_harddisk_read_lnk(polaris_chasync_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_chasync_t)

allow polaris_chasync_t self:capability sys_resource;
allow polaris_chasync_t self:process setpgid;

access of crashinfo dir for the domain
polaris_disk_crashinfo_getattr(polaris_chasync_t)

allow access of /tmp/rp/chasync for the polaris chasync_t domain to
create/write/read dirs/files with domain specific context
type polaris_chasync_tmp_t;
files_type(polaris_chasync_tmp_t)
files_tmp_file(polaris_chasync_tmp_t)
files_tmp_filetrans(polaris_chasync_t, polaris_chasync_tmp_t, dir, "chasync")
manage_files_pattern(polaris_chasync_t, polaris_chasync_tmp_t, polaris_chasync_tmp_t)
manage_dirs_pattern(polaris_chasync_t, polaris_chasync_tmp_t, polaris_chasync_tmp_t)
manage_fifo_files_pattern(polaris_chasync_t, polaris_chasync_tmp_t, polaris_chasync_tmp_t)

allow creation/access of temporary files created by chasync.sh like
/tmp/sh-thd-1499428203 etc
files_tmp_filetrans(polaris_chasync_t, polaris_chasync_tmp_t, file)
manage_files_pattern(polaris_chasync_t, polaris_chasync_tmp_t, polaris_chasync_tmp_t)

fs_getattr_tmpfs(polaris_chasync_t)

access of flash util for the domain
polaris_flashlib_read(polaris_chasync_t)

read /proc/cmdline
kernel_read_system_state(polaris_chasync_t)

```

```

gen_require(
 type rsync_t;
 type init_t;
 type rsync_tmp_t;
)
rsync_entry_domtrans(polaris_chasync_t, rsync_t)
allow rsync_t polaris_chasync_t:process sigchld;
file descriptor leak when rsync is called
allow rsync_t init_t:unix_stream_socket ioctl;

upon exec rsync inherits chasync's stdout/stderr fifo files
allow rsync_t polaris_chasync_t:fifo_file { getattr write };
in chasync_prepost_rsync.sh, CHASYNC_PID_DIR (rsync pid files) is deleted by rsync
fs_getattr_tmpfs(rsync_t)

allow file:map for rsync_tmp_t
allow rsync_t rsync_tmp_t:file map;
dev_getattr_generic_blk_files(rsync_t)
dev_getattr_loop_control(rsync_t)
need access to /usr/bin/mount
mount_entry_type(rsync_t)
need access to dev/sda1
storage_getattr_fixed_disk_dev(rsync_t)
ifdef(`ngwc_family',`

#Read and write RPC sysctls
kernel_rw_rpc_sysctls(rsync_t)
mount_domtrans(rsync_t)
fstools_domtrans(rsync_t)
#Create/read/write on fixed device disk nodes
storage_manage_fixed_disk(rsync_t)
#stat -f -L -c %T /mnt/usb0
polaris_getattr_removable(rsync_t)
storage_filetrans_all_named_dev(rsync_t)
)
#===== polaris_dyncfg =====
polaris_dyncfg_tmp_read(rsync_t)

#===== polaris_chasync_t =====
polaris_btrace_persistent_data_search(polaris_chasync_t)
#chasync.sh code executes mv command
allow polaris_chasync_t self:process { setfscreate };
#chasync.sh code executes ping command to check if ping works before trying rsync for the first time
netutils_domtrans_ping(polaris_chasync_t)

#chasync.sh code in wlc saves logs during cleanup to /var/log/chasync
type polaris_chasync_log_t;

```

```

logging_log_file(polaris_chasync_log_t)
manage_files_pattern(polaris_chasync_t, polaris_chasync_log_t, polaris_chasync_log_t)
manage_dirs_pattern(polaris_chasync_t, polaris_chasync_log_t, polaris_chasync_log_t)
logging_log_filetrans(polaris_chasync_t, polaris_chasync_log_t, dir, "chasync")

#####
chasfs_boottime script
#####

polaris_process_domain_template(chasfs_boottime)

unconfined_domain(polaris_chasfs_boottime_t)

chasfs_boottime.sh starts cman_fp or cmand with -C option; allow its
transition to fman_fp_t type
optional_policy(`
polaris_cm_rp_domtrans(polaris_chasfs_boottime_t)
`)
optional_policy(`
polaris_cm_fp_domtrans(polaris_chasfs_boottime_t)
`)
optional_policy(`
polaris_cm_cc_domtrans(polaris_chasfs_boottime_t)
`)

ifdef(`ngwc_family',`

Allow iox_polaris.conf read
polaris_caf_files_read(polaris_chasync_t)

Allow losetup in helper script
fstools_domtrans(polaris_chasync_t)

Manage alternate hdd files
polaris_iox_alt_hdd_manage(polaris_chasync_t)

#Allow console logging
term_open_unallocated_ttys(polaris_chasync_t)

Allow logger which is used for syslog message
allow polaris_chasync_t self:unix_dgram_socket { connect create };
logging_send_syslog_msg(polaris_chasync_t)

logger needs to run pidof
dev_read_sysfs(polaris_chasync_t)
domain_read_all_domains_state(polaris_chasync_t)

```

```

)

type polaris_chasync_files_t;
files_type(polaris_chasync_files_t)
polaris_pfile_type(polaris_chasync_files_t)

optional_policy(
gen_require(
 type polaris_disk_harddisk_t;
 type polaris_disk_bootflash_t;
)
filetrans_pattern(polaris_chasync_t, {polaris_disk_bootflash_t polaris_disk_harddisk_t}, polaris_chasync_files_t,
dir, "sys_report")
filetrans_pattern(polaris_chasync_t, {polaris_disk_bootflash_t polaris_disk_harddisk_t}, polaris_chasync_files_t,
dir, "fp_cc_crash")
filetrans_pattern(polaris_chasync_t, polaris_disk_bootflash_t, polaris_chasync_files_t, file,
"user_input_custom.xml")

chasync can manage files inside of its own polaris_disk_chasync_t directories
manage_dirs_pattern(polaris_chasync_t, polaris_chasync_files_t, polaris_chasync_files_t)
manage_files_pattern(polaris_chasync_t, polaris_chasync_files_t, polaris_chasync_files_t)
allow polaris_chasync_t polaris_chasync_files_t:dir watch;
polaris_install_disk_read(polaris_chasync_t)
)

optional_policy(
chansync invoked sys_report does ls /tmp/ufs/crashinfo
polaris_ncd_tmp_read(polaris_chasync_t)
)

chasync moves inv files from /tftp/inv to chasfs directory
allow polaris_chasync_t self:capability { chown fowner fsetid };
gen_require(
type brctl_t;
)
pd_iox.sh invokes brctl which needs access to chasfs
polaris_chasfs_read(brctl_t)

#allow chasync to unmount flash partition
mount_domtrans(polaris_chasync_t)

sysnet_domtrans_ifconfig(polaris_chasync_t)

chasync.sh needs read access to /bootflash/.installer/install_issu_state
polaris_disk_install_read(polaris_chasync_t)

Found in path(s):
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarischasfs.te

```

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```
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policy_module(polariscpp, 1.0);

#####
Polaris cpp (ultra)
#####

type polaris_cpp_device_t;
dev_node(polaris_cpp_device_t)

deals with /dev/shm files semaphors, etc
type polaris_cpp_tmpfs_t;
files_tmpfs_file(polaris_cpp_tmpfs_t)
attribute polaris_cpp_domain;
fs_tmpfs_filetrans(polaris_cpp_domain, polaris_cpp_tmpfs_t, file)
manage_files_pattern(polaris_cpp_domain, tmpfs_t, polaris_cpp_tmpfs_t)
allow polaris_cpp_domain polaris_cpp_tmpfs_t:file map;
polaris_cpp_tmpfs_manage(polaris_cpp_domain)
polaris_cerr_shm_manage(polaris_cpp_domain)

on TSN ucode_dram lives in hugetlbfs
fs_hugetlbfs_filetrans(polaris_cpp_domain, polaris_cpp_tmpfs_t, file)
gen_require(^
 type hugetlbfs_t;
)
manage_files_pattern(polaris_cpp_domain, hugetlbfs_t, polaris_cpp_tmpfs_t)

deals with cpp /tmp files
type polaris_cpp_tmp_t;
files_tmp_file(polaris_cpp_tmp_t)
files_tmp_filetrans(polaris_cpp_domain, polaris_cpp_tmp_t, file, "cpp_anon_db")
files_tmp_filetrans(polaris_cpp_domain, polaris_cpp_tmp_t, file, "qm_rt_dbg")
files_tmp_filetrans(polaris_cpp_domain, polaris_cpp_tmp_t, fifo_file, "cpp_ifdev_rep")
files_tmp_filetrans(polaris_cpp_domain, polaris_cpp_tmp_t, fifo_file, "cpp_ifdev_req")
manage_files_pattern(polaris_cpp_domain, tmp_t, polaris_cpp_tmp_t)
manage_fifo_files_pattern(polaris_cpp_domain, tmp_t, polaris_cpp_tmp_t)
allow polaris_cpp_domain polaris_cpp_tmp_t:file map;

fs_getattr_tmpfs(polaris_cpp_domain)
```

```
overlord/neptune access /sys/bus/pci/devices/0000:01:00.0/resource0
when initializing the CPP DMAP library
optional_policy(
polaris_cpp_cavium_dma_map(polaris_cpp_domain)
')
```

```
type polaris_i95_device_t;
dev_node(polaris_i95_device_t)
```

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```
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#
```

```
some platforms have /usr/binos/bin/fman_fp as hardlink to
/usr/binos/bin/fman_fp_image
/usr/binos/bin/fman_fp -- gen_context(system_u:object_r:polaris_fman_fp_exec_t,s0)
/usr/binos/bin/fman_fp_ledp -- gen_context(system_u:object_r:polaris_fman_fp_exec_t,s0)
/usr/binos/bin/fman_fp_vwlc_ledp -- gen_context(system_u:object_r:polaris_fman_fp_exec_t,s0)
/usr/binos/bin/fman_fp_us_ledp -- gen_context(system_u:object_r:polaris_fman_fp_exec_t,s0)
```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisfmanfp.fc

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#
```

```
<summary>Polaris ngiolite Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Execute mcp_smartctl_cmds.sh in the polaris_smartctl domain.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed to transition.
```

```

</summary>
</param>
#
interface(`polaris_smartctl_domtrans`,`
 gen_require(`
 type polaris_smartctl_t, polaris_smartctl_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_smartctl_exec_t, polaris_smartctl_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisngiolite.if

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```

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#

```

```

/dev/act2 -c gen_context(system_u:object_r:polaris_act2_device_t,s0)
/tmp/hw_entropy -- gen_context(system_u:object_r:polaris_hw_entropy_t,s0)

```

Found in path(s):

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#

```

```

policy_module(polariscmcc, 1.0);

```

```

gen_require(`
 type polaris_cm_cc_t;
`)

```

```

polaris_btrace_data_manage(polaris_cm_cc_t)
polaris_crft_data_manage(polaris_cm_cc_t)
polaris_chasfs_manage(polaris_cm_cc_t)
polaris_tdlresolve_read(polaris_cm_cc_t)
polaris_tdlldb_list_dirs(polaris_cm_cc_t)

```



```

polaris_cpld_read(polaris_cm_cc_t)
polaris_lua_read(polaris_cm_cc_t)
polaris_flashlib_read(polaris_cm_cc_t)

polaris_cpld_dev_use(polaris_cm_cc_t)
polaris_proc_rmonbifo_read(polaris_cm_cc_t)

polaris_ripc_sman_ui_serv_connect(polaris_cm_cc_t)

optional_policy(`
 # access to /dev/iocp0
 polaris_spa_dev_use(polaris_cm_cc_t)
`)
optional_policy(`
 # access to /dev/htdb[0-9]*
 polaris_htdp_dev_use(polaris_cm_cc_t)
`)
read /proc/cmdline
kernel_read_system_state(polaris_cm_cc_t)
work with /dev/i2c devices
polaris_i2c_use(polaris_cm_cc_t)

polaris_obfl_data_read(polaris_cm_cc_t)
cmcc module as part of init calls cmem_obfl_write_voltage_log(),
which writes to obfl device.
polaris_obfl_data_manage(polaris_cm_cc_t)
on vxe platform /obfl is symlink to /varied
ifdef(`vxe_family',`
polaris_disk_varied_list(polaris_cm_cc_t)
`)

on 1ng works with /dev/cpld-virtual-cc
polaris_cpp_dev_use(polaris_cm_cc_t)

polaris_i2c_use(polaris_cm_cc_t)
dev_rw_sysfs(polaris_cm_cc_t)

ifdef(`crankshaft_family',`
read,getattr, map access to /firmware/ files for Switzer-CC
polaris_firmware_read(polaris_cm_cc_t)
polaris_firmware_getattr(polaris_cm_cc_t)
polaris_firmware_map(polaris_cm_cc_t)
`)

allow objstore access
polaris_disk_objstore_read(polaris_cm_cc_t)

get interface address cmlib_if_config_addr at cman/lib/cmlib_msgs/src/cmlib_eobc.c

```

```

allow polaris_cm_cc_t self:udp_socket { create ioctl };

on utah need to get model info
optional_policy(`
 polaris_dash_dev_use(polaris_cm_cc_t)
`)

#access to /dev/dash_fpga device on fugazi platform
ifdef(`fugazi_platform',`
 polaris_dash_dev_mcp_use(polaris_cm_cc_t)
`)

#access to /dev/nutella_fpga device on nutella platform
optional_policy(`
 polaris_nutella_fpga_dev_use(polaris_cm_cc_t)
`)

handle /tmp/pci files on utah
type polaris_pci_tmp_t;
files_tmp_file(polaris_pci_tmp_t)
/tmp/pci/bus, /tmp/pci/vendor, /tmp/pic/device created by systemd unit
gen_require(`
 type initrc_t;
 type unconfined_service_t;
 type tmp_t;
`)
files_tmp_filetrans({ unconfined_service_t initrc_t }, polaris_pci_tmp_t, dir, "pci")
manage_dirs_pattern(initrc_t, tmp_t, polaris_pci_tmp_t)
manage_files_pattern(initrc_t, polaris_pci_tmp_t, polaris_pci_tmp_t)
manage_files_pattern(polaris_cm_cc_t, polaris_pci_tmp_t, polaris_pci_tmp_t)

logging_send_syslog_msg(polaris_cm_cc_t)

cmcc module creates the PCI rescan shm mutex.
/dev/shm/rescan_shm file.
type polaris_cm_cc_tmpfs_t;
files_tmpfs_file(polaris_cm_cc_tmpfs_t)
fs_tmpfs_filetrans(polaris_cm_cc_t, polaris_cm_cc_tmpfs_t, file)
manage_files_pattern(polaris_cm_cc_t, tmpfs_t, polaris_cm_cc_tmpfs_t)
mmap_files_pattern(polaris_cm_cc_t, tmpfs_t, polaris_cm_cc_tmpfs_t)
dev_read_sysfs(polaris_cm_cc_t)
dev_getattr_sysfs_fs(polaris_cm_cc_t)
fs_getattr_tmpfs(polaris_cm_cc_t)

/tmp/udev-cc should it not be polaris_udev_tmp_t
type polaris_cm_cc_tmp_t;
files_tmp_file(polaris_cm_cc_tmp_t)
files_tmp_filetrans(polaris_cm_cc_t, polaris_cm_cc_tmp_t, dir, "udev-cc")

```

```

manage_files_pattern(polaris_cm_cc_t, polaris_cm_cc_tmp_t, polaris_cm_cc_tmp_t)
gen_require(
 type tmp_t;
)
manage_dirs_pattern(polaris_cm_cc_t, { tmp_t polaris_cm_cc_tmp_t }, polaris_cm_cc_tmp_t)

on tsn need access to /dev/moka_fpga
optional_policy(
polaris_mokafpga_dev_use(polaris_cm_cc_t)
)

optional_policy(
betelgeuse need access to /dev/sirius_fpga
polaris_sirius_fpga_dev_use(polaris_cm_cc_t)
)

on macallan need access to /dev/quack
optional_policy(
polaris_quack_dev_use(polaris_cm_cc_t)
)

polaris_cpld_write(polaris_cm_cc_t)

optional_policy(
on starfleet access gettysburg_fpga
polaris_gettysburg_fpga_dev_use(polaris_cm_cc_t)
)

/dev/epactrlN on qwlc
optional_policy(
polaris_epa_dev_use(polaris_cm_cc_t)
)

/dev/luna_fpga on qwlc
optional_policy(
polaris_luna_mbfpga_dev_use(polaris_cm_cc_t)
)

/dev/astro on qwlc
optional_policy(
polaris_astro_dev_use(polaris_cm_cc_t)
)

/dev/huron_fpga on Sumatra
optional_policy(
polaris_huron_dev_use(polaris_cm_cc_t)
)

```

```

type polaris_nim_xxd_tmp_t;
files_tmp_file(polaris_nim_xxd_tmp_t)
files_tmp_filetrans(polaris_cm_cc_t, polaris_nim_xxd_tmp_t, file, "nim_xxd_present")
manage_files_pattern(polaris_cm_cc_t, polaris_nim_xxd_tmp_t, polaris_nim_xxd_tmp_t)
ifdef(`starfleet_platform',`
 # In cman_cc
 # cmcc_starfleet_act2_authentication_udi in cman/cc/src/cmcc_starfleet.c
 # cmcc_starfleet_cpupboard_act2_authentication_udi cman/cc/src/cmcc_starfleet.c
 # tam_lib_device_open infra/act2/tam_act2/tam_lib/src/tam_lib_device.c:
 polaris_act2_dev_use(polaris_cm_cc_t)
)

ifdef(`crankshaft_family',`
 # modprobe sm_nim_adpt.ko for Switzer-CC
 modutils_domtrans_insmod(polaris_cm_cc_t)
 # /dev/sm_nim_adpt device files for Switzer-CC
 polaris_sm_nim_adpt_dev_use(polaris_cm_cc_t)
)

Mapping permission for /dev/shm/<name>
ifdef(`crankshaft_family',`
 gen_require(`
 type systemd_tmpfiles_t;
 ')
 mmap_files_pattern(systemd_tmpfiles_t, polaris_cm_cc_tmpfs_t, polaris_cm_cc_tmpfs_t)
)

on ngwc cmcc needs to access /dev/chdrvmmmap for asic memory mapping
optional_policy(`
 polaris_chdrvmmmap_dev_use(polaris_cm_cc_t)
)

ifdef(`vxe_family',`
 # bind to BMC_AGENT_CLIENT_PORT port from cman_tlv_init
 corenet_tcp_bind_polaris_bmc_agent_client_port(polaris_cm_cc_t)
)

allow /usr/binos/bin/cmcc to access /tmp/hd_sz
gen_require(`
 type udev_tmp_t;
)
read_files_pattern(polaris_cm_cc_t, udev_tmp_t, udev_tmp_t)

allow /usr/sbin/smartctl to be operated on fsadm_exec_t
fstools_exec(polaris_cm_cc_t)

using existing interface "polaris_cm_rp_tmp_manage" for polaris_cm_cc_t

```

```
to acces /tmp/cmlib_eeprom_sim_smartctl.out
polaris_cm_rp_tmp_manage(polaris_cm_cc_t)
files_tmp_filetrans(polaris_cm_cc_t, polaris_cm_rp_tmp_t, file, "cmlib_eeprom_sim_smartctl.out")
```

```
allow access to /dev/nvme*
dev_nvme_chr_files_manage(polaris_cm_cc_t)
dev_nvme_blk_files_manage(polaris_cm_cc_t)
```

```
access to /dev/ttyS0
term_use_unallocated_ttys(polaris_cm_cc_t)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarismcc.te
No license file was found, but licenses were detected in source scan.
```

```
#
June 2017, Victor Kamensky
#
Copyright (c) 2017-2019 by Cisco Systems, Inc.
All rights reserved
#
```

```
<summary>Polaris tservice Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristervice.if
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
Copyright (c) 2016-2019 by Cisco Systems, Inc.
All rights reserved
#
```

```
<summary>Polaris polarissortfiles Policy Rules.</summary>
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissortfiles.if
No license file was found, but licenses were detected in source scan.
```

```
#
March 2017, Victor Kamensky
#
Copyright (c) 2016-2021 by Cisco Systems, Inc.
All rights reserved
#
```

```
<summary>Polaris Storage Policy Rules.</summary>
```

```

Persistent storage policy
#####
```

```

<summary>
Make the specified type usable as default type for files
in a Polaris persistent (bootflash, harddisk, etc) filesystem.
</summary>
<param name="type">
<summary>
Type to be used for files.
</summary>
</param>

interface(`polaris_disk_type`,`
 files_type($1)
 gen_require(`
 attribute polaris_disk;
 `)
 typeattribute $1 polaris_disk;
`)
```

```

<summary>
Make the specified type usable for files
in a Polaris persistent (bootflash, harddisk, etc)
filesystem.
</summary>
<param name="type">
<summary>
Type to be used for files.
</summary>
</param>

interface(`polaris_pfile_type`,`
 files_type($1)
 gen_require(`
 attribute polaris_disk;
 `)
 typeattribute $1 polaris_disk;
`)
```

```

<summary>
Read any regular file/directory from persistent storage.
```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_persistent_read`,`
 gen_require(`
 attribute polaris_disk;
 `)
 read_files_pattern($1, polaris_disk, polaris_disk)
 read_lnk_files_pattern($1, polaris_disk, polaris_disk)
 list_dirs_pattern($1, polaris_disk, polaris_disk)
`)

#####
<summary>
Getattr of any regular file/directory from persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_persistent_getattr`,`
 gen_require(`
 attribute polaris_disk;
 `)
 list_dirs_pattern($1, polaris_disk, polaris_disk)
 getattr_files_pattern($1, polaris_disk, polaris_disk)
 getattr_lnk_files_pattern($1, polaris_disk, polaris_disk)
`)

#####
<summary>
Listdir of any regular directory from persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_persistent_list_dirs`,`
 gen_require(`
 attribute polaris_disk;
 `)

```

```
)
list_dirs_pattern($1, polaris_disk, polaris_disk)
)
```

```

<summary>
Write/read any regular file/directory from persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_persistent_manage`,
gen_require(
attribute polaris_disk;
)
manage_files_pattern($1, polaris_disk, polaris_disk)
manage_dirs_pattern($1, polaris_disk, polaris_disk)
manage_lnk_files_pattern($1, polaris_disk, polaris_disk)
)
```

```

<summary>
Map any regular file/directory from persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
```

```
interface(`polaris_persistent_map`,
gen_require(
attribute polaris_disk;
)
allow $1 polaris_disk:file map;
)
```

```

debug.conf
#####
```

```

<summary>
Read debug.conf from persistent storage.
```



```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_read_debug_conf`,`
 gen_require(`
 type polaris_debug_conf_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 type tmp_t;
 `)
 read_files_pattern($1, polaris_disk_bootflash_t, polaris_debug_conf_t)
 read_files_pattern($1, polaris_disk_harddisk_t, polaris_debug_conf_t)
 read_files_pattern($1, tmp_t, polaris_debug_conf_t)
 read_innk_files_pattern($1, tmp_t, polaris_debug_conf_t)
 polaris_disk_bootflash_read_innk($1)
)

#####
packages.conf
#####

#####
<summary>
Read packages.conf from persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_read_packages_conf`,`
 gen_require(`
 type polaris_packages_conf_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 `)
 read_files_pattern($1, polaris_disk_bootflash_t, polaris_packages_conf_t)
 read_files_pattern($1, polaris_disk_harddisk_t, polaris_packages_conf_t)
)

#####
<summary>
Manage packages.conf in persistent storage.

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_manage_packages_conf`,`
 gen_require(`
 type polaris_packages_conf_t;
 type polaris_disk_bootflash_t;
 type polaris_disk_harddisk_t;
 `)
 manage_files_pattern($1, polaris_disk_bootflash_t, polaris_packages_conf_t)
 manage_files_pattern($1, polaris_disk_harddisk_t, polaris_packages_conf_t)
`)

```

```

#####
<summary>
Write/read any regular file/directory from /varied
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_varied_manage`,`
 gen_require(`
 type polaris_disk_varied_t;
 `)
 manage_files_pattern($1, polaris_disk_varied_t, polaris_disk_varied_t)
`)

```

```

#####
<summary>
read any regular file/directory from /varied
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_varied_read`,`
 gen_require(`
 type polaris_disk_varied_t;
 `)

```

```

 read_files_pattern($1, polaris_disk_varied_t, polaris_disk_varied_t)
 list_dirs_pattern($1, polaris_disk_varied_t, polaris_disk_varied_t)
)

#####
#####
<summary>
Search /varied directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_varied_search`,`
 gen_require(`
 type polaris_disk_varied_t;
 `)
 search_dirs_pattern($1, polaris_disk_varied_t, polaris_disk_varied_t)
)

#####
#####
<summary>
List/read /varied directory
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_varied_list`,`
 gen_require(`
 type polaris_disk_varied_t;
 `)
 list_dirs_pattern($1, polaris_disk_varied_t, polaris_disk_varied_t)
)

#####
<summary>
Write/read/remove polaris_core_file_t file/directory from
persistent storage.
</summary>
<param name="domain">
<summary>
Domain allowed access.

```

```

</summary>
</param>
#
interface(`polaris_core_file_manage',`
 gen_require(`
 type polaris_core_file_t;
 ')
 allow $1 polaris_core_file_t:dir rmdir;
 manage_files_pattern($1, polaris_core_file_t, polaris_core_file_t)

 allow $1 polaris_core_file_t:dir watch;
')

```

```
#####
```

```

<summary>
Search polaris_core_file_t dir
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_core_file_search',`
 gen_require(`
 type polaris_core_file_t;
 ')
 search_dirs_pattern($1, polaris_core_file_t, polaris_core_file_t)
')

```

```
#####
```

```

<summary>
Read/Open/Search polaris_core_file_t dir
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_core_file_read',`
 gen_require(`
 type polaris_core_file_t;
 ')
 allow $1 polaris_core_file_t:dir read;
 getattr_files_pattern($1, polaris_core_file_t, polaris_core_file_t)
')

```

```
#####
<summary>
Get attrib of bootflash fifo file.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_bootflash_fifo_file_getattr`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 `)
 getattr_fifo_files_pattern($1, polaris_disk_bootflash_t,
 polaris_disk_bootflash_t)
`)
```

```
#####
<summary>
Get attrib of bootflash sock file.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_bootflash_sock_file_getattr`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 `)
 getattr_sock_files_pattern($1, polaris_disk_bootflash_t,
 polaris_disk_bootflash_t)
`)
```

```
#####
<summary>
Read links of polaris_disk_bootflash_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_bootflash_read_lnk`,`
 gen_require(`
```

```

 type polaris_disk_bootflash_t;
 ')
 read_lnk_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
)

```

```
#####
```

```

<summary>
Search polaris_disk_bootflash_t dir
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_bootflash_search`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 `)
 search_dirs_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
)

```

```
#####
```

```

<summary>
Write/read any regular file/directory under /csl_p_0/, /csl_p_1,
/csl_s_0, and /csl_s_1
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_csl_manage`,`
 gen_require(`
 type polaris_disk_csl_p_t;
 type polaris_disk_csl_s_t;
 `)
 manage_files_pattern($1, polaris_disk_csl_p_t, polaris_disk_csl_p_t)
 manage_files_pattern($1, polaris_disk_csl_s_t, polaris_disk_csl_s_t)
 read_lnk_files_pattern($1, polaris_disk_csl_p_t, polaris_disk_csl_p_t)
 read_lnk_files_pattern($1, polaris_disk_csl_s_t, polaris_disk_csl_s_t)
)

```

```
#####
```

```

<summary>
Write/read any regular file/directory under /csl_p_0/, /csl_p_1,

```

```

/csl_s_0, and /csl_s_1
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_csl_read`,`
 gen_require(`
 type polaris_disk_csl_p_t;
 type polaris_disk_csl_s_t;
 `)
 read_files_pattern($1, polaris_disk_csl_p_t, polaris_disk_csl_p_t)
 read_files_pattern($1, polaris_disk_csl_s_t, polaris_disk_csl_s_t)
 read_lnk_files_pattern($1, polaris_disk_csl_p_t, polaris_disk_csl_p_t)
 read_lnk_files_pattern($1, polaris_disk_csl_s_t, polaris_disk_csl_s_t)
)

#####
<summary>
Write/read any regular file/directory under /objstore,
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_objstore_manage`,`
 gen_require(`
 type polaris_disk_objstore_t;
 `)
 manage_files_pattern($1, polaris_disk_objstore_t, polaris_disk_objstore_t)
 read_lnk_files_pattern($1, polaris_disk_objstore_t, polaris_disk_objstore_t)
)

interface(`polaris_disk_objstore_read`,`
 gen_require(`
 type polaris_disk_objstore_t;
 `)
 read_files_pattern($1, polaris_disk_objstore_t, polaris_disk_objstore_t)
 list_dirs_pattern($1, polaris_disk_objstore_t, polaris_disk_objstore_t)
)

#####
<summary>
Read links of polaris_disk_harddisk_t

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_harddisk_read_lnk`,`
 gen_require(`
 type polaris_disk_harddisk_t;
 `)
 read_lnk_files_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
`)

```

```
#####
```

```

<summary>
Read harddisk files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_harddisk_read`,`
 gen_require(`
 type polaris_disk_harddisk_t;
 `)
 read_files_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
 list_dirs_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
`)

```

```
#####
```

```

<summary>
Read bootflash files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_bootflash_read`,`
 gen_require(`
 type polaris_disk_bootflash_t;
 `)
 read_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
`)

```



```

 read_lnk_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
 list_dirs_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
)

#####
<summary>
Manage bootflash files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_bootflash_manage`,
 gen_require(
 type polaris_disk_bootflash_t;
)
 manage_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
 manage_lnk_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
 manage_dirs_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
)

```

```

#####
<summary>
Create an object in the polaris_disk_bootflash_t directories,
with a private type using a type transition.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="private type">
<summary>
The type of the object to be created.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>

```

```

#
interface(`polaris_bootflash_filetrans',`
 gen_require(`
 type polaris_disk_bootflash_t;
 ')

 filetrans_pattern($1, polaris_disk_bootflash_t, $2, $3, $4)
')

#####
<summary>
Manage bootflash files
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_harddisk_manage',`
 gen_require(`
 type polaris_disk_harddisk_t;
 ')
 manage_files_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
 manage_lnk_files_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
 manage_dirs_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
')

#####
<summary>
Create an object in the polaris_disk_harddisk_t directories,
with a private type using a type transition.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="private type">
<summary>
The type of the object to be created.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>

```

```

</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>
#
interface(`polaris_harddisk_filetrans`,`
gen_require(`
type polaris_disk_harddisk_t;
`)

filetrans_pattern($1, polaris_disk_harddisk_t, $2, $3, $4)
`)

#####
<summary>
Getattr of polaris_disk_crashinfo_t (typically /crashinfo
symbolic link and real disk it points to)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_crashinfo_getattr`,`
gen_require(`
type polaris_disk_crashinfo_t;
`)
read_lnk_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
getattr_lnk_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
getattr_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
getattr_dirs_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
`)

#####
<summary>
Manage polaris_disk_crashinfo_t (typically /crashinfo
symbolic link and real disk it points to)
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_disk_crashinfo_manage',`
 gen_require(`
 type polaris_disk_crashinfo_t;
 `)
 manage_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
 manage_lnk_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
 manage_dirs_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
)

```

```
#####
```

```

<summary>
Read links of polaris_disk_crashinfo_t
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_disk_crashinfo_read_lnk',`
 gen_require(`
 type polaris_disk_crashinfo_t;
 `)
 read_lnk_files_pattern($1, polaris_disk_crashinfo_t, polaris_disk_crashinfo_t)
)

```

```
#####
```

```

<summary>
Write/read polaris_disk_license_t files/directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#

```

```

interface(`polaris_disk_license_manage',`
 gen_require(`
 type polaris_disk_license_t;
 `)
 manage_files_pattern($1, polaris_disk_license_t, polaris_disk_license_t)
 manage_lnk_files_pattern($1, polaris_disk_license_t, polaris_disk_license_t)
 allow $1 polaris_disk_license_t:file map;
)

```

```
#####
```

```

<summary>
Fead polaris_disk_license_t files/directories

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_disk_license_read`,`
 gen_require(`
 type polaris_disk_license_t;
 `)
 read_files_pattern($1, polaris_disk_license_t, polaris_disk_license_t)
 read_lnk_files_pattern($1, polaris_disk_license_t, polaris_disk_license_t)
`)

```

```
#####
```

```

<summary>
Get the attributes of an removable
filesystem.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_removable`,`
 gen_require(`
 type removable_t;
 `)

```

```

 allow $1 removable_t:filesystem getattr;
 allow $1 removable_t:dir getattr;
`)

```

```
#####
```

```

<summary>
Create, read, write, and delete all removable files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_removable_manage`,`
 gen_require(`
 type removable_t;

```

```

)

manage_files_pattern($1, removable_t, removable_t)
manage_dirs_pattern($1, removable_t, removable_t)
)

#####
<summary>
read all removable files.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_removable_read`,`
 gen_require(
 type removable_t;
 `)
 read_files_pattern($1, removable_t, removable_t)
 list_dirs_pattern($1, removable_t, removable_t)
 read_lnk_files_pattern($1, removable_t, removable_t)
`)

#####
<summary>
Get the attributes of silent roll partition
filesystem.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_filesystem_disk_ucose`,`
 gen_require(
 type polaris_disk_ucose_t;
 `)

 allow $1 polaris_disk_ucose_t:filesystem getattr;
`)

#####
<summary>
Get the attributes of an bootflash
filesystem.

```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_bootflash`,`
gen_require(`
type polaris_disk_bootflash_t;
`)

allow $1 polaris_disk_bootflash_t:filesystem getattr;
`)

#####
<summary>
Get the attributes of an harddisk
filesystem.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_harddisk`,`
gen_require(`
type polaris_disk_harddisk_t;
`)

allow $1 polaris_disk_harddisk_t:filesystem getattr;
`)

#####
<summary>
Get the attributes of an harddisk
file.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_getattr_file_harddisk`,`
gen_require(`
type polaris_disk_harddisk_t;

```

```
)
getattr_files_pattern($1, polaris_disk_harddisk_t, polaris_disk_harddisk_t)
')
```

```
#####
```

```
<summary>
Watch persistent file or directories
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolebase/>
#
interface(`polaris_persistent_watch',`
gen_require(`
 attribute polaris_disk;
)
 allow $1 polaris_disk: { dir file } watch;
)
)
```

```
#####
```

```
<summary>
Create an object in the polaris_disk_crashinfo_t directories,
with a private type using a type transition.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="private type">
<summary>
The type of the object to be created.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">
<summary>
The name of the object being created.
</summary>
</param>
#
```



```

interface(`polaris_crashinfo_filetrans`,`
 gen_require(`
 type polaris_disk_crashinfo_t;
 `)

 filetrans_pattern($1, polaris_disk_crashinfo_t, $2, $3, $4)
`)

#####
<summary>
Get the attributes of an polaris_disk_config_t
file or directory.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
##
interface(`polaris_getattr_disk_config`,`
 gen_require(`
 type polaris_disk_config_t;
 `)
 getattr_files_pattern($1, polaris_disk_config_t, polaris_disk_config_t)
 getattr_dirs_pattern($1, polaris_disk_config_t, polaris_disk_config_t)
`)

#####
<summary>
Create an object in the polaris_disk_config_t directories,
with a private type using a type transition.
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<param name="private type">
<summary>
The type of the object to be created.
</summary>
</param>
<param name="object">
<summary>
The object class of the object being created.
</summary>
</param>
<param name="name" optional="true">

```

```

<summary>
The name of the object being created.
</summary>
</param>
#
interface(`polaris_disk_config_filetrans`,`
gen_require(`
type polaris_disk_config_t;
`)

filetrans_pattern($1, polaris_disk_config_t, $2, $3, $4)
`)

#####
<summary>
Manage bootflash files mmap
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_bootflash_files_mmap`,`
gen_require(`
type polaris_disk_bootflash_t;
`)
mmap_files_pattern($1, polaris_disk_bootflash_t, polaris_disk_bootflash_t)
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarisstorage.if

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```

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March 2020, Victor Kamensky
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#

```

```
policy_module(polarisjvm, 1.0);
```

```
gen_require(`
type polaris_jvm_t;
`)

```

```
access /etc/passwd
```

```

auth_use_nsswitch(polaris_jvm_t)

java through posix_sysconf accesses /sys/devices/system/cpu
to get number of CPUs
dev_read_sysfs(polaris_jvm_t)

checks whether IPV6 is configured accessing /proc/pid/net/ipv6
kernel_read_network_state(polaris_jvm_t)

handling ~/.oracle_jre_usage
type polaris_jvm_home_t;
files_type(polaris_jvm_home_t)
gen_require(
 type user_home_dir_t;
)
filetrans_pattern(polaris_jvm_t, user_home_dir_t, polaris_jvm_home_t, dir, ".oracle_jre_usage")
manage_dirs_pattern(polaris_jvm_t, user_home_dir_t, polaris_jvm_home_t)
manage_files_pattern(polaris_jvm_t, polaris_jvm_home_t, polaris_jvm_home_t)

handling /tmp/hsperfdata_root
type polaris_jvm_tmp_t;
files_type(polaris_jvm_tmp_t)
gen_require(
 type tmp_t;
)
files_tmp_filetrans(polaris_jvm_t, polaris_jvm_tmp_t, dir, "hsperfdata_root")
manage_dirs_pattern(polaris_jvm_t, tmp_t, polaris_jvm_tmp_t)
manage_files_pattern(polaris_jvm_t, polaris_jvm_tmp_t, polaris_jvm_tmp_t)
mmap_files_pattern(polaris_jvm_t, polaris_jvm_tmp_t, polaris_jvm_tmp_t)

listen on 9093 websocket tcp port
corenet_tcp_bind_polaris_poljvm_websocket_port(polaris_jvm_t)
corenet_tcp_bind_generic_node(polaris_jvm_t)
allow polaris_jvm_t self:tcp_socket create_stream_socket_perms;

java uses jit and needs executable anonymous mapping
allow polaris_jvm_t self:process execmem;

Allow JDK access to read cpu and memory utilization data on start up
gen_require(
 type proc_t;
)

allow polaris_jvm_t proc_t:file { getattr open read };
fs_read_cgroup_files(polaris_jvm_t)
fs_search_cgroup_dirs(polaris_jvm_t)

```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisjvm.te
```

```
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```

```
#
```

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```

```
#
```

```
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```

```
#
```

```
<summary>Polaris plogd Policy Rules.</summary>
```

```
Found in path(s):
```

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarisplogd.if
```

```
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```

```
#
```

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```

```
#
```

```
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```

```
#
```

```
<summary>Polaris hm Policy Rules.</summary>
```

```
#####
```

```
<summary>
```

```
Write into fifo file created by hman, typical case when
```

```
hman starts script under popen.
```

```
</summary>
```

```
<param name="domain">
```

```
<summary>
```

```
Domain allowed access.
```

```
</summary>
```

```
</param>
```

```
<rolecap/>
```

```
#
```

```
interface(`polaris_hman_use_fifo`,`
```

```
gen_require(`
```

```
type polaris_hm_t;
```

```
`)
```

```
write_fifo_files_pattern($1, polaris_hm_t, polaris_hm_t)
```

```
`)
```

```
#####
```

```
<summary>
```

```
Read tmp files created by hman. I.e /tmp/myhostname.
```

```

</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_hm_tmp_read`,`
 gen_require(`
 type polaris_hm_tmp_t;
 `)

 read_files_pattern($1, polaris_hm_tmp_t, polaris_hm_tmp_t)
`)

#####
<summary>
Execute pkg_summary.sh in its own domain
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#
interface(`polaris_pkg_summary_domtrans`,`
 gen_require(`
 type polaris_pkg_summary_t;
 type polaris_pkg_summary_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_pkg_summary_exec_t, polaris_pkg_summary_t)
`)

#####
<summary>
Execute pkg_to_tree.sh in its own domain
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
<rolecap/>
#

```

```

interface(`polaris_pkg_to_tree_domtrans`,`
 gen_require(`
 type polaris_pkg_to_tree_t;
 type polaris_pkg_to_tree_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_pkg_to_tree_exec_t, polaris_pkg_to_tree_t)
`)

#####
<summary>
Execute hman in the polaris_cli_fs_cmds domain.
</summary>
<param name="domain">
<summary>
Domain allowed to transition.
</summary>
</param>
#
interface(`polaris_cli_fs_cmds_domtrans`,`
 gen_require(`
 type polaris_cli_fs_cmds_t, polaris_cli_fs_cmds_exec_t;
 `)

 corecmd_search_bin($1)
 domtrans_pattern($1, polaris_cli_fs_cmds_exec_t, polaris_cli_fs_cmds_t)
`)

#####
<summary>
Read file /tmp/pkg_summary.txt file
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_pkg_summary_tmp_read`,`
 gen_require(`
 type polaris_pkg_summary_tmp_t;
 `)

 read_files_pattern($1, polaris_pkg_summary_tmp_t, polaris_pkg_summary_tmp_t)
`)

#####
<summary>

```

```

read the contents of /tmp/show_provision_temp
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_show_provision_temp_read`,`
 gen_require(`
 type polaris_show_provision_tmp_t;
 `)
 read_files_pattern($1, polaris_show_provision_tmp_t, polaris_show_provision_tmp_t)
`)

#####
<summary>
manage the contents of /tmp/show_provision_temp
</summary>
<param name="domain">
<summary>
Domain allowed access.
</summary>
</param>
#
interface(`polaris_show_provision_temp_manage`,`
 gen_require(`
 type polaris_show_provision_tmp_t;
 `)
 manage_files_pattern($1, polaris_show_provision_tmp_t, polaris_show_provision_tmp_t)
 manage_lnk_files_pattern($1, polaris_show_provision_tmp_t, polaris_show_provision_tmp_t)
 manage_dirs_pattern($1, polaris_show_provision_tmp_t, polaris_show_provision_tmp_t)
 files_tmp_filetrans($1, polaris_show_provision_tmp_t, { file dir })
`)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polarishm.if

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#

```

```

policy_module(polarispsvp, 1.0);

```

```

polaris_process_domain_template(psvp)

transition to pman domain, once pman is invoked by psvp
polaris_pman_domtrans(polaris_psvp_t)
transition to pvp domain, once pvp is invoked by psvp
polaris_pvp_domtrans(polaris_psvp_t)

corecmd_exec_bin(polaris_psvp_t)
corecmd_exec_shell(polaris_psvp_t)

can execute process in polaris domain
polaris_exec(polaris_psvp_t)

LOOK AT ME start-stop-daemon from busy box iterates all
/proc/<pid> directories and reads /proc/<pid>/cmdline
/proc/<pid>/exe. I.e it need quite a bit of priviledges
domain_read_all_domains_state(polaris_psvp_t)

another issue of running busybox start-stop-daemon under
psvp_t label
type=AVC msg=audit(1480527500.482:46): avc: denied { sys_ptrace } for pid=14853 comm="start-stop-daem"
capability=19 scontext=system_u:system_r:polaris_psvp_t:s0 tcontext=system_u:system_r:polaris_psvp_t:s0
tclass=capability
allow polaris_psvp_t self:capability sys_ptrace;

allow to read /proc/meminfo
kernel_read_system_state(polaris_psvp_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_psvp_t)

run ldd, which in turns execve "ld.so --verify"
libs_exec_ld_so(polaris_psvp_t)

work with /tmp files
type polaris_psvp_tmp_t;
files_tmp_file(polaris_psvp_tmp_t)
manage_dirs_pattern(polaris_psvp_t, tmp_t, polaris_psvp_tmp_t)
manage_files_pattern(polaris_psvp_t, polaris_psvp_tmp_t, polaris_psvp_tmp_t)
manage_fifo_files_pattern(polaris_psvp_t, polaris_psvp_tmp_t, polaris_psvp_tmp_t)
files_tmp_filetrans(polaris_psvp_t, polaris_psvp_tmp_t, { file dir })
filetrans_pattern(domain, tmp_t, polaris_psvp_tmp_t, dir, "psvp")

ifdef(`ngwc_family',`
also need to be able to ls /tmp/ufs/ on ngwc
optional_policy(`
polaris_ncd_tmp_read(polaris_psvp_t)

```



```

)
)

note split entry another psvp capability listed above
allow polaris_psvp_t self:capability sys_resource;

polaris_pvp_getattr_tmp_dirs(polaris_psvp_t)

dmidecode_domtrans(polaris_psvp_t)

polaris_btrace_data_manage(polaris_psvp_t)
polaris_chasfs_manage(polaris_psvp_t)
polaris_cpld_read(polaris_psvp_t)
polaris_cpld_write(polaris_psvp_t)
polaris_rmonbifo_tmp_read(polaris_psvp_t)
polaris_tlddb_list_dirs(polaris_psvp_t)
polaris_boot_tmp_read(polaris_psvp_t)
polaris_disk_crashinfo_getattr(polaris_psvp_t)
polaris_flashlib_read(polaris_psvp_t)
polaris_read_debug_conf(polaris_psvp_t)

allow polaris_psvp_t self:capability dac_override;

watch /tmp/sai/psvp
allow polaris_psvp_t polaris_psvp_tmp_t:dir watch;

creates /tmp/sai/pvp/rp/run_stg2
polaris_pvp_manage_tmp_files(polaris_psvp_t)

Allow /tmp/ufs/bootflash & /tmp/ufs/harddisk read access
ifdef(`vwlc_platform',`
optional_policy(`
polaris_ncd_tmp_read(polaris_psvp_t)
)
)

permissions during shutdown
polaris_pvp_manage_tmp_files(polaris_psvp_t);

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```

```

#

policy_module(polariscrft, 1.0);

#####
CRFT policy
#####
gen_require(
 attribute domain;
 attribute polaris_extended_domain;
)

persistent CRFT files stored under crft_data
type polaris_crft_data_t;
files_type(polaris_crft_data_t)

allow crft data file reside on persistent storage
polaris_pfile_type(polaris_crft_data_t)

attribute polaris_crft_data_domain;

typeattribute polaris_crft_data_t polaris_crft_data_domain;

Start of mcp_crft_request context elements
polaris_utility_domain_template(crft_request)

smand calls the mcp_crft_request.sh in bexec context
polaris_bexecute_domtrans(polaris_crft_request_t)
polaris_bexecute_domain(polaris_crft_request_t, polaris_crft_request_exec_t)

read the cpld information
polaris_cpld_read(polaris_crft_request_t)

dev/pty access as part of bexec operations
telnet_use_ptys(polaris_crft_request_t)

filesystem attributes for df /
fs_getattr_xattr_fs(polaris_crft_request_t)

btrace used in script uses these
polaris_btrace_tmppub_manage(polaris_crft_request_t)
polaris_use_btrace_fifo(polaris_crft_request_t)

read /proc/rmbonbifo files such as env_var.sh
polaris_rmonbifo_tmp_read(polaris_crft_request_t)

read /tmp/sw/boot/base_pkg
polaris_boot_tmp_manage(polaris_crft_request_t)

```

```

ufs information captured by the chasfs utils
ifdef(`ngwc_family',`
optional_policy(`
polaris_ncd_tmp_manage(polaris_crft_request_t)
')
')
scripts read /proc/cmdline
kernel_read_system_state(polaris_crft_request_t)

ping the vrf
netutils_domtrans_ping(polaris_crft_request_t)
sysnet_domtrans_ifconfig(polaris_crft_request_t)

rsync operations for members and standby rps
gen_require(`
 type rsync_exec_t;
 type rsync_port_t;
')
allow polaris_crft_request_t rsync_exec_t:file { execute execute_no_trans getattr map open read };
allow polaris_crft_request_t rsync_port_t:tcp_socket name_connect;

access to /etc/hosts for rp/members information
gen_require(`
 type net_conf_t;
')
files_etc_filetrans(polaris_crft_request_t, net_conf_t, file, "hosts")
auth_use_nsswitch(polaris_crft_request_t)

execute the bash script
corecmd_exec_bin(polaris_crft_request_t)

net namespace filesystem
fs_read_nsfs_files(polaris_crft_request_t)
polaris_chasfs_manage(polaris_crft_request_t)

script also accesses the persistent files from crft
polaris_persistent_manage(polaris_crft_request_t)
polaris_crft_data_manage_all(polaris_crft_request_t)

ping operations via ip netns
gen_require(`
 type ifconfig_t;
')
netutils_domtrans_ping(ifconfig_t)

Curl accesses from IoT boxes like petra/sparrow
gen_require(`

```

```

 type polaris_curl_t;
 type polaris_iosd_t;
)
allow polaris_curl_t polaris_crft_request_t:process sigchld;

handle mktemp creation and cleanup
files_manage_generic_tmp_dirs(polaris_crft_request_t)
allow polaris_crft_request_t self:capability sys_resource;

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policy_module(polaristamdrp, 1.0);

gen_require(
 type polaris_tamd_rp_t;
)

polaris_btrace_data_manage(polaris_tamd_rp_t)
polaris_crft_data_manage(polaris_tamd_rp_t)
polaris_chasfs_manage(polaris_tamd_rp_t)
polaris_tdlresolve_read(polaris_tamd_rp_t)
polaris_tdlldb_list_dirs(polaris_tamd_rp_t)
polaris_flashlib_read(polaris_tamd_rp_t)
logging_send_syslog_msg(polaris_tamd_rp_t)

allow read of /etc/passwd
auth_use_nsswitch(polaris_tamd_rp_t)

polaris_cpld_read(polaris_tamd_rp_t)
polaris_cpld_write(polaris_tamd_rp_t)

polaris_quack_dev_use(polaris_tamd_rp_t)

tmp file for udi authentication
type polaris_tamd_rp_tmp_t;
files_tmp_file(polaris_tamd_rp_tmp_t);
files_tmp_filetrans(polaris_tamd_rp_t, polaris_tamd_rp_tmp_t, file, "tam_uid_validation")
manage_files_pattern(polaris_tamd_rp_t, polaris_tamd_rp_tmp_t, polaris_tamd_rp_tmp_t)
polaris_cm_rp_tmp_manage(polaris_tamd_rp_t)

```

```

hybrid tam needs access to /objstore/.swtam
gen_require(
 type polaris_disk_objstore_t;
 type root_t;
)
filetrans_pattern(polaris_tamd_rp_t, root_t, polaris_disk_objstore_t, dir, "objstore")
manage_dirs_pattern(polaris_tamd_rp_t, polaris_disk_objstore_t, polaris_disk_objstore_t)
polaris_disk_objstore_manage(polaris_tamd_rp_t)

need access to dash fpga to read/write TAM
optional_policy(
 polaris_dash_dev_use(polaris_tamd_rp_t)
)

#access to /dev/dash_fpga device on fugazi platform
ifdef(^fugazi_platform',`
 polaris_dash_dev_mcp_use(polaris_tamd_rp_t)
)

allow polaris_tamd_rp_t self:capability net_admin;

LOOK AT ME tamd_rp needs shell access to do something like this
sh -c "echo 0x04 > /sys/devices/platform/cpld/reg_rp_reset_control"
need to rework into simple open,write,close
corecmd_exec_shell(polaris_tamd_rp_t)

LOOK AT ME access should be restricted after /flash/dummy_check is removed,
which is tracked under CSCvh68866. Allow access to bootflash till then.
polaris_bootflash_read(polaris_tamd_rp_t)

optional_policy(
Allow /dev/dmabmap access
polaris_dmabmap_dev_use(polaris_tamd_rp_t)
)

LOOK AT ME: /dev/mem access restriction
polaris_dev_mem_use(polaris_tamd_rp_t)

optional_policy(
polaris_ngwc_shm_manage(polaris_tamd_rp_t)
)

optional_policy(
polaris_remap_mem_dev_use(polaris_tamd_rp_t)
)

polaris_cpld_dev_use(polaris_tamd_rp_t)

```

```
optional_policy(`
allow access to /sys/devices/virtual/misc/ggpi/gpio_out_assert
polaris_ggpio_dev_read_write(polaris_tamd_rp_t)
`)
```

```
optional_policy(`
 polaris_quake_i2c_manage(polaris_tamd_rp_t)
`)
```

```
/dev/aikido access
polaris_aikido_dev_use(polaris_tamd_rp_t)
```

```
tamlib debug file access
polaris_tamlib_dbg_file_manage(polaris_tamd_rp_t)
```

```
tam gpio sysfs access
optional_policy(`
dev_rw_sysfs(polaris_tamd_rp_t)
`)
```

```
ifdef(`petra_platform',`
#allow access to /dev/i2c-0 for hash value
polaris_i2c_use(polaris_tamd_rp_t)
`)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polaristamdrp.te
No license file was found, but licenses were detected in source scan.
```

```
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March 2017, Victor Kamensky
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#
```

```
/usr/binos/conf/sort_files_by_inode.sh -- gen_context(system_u:object_r:polaris_sort_files_exec_t,s0)
```

Found in path(s):

```
* /opt/cola/permits/1103963160_1615183271.1/0/selinux-tar/selinux/polarissortfiles.fc
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```

#

policy_module(polariscedgestart, 1.0);

gen_require(
 type polaris_cedge_start_t;
)

polaris_chasfs_manage(polaris_cedge_start_t)
polaris_boot_tmp_read(polaris_cedge_start_t)
polaris_bootflash_manage(polaris_cedge_start_t)
polaris_cpld_read(polaris_cedge_start_t)
polaris_flashlib_read(polaris_cedge_start_t)
polaris_rmonbifo_tmp_read(polaris_cedge_start_t)
polaris_btrace_tmppub_read(polaris_cedge_start_t)

needed by install_util.sh
polaris_read_packages_conf(polaris_cedge_start_t)

corecmd_exec_bin(polaris_cedge_start_t)
corecmd_exec_shell(polaris_cedge_start_t)
auth_use_nsswitch(polaris_cedge_start_t)

polaris_dmi_ports_fetch_domtrans(polaris_cedge_start_t)

runs ps -C cfgmgr -o pid=
ps needs access to proc_t
kernel_read_system_state(polaris_cedge_start_t)
ps needs access to state of all domains
domain_read_all_domains_state(polaris_cedge_start_t)
"ps" needs read access to /sys/devices/system/cpu/online
"ps" needs read access to /proc/uptime
dev_read_sysfs(polaris_cedge_start_t)

runs vip-confd-startup.sh needs transition into polaris_conf_d_t domain
polaris_conf_d_domtrans(polaris_cedge_start_t)

runs systemctl start logrotate.service
systemd_exec_systemctl(polaris_cedge_start_t)

manage /etc/viptela
polaris_cedge_etc_manage(polaris_cedge_start_t)

runs install_assist.sh
polaris_install_engine_domtrans(polaris_cedge_start_t)

write /bootflash/installer/images/pkg_boot_17.3.01/version
polaris_disk_install_manage(polaris_cedge_start_t)

```

```

gen_require(
 type polaris_disk_install_t;
)
du -s /bootflash/installer/images/pkg_boot_17.3.01/confd0/cdb
allow polaris_cedge_start_t polaris_disk_install_t:filesystem getattr;

chown -R binos /bootflash/sdwan
fs_getattr_xattr_fs(polaris_cedge_start_t)

allow polaris_cedge_start_t self:capability { chown fowner net_admin };

PLEASE LOOK AT ME cedge_start.sh modifies set of directories that
are supposed to be read only, like usr_t, etc_t, root_t
files_rw_usr_dirs(polaris_cedge_start_t)
gen_require(
 type usr_t;
)
manage_lnk_files_pattern(polaris_cedge_start_t, usr_t, usr_t)
libs_manage_lib_dirs(polaris_cedge_start_t)
gen_require(
 type lib_t;
)
manage_lnk_files_pattern(polaris_cedge_start_t, lib_t, lib_t)
files_manage_etc_symlinks(polaris_cedge_start_t)
files_manage_var_symlinks(polaris_cedge_start_t)
creates /home directory in root
gen_require(
 type root_t;
)
manage_dirs_pattern(polaris_cedge_start_t, root_t, root_t)
manage_lnk_files_pattern(polaris_cedge_start_t, root_t, root_t)
creates /var/log/sdwan
gen_require(
 type var_log_t;
)
manage_dirs_pattern(polaris_cedge_start_t, var_log_t, var_log_t)
manage_lnk_files_pattern(polaris_cedge_start_t, var_log_t, var_log_t)
corecmd_manage_bin_files(polaris_cedge_start_t)

PLEASE LOOK AT ME copy unit files into /lib/systemd/system
cp /tmp/sw/rp/0/0/rp_daemons/mount/lib/systemd/system/logrotate.service /lib/systemd/system
gen_require(
 type systemd_unit_file_t;
)
read_lnk_files_pattern(polaris_cedge_start_t, systemd_unit_file_t, systemd_unit_file_t)

PLEASE LOOK AT ME need to have separate label for logrotate.service
allow only to start if, do it once copy of logrotate.service is fixed

```



```

systemd_config_generic_services(polaris_cedge_start_t)
init_start(polaris_cedge_start_t)

creates /var/log/confd
polaris_confd_var_log_manage(polaris_cedge_start_t)

executes touch /etc/resolv.conf for case when it is missing
check create_etc_resolv_conf make sure that it becomes net_conf_t
gen_require(
 type net_conf_t;
)
files_etc_filetrans(polaris_cedge_start_t, net_conf_t, file, "resolv.conf")
sysnet_create_config(polaris_cedge_start_t)
sysnet_write_config(polaris_cedge_start_t)

creates /var/confd0 when box boots with startup config disabled
polaris_confd_var_filetrans(polaris_cedge_start_t, dir, "confd0")

polaris_confd_var_dir_manage(polaris_cedge_start_t)

#####
During controller-mode enablement/bringup,
viptela scripts are not loaded as part of the base packages.
viptela-start.sh script takes care of creating these references.
It creates softlink copies them as below to desired location depending on the packaging (mono vs subpackage).
"cp $PKG_PATH/lib/systemd/system/logrotate.service /lib/systemd/system"
Below policy statement allow copy access needed for viptela-logrotate.sh
for updating /lib/systemd/system and /usr/binos/conf path
write_files_pattern(polaris_cedge_start_t, systemd_unit_file_t, systemd_unit_file_t)

While creating softlink as below
"ln -sf $PKG_PATH/usr/binos/conf/viptela-logrotate.sh /usr/binos/conf/viptela-logrotate.sh"
As the ln command tries to create the new link, it removes the already existing link.
ln deletes the file associated with the path name if this path name is the last link to the file.
If ln can't get rid of the conflicting path name, it does not attempt to establish the new link.
If ln successfully removes the conflicting path name, it then establishes the link.
delete file permissions are hence needed for ln command to perform unlinking previous link
files_delete_etc_files(polaris_cedge_start_t)
#####

During cEdge upgrade, viptela-start.sh needs permissions to maintain the
state of roll back timer in /bootflash/.rollback_timer/*
polaris_rbtimer_bootflash_manage(polaris_cedge_start_t)

#Nutella-XE - Vedge image install
#/bin/bash /tmp/sw/rp/0/0/rp_security/mount/usr/binos/conf/viptela-start.sh
mount_domtrans(polaris_cedge_start_t)

```

Found in path(s):

\* /opt/cola/permits/1103963160\_1615183271.1/0/selinux-tar/selinux/polariscdgestart.te

# 1.568 pynacl 1.4.0

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The following list of people, sorted by last name, have contributed code or patches to this implementation of sudo since I began maintaining it in 1993. This list is known to be incomplete--if you believe you should be listed, please send a note to sudo@sudo.ws.

Ackeret, Matt  
Adler, Mark  
Allbery, Russ  
Anderson, Jamie  
Andrew, Nick  
Andric, Dimitry  
Barron, Danny  
Bates, Tom  
Behan, Zdenk  
Bellis, Ray  
Benali, Elias  
Beverly, Jamie  
Boardman, Spider  
Bos, Sander  
Bostley, P.J.  
Bowes, Keith  
Boyce, Keith Garry  
Brantley, Michael  
Braun, Rob  
Bezina, Pavel  
Brooks, Piete  
Brown, Jerry  
Burr, Michael E  
Burton, Ross  
Bussjaeger, Andreas  
Calvin, Gary  
Campbell, Aaron  
Chazelas, Stephane  
Cheloha, Scott  
ek, Vtislav  
Coleman, Chris  
Corzine, Deven T.

Cusack, Frank  
Dai, Wei  
Dill, David  
Earickson, Jeff  
Eckhardt, Drew  
Edgington, Ben  
Esipovich, Marc  
Espie, Marc  
Faigon, Ariel  
Farrell, Brian  
Fobes, Steve  
Frysinger, Mike  
G., Daniel Richard  
Gailly, Jean-loup  
Gelman, Stephen  
Gerraty, Simon J.  
Graber, Stephane  
Guillory, B.  
Hayman, Randy M.  
Henke, Joachim  
Hideaki, Yoshifuji  
Hieb, Dave  
Holloway, Nick  
Hoover, Adam  
Hunter, Michael T.  
Hutchings, Ben  
Irrgang, Eric  
Jackson, Brian  
Jackson, John R.  
Jackson, Richard L., Jr.  
Janssen, Mark  
Jepeway, Chris  
Jorge, Joel Pele  
Jover, Guillem  
Juhani, Timo  
Kikuchi, Ayamura  
Kadow, Kevin  
Kasal, Stepan  
Kienenberger, Mike  
King, Dale  
King, Michael  
Klyachkin, Andrey  
Knoble, Jim  
Knox, Tim  
Komarnitsky, Alek O.  
Kondrashov, Nikolai  
Kopeek, Daniel  
Kranenburg, Paul

Krause, David  
Lakin, Eric  
Larsen, Case  
Levin, Dmitry V.  
Libby, Kendall  
Lobbes, Phillip E.  
McIntyre, Jason  
MacKenzie, David J.  
McLaughlin, Tom  
Makey, Jeff  
Mallayya, Sangamesh  
Marchionna, Michael D.  
Markham, Paul  
Martinian, Emin  
Meskes, Michael  
Michael, David  
Miller, Todd C.  
Minier, Loc  
Moffat, Darren  
Moldung, Jan Thomas  
Morris, Charles  
Mueller, Andreas  
Mller, Dworkin  
Nieuwma, Jeff  
Nikitser, Peter A.  
Nussel, Ludwig  
Ouellet, Jean-Philippe  
Paquet, Eric  
Paradis, Chantal  
Pasteleurs, Frederic  
Percival, Ted  
Perera, Andres  
Peron, Christian S.J.  
Peschel, Aaron  
Peslyak, Alexander  
Peterson, Toby  
Petten, Diego Elio  
Pickett, Joel  
Plotnick, Alex  
de Raadt, Theo  
Rasch, Gudleik  
Reid, Steve  
Richards, Matt  
Rossum, Guido van  
Rouillard, John P.  
Rowe, William A., Jr.  
Roy, Alain  
Ruusame, Elan

Ryabinkin, Eygene  
Sato, Yuichi  
Snchez, Wilfredo  
Sanders, Miguel  
Sasaki, Kan  
Saucier, Jean-Francois  
Schoenfeld, Patrick  
Schuring, Arno  
Schwarze, Ingo  
Scott, Dougal  
Sieger, Nick  
Simon, Thor Lancelot  
Slemko, Marc  
Smith, Andy  
Sobrado, Igor  
Soulen, Steven  
Spangler, Aaron  
Spradling, Cloyce D.  
Spradling, Michael  
Stier, Matthew  
Stoeckmann, Tobias  
Street, Russell  
Stritzky, Tilo  
Stroucken, Michael  
Tarrall, Robert  
Thomas, Matthew  
Todd, Giles  
Toft, Martin  
Torek, Chris  
Tucker, Darren  
Uhl, Robert  
Uzel, Petr  
Valery, Reznic  
Van Dinter, Theo  
Venckus, Martynas  
de Vries, Maarten  
Wagner, Klaus  
Walsh, Dan  
Warburton, John  
Webb, Kirk  
Wetzel, Timm  
Wieringen, Marco van  
Wilk, Jakub  
Winiger, Gary  
Wood, David  
Zacarias, Gustavo  
Zolnowsky, John

The following people have worked to translate sudo into other languages as part of the Translation Project, see <https://translationproject.org> for more details.

Albuquerque, Pedro  
Blttermann, Mario  
Bogusz, Jakub  
Buo-ren, Lin  
Casagrande, Milo  
Castro, Felipe  
Cho, Seong-ho  
Chornoivan, Yuri  
Diguez, Francisco  
Fontenelle, Rafael  
Garca-Fontes, Walter  
Gezer, Volkan  
Hamasaki, Takeshi  
Hamming, Peter  
Hansen, Joe  
Hantrais, Frdric  
Hein, Jochen  
Hufthammer, Karl Ove  
Jerovek, Damir  
Karvonen, Jorma  
Kazik, Duan  
Kelemen, Gbor  
Keeci, Mehmet  
Koir, Klemen  
Kozlov, Yuri  
Kramer, Jakob  
Krznar, Tomislav  
Marchal, Frdric  
Margeviius, Algimantas  
Maryanov, Pavel  
Nikoli, Miroslav  
Nylander, Daniel  
Psa, Petr  
Puente, Enol  
Putanec, Boidar  
Qun, Trn Ngc  
Rasmussen, Sebastian  
Regueiro, Leandro  
Sarar, zgr  
Sendn, Abel  
Sikrom, ka  
Spingos, Dimitris  
Taniguchi, Yasuaki  
Tomat, Fbio

r, Balzs  
Uranga, Mikel Olasagasti  
Vorotnikov, Artem  
Wang, Wylmer

# 1.570 less 551 r0

## 1.570.1 Available under license :

Less License  
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Less

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Version 3, 29 June 2007

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```

```
<signature of Ty Coon>, 1 April 1989
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## 1.575 kerberos 1.18.2-8.el8

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cmd/krb5/slave/kpropd_rpc.c
lib/gss_mechs/mech_krb5/et/kdb5_err.c
lib/gss_mechs/mech_spnego/mech/gssapiP_spnego.h
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lib/krb5/kadm5/kadm_host_srv_names.c
lib/krb5/kdb/kdb_convert.c
lib/krb5/kdb/kdb_hdr.h
lib/krb5/kdb/kdb_log.c
lib/krb5/kdb/kdb_log.h
lib/libgss/g_accept_sec_context.c
lib/libgss/g_acquire_cred.c
```

lib/libgss/g\_canon\_name.c  
lib/libgss/g\_compare\_name.c  
lib/libgss/g\_context\_time.c  
lib/libgss/g\_delete\_sec\_context.c  
lib/libgss/g\_dsp\_name.c  
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lib/libgss/g\_dup\_name.c  
lib/libgss/g\_exp\_sec\_context.c  
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lib/libgss/g\_utils.c  
lib/libgss/g\_verify.c  
lib/libgss/gssd\_pname\_to\_uid.c  
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"src/lib/gssapi", including the following files:

lib/gssapi/generic/gssapi\_err\_generic.et  
lib/gssapi/mechglue/g\_accept\_sec\_context.c  
lib/gssapi/mechglue/g\_acquire\_cred.c  
lib/gssapi/mechglue/g\_canon\_name.c  
lib/gssapi/mechglue/g\_compare\_name.c  
lib/gssapi/mechglue/g\_context\_time.c  
lib/gssapi/mechglue/g\_delete\_sec\_context.c

lib/gssapi/mechglue/g\_dsp\_name.c  
lib/gssapi/mechglue/g\_dsp\_status.c  
lib/gssapi/mechglue/g\_dup\_name.c  
lib/gssapi/mechglue/g\_exp\_sec\_context.c  
lib/gssapi/mechglue/g\_export\_name.c  
lib/gssapi/mechglue/g\_glue.c  
lib/gssapi/mechglue/g\_imp\_name.c  
lib/gssapi/mechglue/g\_imp\_sec\_context.c  
lib/gssapi/mechglue/g\_init\_sec\_context.c  
lib/gssapi/mechglue/g\_initialize.c  
lib/gssapi/mechglue/g\_inquire\_context.c  
lib/gssapi/mechglue/g\_inquire\_cred.c  
lib/gssapi/mechglue/g\_inquire\_names.c  
lib/gssapi/mechglue/g\_process\_context.c  
lib/gssapi/mechglue/g\_rel\_buffer.c  
lib/gssapi/mechglue/g\_rel\_cred.c  
lib/gssapi/mechglue/g\_rel\_name.c  
lib/gssapi/mechglue/g\_rel\_oid\_set.c  
lib/gssapi/mechglue/g\_seal.c  
lib/gssapi/mechglue/g\_sign.c  
lib/gssapi/mechglue/g\_store\_cred.c  
lib/gssapi/mechglue/g\_unseal.c  
lib/gssapi/mechglue/g\_userok.c  
lib/gssapi/mechglue/g\_utils.c  
lib/gssapi/mechglue/g\_verify.c  
lib/gssapi/mechglue/gssd\_pname\_to\_uid.c  
lib/gssapi/mechglue/mglueP.h  
lib/gssapi/mechglue/oid\_ops.c  
lib/gssapi/spnego/gssapiP\_spnego.h  
lib/gssapi/spnego/spnego\_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/ipropr\_hdr.h  
kadmin/server/ipropr\_svc.c  
lib/kdb/ipropr.x  
lib/kdb/kdb\_convert.c  
lib/kdb/kdb\_log.c  
lib/kdb/kdb\_log.h  
lib/krb5/error\_tables/kdb5\_err.et  
kprop/kpropd\_rpc.c  
kprop/kproplog.c

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## 1.582 libssh 0.9.4 2.e18

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- \* Small optimizations to Python serialization.

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- \* VI syntax highlighting tweaks.
- \* Fix compiler to not make output executable.

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- \* Heuristic detection of sub-messages when printing unknown fields in text format.

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- \* Added @Override annotation to generated Java code where appropriate.

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- \* Tru64 support.

Monty Taylor <monty.taylor@gmail.com>

- \* Solaris 10 + Sun Studio fixes.

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- \* Slicing support for repeated scalar fields for the Python API.

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- \* MS Visual Studio error format option.
- \* Detect unordered\_map in stl\_hash.m4.

Brian Olson <brianolson@google.com>

- \* gzip/zlib I/O support.

Michael Poole <mdpoole@troilus.org>

- \* Fixed warnings about generated constructors not explicitly initializing all fields (only present with certain compiler settings).
- \* Added generation of field number constants.

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- \* Fixed initialization ordering problem in logging code.

Will Pierce <willp@nuclei.com>

- \* Small patch improving performance of in Python serialization.

Alexandre Vassalotti <alexandre@peadrop.com>

- \* Emacs mode for Protocol Buffers (editors/protobuf-mode.el).

Scott Stafford <scott.stafford@gmail.com>

- \* Added Swap(), SwapElements(), and RemoveLast() to Reflection interface.

Alexander Melnikov <alm@sibmail.ru>

- \* HPUX support.

Oliver Jowett <oliver.jowett@gmail.com>

- \* Detect whether zlib is new enough in configure script.

- \* Fixes for Solaris 10 32/64-bit confusion.

Evan Jones <evanj@mit.edu>

- \* Optimize Java serialization code when writing a small message to a stream.

- \* Optimize Java serialization of strings so that UTF-8 encoding happens only once per string per serialization call.

- \* Clean up some Java warnings.

- \* Fix bug with permanent callbacks that delete themselves when run.

Michael Kucharski <m.kucharski@gmail.com>

- \* Added CodedInputStream.getTotalBytesRead().

Kacper Kowalik <xarthisius.kk@gmail.com>

- \* Fixed m4/acx\_pthread.m4 problem for some Linux distributions.

William Orr <will@worrbase.com>

- \* Fixed detection of sched\_yield on Solaris.

- \* Added atomicops for Solaris

Andrew Paprocki <andrew@ishiboo.com>

- \* Fixed minor IBM xLC compiler build issues

- \* Added atomicops for AIX (POWER)

## 1.587 libmodulemd 2.9.4 2.el8

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## 1.590 dtc 1.5.1 r0

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or

linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may



distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file

that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system,

rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
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That's all there is to it!

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## 1.595.1 Available under license :

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[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

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The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

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# 1.600 libgcc 9.2.0 r0

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bzip2/libbzip2 version 1.0.6 of 6 September 2010

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```
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```
@c man end
```

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That's all there is to it!  
DRuntime: Runtime Library for the D Programming Language

=====  
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Version 3.1, 31 March 2009

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## 1.603 iputils s20190709 r0

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<!-- $Id: lwres_getrrsetbyname.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->

<refentry>
<refentryinfo>

<date>Oct 18, 2000</date>
</refentryinfo>
<refmeta>
<refentrytitle>lwres_getrrsetbyname</refentrytitle>
<manvolnum>3</manvolnum>
<refmiscinfo>BIND9</refmiscinfo>
</refmeta>
<refnamediv>
<refname>lwres_getrrsetbyname</refname>
<refname>lwres_freerrset</refname>
<refpurpose>retrieve DNS records</refpurpose>
</refnamediv>
<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <<lwres/netdb.h>></funcsynopsisinfo>
<funcprototype>
<funcdef>
int
<function>lwres_getrrsetbyname</function></funcdef>
<paramdef>const char *hostname</paramdef>
<paramdef>unsigned int rdclass</paramdef>
```

```

<paramdef>unsigned int rdtype</paramdef>
<paramdef>unsigned int flags</paramdef>
<paramdef>struct rrsetinfo **res</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_freerrset</function></funcdef>
<paramdef>struct rrsetinfo *rrset</paramdef>
</funcprototype>
</funcsynopsis>

```

<para>

The following structures are used:

<programlisting>

```

struct rdatainfo {
 unsigned int rdi_length; /* length of data */
 unsigned char *rdi_data; /* record data */
};

struct rrsetinfo {
 unsigned int rri_flags; /* RRSET_VALIDATED... */
 unsigned int rri_rdclass; /* class number */
 unsigned int rri_rdtype; /* RR type number */
 unsigned int rri_ttl; /* time to live */
 unsigned int rri_nrdatas; /* size of rdatas array */
 unsigned int rri_nsigs; /* size of sigs array */
 char *rri_name; /* canonical name */
 struct rdatainfo *rri_rdatas; /* individual records */
 struct rdatainfo *rri_sigs; /* individual signatures */
};

```

</programlisting>

</para>

</refsynopsisdiv>

<refsect1>

<title>DESCRIPTION</title>

<para>

<function>lwres\_getrrsetbyname()</function>

gets a set of resource records associated with a

<parameter>hostname</parameter>,

<parameter>class</parameter>,

and

<parameter>type</parameter>.

<parameter>hostname</parameter>

is

a pointer to a null-terminated string. The

<parameter>flags</parameter>

field is currently unused and must be zero.

</para>

<para>

After a successful call to

<function>lwres\_getrrsetbyname()</function>,

<parameter>\*res</parameter>

is a pointer to an

<type>rrsetinfo</type>

structure, containing a list of one or more

<type>rdatainfo</type>

structures containing resource records and potentially another list of

<type>rdatainfo</type>

structures containing SIG resource records

associated with those records.

The members

<constant>rri\_rclass</constant>

and

<constant>rri\_rdtype</constant>

are copied from the parameters.

<constant>rri\_ttl</constant>

and

<constant>rri\_name</constant>

are properties of the obtained rrset.

The resource records contained in

<constant>rri\_rdatas</constant>

and

<constant>rri\_sigs</constant>

are in uncompressed DNS wire format.

Properties of the rdataset are represented in the

<constant>rri\_flags</constant>

bitfield. If the RRSET\_VALIDATED bit is set, the data has been DNSSEC validated and the signatures verified.

</para>

<para>

All of the information returned by

<function>lwres\_getrrsetbyname()</function>

is dynamically allocated: the

<constant>rrsetinfo</constant>

and

<constant>rdatainfo</constant>

structures,

and the canonical host name strings pointed to by the

<constant>rrsetinfo</constant> structure.

Memory allocated for the dynamically allocated structures created by a successful call to

`<function>lwres_getrrsetbyname()</function>`

is released by

`<function>lwres_freerrset()</function>`.

`<parameter>rrset</parameter>`

is a pointer to a

`<type>struct rrset</type>`

created by a call to

`<function>lwres_getrrsetbyname()</function>`.

`</para>`

`<para>`

`</para>`

`</refsect1>`

`<refsect1>`

`<title>RETURN VALUES</title>`

`<para>`

`<function>lwres_getrrsetbyname()</function>`

returns zero on success, and one of the following error codes if an error occurred:

`<variablelist>`

`<varlistentry><term><constant>ERRSET_NONAME</constant></term>`

`<listitem><para>`

the name does not exist

`</para></listitem></varlistentry>`

`<varlistentry><term><constant>ERRSET_NODATA</constant></term>`

`<listitem><para>`

the name exists, but does not have data of the desired type

`</para></listitem></varlistentry>`

`<varlistentry><term><constant>ERRSET_NOMEMORY</constant></term>`

`<listitem><para>`

memory could not be allocated

`</para></listitem></varlistentry>`

`<varlistentry><term><constant>ERRSET_INVALID</constant></term>`

`<listitem><para>`

a parameter is invalid

`</para></listitem></varlistentry>`

`<varlistentry><term><constant>ERRSET_FAIL</constant></term>`

`<listitem><para>`

other failure

`</para></listitem></varlistentry>`

<varlistentry><term><constant></constant></term>  
<listitem><para>  
</para></listitem></varlistentry>

</variablelist>

</para>  
</refsect1>  
<refsect1>  
<title>SEE ALSO</title>  
<para>  
<citerefentry>  
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</citerefentry>.  
</para>  
  
</refsect1>  
</refentry>

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/nameser/ns\_verify.c  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/heap.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/heap.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/list.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/cygwin/include/ansi\_realloc.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/memcluster.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/assertions.c

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/print.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/tkey\_249.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/nsec.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/rt\_21.c  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdatalist.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/print\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/log.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/resolver.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/db.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/nsec.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/print.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/keyvalues.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/px\_26.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/xfrin.h

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```
.\"
.\" The following six UNCOMMENTED lines are required.
.\"Os OPERATING_SYSTEM [version/release]
.\"Dt DOCUMENT_TITLE [section number] [volume]
.\" The following requests should be uncommented and
.\" used where appropriate. This next request is
.\" for sections 2 and 3 function return values only.
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh EXAMPLES
.\" This next request is for sections 1, 6, 7 & 8 only
.\" (command return values (to shell) and
.\" fprintf/stderr type diagnostics)
.\" .Sh DIAGNOSTICS
.\" The next request is for sections 2 and 3 error
.\" and signal handling only.
.\" .Sh STANDARDS
.\" .Sh HISTORY
.\" .Sh BUGS
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<!-- \$Id: lwres\_resutil.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_resutil</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_string\_parse</refname>

<refname>lwres\_addr\_parse</refname>

<refname>lwres\_getaddrsbyname</refname>

<refname>lwres\_getnamebyaddr</refname>

<refpurpose>lightweight resolver utility functions</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include &lt;lwres/lwres.h&gt;</funcsynopsisinfo>

<funcprototype>

<funcdef>

lwres\_result\_t

<function>lwres\_string\_parse</function></funcdef>

<paramdef>lwres\_buffer\_t \*b</paramdef>

<paramdef>char \*\*c</paramdef>

<paramdef>lwres\_uint16\_t \*len</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

```

lwres_result_t
<function>lwres_addr_parse</function></funcdef>
<paramdef>lwres_buffer_t *b</paramdef>
<paramdef>lwres_addr_t *addr</paramdef>
</funcprototype>
<funcprototype>
<funcdef>

```

```

lwres_result_t
<function>lwres_getaddrbyname</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>const char *name</paramdef>
<paramdef>lwres_uint32_t addrtypes</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>

```

```

lwres_result_t
<function>lwres_getnamebyaddr</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_uint32_t addrtype</paramdef>
<paramdef>lwres_uint16_t addrlen</paramdef>
<paramdef>const unsigned char *addr</paramdef>
<paramdef>lwres_gnbaresponse_t **structp</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>

```

```

<refsect1>
<title>DESCRIPTION</title>

```

```

<para>
<function>lwres_string_parse()</function> retrieves a DNS-encoded
string starting the current pointer of lightweight resolver buffer
<parameter>b</parameter>; i.e. <constant>b->current</constant>.
When the function returns, the address of the first byte of the
encoded string is returned via <parameter>*c</parameter> and the
length of that string is given by <parameter>*len</parameter>. The
buffer's current pointer is advanced to point at the character
following the string length, the encoded string, and the trailing
<type>NULL</type> character.
</para>

```

```

<para>
<function>lwres_addr_parse()</function> extracts an address from the
buffer <parameter>b</parameter>. The buffer's current pointer
<constant>b->current</constant> is presumed to point at an encoded
address: the address preceded by a 32-bit protocol family identifier
and a 16-bit length field. The encoded address is copied to

```

<constant>addr-&gt;address</constant> and  
<constant>addr-&gt;length</constant> indicates the size in bytes of  
the address that was copied. <constant>b-&gt;current</constant> is  
advanced to point at the next byte of available data in the buffer  
following the encoded address.

</para>

<para>

<function>lwres\_getaddrbyname()</function>

and

<function>lwres\_getnamebyaddr()</function>

use the

<type>lwres\_gnbaresponse\_t</type>

structure defined below:

<programlisting>

```
typedef struct {
 lwres_uint32_t flags;
 lwres_uint16_t naliases;
 lwres_uint16_t naddrs;
 char *realname;
 char **aliases;
 lwres_uint16_t realnamelen;
 lwres_uint16_t *aliaslen;
 lwres_addrlist_t addrs;
 void *base;
 size_t baselen;
} lwres_gabnresponse_t;
```

</programlisting>

The contents of this structure are not manipulated directly but  
they are controlled through the

<citerefentry>

<refentrytitle>lwres\_gabn</refentrytitle><manvolnum>3

</manvolnum>

</citerefentry>

functions.

</para>

<para>

The lightweight resolver uses

<function>lwres\_getaddrbyname()</function> to perform forward lookups.

Hostname <parameter>name</parameter> is looked up using the resolver  
context <parameter>ctx</parameter> for memory allocation.

<parameter>addrtypes</parameter> is a bitmask indicating which type of  
addresses are to be looked up. Current values for this bitmask are

<type>LWRES\_ADDRTYPE\_V4</type> for IPv4 addresses and

<type>LWRES\_ADDRTYPE\_V6</type> for IPv6 addresses. Results of the

lookup are returned in <parameter>\*structp</parameter>.

</para>

<para>  
<function>lwres\_getnamebyaddr()</function> performs reverse lookups. Resolver context <parameter>ctx</parameter> is used for memory allocation. The address type is indicated by <parameter>addrtype</parameter>: <type>LWRES\_ADDRTYPE\_V4</type> or <type>LWRES\_ADDRTYPE\_V6</type>. The address to be looked up is given by <parameter>addr</parameter> and its length is <parameter>addrlen</parameter> bytes. The result of the function call is made available through <parameter>\*structp</parameter>.  
</para>  
</refsect1>

<refsect1>  
<title>RETURN VALUES</title>  
<para>  
Successful calls to  
<function>lwres\_string\_parse()</function>  
and  
<function>lwres\_addr\_parse()</function>  
return  
<errorcode>LWRES\_R\_SUCCESS.</errorcode>  
Both functions return  
<errorcode>LWRES\_R\_FAILURE</errorcode>  
if the buffer is corrupt or  
<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>  
if the buffer has less space than expected for the components of the encoded string or address.

</para>  
<para>  
<function>lwres\_getaddrsbyname()</function>  
returns  
<errorcode>LWRES\_R\_SUCCESS</errorcode>  
on success and it returns  
<errorcode>LWRES\_R\_NOTFOUND</errorcode>  
if the hostname  
<parameter>name</parameter>  
could not be found.

</para>  
<para>  
<errorcode>LWRES\_R\_SUCCESS</errorcode>  
is returned by a successful call to  
<function>lwres\_getnamebyaddr()</function>.  
</para>

<para>  
Both  
<function>lwres\_getaddrsbyname()</function>



and  
<function>lwres\_getnamebyaddr()</function>  
return  
<errorcode>LWRES\_R\_NOMEMORY</errorcode>  
when memory allocation requests fail and  
<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>  
if the buffers used for sending queries and receiving replies are too  
small.  
</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>

<citerefentry>

<refentrytitle>lwres\_buffer</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>,&br/>

<citerefentry>

<refentrytitle>lwres\_gabn</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>.

</para>

</refsect1>

</refentry>

Found in path(s):

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rdata.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/result.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/time.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/sockaddr.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rcode.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/task.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/types.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/name.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/socket.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/result.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/name.c

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.\n \$Id: lwres\_resutil.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$\n

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\*/opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/resolv/res\_findzonecut.c  
\*/opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/irp.h  
\*/opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/nameser/ns\_date.c  
\*/opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/sco42/include/sys/un.h  
\*/opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/irpmarshall.h

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```

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_getaddrinfo</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_getaddrinfo</refname>

<refname>lwres\_freeaddrinfo</refname>

<refpurpose>socket address structure to host and service name</refpurpose>

```

</refnamediv>
<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>
<funcprototype>
<funcdef>
int
<function>lwres_getaddrinfo</function></funcdef>
<paramdef>const char *hostname</paramdef>
<paramdef>const char *servname</paramdef>
<paramdef>const struct addrinfo *hints</paramdef>
<paramdef>struct addrinfo **res</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_freeaddrinfo</function></funcdef>
<paramdef>struct addrinfo *ai</paramdef>
</funcprototype>
</funcsynopsis>

```

<para>
If the operating system does not provide a
<type>struct addrinfo</type>,
the following structure is used:

```

<programlisting>
struct addrinfo {
 int ai_flags; /* AI_PASSIVE, AI_CANONNAME */
 int ai_family; /* PF_XXX */
 int ai_socktype; /* SOCK_XXX */
 int ai_protocol; /* 0 or IPPROTO_XXX for IPv4 and IPv6 */
 size_t ai_addrlen; /* length of ai_addr */
 char *ai_canonname; /* canonical name for hostname */
 struct sockaddr *ai_addr; /* binary address */
 struct addrinfo *ai_next; /* next structure in linked list */
};

```

</programlisting>
</para>

</refsynopsisdiv>

<refsect1>

<title>DESCRIPTION</title>

<para>

<function>lwres\_getaddrinfo()</function>

is used to get a list of IP addresses and port numbers for host

<parameter>hostname</parameter>

and service

<parameter>servname</parameter>.

The function is the lightweight resolver's implementation of

<function>getaddrinfo()</function>

as defined in RFC2133.

<parameter>hostname</parameter>

and

<parameter>servname</parameter>

are pointers to null-terminated

strings or

<type>NULL</type>.

<parameter>hostname</parameter>

is either a host name or a numeric host address string: a dotted decimal

IPv4 address or an IPv6 address.

<parameter>servname</parameter>

is either a decimal port number or a service name as listed in

<filename>/etc/services</filename>.

</para>

<para>

<parameter>hints</parameter>

is an optional pointer to a

<type>struct addrinfo</type>.

This structure can be used to provide hints concerning the type of socket

that the caller supports or wishes to use.

The caller can supply the following structure elements in

<parameter>\*hints</parameter>:

<variablelist>

<varlistentry><term><constant>ai\_family</constant></term>

<listitem>

<para>The protocol family that should be used.

When

<constant>ai\_family</constant>

is set to

<type>PF\_UNSPEC</type>,

it means the caller will accept any protocol family supported by the operating system.

</para></listitem></varlistentry>

<varlistentry><term><constant>ai\_socktype</constant></term>

<listitem>

<para>

denotes the type of socket &mdash;

<type>SOCK\_STREAM</type>,

<type>SOCK\_DGRAM</type>

or



<type>SOCK\_RAW</type>

&mdash; that is wanted.

When

<constant>ai\_socktype</constant>

is zero the caller will accept any socket type.

</para>

</listitem>

</varlistentry>

<varlistentry><term><constant>ai\_protocol</constant></term>

<listitem>

<para>

indicates which transport protocol is wanted: IPPROTO\_UDP or IPPROTO\_TCP.

If

<constant>ai\_protocol</constant>

is zero the caller will accept any protocol.

</para>

</listitem>

</varlistentry>

<varlistentry><term><constant>ai\_flags</constant></term>

<listitem>

<para>

Flag bits.

If the

<type>AI\_CANONNAME</type>

bit is set, a successful call to

<function>lwres\_getaddrinfo()</function>

will return a null-terminated string containing the canonical name of the specified hostname in

<constant>ai\_canonname</constant>

of the first

<type>addrinfo</type>

structure returned.

Setting the

<type>AI\_PASSIVE</type>

bit indicates that the returned socket address structure is intended for used in a call to

<citerefentry>

<refentrytitle>bind</refentrytitle><manvolnum>2</manvolnum>

</citerefentry>.

In this case, if the hostname argument is a

<type>NULL</type>

pointer, then the IP address portion of the socket address structure will be set to

<type>INADDR\_ANY</type>

for an IPv4 address or

<type>IN6ADDR\_ANY\_INIT</type>

for an IPv6 address.

</para>

<para>

When

<constant>ai\_flags</constant>

does not set the

<type>AI\_PASSIVE</type>

bit, the returned socket address structure will be ready

for use in a call to

<citrefentry>

<refentrytitle>connect</refentrytitle><manvolnum>2

</manvolnum>

</citrefentry>

for a connection-oriented protocol or

<citrefentry>

<refentrytitle>connect</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>,

<citrefentry>

<refentrytitle>sendto</refentrytitle><manvolnum>2</manvolnum>

</citrefentry>,

or

<citrefentry>

<refentrytitle>sendmsg</refentrytitle><manvolnum>2

</manvolnum>

</citrefentry>

if a connectionless protocol was chosen.

The IP address portion of the socket address structure will be

set to the loopback address if

<parameter>hostname</parameter>

is a

<type>NULL</type>

pointer and

<type>AI\_PASSIVE</type>

is not set in

<constant>ai\_flags</constant>.

</para>

<para>

If

<constant>ai\_flags</constant>

is set to

<type>AI\_NUMERICHOST</type>

it indicates that

<parameter>hostname</parameter>

should be treated as a numeric string defining an IPv4 or IPv6 address

and no name resolution should be attempted.

</para>

</listitem>  
</varlistentry>  
</variablelist>  
</para>

<para>  
All other elements of the <type>struct addrinfo</type> passed  
via <parameter>hints</parameter> must be zero.  
</para>

<para>  
A <parameter>hints</parameter> of <type>NULL</type> is treated as if  
the caller provided a <type>struct addrinfo</type> initialized to zero  
with <constant>ai\_family</constant> set to  
<constant>PF\_UNSPEC</constant>.  
</para>

<para>  
After a successful call to  
<function>lwres\_getaddrinfo()</function>,  
<parameter>\*res</parameter>  
is a pointer to a linked list of one or more  
<type>addrinfo</type>  
structures.  
Each  
<type>struct addrinfo</type>  
in this list can be processed by following  
the  
<constant>ai\_next</constant>  
pointer, until a  
<type>NULL</type>  
pointer is encountered.  
The three members  
<constant>ai\_family</constant>,  
<constant>ai\_socktype</constant>,  
and  
<constant>ai\_protocol</constant>  
in each  
returned  
<type>addrinfo</type>  
structure contain the corresponding arguments for a call to  
<citerefentry>  
<refentrytitle>socket</refentrytitle><manvolnum>2</manvolnum>  
</citerefentry>.  
For each  
<type>addrinfo</type>  
structure in the list, the  
<constant>ai\_addr</constant>

member points to a filled-in socket address structure of length

<constant>ai\_addrlen</constant>.

</para>

<para>

All of the information returned by

<function>lwres\_getaddrinfo()</function>

is dynamically allocated: the addrinfo structures, and the socket address structures and canonical host name strings pointed to by the <constant>addrinfo</constant> structures.

Memory allocated for the dynamically allocated structures created by a successful call to

<function>lwres\_getaddrinfo()</function>

is released by

<function>lwres\_freeaddrinfo()</function>.

<parameter>ai</parameter>

is a pointer to a

<type>struct addrinfo</type>

created by a call to

<function>lwres\_getaddrinfo()</function>.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

<function>lwres\_getaddrinfo()</function>

returns zero on success or one of the error codes listed in

<citerefentry>

<refentrytitle>gai\_strerror</refentrytitle><manvolnum>3

</manvolnum>

</citerefentry>

if an error occurs.

If both

<parameter>hostname</parameter>

and

<parameter>servname</parameter>

are

<type>NULL</type>

<function>lwres\_getaddrinfo()</function>

returns

<errorcode>EAI\_NONAME</errorcode>.

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>  
<citrefentry>  
<refentrytitle>lwres</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>lwres\_getaddrinfo</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>lwres\_freeaddrinfo</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>lwres\_gai\_strerror</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>RFC2133</refentrytitle>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>getservbyname</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>bind</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>connect</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>sendto</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>sendmsg</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>,<br>  
<citrefentry>  
<refentrytitle>socket</refentrytitle><manvolnum>2</manvolnum>  
</citrefentry>.<br></para>  
</refsect1>  
</refentry>

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getaddrinfo.docbook

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/nsec\_47.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/rrsig\_46.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/sshfp\_44.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/stat.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/ifiter\_getifaddrs.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/nsec\_47.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/stdlib.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/sshfp\_44.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/dnskey\_48.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/rrsig\_46.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/hash.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/portlist.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/dnskey\_48.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/portlist.h

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<!-- $Id: lwres_getipnode.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->
```

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_getipnode</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_getipnodebyname</refname>

<refname>lwres\_getipnodebyaddr</refname>

<refname>lwres\_freehostent</refname>

<refpurpose>lightweight resolver nodename / address translation API</refpurpose>

</refnamediv>

<refsynopsisdiv>

<funcsynopsis>

<funcsynopsisinfo>#include <lwres/netdb.h></funcsynopsisinfo>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_getipnodebyname</function></funcdef>

<paramdef>const char \*name</paramdef>

<paramdef>int af</paramdef>

<paramdef>int flags</paramdef>

<paramdef>int \*error\_num</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_getipnodebyaddr</function></funcdef>

<paramdef>const void \*src</paramdef>

<paramdef>size\_t len</paramdef>

<paramdef>int af</paramdef>

<paramdef>int \*error\_num</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

void

<function>lwres\_freehostent</function></funcdef>

<paramdef>struct hostent \*he</paramdef>

</funcprototype>

</funcsynopsis>

</refsynopsisdiv>



<refsect1>

<title>DESCRIPTION</title>

<para>

These functions perform thread safe, protocol independent  
nodename-to-address and address-to-nodename  
translation as defined in RFC2553.

</para>

<para>

They use a

<type>struct hostent</type>

which is defined in

<filename>namedb.h</filename>:

<programlisting>

```
struct hostent {
 char *h_name; /* official name of host */
 char **h_aliases; /* alias list */
 int h_addrtype; /* host address type */
 int h_length; /* length of address */
 char **h_addr_list; /* list of addresses from name server */
};
#define h_addr h_addr_list[0] /* address, for backward compatibility */
```

</programlisting>

</para>

<para>

The members of this structure are:

<variablelist>

<varlistentry><term><constant>h\_name</constant></term>

<listitem>

<para>

The official (canonical) name of the host.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>h\_aliases</constant></term>

<listitem>

<para>

A NULL-terminated array of alternate names (nicknames) for the host.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>h\_addrtype</constant></term>

<listitem>

<para>

The type of address being returned - usually

<type>PF\_INET</type>

or

<type>PF\_INET6</type>.

</para>  
</listitem></varlistentry>  
<varlistentry><term><constant>h\_length</constant></term>

<listitem>

<para>

The length of the address in bytes.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>h\_addr\_list</constant></term>

<listitem>

<para>

A

<type>NULL</type>

terminated array of network addresses for the host.

Host addresses are returned in network byte order.

</para>

</listitem></varlistentry>

</variablelist>

</para>

<para>

<function>lwres\_getipnodebyname()</function>

looks up addresses of protocol family

<parameter>af</parameter>

for the hostname

<parameter>name</parameter>.

The

<parameter>flags</parameter>

parameter contains ORed flag bits to

specify the types of addresses that are searched

for, and the types of addresses that are returned.

The flag bits are:

<variablelist>

<varlistentry><term><constant>AI\_V4MAPPED</constant></term>

<listitem>

<para>

This is used with an

<parameter>af</parameter>

of AF\_INET6, and causes IPv4 addresses to be returned as IPv4-mapped

IPv6 addresses.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>AI\_ALL</constant></term>

<listitem>

<para>

This is used with an

<parameter>af</parameter>

of AF\_INET6, and causes all known addresses (IPv6 and IPv4) to be returned.

If AI\_V4MAPPED is also set, the IPv4 addresses are return as mapped IPv6 addresses.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>AI\_ADDRCONFIG</constant></term>

<listitem>

<para>

Only return an IPv6 or IPv4 address if here is an active network interface of that type. This is not currently implemented in the BIND 9 lightweight resolver, and the flag is ignored.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>AI\_DEFAULT</constant></term>

<listitem>

<para>

This default sets the

<constant>AI\_V4MAPPED</constant>

and

<constant>AI\_ADDRCONFIG</constant>

flag bits.

</para>

</listitem></varlistentry>

</variablelist>

</para>

<para>

<function>lwres\_getipnodebyaddr()</function>

performs a reverse lookup

of address

<parameter>src</parameter>

which is

<parameter>len</parameter>

bytes long.

<parameter>af</parameter>

denotes the protocol family, typically

<type>PF\_INET</type>

or

<type>PF\_INET6</type>.

</para>

<para>

<function>lwres\_freehostent()</function>

releases all the memory associated with

the

<type>struct hostent</type>

pointer

<parameter>he</parameter>.

Any memory allocated for the  
<constant>h\_name</constant>,

<constant>h\_addr\_list</constant>  
and

<constant>h\_aliases</constant>  
is freed, as is the memory for the  
<type>hostent</type>  
structure itself.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

If an error occurs,

<function>lwres\_getipnodebyname()</function>

and

<function>lwres\_getipnodebyaddr()</function>

set

<parameter>\*error\_num</parameter>

to an appropriate error code and the function returns a

<type>NULL</type>

pointer.

The error codes and their meanings are defined in

<filename>&lt;lwres/netdb.h&gt;</filename>:

<variablelist>

<varlistentry><term><constant>HOST\_NOT\_FOUND</constant></term>

<listitem>

<para>

No such host is known.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>NO\_ADDRESS</constant></term>

<listitem>

<para>

The server recognised the request and the name but no address is

available. Another type of request to the name server for the

domain might return an answer.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>TRY\_AGAIN</constant></term>

<listitem>

<para>

A temporary and possibly transient error occurred, such as a

failure of a server to respond. The request may succeed if

retried.

</para>

```
</listitem></varlistentry>
<varlistentry><term><constant>NO_RECOVERY</constant></term>
<listitem>
<para>
An unexpected failure occurred, and retrying the request
is pointless.
</para>
</listitem></varlistentry>
</variablelist>
</para>
<para>
<citerefentry>
<refentrytitle>lwres_hsterror</refentrytitle><manvolnum>3
</manvolnum>
</citerefentry>
translates these error codes to suitable error messages.
</para>
</refsect1>
<refsect1>
<title>SEE ALSO</title>
<para>
<citerefentry>
<refentrytitle>RFC2553</refentrytitle>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_gethostent</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_getaddrinfo</refentrytitle><manvolnum>3</manvolnum>
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<refentrytitle>lwres_getnameinfo</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,

<citerefentry>
<refentrytitle>lwres_hsterror</refentrytitle><manvolnum>3</manvolnum>
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</para>
</refsect1>
</refentry>
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gnba.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gethostent.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_hstrerror.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getnameinfo.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_noop.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getnameinfo.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_hstrerror.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_buffer.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getipnode.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_noop.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_packet.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gai\_strerror.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gai\_strerror.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_inetntop.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_resutil.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_buffer.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_config.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_packet.docbook

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_context.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gabn.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getrrsetbyname.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_getaddrinfo.html

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_inetntop.html

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.\"
```

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<refentryinfo>

<date>Jun 30, 2000</date>
</refentryinfo>

<refmeta>
<refentrytitle>lwres_config</refentrytitle>
<manvolnum>3</manvolnum>
<refmiscinfo>BIND9</refmiscinfo>
</refmeta>

<refnamediv>
<refname>lwres_conf_init</refname>
<refname>lwres_conf_clear</refname>
<refname>lwres_conf_parse</refname>
<refname>lwres_conf_print</refname>
```

```

<refname>lwres_conf_get</refname>
<refpurpose>lightweight resolver configuration</refpurpose>
</refnamediv>

<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <<lwres/lwres.h>></funcsynopsisinfo>
<funcprototype>
<funcdef>
void
<function>lwres_conf_init</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_conf_clear</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_conf_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>const char *filename</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_conf_print</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>FILE *fp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_conf_t *
<function>lwres_conf_get</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>

<refsect1>
<title>DESCRIPTION</title>
<para>
<function>lwres_conf_init()</function>
creates an empty
<type>lwres_conf_t</type>

```



structure for lightweight resolver context

<parameter>ctx</parameter>.

</para>

<para>

<function>lwres\_conf\_clear()</function>

frees up all the internal memory used by

that

<type>lwres\_conf\_t</type>

structure in resolver context

<parameter>ctx</parameter>.

</para>

<para>

<function>lwres\_conf\_parse()</function>

opens the file

<parameter>filename</parameter>

and parses it to initialise the resolver context

<parameter>ctx</parameter>'s

<type>lwres\_conf\_t</type>

structure.

</para>

<para>

<function>lwres\_conf\_print()</function>

prints the

<type>lwres\_conf\_t</type>

structure for resolver context

<parameter>ctx</parameter>

to the

<type>FILE</type>

<parameter>fp</parameter>.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

<function>lwres\_conf\_parse()</function>

returns

<errorcode>LWRES\_R\_SUCCESS</errorcode>

if it successfully read and parsed

<parameter>filename</parameter>.

It returns

<errorcode>LWRES\_R\_FAILURE</errorcode>

if

<parameter>filename</parameter>

could not be opened or contained incorrect

resolver statements.

</para>

<para>

```

<function>lwres_conf_print()</function>
returns
<errorcode>LWRES_R_SUCCESS</errorcode>
unless an error occurred when converting the network addresses to a
numeric host address string.
If this happens, the function returns
<errorcode>LWRES_R_FAILURE</errorcode>.
</para>
</refsect1>
<refsect1>
<title>SEE ALSO</title>
<para>
<citerefentry>
<refentrytitle>stdio</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>,
<citerefentry>
<refentrytitle>resolver</refentrytitle><manvolnum>5</manvolnum>
</citerefentry>.
</refsect1>
<refsect1>
<title>FILES</title>
<para>
<filename>/etc/resolv.conf</filename>
</para>
</refsect1>
</refentry>

```

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_config.docbook

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```
*/
```

```
/*
```

\* This code implements the MD5 message-digest algorithm.  
\* The algorithm is due to Ron Rivest. This code was  
\* written by Colin Plumb in 1993, no copyright is claimed.  
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\*  
\* Equivalent code is available from RSA Data Security, Inc.  
\* This code has been tested against that, and is equivalent,  
\* except that you don't need to include two pages of legalese  
\* with every copy.  
\*  
\* To compute the message digest of a chunk of bytes, declare an  
\* MD5Context structure, pass it to MD5Init, call MD5Update as  
\* needed on buffers full of bytes, and then call MD5Final, which  
\* will fill a supplied 16-byte array with the digest.  
\*/

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.\"  
.\" \$Id: lwres\_gabn.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$  
.\"

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gabn.3

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-->
```

```
<!-- $Id: lwres_gethostent.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->
```

```
<refentry>
```

```
<refentryinfo>
```

```
<date>Jun 30, 2000</date>
```

```
</refentryinfo>
```

```
<refmeta>
```

```
<refentrytitle>lwres_gethostent</refentrytitle>
```

```
<manvolnum>3</manvolnum>
```

```
<refmiscinfo>BIND9</refmiscinfo>
```

</refmeta>

<refnamediv>

<refname>lwres\_gethostbyname</refname>

<refname>lwres\_gethostbyname2</refname>

<refname>lwres\_gethostbyaddr</refname>

<refname>lwres\_gethostent</refname>

<refname>lwres\_sethostent</refname>

<refname>lwres\_endhostent</refname>

<refname>lwres\_gethostbyname\_r</refname>

<refname>lwres\_gethostbyaddr\_r</refname>

<refname>lwres\_gethostent\_r</refname>

<refname>lwres\_sethostent\_r</refname>

<refname>lwres\_endhostent\_r</refname>

<refpurpose>lightweight resolver get network host entry</refpurpose>

</refnamediv>

<refsynopsisdiv>

<functsynopsis>

<functsynopsisinfo>#include <lwres/netdb.h></functsynopsisinfo>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_gethostbyname</function></funcdef>

<paramdef>const char \*name</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_gethostbyname2</function></funcdef>

<paramdef>const char \*name</paramdef>

<paramdef>int af</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_gethostbyaddr</function></funcdef>

<paramdef>const char \*addr</paramdef>

<paramdef>int len</paramdef>

<paramdef>int type</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

struct hostent \*

<function>lwres\_gethostent</function></funcdef>

<paramdef>void</paramdef>

</funcprototype>

<funcprototype>

<funcdef>

```

void
<function>lwres_sethostent</function></funcdef>
<paramdef>int stayopen</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_endhostent</function></funcdef>
<paramdef>void</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyname_r</function></funcdef>
<paramdef>const char *name</paramdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostbyaddr_r</function></funcdef>
<paramdef>const char *addr</paramdef>
<paramdef>int len</paramdef>
<paramdef>int type</paramdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
struct hostent *
<function>lwres_gethostent_r</function></funcdef>
<paramdef>struct hostent *resbuf</paramdef>
<paramdef>char *buf</paramdef>
<paramdef>int buflen</paramdef>
<paramdef>int *error</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_sethostent_r</function></funcdef>
<paramdef>int stayopen</paramdef>
</funcprototype>
<funcprototype>

```

```
<funcdef>
void
<function>lwres_endhostent_r</function></funcdef>
<paramdef>void</paramdef>
</funcprototype>
</functsynopsis>
</refsynopsisdiv>
```

```
<refsect1>
<title>DESCRIPTION</title>
```

```
<para>
These functions provide hostname-to-address and
address-to-hostname lookups by means of the lightweight resolver.
```

They are similar to the standard

```
<citerefentry>
<refentrytitle>gethostent</refentrytitle><manvolnum>3
</manvolnum>
</citerefentry>
```

functions provided by most operating systems.

They use a

```
<type>struct hostent</type>
which is usually defined in
<filename><namedb.h></filename>.
```

```
<programlisting>
struct hostent {
 char *h_name; /* official name of host */
 char **h_aliases; /* alias list */
 int h_addrtype; /* host address type */
 int h_length; /* length of address */
 char **h_addr_list; /* list of addresses from name server */
};
#define h_addr h_addr_list[0] /* address, for backward compatibility */
</programlisting>
```

```
</para>
```

```
<para>
```

The members of this structure are:

```
<variablelist>
<varlistentry><term><constant>h_name</constant></term>
<listitem>
```

```
<para>
```

The official (canonical) name of the host.

```
</para>
```

```
</listitem></varlistentry>
<varlistentry><term><constant>h_aliases</constant></term>
<listitem>
```

```
<para>
```

A NULL-terminated array of alternate names (nicknames) for the host.



</para>  
 </listitem></varlistentry>  
 <varlistentry><term><constant>h\_addrtype</constant></term>  
 <listitem>  
 <para>  
 The type of address being returned &mdash;  
 <type>PF\_INET</type>  
 or  
 <type>PF\_INET6</type>.  
 </para>  
 </listitem></varlistentry>  
 <varlistentry><term><constant>h\_length</constant></term>  
 <listitem>  
 <para>  
 The length of the address in bytes.  
 </para>  
 </listitem></varlistentry>  
 <varlistentry><term><constant>h\_addr\_list</constant></term>  
 <listitem>  
 <para>  
 A <type>NULL</type>  
 terminated array of network addresses for the host.  
 Host addresses are returned in network byte order.  
 </para>  
 </listitem></varlistentry>  
 </variablelist>  
 </para>  
 <para>  
 For backward compatibility with very old software,  
 <constant>h\_addr</constant>  
 is the first address in  
 <constant>h\_addr\_list.</constant>  
 </para>  
 <para>  
 <function>lwres\_gethostent</function>,&br/>
 <function>lwres\_sethostent</function>,&br/>
 <function>lwres\_endhostent</function>,&br/>
 <function>lwres\_gethostent\_r</function>,&br/>
 <function>lwres\_sethostent\_r</function>  
 and  
 <function>lwres\_endhostent\_r</function>  
 provide iteration over the known host entries on systems that  
 provide such functionality through facilities like  
 <filename>/etc/hosts</filename>  
 or NIS. The lightweight resolver does not currently implement  
 these functions; it only provides them as stub functions that always  
 return failure.  
 </para>

<para>  
<function>lwres\_gethostbyname()</function> and  
<function>lwres\_gethostbyname2()</function> look up the hostname  
<parameter>name</parameter>.  
<function>lwres\_gethostbyname()</function> always looks for an IPv4  
address while <function>lwres\_gethostbyname2()</function> looks for an  
address of protocol family <parameter>af</parameter>: either  
<type>PF\_INET</type> or <type>PF\_INET6</type> &mdash; IPv4 or IPV6  
addresses respectively. Successful calls of the functions return a  
<type>struct hostent</type> for the name that was looked up.  
<type>NULL</type> is returned if the lookups by  
<function>lwres\_gethostbyname()</function> or  
<function>lwres\_gethostbyname2()</function> fail.  
</para>

<para>  
Reverse lookups of addresses are performed by  
<function>lwres\_gethostbyaddr()</function>.  
<parameter>addr</parameter> is an address of length  
<parameter>len</parameter> bytes and protocol family  
<parameter>type</parameter> &mdash; <type>PF\_INET</type> or  
<type>PF\_INET6</type>.  
<function>lwres\_gethostbyname\_r()</function> is a thread-safe function  
for forward lookups. If an error occurs, an error code is returned in  
<parameter>\*error</parameter>.  
<parameter>resbuf</parameter> is a pointer to a <type>struct  
hostent</type> which is initialised by a successful call to  
<function>lwres\_gethostbyname\_r()</function> .  
<parameter>buf</parameter> is a buffer of length  
<parameter>len</parameter> bytes which is used to store the  
<constant>h\_name</constant>, <constant>h\_aliases</constant>, and  
<constant>h\_addr\_list</constant> elements of the <type>struct  
hostent</type> returned in <parameter>resbuf</parameter>.  
Successful calls to <function>lwres\_gethostbyname\_r()</function>  
return <parameter>resbuf</parameter>,  
which is a pointer to the <type>struct hostent</type> it created.  
</para>

<para>  
<function>lwres\_gethostbyaddr\_r()</function> is a thread-safe function  
that performs a reverse lookup of address <parameter>addr</parameter>  
which is <parameter>len</parameter> bytes long and is of protocol  
family <parameter>type</parameter> &mdash; <type>PF\_INET</type> or  
<type>PF\_INET6</type>. If an error occurs, the error code is returned  
in <parameter>\*error</parameter>. The other function parameters are  
identical to those in <function>lwres\_gethostbyname\_r()</function>.  
<parameter>resbuf</parameter> is a pointer to a <type>struct

hostent</type> which is initialised by a successful call to <function>lwres\_gethostbyaddr\_r()</function>. <parameter>buf</parameter> is a buffer of length <parameter>len</parameter> bytes which is used to store the <constant>h\_name</constant>, <constant>h\_aliases</constant>, and <constant>h\_addr\_list</constant> elements of the <type>struct hostent</type> returned in <parameter>resbuf</parameter>. Successful calls to <function>lwres\_gethostbyaddr\_r()</function> return <parameter>resbuf</parameter>, which is a pointer to the <function>struct hostent()</function> it created.

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

The functions

<function>lwres\_gethostbyname()</function>,</parameter>

<function>lwres\_gethostbyname2()</function>,</parameter>

<function>lwres\_gethostbyaddr()</function>,</parameter>

and

<function>lwres\_gethostent()</function>

return NULL to indicate an error. In this case the global variable

<type>lwres\_h\_errno</type>

will contain one of the following error codes defined in

<filename>&lt;lwres/netdb.h&gt;</filename>:

<variablelist>

<varlistentry><term><constant>HOST\_NOT\_FOUND</constant></term>

<listitem>

<para>

The host or address was not found.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>TRY\_AGAIN</constant></term>

<listitem>

<para>

A recoverable error occurred, e.g., a timeout.

Retrying the lookup may succeed.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>NO\_RECOVERY</constant></term>

<listitem>

<para>

A non-recoverable error occurred.

</para>

</listitem></varlistentry>

<varlistentry><term><constant>NO\_DATA</constant></term>  
<listitem>  
<para>  
The name exists, but has no address information associated with it (or vice versa in the case of a reverse lookup). The code NO\_ADDRESS is accepted as a synonym for NO\_DATA for backwards compatibility.  
</para>  
</listitem></varlistentry>  
</variablelist>  
</para>

<para>  
<citerefentry>  
<refentrytitle>lwres\_hsterror</refentrytitle><manvolnum>3  
</manvolnum>  
</citerefentry>  
translates these error codes to suitable error messages.  
</para>

<para>  
<function>lwres\_gethostent(</function>  
and  
<function>lwres\_gethostent\_r(</function>  
always return  
<type>NULL</type>.  
</para>

<para>  
Successful calls to <function>lwres\_gethostbyname\_r(</function> and  
<function>lwres\_gethostbyaddr\_r(</function> return  
<parameter>resbuf</parameter>, a pointer to the <type>struct  
hostent</type> that was initialised by these functions. They return  
<type>NULL</type> if the lookups fail or if <parameter>buf</parameter>  
was too small to hold the list of addresses and names referenced by  
the <constant>h\_name</constant>, <constant>h\_aliases</constant>, and  
<constant>h\_addr\_list</constant> elements of the <type>struct  
hostent</type>. If <parameter>buf</parameter> was too small, both  
<function>lwres\_gethostbyname\_r(</function> and  
<function>lwres\_gethostbyaddr\_r(</function> set the global variable  
<type>errno</type> to <errorcode>ERANGE</errorcode>.  
</para>

</refsect1>  
<refsect1>  
<title>SEE ALSO</title>  
<para>

<citrefentry>  
<refentrytitle>gethostent</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,&br/></refsect1>

<citrefentry>  
<refentrytitle>lwres\_getipnode</refentrytitle><manvolnum>3</manvolnum>  
</citrefentry>,&br/></refsect1>

<citrefentry>  
<refentrytitle>lwres\_hsterror</refentrytitle><manvolnum>3  
</manvolnum>  
</citrefentry>  
</para>  
</refsect1>

<refsect1>  
<title>BUGS</title>  
<para>  
<function>lwres\_gethostbyname()</function>,  
<function>lwres\_gethostbyname2()</function>,  
<function>lwres\_gethostbyaddr()</function>  
and  
<function>lwres\_endhostent()</function>  
are not thread safe; they return pointers to static data and  
provide error codes through a global variable.  
Thread-safe versions for name and address lookup are provided by  
<function>lwres\_gethostbyname\_r()</function>,  
and  
<function>lwres\_gethostbyaddr\_r()</function>  
respectively.  
</para>  
<para>  
The resolver daemon does not currently support any non-DNS  
name services such as  
<filename>/etc/hosts</filename>  
or  
<type>NIS</type>,  
consequently the above functions don't, either.  
</para>  
</refsect1>  
</refentry>

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mb\_7.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/util.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/condition.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/time.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/pthreads/include/isc/thread.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/pthreads/include/isc/condition.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/cc/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/time.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rdatatype.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/eventclass.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ptr\_12.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/condition.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/md\_3.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ptr\_12.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/hinfo\_13.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/md\_3.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/proforma.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mb\_7.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/thread.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mr\_9.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/event.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/boolean.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mr\_9.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/pthreads/condition.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mx\_15.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mg\_8.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/error.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/iscfg/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/minfo\_14.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/error.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mg\_8.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/minfo\_14.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rdataclass.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/opt\_41.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/soa\_6.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/null\_10.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mf\_4.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/mutex.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mf\_4.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/cname\_5.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/a\_1.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ns\_2.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/thread.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/cname\_5.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ns\_2.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/txt\_16.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/syslog.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/getaddresses.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/sterror.c  
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.\" \$Id: lwres\_hsterror.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

.\"

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_hsterror.3

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-->
```

```
<!-- $Id: lwres_context.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp $ -->
```

```
<refentry>
<refentryinfo>
```

```
<date>Jun 30, 2000</date>
```

```
</refentryinfo>
```

```
<refmeta>
```

```
<refentrytitle>lwres_context</refentrytitle>
```

```
<manvolnum>3</manvolnum>
```

```
<refmiscinfo>BIND9</refmiscinfo>
```

```
</refmeta>
```

```
<refnamediv>
```

```
<refname>lwres_context_create</refname>
```

```
<refname>lwres_context_destroy</refname>
```

```
<refname>lwres_context_nextserial</refname>
```

```
<refname>lwres_context_initserial</refname>
```

```
<refname>lwres_context_freemem</refname>
```

```
<refname>lwres_context_allocmem</refname>
```

```
<refname>lwres_context_sendrecv</refname>
```

```
<refpurpose>lightweight resolver context management</refpurpose>
```

```
</refnamediv>
```

```
<refsynopsisdiv>
```

```
<funcsynopsis>
```

```
<funcsynopsisinfo>#include <lwres/lwres.h></funcsynopsisinfo>
```

```
<funcprototype>
```

```
<funcdef>
```

```

lwres_result_t
<function>lwres_context_create</function></funcdef>
<paramdef>lwres_context_t **contextp</paramdef>
<paramdef>void *arg</paramdef>
<paramdef>lwres_malloc_t malloc_function</paramdef>
<paramdef>lwres_free_t free_function</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_context_destroy</function></funcdef>
<paramdef>lwres_context_t **contextp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_context_initserial</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_uint32_t serial</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_uint32_t
<function>lwres_context_nextserial</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_context_freemem</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>void *mem</paramdef>
<paramdef>size_t len</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_context_allocmem</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>size_t len</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void *
<function>lwres_context_sendrecv</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>void *sendbase</paramdef>
<paramdef>int sendlen</paramdef>

```

```

<paramdef>void *recvbase</paramdef>
<paramdef>int recvlen</paramdef>
<paramdef>int *recvd_len</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>
<refsect1>
<title>DESCRIPTION</title>
<para>
<function>lwres_context_create()</function>
creates a
<type>lwres_context_t</type>
structure for use in lightweight resolver operations.
It holds a socket and other data needed for communicating
with a resolver daemon.
The new
<type>lwres_context_t</type>
is returned through
<parameter>contextp</parameter>,

a pointer to a
<type>lwres_context_t</type>
pointer. This
<type>lwres_context_t</type>
pointer must initially be NULL, and is modified
to point to the newly created
<type>lwres_context_t</type>.

</para>
<para>
When the lightweight resolver needs to perform dynamic memory
allocation, it will call
<parameter>malloc_function</parameter>
to allocate memory and
<parameter>free_function</parameter>
to free it. If
<parameter>malloc_function</parameter>
and
<parameter>free_function</parameter>
are NULL, memory is allocated using
.Xr malloc 3
and
<citerefentry>
<refentrytitle>free</refentrytitle><manvolnum>3</manvolnum>
</citerefentry>.

```

It is not permitted to have a NULL  
<parameter>malloc\_function</parameter>  
and a non-NULL  
<parameter>free\_function</parameter>  
or vice versa.

<parameter>arg</parameter>  
is passed as the first parameter to the memory  
allocation functions.

If  
<parameter>malloc\_function</parameter>  
and  
<parameter>free\_function</parameter>  
are NULL,  
<parameter>arg</parameter>

is unused and should be passed as NULL.

</para>

<para>

Once memory for the structure has been allocated,  
it is initialized using

<citerefentry>

<refentrytitle>lwres\_conf\_init</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>

and returned via

<parameter>\*contextp</parameter>.

</para>

<para>

<function>lwres\_context\_destroy()</function>

destroys a

<type>lwres\_context\_t</type>,

closing its socket.

<parameter>contextp</parameter>

is a pointer to a pointer to the context that is to be destroyed.

The pointer will be set to NULL when the context has been destroyed.

</para>

<para>

The context holds a serial number that is used to identify resolver  
request packets and associate responses with the corresponding requests.

This serial number is controlled using

<function>lwres\_context\_initserial()</function>

and

<function>lwres\_context\_nextserial()</function>.

<function>lwres\_context\_initserial()</function>

sets the serial number for context

<parameter>\*ctx</parameter>



to

<parameter>serial</parameter>.

<function>lwres\_context\_nextserial()</function>

increments the serial number and returns the previous value.

</para>

<para>

Memory for a lightweight resolver context is allocated and freed using

<function>lwres\_context\_allocmem()</function>

and

<function>lwres\_context\_freemem()</function>.

These use whatever allocations were defined when the context was created with

<function>lwres\_context\_create()</function>.

<function>lwres\_context\_allocmem()</function>

allocates

<parameter>len</parameter>

bytes of memory and if successful returns a pointer to the allocated storage.

<function>lwres\_context\_freemem()</function>

frees

<parameter>len</parameter>

bytes of space starting at location

<parameter>mem</parameter>.

</para>

<para>

<function>lwres\_context\_sendrecv()</function>

performs I/O for the context

<parameter>ctx</parameter>.

Data are read and written from the context's socket.

It writes data from

<parameter>sendbase</parameter>

&mdash; typically a lightweight resolver query packet &mdash;

and waits for a reply which is copied to the receive buffer at

<parameter>recvbase</parameter>.

The number of bytes that were written to this receive buffer is returned in

<parameter>\*recvd\_len</parameter>.

</para>

</refsect1>

<refsect1>

<title>RETURN VALUES</title>

<para>

<function>lwres\_context\_create()</function>

returns

<errorcode>LWRES\_R\_NOMEMORY</errorcode>

if memory for the

<type>struct lwres\_context</type>

could not be allocated,

<errorcode>LWRES\_R\_SUCCESS</errorcode>

otherwise.

</para>

<para>

Successful calls to the memory allocator

<function>lwres\_context\_allocmem()</function>

return a pointer to the start of the allocated space.

It returns NULL if memory could not be allocated.

</para>

<para>

<errorcode>LWRES\_R\_SUCCESS</errorcode>

is returned when

<function>lwres\_context\_sendrecv()</function>

completes successfully.

<errorcode>LWRES\_R\_IOERROR</errorcode>

is returned if an I/O error occurs and

<errorcode>LWRES\_R\_TIMEOUT</errorcode>

is returned if

<function>lwres\_context\_sendrecv()</function>

times out waiting for a response.

</para>

</refsect1>

<refsect1>

<title>SEE ALSO</title>

<para>

<citerefentry>

<refentrytitle>lwres\_conf\_init</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>,&p>

<citerefentry>

<refentrytitle>malloc</refentrytitle><manvolnum>3</manvolnum>

</citerefentry>,&p>

<citerefentry>

<refentrytitle>free</refentrytitle><manvolnum>3

</manvolnum>

</citerefentry>.

</para>

</refsect1>

</refentry>

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_context.docbook

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/bsd/daemon.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/bsd/strsep.c

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\*/

/\*

\* Get the response to 'request' by filling in 'message'.

\*

\* 'options' is passed to dns\_message\_parse(). See dns\_message\_parse()

\* for more details.

\*

\* Requires:

\*

\* 'request' is a valid request for which the caller has received the

\* completion event.

\*

\* The result code of the completion event was ISC\_R\_SUCCESS.

\*

\* Returns:

\*

\* ISC\_R\_SUCCESS

\*

\* Any result that dns\_message\_parse() can return.

\*/

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/request.h

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/openssl\_link.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/dst\_api.c

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/keytable.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/timer.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/fsaccess.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/resource.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/ipv6.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/os.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/timer.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/quota.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/stdio.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/include/lwres/platform.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/include/isc/mutex.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwpacket.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/include/isc/thread.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/thread.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/task\_p.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/stats.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwres\_grbn.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwbuffer.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/bit.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/context.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/soa.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/forward.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/hmacmd5.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/os.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/lwbuffer.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/include/dst/gssapi.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/hex.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/result.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/sdb.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/file.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/int.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/formatcheck.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/fsaccess.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/forward.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/netdb.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/errno2result.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/errno2result.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/context\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/gssapictx.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/offset.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/lang.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/socket\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/assert\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/quota.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/fsaccess.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/resource.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/ondestroy.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/include/lwres/net.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/stats.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdatalist\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/keyboard.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwres\_gabn.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/include/lwres/int.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/hmacmd5.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/include/isc/once.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/keyboard.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/condition.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/soa.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/entropy.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/win32/bindevt/bindevt.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/ntpaths.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/keyboard.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/netdb.h.in  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/lookup.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/include/lwres/netdb.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/offset.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/timer\_p.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/mutex.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/unistd.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/nothreads/include/isc/condition.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwresutil.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/keytable.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/gai\_strerror.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/keyboard.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/lwres.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/stdio.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/gethost.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/resource.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/diff.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/stdio.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwres\_noop.c  
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```
*/
/*
* SHA-1 in C
* By Steve Reid <steve@edmweb.com>
* 100% Public Domain
*
* Test Vectors (from FIPS PUB 180-1)
* "abc"
* A9993E36 4706816A BA3E2571 7850C26C 9CD0D89D
* "abcdbcdecdefdefgefghfghighijhijkjklklmklmnlmnomnopq"
* 84983E44 1C3BD26E BAAE4AA1 F95129E5 E54670F1
* A million repetitions of "a"
* 34AA973C D4C4DAA4 F61EEB2B DBAD2731 6534016F
*/
```

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.\"
.\" $Id: lwres_inetntop.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
.\"
```

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```
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.\"
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.\"
```

Found in path(s):

```
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```

```
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```

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*/
/*
 * We're going to become the least open
 * version.
 */

```

Found in path(s):

```
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.\"
.\" The following six UNCOMMENTED lines are required.
.\"Os OPERATING_SYSTEM [version/release]
.\"Dt DOCUMENT_TITLE [section number] [volume]
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh FILES
.\" .Sh EXAMPLES
.\" This next request is for sections 1, 6, 7 & 8 only
.\" (command return values (to shell) and
.\" fprintf/stderr type diagnostics)

```

.\ " .Sh DIAGNOSTICS  
.\ " The next request is for sections 2 and 3 error  
.\ " and signal handling only.  
.\ " .Sh STANDARDS  
.\ " .Sh HISTORY  
.\ " .Sh BUGS

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/memcluster.mdoc

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/assertions.h

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```

```
$Id: includes.in,v 1.1 2004/11/03 01:39:04 abstine Exp $
```

```
Search for machine-generated header files in the build tree,
and for normal headers in the source tree (${top_srcdir}).
We only need to look in OS-specific subdirectories for the
latter case, because there are no machine-generated OS-specific
headers.
```

```
ISC_INCLUDES = @BIND9_ISC_BUILDINCLUDE@ \
-I${top_srcdir}/lib/isc \
-I${top_srcdir}/lib/isc/include \
-I${top_srcdir}/lib/isc/unix/include \
-I${top_srcdir}/lib/isc/@ISC_THREAD_DIR@/include
```

```
ISCCFG_INCLUDES = @BIND9_ISCCFG_BUILDINCLUDE@ \
-I${top_srcdir}/lib/isccfg/include
```

```
DNS_INCLUDES = @BIND9_DNS_BUILDINCLUDE@ \
-I${top_srcdir}/lib/dns/include \
-I${top_srcdir}/lib/dns/sec/dst/include
```

```
OMAPI_INCLUDES = @BIND9_OMAPI_BUILDINCLUDE@ \
-I${top_srcdir}/lib/omapi/include
```

```
LWRES_INCLUDES = @BIND9_LWRES_BUILDINCLUDE@ \
-I${top_srcdir}/lib/lwres/include
```

```
TEST_INCLUDES = \
-I${top_srcdir}/lib/tests/include
```

Found in path(s):

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/make/includes.in
```

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/*
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Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/check.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/parseint.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/syslog.c

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; \$Id: bindevt.mc,v 1.1 2004/11/03 01:39:06 abstine Exp \$

MessageIdTypedef=DWORD

LanguageNames = (English=0x409:MSG00409)

OutputBase = 16

MessageId=0x1

Severity=Error

Facility=Application

SymbolicName=BIND\_ERR\_MSG

Language=English

% 1

.

MessageId=0x2

Severity=Warning

Facility=Application

SymbolicName=BIND\_WARN\_MSG

Language=English

% 1

.

MessageId=0x3

Severity=Informational

Facility=Application

SymbolicName=BIND\_INFO\_MSG

Language=English

% 1

.

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/win32/bindevt/bindevt.mc

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/netscope.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/lwconfig.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/region.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ds\_43.c

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/sec/dst/dst_openssl.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/rdata/generic/ds_43.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/order.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/rdata/in_1/apl_42.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/opcode.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/rdata/in_1/apl_42.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/win32/win32os.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/order.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/ds.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/win32os.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/include/isc/netscope.h
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.\" $Id: lwres_gai_strerror.3,v 1.1 2004/11/03 01:39:06 abstine Exp $
.\"
```

Found in path(s):

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/lwres/man/lwres_gai_strerror.3
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/assertions.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/heap.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/mem.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/heap.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/list.h

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/inet\_ntop.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/symtab.h

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/types.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/base64.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/base64.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/alist.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/util.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/events.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/lib.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/ccmsg.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/lib.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/sexpr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/alist.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/symtype.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/symtab.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/sexpr.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccc/include/isccc/ccmsg.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/rwlock.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/time.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/result.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/mx\_15.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/task.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/result.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/time.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/base64.c

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.\" \$Id: lwres\_buffer.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

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.\" \$Id: lwres\_getipnode.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

.\"

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```
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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/isc/ctl_p.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/inet/inet_cidr_pton.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/isc/ctl_srvr.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/resolv/res_mkupdate.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/inet/inet_cidr_ntop.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/include/isc/ctl.h
```

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```

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/dns.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/inet/nsap\_addr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/gen.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/logging.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/lcl\_ng.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/dns\_gr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/inet/inet\_ntop.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/resolv/res\_update.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getgrent.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/lcl.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/resolv/res\_mkupdate.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/gen\_gr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/nameser/ns\_print.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/nis.c

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/isc/logging_p.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/isc/logging.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/dns_p.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/gethostent.c
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```

```
*/
```

```
/* $Id: platform.h.in,v 1.1 2004/11/03 01:39:06 abstine Exp $ */
```

```
#ifndef LWRES_PLATFORM_H
```

```
#define LWRES_PLATFORM_H 1
```

```
/*****
```

```
**** Platform-dependent defines.
```

```
****/
```

```
/**
```

```
*** Network.
```

```
***/
```

```
/*
```

```
* Define if this system needs the <netinet/in6.h> header file for IPv6.
```

```
*/
```

```
@LWRES_PLATFORM_NEEDNETINETIN6H@
```

```
/*
```

```
* Define if this system needs the <netinet6/in6.h> header file for IPv6.
```

```
*/
```

```
@LWRES_PLATFORM_NEEDNETINET6IN6H@
```

```
/*
```

```
* If sockaddrs on this system have an sa_len field, LWRES_PLATFORM_HAVESALEN
```



```
* will be defined.
*/
@LWRES_PLATFORM_HAVESALEN@

/*
* If this system has the IPv6 structure definitions, LWRES_PLATFORM_HAVEIPV6
* will be defined.
*/
@LWRES_PLATFORM_HAVEIPV6@

/*
* If this system is missing in6addr_any, LWRES_PLATFORM_NEEDIN6ADDRANY will
* be defined.
*/
@LWRES_PLATFORM_NEEDIN6ADDRANY@

/*
* If this system is missing in6addr_loopback,
* LWRES_PLATFORM_NEEDIN6ADDRLOOPBACK will be defined.
*/
@LWRES_PLATFORM_NEEDIN6ADDRLOOPBACK@

/*
* If this system has in_addr6, rather than in6_addr,
* LWRES_PLATFORM_HAVEINADDR6 will be defined.
*/
@LWRES_PLATFORM_HAVEINADDR6@

/*
* Defined if unistd.h does not cause fd_set to be delared.
*/
@LWRES_PLATFORM_NEEDSYSSELECTH@

/*
* Used to control how extern data is linked; needed for Win32 platforms.
*/
@LWRES_PLATFORM_USEDECLSPEC@

/*
* Defined this system needs vsnprintf() and snprintf().
*/
@LWRES_PLATFORM_NEEDVSNPRINTF@

/*
* If this system need a modern sprintf() that returns (int) not (char*).
*/
@LWRES_PLATFORM_NEEDSPRINTF@
```

```
#ifndef LWRES_PLATFORM_USEDECLSPEC
#define LIBLWRES_EXTERNAL_DATA
#else
#ifdef LIBLWRES_EXPORTS
#define LIBLWRES_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBLWRES_EXTERNAL_DATA __declspec(dllimport)
#endif
#endif
#endif

#endif /* LWRES_PLATFORM_H */
```

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\* SHA-1 in C

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/dst\_parse.c

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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/inet/inet\_ntoa.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/inet/inet\_makeaddr.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/inet/inet\_netof.c

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/sco42/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/hpux9/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/cygwin/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/aix4/include/sys/cdefs.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/hpux10/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/next/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/unixware20/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/hpux/include/sys/cdefs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/irix/include/sys/cdefs.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/aix32/include/sys/cdefs.h

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\* eventlib definitions specific to binos

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\* January 2007, Vikram Visweswaraiah

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/lcl\_pw.c

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.\"
.\"Os OPERATING_SYSTEM [version/release]
.\" The following requests should be uncommented and
.\" used where appropriate. This next request is
.\" for sections 2 and 3 function return values only.
.\" This next request is for sections 1, 6, 7 & 8 only
.\" .Sh ENVIRONMENT
.\" .Sh EXAMPLES

```

```
.\" This next request is for sections 1, 6, 7 & 8 only
.\" (command return values (to shell) and
.\" fprintf/stderr type diagnostics)
.\" The next request is for sections 2 and 3 error
.\" and signal handling only.
.\" .Sh STANDARDS
.\" .Sh HISTORY
.\" .Sh BUGS
```

Found in path(s):

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/isc/heap.mdoc
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\* msg\_eventlib.c - Error messages for evlib

\*

\* January 2007, Vikram Visweswaraiah

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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/include/isc/magic.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/fixname.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/ttl.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/rdata/in_1/a6_38.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/rdata/in_1/nsap_22.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/dns/include/dns/keyflags.h
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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/win32/stdtime.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/include/isc/app.h
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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/wks\_11.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/mutexblock.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/once.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/stdtime.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/lib.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/secalg.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/isdn\_20.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/random.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/taskpool.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rootns.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/dname\_39.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/syslog.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/dname\_39.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/netdb.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/afbdb\_18.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/cache.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/srv\_33.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/include/dst/lib.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/stdtime.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/lib.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/dir.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/base64.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/dir.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/lwpacket.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/sig\_24.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/any\_255/tsig\_250.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rcode.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rdatasetiter.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/gpos\_27.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdatasetiter.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/kx\_36.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/dbiterator.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/serial.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/bitstring.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rbtdb64.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/rdatastructpre.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rbtdb64.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/tkey.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/taskpool.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/time.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rbtdb.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/rp\_17.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/tests/include/tests/t\_api.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/rp\_17.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/syslog.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/dst\_result.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/commandline.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/dbiterator.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/naptr\_35.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/hs\_4/a\_1.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/tcpmsg.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/ttl.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/rdatastructsuf.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/cert.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/compress.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/stdtime.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/dir.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/resultclass.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/unspec\_103.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/serial.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/aaaa\_28.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/journal.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/lfsr.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/dst\_lib.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/bufferlist.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/nsap\_ptr\_23.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/lib.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/nsap\_ptr\_23.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/int.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/ipv6.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/lang.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/key\_25.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/gen-unix.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/mutexblock.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/app.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/tcpmsg.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/cert\_37.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/msgcat.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/netdb.h

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/timer.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/a\_1.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/event.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/pthreads/include/isc/mutex.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/buffer.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/null\_10.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/soa\_6.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/proforma.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/timer.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/opt\_41.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/socket.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/region.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/buffer.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/hinfo\_13.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/lex.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/txt\_16.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/netaddr.h

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.\" $Id: assertions.mdoc,v 1.1 2004/11/03 01:39:04 abstine Exp $
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/diff.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/entropy.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/entropy.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/opensslrsa\_link.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/socket.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/byaddr.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/hex.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/msgs.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/getrrset.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/validator.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/fg/parser.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwconfig.c

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.\" \$Id: lwres.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/dst/hmac\_link.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/dst/dst\_internal.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/dst/support.c

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/wks\_11.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/zt.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/masterdump.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/nxt\_30.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/lfsr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/ncache.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/unspec\_103.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/gpos\_27.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rootns.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/zt.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/events.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/log.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/aaaa\_28.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rdataslab.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/ratelimiter.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/tsig.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/in\_1/nsap\_22.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/compress.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/dnssec.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/ipv6.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/journal.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/netaddr.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/hs\_4/a\_1.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/isdn\_20.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/x25\_19.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/master.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/callbacks.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/rbt.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/ratelimiter.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/tsig.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/acl.h

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/lcl\_gr.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/lcl\_sv.c

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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getprotoent\_r.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/gethostent\_r.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getnetgrent\_r.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getservent\_r.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getgrent\_r.c
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.\" \$Id: lwres\_noop.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/ipv6.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/unix/include/lwres/net.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/iscconf/include/iscconf/cfg.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/threads/mutex.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/errno2result.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/include/dst/dst.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/errno2result.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/entropy.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/lwres\_gnba.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/file.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/gssapi\_link.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/fsaccess.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/os.c

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Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/getaddrinfo.c

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<!DOCTYPE refentry PUBLIC "-//OASIS//DTD DocBook V4.1//EN">

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-->

<!-- \$Id: lwres\_gabn.docbook,v 1.1 2004/11/03 01:39:06 abstine Exp \$ -->

<refentry>

<refentryinfo>

<date>Jun 30, 2000</date>

</refentryinfo>

<refmeta>

<refentrytitle>lwres\_gabn</refentrytitle>

<manvolnum>3</manvolnum>

<refmiscinfo>BIND9</refmiscinfo>

</refmeta>

<refnamediv>

<refname>lwres\_gabnrequest\_render</refname>

<refname>lwres\_gabnresponse\_render</refname>

<refname>lwres\_gabnrequest\_parse</refname>

<refname>lwres\_gabnresponse\_parse</refname>

<refname>lwres\_gabnresponse\_free</refname>

<refname>lwres\_gabnrequest\_free</refname>

<refpurpose>lightweight resolver getaddrbyname message handling</refpurpose>

```

</refnamediv>
<refsynopsisdiv>
<funcsynopsis>
<funcsynopsisinfo>#include <<lwres/lwres.h&&t;</funcsynopsisinfo>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_gabnrequest_render</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnrequest_t *req</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_gabnresponse_render</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnresponse_t *req</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_gabnrequest_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_gabnrequest_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
lwres_result_t
<function>lwres_gabnresponse_parse</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_buffer_t *b</paramdef>
<paramdef>lwres_lwpacket_t *pkt</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>
<funcprototype>
<funcdef>
void
<function>lwres_gabnresponse_free</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnresponse_t **structp</paramdef>
</funcprototype>
<funcprototype>

```

```

<funcdef>
void
<function>lwres_gabnrequest_free</function></funcdef>
<paramdef>lwres_context_t *ctx</paramdef>
<paramdef>lwres_gabnrequest_t **structp</paramdef>
</funcprototype>
</funcsynopsis>
</refsynopsisdiv>
<refsect1>
<title>DESCRIPTION</title>
<para>
These are low-level routines for creating and parsing
lightweight resolver name-to-address lookup request and
response messages.
</para><para>
There are four main functions for the getaddrbyname opcode.
One render function converts a getaddrbyname request structure —
<type>lwres_gabnrequest_t</type> —
to the lightweight resolver's canonical format.
It is complemented by a parse function that converts a packet in this
canonical format to a getaddrbyname request structure.
Another render function converts the getaddrbyname response structure —
<type>lwres_gabnresponse_t</type> —
to the canonical format.
This is complemented by a parse function which converts a packet in
canonical format to a getaddrbyname response structure.
</para>
<para>
These structures are defined in
<filename><lwres/lwres.h></filename>.
They are shown below.
<programlisting>
#define LWRES_OPCODE_GETADDRBYNAME 0x00010001U

typedef struct lwres_addr lwres_addr_t;
typedef LWRES_LIST(lwres_addr_t) lwres_addrlist_t;

typedef struct {
 lwres_uint32_t flags;
 lwres_uint32_t addrtypes;
 lwres_uint16_t namelen;
 char *name;
} lwres_gabnrequest_t;

typedef struct {
 lwres_uint32_t flags;
 lwres_uint16_t aliases;
 lwres_uint16_t naddrs;

```

```

char *realname;
char **aliases;
lwres_uint16_t realnamelen;
lwres_uint16_t *aliaslen;
lwres_addrlist_t addrs;
void *base;
size_t baselen;
} lwres_gabnresponse_t;

```

</programlisting>

</para>

<para>

<function>lwres\_gabnrequest\_render()</function>

uses resolver context

<parameter>ctx</parameter>

to convert getaddrbyname request structure

<parameter>req</parameter>

to canonical format.

The packet header structure

<parameter>pkt</parameter>

is initialised and transferred to

buffer

<parameter>b</parameter>.

The contents of

<parameter>\*req</parameter>

are then appended to the buffer in canonical format.

<function>lwres\_gabnresponse\_render()</function>

performs the same task, except it converts a getaddrbyname response structure

<type>lwres\_gabnresponse\_t</type>

to the lightweight resolver's canonical format.

</para>

<para>

<function>lwres\_gabnrequest\_parse()</function>

uses context

<parameter>ctx</parameter>

to convert the contents of packet

<parameter>pkt</parameter>

to a

<type>lwres\_gabnrequest\_t</type>

structure.

Buffer

<parameter>b</parameter>

provides space to be used for storing this structure.

When the function succeeds, the resulting

<type>lwres\_gabnrequest\_t</type>

is made available through

<parameter>\*structp</parameter>.

`lwres_gabnresponse_parse()` offers the same semantics as `lwres_gabnrequest_parse()` except it yields a `lwres_gabnresponse_t` structure.

`lwres_gabnresponse_free()` and `lwres_gabnrequest_free()` release the memory in resolver context `ctx` that was allocated to the `lwres_gabnresponse_t` or `lwres_gabnrequest_t` structures referenced via `structp`.

Any memory associated with ancillary buffers and strings for those structures is also discarded.

**RETURN VALUES**

The `getaddrbyname` opcode functions

`lwres_gabnrequest_render()`,

`lwres_gabnresponse_render()`

`lwres_gabnrequest_parse()`

and

`lwres_gabnresponse_parse()`

all return

`LWRES_R_SUCCESS`

on success.

They return

`LWRES_R_NOMEMORY`

if memory allocation fails.

`LWRES_R_UNEXPECTEDEND`

is returned if the available space in the buffer

`b`

is too small to accommodate the packet header or the

`lwres_gabnrequest_t`

and

`lwres_gabnresponse_t`

structures.

`lwres_gabnrequest_parse()`

and  
<function>lwres\_gabnresponse\_parse()</function>  
will return  
<errorcode>LWRES\_R\_UNEXPECTEDEND</errorcode>  
if the buffer is not empty after decoding the received packet.  
These functions will return  
<errorcode>LWRES\_R\_FAILURE</errorcode>  
if  
<structfield>pktflags</structfield>  
in the packet header structure  
<type>lwres\_lwpacket\_t</type>  
indicate that the packet is not a response to an earlier query.  
</para>  
</refsect1>  
<refsect1>  
<title>SEE ALSO</title>  
<para>  
<citerefentry>  
<refentrytitle>lwres\_packet</refentrytitle><manvolnum>3  
</manvolnum>  
</citerefentry>  
</para>  
</refsect1>  
</refentry>

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_gabn.docbook

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/resolv/res\_mkquery.c

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/\*

\* This is the header file for the MD5 message-digest algorithm.

\* The algorithm is due to Ron Rivest. This code was  
\* written by Colin Plumb in 1993, no copyright is claimed.

\* This code is in the public domain; do with it what you wish.

\*

\* Equivalent code is available from RSA Data Security, Inc.

\* This code has been tested against that, and is equivalent,  
\* except that you don't need to include two pages of legalese  
\* with every copy.

\*

\* To compute the message digest of a chunk of bytes, declare an  
\* MD5Context structure, pass it to MD5Init, call MD5Update as  
\* needed on buffers full of bytes, and then call MD5Final, which  
\* will fill a supplied 16-byte array with the digest.

\*

\* Changed so as no longer to depend on Colin Plumb's `usual.h'

\* header definitions; now uses stuff from dpkg's config.h

\* - Ian Jackson <ijackson@nyx.cs.du.edu>.

\* Still in the public domain.

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*/

/* $Id: platform.h.in,v 1.1 2004/11/03 01:39:05 abstine Exp $ */

#ifndef ISC_PLATFORM_H
#define ISC_PLATFORM_H 1

/*****
**** Platform-dependent defines.
*****/

/**
*** Network.
***/

/*
* Define if this system needs the <netinet/in6.h> header file included
* for full IPv6 support (pretty much only UnixWare).
*/
@ISC_PLATFORM_NEEDNETINETIN6H@

/*
* Define if this system needs the <netinet6/in6.h> header file included
* to support in6_pkinfo (pretty much only BSD/OS).
*/
@ISC_PLATFORM_NEEDNETINET6IN6H@

/*
* If sockaddrs on this system have an sa_len field, ISC_PLATFORM_HAVESALEN
* will be defined.
*/
@ISC_PLATFORM_HAVESALEN@

```

```
/*
 * If this system has the IPv6 structure definitions, ISC_PLATFORM_HAVEIPV6
 * will be defined.
 */
@ISC_PLATFORM_HAVEIPV6@

/*
 * If this system is missing in6addr_any, ISC_PLATFORM_NEEDIN6ADDRANY will
 * be defined.
 */
@ISC_PLATFORM_NEEDIN6ADDRANY@

/*
 * If this system is missing in6addr_loopback, ISC_PLATFORM_NEEDIN6ADDRLOOPBACK
 * will be defined.
 */
@ISC_PLATFORM_NEEDIN6ADDRLOOPBACK@

/*
 * If this system has in6_pktinfo, ISC_PLATFORM_HAVEIN6PKTINFO will be
 * defined.
 */
@ISC_PLATFORM_HAVEIN6PKTINFO@

/*
 * If this system has in_addr6, rather than in6_addr, ISC_PLATFORM_HAVEINADDR6
 * will be defined.
 */
@ISC_PLATFORM_HAVEINADDR6@

/*
 * If this system has sin6_scope_id, ISC_PLATFORM_HAVESCOPEID will be defined.
 */
@ISC_PLATFORM_HAVESCOPEID@

/*
 * If this system needs inet_ntop(), ISC_PLATFORM_NEEDNTOP will be defined.
 */
@ISC_PLATFORM_NEEDNTOP@

/*
 * If this system needs inet_pton(), ISC_PLATFORM_NEEDPTON will be defined.
 */
@ISC_PLATFORM_NEEDPTON@

/*
 * If this system needs inet_aton(), ISC_PLATFORM_NEEDATON will be defined.
 */
```

@ISC\_PLATFORM\_NEEDATON@

/\*

\* If this system needs in\_port\_t, ISC\_PLATFORM\_NEEDPORTT will be defined.

\*/

@ISC\_PLATFORM\_NEEDPORTT@

/\*

\* If the system needs strsep(), ISC\_PLATFORM\_NEEDSTRSEP will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRSEP@

/\*

\* If the system needs strlcpy(), ISC\_PLATFORM\_NEEDSTRLCOPY will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRLCOPY@

/\*

\* If the system needs strlcat(), ISC\_PLATFORM\_NEEDSTRLCAT will be defined.

\*/

@ISC\_PLATFORM\_NEEDSTRLCAT@

/\*

\* Define either ISC\_PLATFORM\_BSD44MSGHDR or ISC\_PLATFORM\_BSD43MSGHDR.

\*/

@ISC\_PLATFORM\_MSGHDRFLAVOR@

/\*

\* Define if PTHREAD\_ONCE\_INIT should be surrounded by braces to

\* prevent compiler warnings (such as with gcc on Solaris 2.8).

\*/

@ISC\_PLATFORM\_BRACEPTHREADONCEINIT@

/\*

\* Define on some UnixWare systems to fix erroneous definitions of various

\* IN6\_IS\_ADDR\_\* macros.

\*/

@ISC\_PLATFORM\_FIXIN6ISADDR@

/\*\*

\*\*\* Printing.

\*\*\*

/\*

\* If this system needs vsnprintf() and snprintf(), ISC\_PLATFORM\_NEEDVSNPRINTF

\* will be defined.

\*/

@ISC\_PLATFORM\_NEEDVSNPRINTF@

```
/*
 * If this system need a modern sprintf() that returns (int) not (char*).
 */
@ISC_PLATFORM_NEEDSPRINTF@

/*
 * The printf format string modifier to use with isc_uint64_t values.
 */
@ISC_PLATFORM_QUADFORMAT@

/*
 * Defined if we are using threads.
 */
@ISC_PLATFORM_USETHREADS@

/*
 * Defined if unistd.h does not cause fd_set to be delared.
 */
@ISC_PLATFORM_NEEDSYSSELECTH@

/*
 * Type used for resource limits.
 */
@ISC_PLATFORM_RLIMITTYPE@

/*
 * Define if your compiler supports "long long int".
 */
@ISC_PLATFORM_HAVELONGLONG@

/*
 * Define if the system has struct lifconf which is a extended struct ifconf
 * for IPv6.
 */
@ISC_PLATFORM_HAVELIFCONF@

/*
 * Define if the system has struct if_laddrconf which is a extended struct
 * ifconf for IPv6.
 */
@ISC_PLATFORM_HAVEIF_LADDRCONF@

/*
 * Define if the system has struct if_laddrreq.
 */
@ISC_PLATFORM_HAVEIF_LADDRREQ@
```



```

/*
 * Used to control how extern data is linked; needed for Win32 platforms.
 */
@ISC_PLATFORM_USEDECLSPEC@

/*
 * Define if the system supports if_nametoindex.
 */
@ISC_PLATFORM_HAVEIFNAMETOINDEX@

/*
 * Define if this system needs strtoul.
 */
@ISC_PLATFORM_NEEDSTRTOUL@

/*
 * Define if this system needs memmove.
 */
@ISC_PLATFORM_NEEDMEMMOVE@

#ifndef ISC_PLATFORM_USEDECLSPEC
#define LIBISC_EXTERNAL_DATA
#define LIBDNS_EXTERNAL_DATA
#define LIBISCCC_EXTERNAL_DATA
#define LIBISCCFG_EXTERNAL_DATA
#define LIBBIND9_EXTERNAL_DATA
#else /* ISC_PLATFORM_USEDECLSPEC */
#ifdef LIBISC_EXPORTS
#define LIBISC_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISC_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBDNS_EXPORTS
#define LIBDNS_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBDNS_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBISCCC_EXPORTS
#define LIBISCCC_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISCCC_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBISCCFG_EXPORTS
#define LIBISCCFG_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBISCCFG_EXTERNAL_DATA __declspec(dllimport)
#endif
#ifdef LIBBIND9_EXPORTS

```

```
#define LIBBIND9_EXTERNAL_DATA __declspec(dllexport)
#else
#define LIBBIND9_EXTERNAL_DATA __declspec(dllimport)
#endif
#endif /* ISC_PLATFORM_USEDECLSPEC */
```

```
/*
```

```
* Tell emacs to use C mode for this file.
```

```
*
```

```
* Local Variables:
```

```
* mode: c
```

```
* End:
```

```
*/
```

```
#endif /* ISC_PLATFORM_H */
```

Found in path(s):

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/isc/include/isc/platform.h.in
```

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/*
```

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.\n \$Id: tree.mdoc,v 1.1 2004/11/03 01:39:04 abstine Exp \$

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/\*

\* eventlib.em

\*

\* Eventlib error message compiler input file

\*

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/\*

\* The file basename is the facility name, the name is made

\* uppercase. This file defines facility EVENTLIB

\*/

module {

    description "EVENTLIB system messages";

}

errmsg HISTSUMM {

    severity err;

    category software;

    cdets\_component iosxe-binos-utils;

```

format "dispatch start: %llums elapsed time: %llums detected hog: %u set count: %u ";
 arg {
 "int" dispatch_time "event dispatch time";
 "int" elapsed_time "event elapsed time";
 "int" hog_detected "event hog detected";
 "int" set_count "event set count since dispatch"
 }
 explanation
 "Eventlib historical summary for detected hog.";

 action
 "This event summary is part of a CPUHOG or TIMEHOG error, "
 "providing diagnostic details useful to engineering. "
 "Save this summary message along with the HOG error. ";

 tac_details
 "Eventlib historical summary for detected hog.";
}

errmsg HISTELEM {
 severity err;
 category software;
 cdets_component iosxe-binos-utils;

format "elem[%u] event: %s %s set: %llums unset: %llums hog check: %d caller: %p app-info: %s";

 arg {
 "int" set_count "element set count";
 "char *" position_string "event call type";
 "char *" position_string "event condition";
 "int" set_time "element set time";
 "int" unset_time "element unset time";
 "int" hog_check "element hog check result";
 "int" caller "caller builtin return address";
 "char *" any_string "element callback render buffer";
 }
 explanation
 "Eventlib historical element for detected hog.";

 action
 "This event element is part of a CPUHOG or TIMEHOG error, "
 "providing diagnostic details useful to engineering. "
 "Save all element messages along with the HOG error. ";

 tac_details
 "Eventlib historical element for detected hog.";
}

```

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.\" \$Id: lwres\_packet.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/include/isc/misc.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/ev\_connects.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/ev\_files.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/ev\_timers.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/isc/eventlib.c

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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/irs/irp\_ho.c

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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/nis_ng.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/getnetent.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/irs_p.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/gen_nw.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/sco42/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/netbsd/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/nameser/ns_name.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/bsdos2/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/gen_pw.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/nameser/ns_parse.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/util.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/getpwent.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/hpux10/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/hpux/include/sys/bitypes.h
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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/cygwin/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/dns_pw.c
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* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/unixware212/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/nis_pr.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/freebsd/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/pathnames.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/irs_data.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/port/hpux9/include/sys/bitypes.h
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/nis_ho.c
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/irs/gen_ng.c
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/bsdos/include/sys/bitypes.h  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/ssu.c  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sdb.c  
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\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/stat.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/context.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/peer.h  
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\* BINOS specific changes to associate memcluster with an evctx

\*

\* March 2014, Aswin Kuppusami

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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/any\_255/tsig\_250.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/sig\_24.c
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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/view.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/adb.h
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/tkey\_249.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/dnssec.c
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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/rdata/generic/loc\_29.c
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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/masterdump.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/ncache.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/tests/t\_api.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/cache.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/dispatch.h
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- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/ifiter\_sysctl.c
- \* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/db.h

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/getipnode.c  
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\*/

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccfg/win32/DLLMain.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/bind\_registry.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isccfg/log.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/sec/dst/key.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/syslog.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/platform.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind/port/solaris/include/sys/bitypes.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/win32/DLLMain.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/bindevt.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/ntpaths.c

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/ntgroups.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/include/bind9/check.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/include/isc/strerror.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/DLLMain.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/win32/DLLMain.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/include/lwres/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/include/bind9/getaddresses.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/version.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/include/isc/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/ntgroups.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/DLLMain.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/win32/include/isc/strerror.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/bind9/include/bind9/version.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/dns/include/dns/zonekey.h  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/isc/unix/strerror.c  
\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/win32/DLLMain.c

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.\"

.\" \$Id: lwres\_context.3,v 1.1 2004/11/03 01:39:06 abstine Exp \$

.\"

Found in path(s):

\* /opt/cola/permits/1130450060\_1615189005.74/0/lib-tar/lib/lwres/man/lwres\_context.3

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Found in path(s):

```
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/make/mkdep.in
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```

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```

```
AC_REVISION($Revision: 1.1 $)
```

```
AC_INIT(resolv/herror.c)
```

```
AC_PREREQ(2.13)
```

```
AC_CONFIG_HEADER(config.h)
```

```
AC_CANONICAL_HOST
```

```
AC_PROG_MAKE_SET
```

```
AC_PROG_RANLIB
```

```
AC_PROG_INSTALL
```

```
AC_SUBST(STD_CINCLUDES)
```

```
AC_SUBST(STD_CDEFINES)
```

AC\_SUBST(STD\_CWARNINGS)

AC\_SUBST(CCOPT)

AC\_PATH\_PROG(AR, ar)

ARFLAGS="cruv"

AC\_SUBST(AR)

AC\_SUBST(ARFLAGS)

# The POSIX ln(1) program. Non-POSIX systems may substitute

# "copy" or something.

LN=ln

AC\_SUBST(LN)

case "\$AR" in

"")

AC\_MSG\_ERROR([

ar program not found. Please fix your PATH to include the directory in  
which ar resides, or set AR in the environment with the full path to ar.

])

;;

esac

#

# Etags.

#

AC\_PATH\_PROGS(ETAGS, etags emacs-etags)

#

# Some systems, e.g. RH7, have the Exuberant Ctags etags instead of

# GNU emacs etags, and it requires the -L flag.

#

if test "X\$ETAGS" != "X"; then

AC\_MSG\_CHECKING(for Exuberant Ctags etags)

if \$ETAGS --version 2>&1 | grep 'Exuberant Ctags' >/dev/null 2>&1; then

AC\_MSG\_RESULT(yes)

ETAGS="\$ETAGS -L"

else

AC\_MSG\_RESULT(no)

fi

fi

AC\_SUBST(ETAGS)

#

# Perl is optional; it is used only by some of the system test scripts.

#

AC\_PATH\_PROGS(PERL, perl5 perl)

AC\_SUBST(PERL)



```

#
isc/list.h and others clash with the rest of BIND 9
#
case "$includedir" in
'${prefix}/include')
 includedir='${prefix}/bind/include'
 ;;
esac
case "$libdir" in
'${prefix}/lib')
 libdir='${prefix}/bind/lib'
 ;;
esac

#
Make sure INSTALL uses an absolute path, else it will be wrong in all
Makefiles, since they use make/rules.in and INSTALL will be adjusted by
configure based on the location of the file where it is substituted.
Since in BIND9 INSTALL is only substituted into make/rules.in, an immediate
subdirectory of install-sh, This relative path will be wrong for all
directories more than one level down from install-sh.
#
case "$INSTALL" in
/*)
 ;;
*)
 #
 # Not all systems have dirname.
 #
 changequote({, })
 ac_dir=""echo $INSTALL | sed 's%/[^\/*]%%%'
 changequote([,])

 ac_prog=""echo $INSTALL | sed 's%.*/%%%'
 test "$ac_dir" = "$ac_prog" && ac_dir=.
 test -d "$ac_dir" && ac_dir="(cd \"$ac_dir\" && pwd)"
 INSTALL="$ac_dir/$ac_prog"
 ;;
esac

#
On these hosts, we really want to use cc, not gcc, even if it is
found. The gcc that these systems have will not correctly handle
pthreads.
#
However, if the user sets SCC to be something, let that override
our change.

```

```

#
if test "X$CC" = "X" ; then
case "$host" in
-dec-osf)
 CC="cc"
 ;;
-solaris)
 # Use Sun's cc if it is available, but watch
 # out for /usr/ucb/cc; it will never be the right
 # compiler to use.
 #
 # If setting CC here fails, the AC_PROG_CC done
 # below might still find gcc.
IFS="${IFS= }"; ac_save_ifs="$IFS"; IFS=":"
for ac_dir in $PATH; do
test -z "$ac_dir" && ac_dir=.
case "$ac_dir" in
/usr/ucb)
 # exclude
 ;;
*)
 if test -f "$ac_dir/cc"; then
 CC="$ac_dir/cc"
 break
 fi
 ;;
esac
done
IFS="$ac_save_ifs"
;;
-hp-hpux)
 CC="cc"
 ;;
mips-sgi-irix*)
 CC="cc"
 ;;
esac
fi

AC_PROG_CC

AC_HEADER_STDC

AC_CHECK_HEADERS(fcntl.h db.h paths.h sys/time.h unistd.h sys/sockio.h sys/select.h sys/timers.h)

```

```

AC_C_CONST
AC_C_INLINE
AC_TYPE_SIZE_T
AC_HEADER_TIME
#
check if we need to #include sys/select.h explicitly
#
case $ac_cv_header_unistd_h in
yes)
AC_MSG_CHECKING(if unistd.h defines fd_set)
AC_TRY_COMPILE([
#include <unistd.h>],
[fd_set read_set; return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDSYSSELECTH="#undef ISC_PLATFORM_NEEDSYSSELECTH"
],
[AC_MSG_RESULT(no)
case ac_cv_header_sys_select_h in
yes)
ISC_PLATFORM_NEEDSYSSELECTH="#define ISC_PLATFORM_NEEDSYSSELECTH 1"
;;
no)
AC_MSG_ERROR([need either working unistd.h or sys/select.h])
;;
esac
])
;;
no)
case ac_cv_header_sys_select_h in
yes)
ISC_PLATFORM_NEEDSYSSELECTH="#define ISC_PLATFORM_NEEDSYSSELECTH 1"
;;
no)
AC_MSG_ERROR([need either unistd.h or sys/select.h])
;;
esac
;;
esac
AC_SUBST(ISC_PLATFORM_NEEDSYSSELECTH)

#
Find the machine's endian flavor.
#
AC_C_BIGENDIAN

AC_ARG_WITH(irs-gr,[--with-irs-gr Build],
want_irs_gr="$withval", want_irs_gr="no")
case "$want_irs_gr" in

```

```

yes) WANT_IRS_GR="#define WANT_IRS_GR 1"
 WANT_IRS_GR_OBJS="\${WANT_IRS_GR_OBJS}"
;;
*) WANT_IRS_GR="#undef WANT_IRS_GR" WANT_IRS_GR_OBJS="";;
esac
AC_SUBST(WANT_IRS_GR)
AC_SUBST(WANT_IRS_GR_OBJS)

AC_ARG_WITH(irs-pw,[--with-irs-pw Build ...],
want_irs_pw="$withval", want_irs_pw="no")
case "$want_irs_pw" in
yes) WANT_IRS_PW="#define WANT_IRS_PW 1"
 WANT_IRS_PW_OBJS="\${WANT_IRS_PW_OBJS}";;
*) WANT_IRS_PW="#undef WANT_IRS_PW" WANT_IRS_PW_OBJS="";;
esac
AC_SUBST(WANT_IRS_PW)
AC_SUBST(WANT_IRS_PW_OBJS)

AC_ARG_WITH(irs-nis,[--with-irs-nis Build ...],
want_irs_nis="$withval", want_irs_nis="no")
case "$want_irs_nis" in
yes)
 WANT_IRS_NIS="#define WANT_IRS_NIS 1"
 WANT_IRS_NIS_OBJS="\${WANT_IRS_NIS_OBJS}"
 case "$want_irs_gr" in
 yes)
 WANT_IRS_NISGR_OBJS="\${WANT_IRS_NISGR_OBJS}";;
 *)
 WANT_IRS_NISGR_OBJS="";;
 esac
 case "$want_irs_pw" in
 yes)
 WANT_IRS_NISPW_OBJS="\${WANT_IRS_NISPW_OBJS}";;
 *)
 WANT_IRS_NISPW_OBJS="";;
 esac
;;
*)
 WANT_IRS_NIS="#undef WANT_IRS_NIS"
 WANT_IRS_NIS_OBJS=""
 WANT_IRS_NISGR_OBJS=""
 WANT_IRS_NISPW_OBJS="";;
esac
AC_SUBST(WANT_IRS_NIS)
AC_SUBST(WANT_IRS_NIS_OBJS)
AC_SUBST(WANT_IRS_NISGR_OBJS)
AC_SUBST(WANT_IRS_NISPW_OBJS)
AC_TRY_RUN([

```

```

#ifdef HAVE_DB_H
int have_db_h = 1;
#else
int have_db_h = 0;
#endif
main() { return(!have_db_h); }
],
WANT_IRS_DBPW_OBJS="\${WANT_IRS_DBPW_OBJS}"
,
WANT_IRS_DBPW_OBJS=""
,
WANT_IRS_DBPW_OBJS=""
)
AC_SUBST(WANT_IRS_DBPW_OBJS)

#
was --with-randomdev specified?
#
AC_MSG_CHECKING(for random device)
AC_ARG_WITH(randomdev,
[--with-randomdev=PATH Specify path for random device],
use_randomdev="$withval", use_randomdev="unspec")

case "$use_randomdev" in
unspec)
case "$host" in
_openbsd)
devrandom=/dev/srandom
;;
*)
devrandom=/dev/random
;;
esac
AC_MSG_RESULT($devrandom)
AC_CHECK_FILE($devrandom,
AC_DEFINE_UNQUOTED(PATH_RANDOMDEV,
"$devrandom"),)
;;
yes)
AC_MSG_ERROR([--with-randomdev must specify a path])
;;
*)
AC_DEFINE_UNQUOTED(PATH_RANDOMDEV, "$use_randomdev")
AC_MSG_RESULT(using "$use_randomdev")
;;
esac

#

```

```

Begin pthreads checking.
#
First, decide whether to use multithreading or not.
#
AC_MSG_CHECKING(whether to look for thread support)
AC_ARG_ENABLE(threads,
[--disable-threads disable multithreading])
case "$enable_threads" in
yes|")
AC_MSG_RESULT(yes)
use_threads=true
;;
no)
AC_MSG_RESULT(no)
use_threads=false
;;
*)
AC_MSG_ERROR([--enable-threads takes yes or no])
;;
esac

if $use_threads
then
#
Search for / configure pthreads in a system-dependent fashion.
#
case "$host" in
-netbsd)
NetBSD has multiple pthreads implementations. The
recommended one to use is "unproven-pthreads". The
older "mit-pthreads" may also work on some NetBSD
versions. The PTL2 thread library does not
currently work with bind9, but can be chosen with
the --with-ptl2 option for those who wish to
experiment with it.
CC="gcc"
AC_MSG_CHECKING(which NetBSD thread library to use)

AC_ARG_WITH(ptl2,
[--with-ptl2 on NetBSD, use the ptl2 thread library (experimental)],
use_ptl2="$withval", use_ptl2="no")

: ${LOCALBASE:=/usr/pkg}

if test "X$use_ptl2" = "Xyes"
then
AC_MSG_RESULT(PTL2)
AC_MSG_WARN(

```

[linking with PTL2 is highly experimental and not expected to work])

```
CC=ptlgcc
else
if test ! -d $LOCALBASE/threads
then
AC_MSG_RESULT(none)
use_threads=false
fi

if $use_threads
then
AC_MSG_RESULT(mit-threads/unproven-threads)
pkg="$LOCALBASE/threads"
lib1="-L$pkg/lib -Wl,-R$pkg/lib"
lib2="-lthread -lm -lgcc -lthread"
LIBS="$lib1 $lib2 $LIBS"
CPPFLAGS="$CPPFLAGS -I$pkg/include"
STD_CINCLUDES="$STD_CINCLUDES -I$pkg/include"
fi
fi
;;
*)
AC_CHECK_LIB(pthread, pthread_create,,
AC_CHECK_LIB(pthread, __pthread_create,,
AC_CHECK_LIB(pthread, __pthread_create_system,,
AC_CHECK_LIB(c_r, pthread_create,,
AC_CHECK_LIB(c, pthread_create,,
use_threads=false))))
;;
esac
fi

if $use_threads
then
#
We'd like to use sigwait() too
#
AC_CHECK_LIB(c, sigwait,
AC_DEFINE(HAVE_SIGWAIT),
AC_CHECK_LIB(pthread, sigwait,
AC_DEFINE(HAVE_SIGWAIT),
AC_CHECK_LIB(pthread, _Psigwait,
AC_DEFINE(HAVE_SIGWAIT),))
)

AC_CHECK_FUNC(pthread_attr_getstacksize,
AC_DEFINE(HAVE_PTHREAD_ATTR_GETSTACKSIZE),)
```

```

#
Additional OS-specific issues related to pthreads and sigwait.
#
case "$host" in
#
One more place to look for sigwait.
#
-freebsd)
 AC_CHECK_LIB(c_r, sigwait, AC_DEFINE(HAVE_SIGWAIT),)
 ;;
#
BSDI 3.0 through 4.0.1 needs pthread_init() to be
called before certain pthreads calls. This is deprecated
in BSD/OS 4.1.
#
-bsd3.|*-bsd4.0*)
 AC_DEFINE(NEED_PTHREAD_INIT)
 ;;
#
LinuxThreads requires some changes to the way we
deal with signals.
#
-linux)
 AC_DEFINE(HAVE_LINUXTHREADS)
 ;;
#
Ensure the right sigwait() semantics on Solaris and make
sure we call pthread_setconcurrency.
#
-solaris)
 AC_DEFINE(_POSIX_PTHREAD_SEMANTICS)
 AC_CHECK_FUNC(pthread_setconcurrency,
 AC_DEFINE(CALL_PTHREAD_SETCONCURRENCY))
 AC_DEFINE(POSIX_GETPWUID_R)
 AC_DEFINE(POSIX_GETPWNAM_R)
 AC_DEFINE(POSIX_GETGRGID_R)
 AC_DEFINE(POSIX_GETGRNAM_R)
 ;;
hpux11)
 AC_DEFINE(_PTHREADS_DRAFT4)
 ;;
#
UnixWare does things its own way.
#
-UnixWare)
 AC_DEFINE(HAVE_UNIXWARE_SIGWAIT)
 ;;
esac

```



```

#
Look for sysconf to allow detection of the number of processors.
#
AC_CHECK_FUNC(sysconf, AC_DEFINE(HAVE_SYSCONF),)

if test "X$GCC" = "Xyes"; then
 case "$host" in
 -freebsd)
 CC="$CC -pthread"
 CCOPT="$CCOPT -pthread"
 STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
 ;;
 -openbsd)
 CC="$CC -pthread"
 CCOPT="$CCOPT -pthread"
 ;;
 -solaris)
 LIBS="$LIBS -lthread"
 ;;
 -ibm-aix)
 STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
 ;;
 esac
else
 case $host in
 -dec-osf)
 CC="$CC -pthread"
 CCOPT="$CCOPT -pthread"
 ;;
 -solaris)
 CC="$CC -mt"
 CCOPT="$CCOPT -mt"
 ;;
 -ibm-aix)
 STD_CDEFINES="$STD_CDEFINES -D_THREAD_SAFE"
 ;;
 -UnixWare)
 CC="$CC -Kthread"
 CCOPT="$CCOPT -Kthread"
 ;;
 esac
fi
ALWAYS_DEFINES="-D_REENTRANT"
DO_PTHREADS="#define DO_PTHREADS 1"
WANT_IRS_THREADSGR_OBJS="\${WANT_IRS_THREADSGR_OBJS}"
WANT_IRS_THREADSPW_OBJS="\${WANT_IRS_THREADSPW_OBJS}"
WANT_IRS_THREADS_OBJS="\${WANT_IRS_THREADS_OBJS}"

```

```

thread_dir=threads
else
ALWAYS_DEFINES=""
DO_PTHREADS="#undef DO_PTHREADS"
WANT_IRS_THREADSGR_OBJS=""
WANT_IRS_THREADSPPW_OBJS=""
WANT_IRS_THREADS_OBJS=""
thread_dir=nothreads
fi

AC_CHECK_FUNC(strlcat, AC_DEFINE(HAVE_STRLCAT))

AC_SUBST(ALWAYS_DEFINES)
AC_SUBST(DO_PTHREADS)
AC_SUBST(WANT_IRS_THREADSGR_OBJS)
AC_SUBST(WANT_IRS_THREADSPPW_OBJS)
AC_SUBST(WANT_IRS_THREADS_OBJS)

AC_CHECK_FUNC(if_nametoindex,
[USE_IFNAMESLINKID="#define USE_IFNAMESLINKID 1"],
[USE_IFNAMESLINKID="#undef USE_IFNAMESLINKID"])
AC_SUBST(USE_IFNAMESLINKID)

ISC_THREAD_DIR=$thread_dir
AC_SUBST(ISC_THREAD_DIR)

AC_CHECK_FUNC(daemon,
[DAEMON_OBJS="" NEED_DAEMON="#undef NEED_DAEMON"]
,
[DAEMON_OBJS="\${DAEMON_OBJS}" NEED_DAEMON="#define NEED_DAEMON 1"]
)
AC_SUBST(DAEMON_OBJS)
AC_SUBST(NEED_DAEMON)

AC_CHECK_FUNC(strsep,
[STRSEP_OBJS="" NEED_STRSEP="#undef NEED_STRSEP"]
,
[STRSEP_OBJS="\${STRSEP_OBJS}" NEED_STRSEP="#define NEED_STRSEP 1"]
)
AC_SUBST(STRSEP_OBJS)
AC_SUBST(NEED_STRSEP)

AC_CHECK_FUNC(strerror, [NEED_STRERROR="#undef NEED_STRERROR"],
[NEED_STRERROR="#define NEED_STRERROR 1"])
AC_SUBST(NEED_STRERROR)

#
flockfile is usually provided by pthreads, but we may want to use it

```

```

even if compiled with --disable-threads.
#
AC_CHECK_FUNC(flockfile, AC_DEFINE(HAVE_FLOCKFILE),)

#
Indicate what the final decision was regarding threads.
#
AC_MSG_CHECKING(whether to build with threads)
if $use_threads; then
 AC_MSG_RESULT(yes)
else
 AC_MSG_RESULT(no)
fi

#
End of pthreads stuff.
#

#
Additional compiler settings.
#
MKDEPCC="$CC"
MKDEPCFLAGS="-M"
IRIX_DNSSEC_WARNINGS_HACK=""

if test "X$GCC" = "Xyes"; then
 STD_CWARNINGS="$STD_CWARNINGS -W -Wall -Wmissing-prototypes -Wcast-qual -Wwrite-strings"
else
 case $host in
 -dec-osf)
 CC="$CC -std"
 CCOPT="$CCOPT -std"
 MKDEPCC="$CC"
 ;;
 -hp-hpux)
 CC="$CC -Ae -z"
 # The version of the C compiler that constantly warns about
 # 'const' as well as alignment issues is unfortunately not
 # able to be discerned via the version of the operating
 # system, nor does cc have a version flag.
 case "$CC +W 123 2>&1`" in
 Unknown?option)
 STD_CWARNINGS="+w1"
 ;;
 *)
 # Turn off the pointlessly noisy warnings.
 STD_CWARNINGS="+w1 +W 474,530"
 ;;
 esac
 esac
 fi

```

```

esac
CCOPT="$CCOPT -Ae -z"
LIBS="-Wl,+vnocompatwarnings $LIBS"
MKDEPPROG='cc -Ae -E -Wp,-M >/dev/null 2>&1 | awk """"BEGIN {colon=0; rec=""}; { for (i = 0 ; i < NF; i++)
{ if (colon && a[$i]) continue; if ($i == "\\") continue; if (!colon) { rec = $i continue; } if ($i == ":") { rec = rec " : "
colon = 1 continue; } if (length(rec $i) > 76) { print rec " \\"; rec = "\t" $i; a[$i] = 1; } else { rec = rec " " $i a[$i] = 1;
} } } END {print rec}"""" >>$TMP'
MKDEPPROG='cc -Ae -E -Wp,-M >/dev/null 2>>$TMP'
;;
sgi-irix)
STD_CWARNINGS="-fullwarn -woff 1209"
#
Silence more than 250 instances of
"prototyped function redeclared without prototype"
and 11 instances of
"variable ... was set but never used"
from lib/dns/sec/openssl.
#
IRIX_DNSSEC_WARNINGS_HACK="-woff 1692,1552"
;;
solaris)
MKDEPCFLAGS="-xM"
;;
UnixWare)
CC="$CC -w"
;;
esac
fi

#
_GNU_SOURCE is needed to access the fd_bits field of struct fd_set, which
is supposed to be opaque.
#
case $host in
linux)
STD_CDEFINES="$STD_CDEFINES -D_GNU_SOURCE"
;;
esac

AC_SUBST(MKDEPCC)
AC_SUBST(MKDEPCFLAGS)
AC_SUBST(MKDEPPROG)
AC_SUBST(IRIX_DNSSEC_WARNINGS_HACK)

#
NLS
#
AC_CHECK_FUNC(catgets, AC_DEFINE(HAVE_CATGETS),)

```

```

#
-lxnet buys us one big porting headache... standards, gotta love 'em.
#
AC_CHECK_LIB(xnet, socket, ,
AC_CHECK_LIB(socket, socket)
AC_CHECK_LIB(nsl, inet_ntoa)
)
#
Use this for now, instead:
#
case "$host" in
mips-sgi-irix*)
;;
*)
AC_CHECK_LIB(d4r, gethostbyname_r)
AC_CHECK_LIB(socket, socket)
AC_CHECK_LIB(nsl, inet_ntoa)
;;
esac

#
Purify support
#
AC_MSG_CHECKING(whether to use purify)
AC_ARG_WITH(purify,
[--with-purify[=PATH] use Rational purify],
use_purify="$withval", use_purify="no")

case "$use_purify" in
no)
;;
yes)
AC_PATH_PROG(purify_path, purify, purify)
;;
*)
purify_path="$use_purify"
;;
esac

case "$use_purify" in
no)
AC_MSG_RESULT(no)
PURIFY=""
;;
*)
if test -f $purify_path || test $purify_path = purify; then
AC_MSG_RESULT($purify_path)

```

```
PURIFYFLAGS=""`echo $PURIFYOPTIONS`"
PURIFY="$purify_path $PURIFYFLAGS"
else
AC_MSG_ERROR([$purify_path not found.
```

Please choose the proper path with the following command:

```
configure --with-purify=PATH
)
fi
;;
esac
```

```
AC_SUBST(PURIFY)
```

```
#
GNU libtool support
#
AC_ARG_WITH(libtool,
[--with-libtool use GNU libtool (following indented options supported)],
use_libtool="$withval", use_libtool="no")
```

```
case $use_libtool in
yes)
AM_PROG_LIBTOOL
O=lo
A=la
LIBTOOL_MKDEP_SED='s;\.o;\.lo;'
LIBTOOL_MODE_COMPILE='--mode=compile'
LIBTOOL_MODE_INSTALL='--mode=install'
LIBTOOL_MODE_LINK='--mode=link'
;;
*)
O=o
A=a
LIBTOOL=
AC_SUBST(LIBTOOL)
LIBTOOL_MKDEP_SED=
LIBTOOL_MODE_COMPILE=
LIBTOOL_MODE_INSTALL=
LIBTOOL_MODE_LINK=
;;
esac
```

```
#
File name extension for static archive files, for those few places
where they are treated differently from dynamic ones.
#
```

SA=a

AC\_SUBST(O)

AC\_SUBST(A)

AC\_SUBST(SA)

AC\_SUBST(LIBTOOL\_MKDEP\_SED)

AC\_SUBST(LIBTOOL\_MODE\_COMPILE)

AC\_SUBST(LIBTOOL\_MODE\_INSTALL)

AC\_SUBST(LIBTOOL\_MODE\_LINK)

#

# Here begins a very long section to determine the system's networking  
# capabilities. The order of the tests is significant.

#

#

# IPv6

#

AC\_ARG\_ENABLE(ipv6,  
[ --enable-ipv6 use IPv6 [default=autodetect]])

case "\$enable\_ipv6" in

yes|"autodetect")

AC\_DEFINE(WANT\_IPV6)

::

no)

::

esac

#

# We do the IPv6 compilation checking after libtool so that we can put  
# the right suffix on the files.

#

AC\_MSG\_CHECKING(for IPv6 structures)

AC\_TRY\_COMPILE([

#include <sys/types.h>

#include <sys/socket.h>

#include <netinet/in.h>],

[struct sockaddr\_in6 sin6; return (0);],

[AC\_MSG\_RESULT(yes)

found\_ipv6=yes],

[AC\_MSG\_RESULT(no)

found\_ipv6=no])

#

# See whether IPv6 support is provided via a Kame add-on.

# This is done before other IPv6 linking tests to LIBS is properly set.

#

```
AC_MSG_CHECKING(for Kame IPv6 support)
AC_ARG_WITH(kame,
[--with-kame[=PATH] use Kame IPv6 [default path /usr/local/v6]],
use_kame="$withval", use_kame="no")
```

```
case "$use_kame" in
no)
;;
yes)
kame_path=/usr/local/v6
;;
*)
kame_path="$use_kame"
;;
esac
```

```
case "$use_kame" in
no)
AC_MSG_RESULT(no)
;;
*)
if test -f $kame_path/lib/libinet6.a; then
AC_MSG_RESULT($kame_path/lib/libinet6.a)
LIBS="-L$kame_path/lib -linet6 $LIBS"
else
AC_MSG_ERROR([$kame_path/lib/libinet6.a not found.
```

Please choose the proper path with the following command:

```
configure --with-kame=PATH
)
fi
;;
esac
```

```
#
Whether netinet6/in6.h is needed has to be defined in isc/platform.h.
Including it on Kame-using platforms is very bad, though, because
Kame uses #error against direct inclusion. So include it on only
the platform that is otherwise broken without it -- BSD/OS 4.0 through 4.1.
This is done before the in6_pktinfo check because that's what
netinet6/in6.h is needed for.
#
changequote(,)
case "$host" in
-bsdi4.[01])
ISC_PLATFORM_NEEDNETINET6IN6H="#define ISC_PLATFORM_NEEDNETINET6IN6H 1"
isc_netinet6in6_hack="#include <netinet6/in6.h>"
```



```

;;
*)
ISC_PLATFORM_NEEDNETINET6IN6H="#undef ISC_PLATFORM_NEEDNETINET6IN6H"
isc_netinet6in6_hack=""
;;
esac
changequote([,])

#
This is similar to the netinet6/in6.h issue.
#
case "$host" in
-UnixWare)
ISC_PLATFORM_NEEDNETINET6H="#define ISC_PLATFORM_NEEDNETINET6H 1"
ISC_PLATFORM_FIXIN6ISADDR="#define ISC_PLATFORM_FIXIN6ISADDR 1"
isc_netinet6_hack="#include <netinet/in6.h>"
;;
*)
ISC_PLATFORM_NEEDNETINET6H="#undef ISC_PLATFORM_NEEDNETINET6H"
ISC_PLATFORM_FIXIN6ISADDR="#undef ISC_PLATFORM_FIXIN6ISADDR"
isc_netinet6_hack=""
;;
esac

#
Now delve deeper into the suitability of the IPv6 support.
#
case "$found_ipv6" in
yes)
HAS_INET6_STRUCTS="#define HAS_INET6_STRUCTS 1"

AC_MSG_CHECKING(for in6_addr)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinet6_hack
$isc_netinet6in6_hack
],
[struct in6_addr in6; return (0);],
[AC_MSG_RESULT(yes)
HAS_IN_ADDR6="#undef HAS_IN_ADDR6"
isc_in_addr6_hack=""],
[AC_MSG_RESULT(no)
HAS_IN_ADDR6="#define HAS_IN_ADDR6 1"
isc_in_addr6_hack="#define in6_addr in_addr6"])

AC_MSG_CHECKING(for in6addr_any)

```

```

AC_TRY_LINK([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
$isc_in_addr6_hack
],
[struct in6_addr in6; in6 = in6addr_any; return (0);],
[AC_MSG_RESULT(yes)
NEED_IN6ADDR_ANY="#undef NEED_IN6ADDR_ANY"],
[AC_MSG_RESULT(no)
NEED_IN6ADDR_ANY="#define NEED_IN6ADDR_ANY 1"])

AC_MSG_CHECKING(for sin6_scope_id in struct sockaddr_in6)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct sockaddr_in6 xyzy; xyzy.sin6_scope_id = 0; return (0);],
[AC_MSG_RESULT(yes)
result="#define HAVE_SIN6_SCOPE_ID 1"],
[AC_MSG_RESULT(no)
result="#undef HAVE_SIN6_SCOPE_ID"])
HAVE_SIN6_SCOPE_ID="$result"

AC_MSG_CHECKING(for in6_pktinfo)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
$isc_netinetin6_hack
$isc_netinet6in6_hack
],
[struct in6_pktinfo xyzy; return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_HAVEIN6PKTINFO="#define ISC_PLATFORM_HAVEIN6PKTINFO 1"],
[AC_MSG_RESULT(no -- disabling runtime ipv6 support)
ISC_PLATFORM_HAVEIN6PKTINFO="#undef ISC_PLATFORM_HAVEIN6PKTINFO"])

AC_MSG_CHECKING(for sockaddr_storage)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>

```

```

$isc_netinet6_hack
$isc_netinet6in6_hack
],
[struct sockaddr_storage xyzzy; return (0);],
[AC_MSG_RESULT(yes)
HAVE_SOCKADDR_STORAGE="#define HAVE_SOCKADDR_STORAGE 1"],
[AC_MSG_RESULT(no)
HAVE_SOCKADDR_STORAGE="#undef HAVE_SOCKADDR_STORAGE"])
;;
no)
HAS_INET6_STRUCTS="#undef HAS_INET6_STRUCTS"
NEED_IN6ADDR_ANY="#undef NEED_IN6ADDR_ANY"
ISC_PLATFORM_HAVEIN6PKTINFO="#undef ISC_PLATFORM_HAVEIN6PKTINFO"
HAVE_SIN6_SCOPE_ID="#define HAVE_SIN6_SCOPE_ID 1"
HAVE_SOCKADDR_STORAGE="#undef HAVE_SOCKADDR_STORAGE"
ISC_IPV6_H="ipv6.h"
ISC_IPV6_O="ipv6.$O"
ISC_ISCIPV6_O="unix/ipv6.$O"
ISC_IPV6_C="ipv6.c"
;;
esac

AC_SUBST(HAS_INET6_STRUCTS)
AC_SUBST(ISC_PLATFORM_NEEDNETINET6H)
AC_SUBST(ISC_PLATFORM_NEEDNETINET6IN6H)
AC_SUBST(HAS_IN_ADDR6)
AC_SUBST(NEED_IN6ADDR_ANY)
AC_SUBST(ISC_PLATFORM_HAVEIN6PKTINFO)
AC_SUBST(ISC_PLATFORM_FIXIN6ISADDR)
AC_SUBST(ISC_IPV6_H)
AC_SUBST(ISC_IPV6_O)
AC_SUBST(ISC_ISCIPV6_O)
AC_SUBST(ISC_IPV6_C)
AC_SUBST(HAVE_SIN6_SCOPE_ID)
AC_SUBST(HAVE_SOCKADDR_STORAGE)

#
Check for network functions that are often missing. We do this
after the libtool checking, so we can put the right suffix on
the files. It also needs to come after checking for a Kame add-on,
which provides some (all?) of the desired functions.
#
AC_MSG_CHECKING([for inet_ntop])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>
#include <arpa/inet.h>],
[inet_ntop(0, 0, 0, 0); return (0);],

```

```

[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDNTOP="#undef ISC_PLATFORM_NEEDNTOP"],

[AC_MSG_RESULT(no)
ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_ntop.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_ntop.c"
ISC_PLATFORM_NEEDNTOP="#define ISC_PLATFORM_NEEDNTOP 1"])
AC_MSG_CHECKING([for inet_pton])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>
#include <arpa/inet.h>],
[inet_pton(0, 0, 0); return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDPTON="#undef ISC_PLATFORM_NEEDPTON"],

[AC_MSG_RESULT(no)
ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_pton.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_pton.c"
ISC_PLATFORM_NEEDPTON="#define ISC_PLATFORM_NEEDPTON 1"])
AC_MSG_CHECKING([for inet_aton])
AC_TRY_LINK([
#include <sys/types.h>
#include <netinet/in.h>
#include <arpa/inet.h>],
[struct in_addr in; inet_aton(0, &in); return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDATON="#undef ISC_PLATFORM_NEEDATON"],

[AC_MSG_RESULT(no)
ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS inet_aton.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS inet_aton.c"
ISC_PLATFORM_NEEDATON="#define ISC_PLATFORM_NEEDATON 1"])

AC_SUBST(ISC_PLATFORM_NEEDNTOP)
AC_SUBST(ISC_PLATFORM_NEEDPTON)
AC_SUBST(ISC_PLATFORM_NEEDATON)

#
Look for a 4.4BSD-style sa_len member in struct sockaddr.
#
case "$host" in
-dec-osf)
Turn on 4.4BSD style sa_len support.
AC_DEFINE(_SOCKADDR_LEN)
;;
esac

```

```

AC_MSG_CHECKING(for sa_len in struct sockaddr)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>],
[struct sockaddr sa; sa.sa_len = 0; return (0);],
[AC_MSG_RESULT(yes)
HAVE_SA_LEN="#define HAVE_SA_LEN 1"],
[AC_MSG_RESULT(no)
HAVE_SA_LEN="#undef HAVE_SA_LEN"])
AC_SUBST(HAVE_SA_LEN)

HAVE_MINIMUM_IFREQ

case "$host" in
-bsdi[2345]) have_minimum_ifreq=yes;;
-darwin) have_minimum_ifreq=yes;;
-freebsd) have_minimum_ifreq=yes;;
-lynxos) have_minimum_ifreq=yes;;
-netbsd) have_minimum_ifreq=yes;;
-next) have_minimum_ifreq=yes;;
-openbsd) have_minimum_ifreq=yes;;
-rhapsody) have_minimum_ifreq=yes;;
esac

case "$have_minimum_ifreq" in
yes)
HAVE_MINIMUM_IFREQ="#define HAVE_MINIMUM_IFREQ 1";;
no)
HAVE_MINIMUM_IFREQ="#undef HAVE_MINIMUM_IFREQ";;
*)
HAVE_MINIMUM_IFREQ="#undef HAVE_MINIMUM_IFREQ";;
esac
AC_SUBST(HAVE_MINIMUM_IFREQ)

PORT_DIR
PORT_DIR=port/unknown
SOLARIS_BITTYPES="#undef NEED_SOLARIS_BITTYPES"
BSD_COMP="#undef BSD_COMP"
USE_FIONBIO_IOCTL="#undef USE_FIONBIO_IOCTL"
case "$host" in
aix3.2) PORT_DIR="port/aix32";;
aix4) PORT_DIR="port/aix4";;
aux3) PORT_DIR="port/aux3";;
-bsdi2) PORT_DIR="port/bsdos2";;
-bsdi) PORT_DIR="port/bsdos";;
-cygwin) PORT_DIR="port/cygwin";;
-darwin) PORT_DIR="port/darwin";;
-osf) PORT_DIR="port/decunix";;

```

```

-freebsd) PORT_DIR="port/freebsd";;
-hpux9) PORT_DIR="port/hpux9";;
-hpux10) PORT_DIR="port/hpux10";;
-hpux11) PORT_DIR="port/hpux";;
-irix) PORT_DIR="port/irix";;
-linux) PORT_DIR="port/linux";;
-lynxos) PORT_DIR="port/lynxos";;
-mpe) PORT_DIR="port/mpe";;
-netbsd) PORT_DIR="port/netbsd";;
-next) PORT_DIR="port/next";;
-openbsd) PORT_DIR="port/openbsd";;
-qnx) PORT_DIR="port/qnx";;
-rhapsody) PORT_DIR="port/rhapsody";;
-solaris2.[[01234]])
 BSD_COMP="#define BSD_COMP 1"
 SOLARIS_BITTYPES="#define NEED_SOLARIS_BITTYPES 1"
 USE_FIONBIO_IOCTL="#define USE_FIONBIO_IOCTL 1"
 PORT_DIR="port/solaris";;
-solaris2.5)
 BSD_COMP="#define BSD_COMP 1"
 SOLARIS_BITTYPES="#define NEED_SOLARIS_BITTYPES 1"
 PORT_DIR="port/solaris";;
-solaris2) BSD_COMP="#define BSD_COMP 1"
 PORT_DIR="port/solaris";;
-ultrix) PORT_DIR="port/ultrix";;
*-sco-sysv*uw2.0*) PORT_DIR="port/unixware20";;
*-sco-sysv*uw2.1.2*) PORT_DIR="port/unixware212";;
*-sco-sysv*uw7*) PORT_DIR="port/unixware7";;
esac
AC_SUBST(BSD_COMP)
AC_SUBST(SOLARIS_BITTYPES)
AC_SUBST(USE_FIONBIO_IOCTL)
AC_SUBST(PORT_DIR)
PORT_INCLUDE=${PORT_DIR}/include
AC_SUBST(PORT_INCLUDE)

#
Look for a 4.4BSD or 4.3BSD struct msghdr
#
AC_MSG_CHECKING(for struct msghdr flavor)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>],
[struct msghdr msg; msg.msg_flags = 0; return (0);],
[AC_MSG_RESULT(4.4BSD)
ISC_PLATFORM_MSGHDRFLAVOR="#define ISC_NET_BSD44MSGHDR 1"],
[AC_MSG_RESULT(4.3BSD)

```

```

ISC_PLATFORM_MSGHDRFLAVOR="#define ISC_NET_BSD43MSGHDR 1")
AC_SUBST(ISC_PLATFORM_MSGHDRFLAVOR)

#
Look for in_port_t.
#
AC_MSG_CHECKING(for type in_port_t)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <netinet/in.h>],
[in_port_t port = 25; return (0);],
[AC_MSG_RESULT(yes)
ISC_PLATFORM_NEEDPORTT="#undef ISC_PLATFORM_NEEDPORTT"],
[AC_MSG_RESULT(no)
ISC_PLATFORM_NEEDPORTT="#define ISC_PLATFORM_NEEDPORTT 1"])
AC_SUBST(ISC_PLATFORM_NEEDPORTT)

#
Check for addrinfo
#
AC_MSG_CHECKING(for struct addrinfo)
AC_TRY_COMPILE([
#include <netdb.h>],
[struct addrinfo a; return (0);],
[AC_MSG_RESULT(yes)
AC_DEFINE(HAVE_ADDRINFO)],
[AC_MSG_RESULT(no)])

AC_MSG_CHECKING(for int sethostent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = sethostent(0); return(0);],
[AC_MSG_RESULT(yes)],
[AC_MSG_RESULT(no)])

AC_MSG_CHECKING(for int endhostent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = endhostent(); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_ENDHOSTENTINT="#define ISC_LWRES_ENDHOSTENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_ENDHOSTENTINT="#undef ISC_LWRES_ENDHOSTENTINT"])
AC_SUBST(ISC_LWRES_ENDHOSTENTINT)

AC_MSG_CHECKING(for int setnetent)
AC_TRY_COMPILE([
#include <netdb.h>],

```

```

[int i = setnetent(0); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_SETNETENTINT="#define ISC_LWRES_SETNETENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_SETNETENTINT="#undef ISC_LWRES_SETNETENTINT"])
AC_SUBST(ISC_LWRES_SETNETENTINT)

AC_MSG_CHECKING(for int endnetent)
AC_TRY_COMPILE([
#include <netdb.h>],
[int i = endnetent(); return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_ENDNETENTINT="#define ISC_LWRES_ENDNETENTINT 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_ENDNETENTINT="#undef ISC_LWRES_ENDNETENTINT"])
AC_SUBST(ISC_LWRES_ENDNETENTINT)

AC_MSG_CHECKING(for gethostbyaddr(const void *, size_t, ...))
AC_TRY_COMPILE([
#include <netdb.h>
struct hostent *gethostbyaddr(const void *, size_t, int);],
[return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_GETHOSTBYADDRVOID="#define ISC_LWRES_GETHOSTBYADDRVOID 1"],
[AC_MSG_RESULT(no)
ISC_LWRES_GETHOSTBYADDRVOID="#undef ISC_LWRES_GETHOSTBYADDRVOID"])
AC_SUBST(ISC_LWRES_GETHOSTBYADDRVOID)

AC_MSG_CHECKING(for h_errno in netdb.h)
AC_TRY_COMPILE([
#include <netdb.h>],
[h_errno = 1; return(0);],
[AC_MSG_RESULT(yes)
ISC_LWRES_NEEDHERRNO="#undef ISC_LWRES_NEEDHERRNO"],
[AC_MSG_RESULT(no)
ISC_LWRES_NEEDHERRNO="#define ISC_LWRES_NEEDHERRNO 1"])
AC_SUBST(ISC_LWRES_NEEDHERRNO)

AC_CHECK_FUNC(getipnodebyname,
[ISC_LWRES_GETIPNODEPROTO="#undef ISC_LWRES_GETIPNODEPROTO"],
[ISC_LWRES_GETIPNODEPROTO="#define ISC_LWRES_GETIPNODEPROTO 1"])
AC_CHECK_FUNC(getnameinfo,
[ISC_LWRES_GETNAMEINFOPROTO="#undef ISC_LWRES_GETNAMEINFOPROTO"],
[ISC_LWRES_GETNAMEINFOPROTO="#define ISC_LWRES_GETNAMEINFOPROTO 1"])
AC_CHECK_FUNC(getaddrinfo,
[ISC_LWRES_GETADDRINFOPROTO="#undef ISC_LWRES_GETADDRINFOPROTO"]
AC_DEFINE(HAVE_GETADDRINFO)],
[ISC_LWRES_GETADDRINFOPROTO="#define ISC_LWRES_GETADDRINFOPROTO 1"])

```



```

AC_CHECK_FUNC(gai_strerror, AC_DEFINE(HAVE_GAISTRERROR))
AC_SUBST(ISC_LWRES_GETIPNODEPROTO)
AC_SUBST(ISC_LWRES_GETADDRINFOPROTO)
AC_SUBST(ISC_LWRES_GETNAMEINFOPROTO)
AC_CHECK_FUNC(pselect,
 [NEED_PSELECT="#undef NEED_PSELECT"],
 [NEED_PSELECT="#define NEED_PSELECT"])
AC_SUBST(NEED_PSELECT)
AC_CHECK_FUNC(gettimeofday,
 [NEED_GETTIMEOFDAY="#undef NEED_GETTIMEOFDAY"],
 [NEED_GETTIMEOFDAY="#define NEED_GETTIMEOFDAY 1"])
AC_SUBST(NEED_GETTIMEOFDAY)
AC_CHECK_FUNC(strndup,
 [HAVE_STRNDUP="#define HAVE_STRNDUP 1"],
 [HAVE_STRNDUP="#undef HAVE_STRNDUP"])
AC_SUBST(HAVE_STRNDUP)

#
Look for a sysctl call to get the list of network interfaces.
#
AC_MSG_CHECKING(for interface list sysctl)
AC_EGREP_CPP(found_rt_iflist, [
#include <sys/param.h>
#include <sys/sysctl.h>
#include <sys/socket.h>
#ifdef NET_RT_IFLIST
found_rt_iflist
#endif
],
[AC_MSG_RESULT(yes)
AC_DEFINE(HAVE_IFLIST_SYSCTL)],
[AC_MSG_RESULT(no)])

#
Check for some other useful functions that are not ever-present.
#
AC_CHECK_FUNC(strsep,
[ISC_PLATFORM_NEEDSTRSEP="#undef ISC_PLATFORM_NEEDSTRSEP"],
[ISC_PLATFORM_NEEDSTRSEP="#define ISC_PLATFORM_NEEDSTRSEP 1"])
AC_CHECK_FUNC(vsnprintf,
[ISC_PLATFORM_NEEDVSNPRINTF="#undef ISC_PLATFORM_NEEDVSNPRINTF"],
[ISC_EXTRA_OBJS="$ISC_EXTRA_OBJS print.$O"
ISC_EXTRA_SRCS="$ISC_EXTRA_SRCS print.c"
ISC_PLATFORM_NEEDVSNPRINTF="#define ISC_PLATFORM_NEEDVSNPRINTF 1"])
AC_SUBST(ISC_PLATFORM_NEEDSTRSEP)
AC_SUBST(ISC_PLATFORM_NEEDVSNPRINTF)

AC_SUBST(ISC_EXTRA_OBJS)

```

```

AC_SUBST(ISC_EXTRA_SRCS)
AC_CHECK_FUNC(strerror,
[USE_SYSEERROR_LIST="#undef USE_SYSEERROR_LIST"],
[USE_SYSEERROR_LIST="#define USE_SYSEERROR_LIST 1"])
AC_SUBST(USE_SYSEERROR_LIST)

#
Determine the printf format characters to use when printing
values of type isc_int64_t. We make the assumption that platforms
where a "long long" is the same size as a "long" (e.g., Alpha/OSF1)
want "%ld" and everyone else can use "%lld". Win32 uses "%I64d",
but that's defined elsewhere since we don't use configure on Win32.
#
AC_MSG_CHECKING(printf format modifier for 64-bit integers)
AC_TRY_RUN([main() { exit(!(sizeof(long long int) == sizeof(long int))); }],
[AC_MSG_RESULT(1)
ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "1"'],
[AC_MSG_RESULT(11)
ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "11"'],
[AC_MSG_RESULT(default 11)
ISC_PLATFORM_QUADFORMAT="#define ISC_PLATFORM_QUADFORMAT "11"'])
AC_SUBST(ISC_PLATFORM_QUADFORMAT)

#
Security Stuff
#
AC_CHECK_FUNC(chroot, AC_DEFINE(HAVE_CHROOT))

#
for accept, recvfrom, getpeername etc.
#
AC_MSG_CHECKING(for socket length type)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, socklen_t *);
],[],
[ISC_SOCKLEN_T="#define ISC_SOCKLEN_T socklen_t"
AC_MSG_RESULT(socklen_t)]
,
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, unsigned int *);
],[],
[ISC_SOCKLEN_T="#define ISC_SOCKLEN_T unsigned int"
AC_MSG_RESULT(unsigned int)]
,

```

```

AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, unsigned long *);
],[],
[ISC_SOCKLEN_T="#define ISC_SOCKLEN_T unsigned long"
AC_MSG_RESULT(unsigned long)]
,
AC_TRY_COMPILE([
#include <sys/types.h>
#include <sys/socket.h>
int accept(int, struct sockaddr *, long *);
],[],
[ISC_SOCKLEN_T="#define ISC_SOCKLEN_T long"
AC_MSG_RESULT(long)]
,
ISC_SOCKLEN_T="#define ISC_SOCKLEN_T int"
AC_MSG_RESULT(int)
))))
AC_SUBST(ISC_SOCKLEN_T)

AC_CHECK_FUNC(getgrouplist,
AC_TRY_COMPILE(
[#include <unistd.h>
int
getgrouplist(const char *name, int basegid, int *groups, int *ngroups) {
}
],
[return (0);],
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, int basegid, int *groups, int
*ngroups"
,
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, gid_t basegid, gid_t *groups, int
*ngroups"
),
GETGROUPLIST_ARGS="#define GETGROUPLIST_ARGS const char *name, gid_t basegid, gid_t *groups, int
*ngroups"
AC_DEFINE(NEED_GETGROUPLIST)
)
AC_SUBST(GETGROUPLIST_ARGS)

AC_CHECK_FUNC(setgroupent,,AC_DEFINE(NEED_SETGROUPEMENT))

AC_CHECK_FUNC(getnetbyaddr_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT

```

```

#define _OSF_SOURCE
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct netent *
getnetbyaddr_r(long net, int type, struct netent *result, char *buffer,
int buflen) { }
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS char *buf, int buflen"
NET_R_BAD="#define NET_R_BAD NULL"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS NET_R_ARGS"
NET_R_OK="#define NET_R_OK nptr"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN struct netent *"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"
NETENT_DATA="#undef NETENT_DATA"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#define _OSF_SOURCE
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetbyaddr_r (unsigned long int, int, struct netent *,
char *, size_t, struct netent **, int *);
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS char *buf, size_t buflen, struct netent **answer, int *h_errnop"
NET_R_BAD="#define NET_R_BAD ERANGE"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS char *buf, size_t buflen"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#define NET_R_SETANSWER 1"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T unsigned long int"
NETENT_DATA="#undef NETENT_DATA"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#define _OSF_SOURCE

```

```

#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int getnetbyaddr_r(int, int, struct netent *, struct netent_data *);
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS struct netent_data *ndptr"
NET_R_BAD="#define NET_R_BAD (-1)"
NET_R_COPY="#define NET_R_COPY ndptr"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS struct netent_data *ndptr"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T int"
NETENT_DATA="#define NETENT_DATA 1"
],
AC_TRY_COMPILE(
#undef __USE_MISC
#define __USE_MISC
[#include <netdb.h>
int getnetbyaddr_r (long, int, struct netent *, struct netent_data *);
],
[return (0)],
[
NET_R_ARGS="#define NET_R_ARGS struct netent_data *ndptr"
NET_R_BAD="#define NET_R_BAD (-1)"
NET_R_COPY="#define NET_R_COPY ndptr"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS struct netent_data *ndptr"
NET_R_OK="#define NET_R_OK 0"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN int"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"
NETENT_DATA="#define NETENT_DATA 1"
],
)
)
)
)
)
,
NET_R_ARGS="#define NET_R_ARGS char *buf, int buflen"
NET_R_BAD="#define NET_R_BAD NULL"
NET_R_COPY="#define NET_R_COPY buf, buflen"
NET_R_COPY_ARGS="#define NET_R_COPY_ARGS NET_R_ARGS"
NET_R_OK="#define NET_R_OK nptr"
NET_R_SETANSWER="#undef NET_R_SETANSWER"
NET_R_RETURN="#define NET_R_RETURN struct netent *"
GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T long"

```

```

NETENT_DATA="#undef NETENT_DATA"
)
case "$host" in
dec-osf) GETNETBYADDR_ADDR_T="#define GETNETBYADDR_ADDR_T int" ;;
esac
AC_SUBST(NET_R_ARGS)
AC_SUBST(NET_R_BAD)
AC_SUBST(NET_R_COPY)
AC_SUBST(NET_R_COPY_ARGS)
AC_SUBST(NET_R_OK)
AC_SUBST(NET_R_SETANSWER)
AC_SUBST(NET_R_RETURN)
AC_SUBST(GETNETBYADDR_ADDR_T)
AC_SUBST(NETENT_DATA)

AC_CHECK_FUNC(setnetent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setnetent_r(int);
],[return (0);],[
NET_R_ENT_ARGS="#undef NET_R_ENT_ARGS /*empty*/"
NET_R_SET_RESULT="#undef NET_R_SET_RESULT /*empty*/"
NET_R_SET_RETURN="#define NET_R_SET_RETURN void"
],
AC_TRY_COMPILE(
[
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int setnetent_r(int, struct netent_data *);
],[return (0);],[
NET_R_ENT_ARGS="#define NET_R_ENT_ARGS struct netent_data *ndptr"
NET_R_SET_RESULT="#define NET_R_SET_RESULT NET_R_OK"
NET_R_SET_RETURN="#define NET_R_SET_RETURN int"
],
)
)
,
NET_R_ENT_ARGS="#undef NET_R_ENT_ARGS /*empty*/"
NET_R_SET_RESULT="#undef NET_R_SET_RESULT /*empty*/"
NET_R_SET_RETURN="#define NET_R_SET_RETURN void"
)
AC_SUBST(NET_R_ENT_ARGS)
AC_SUBST(NET_R_SET_RESULT)

```

AC\_SUBST(NET\_R\_SET\_RETURN)

```
AC_CHECK_FUNC(endnetent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void endnetent_r (void);
],[return (0);],[
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int endnetent_r(struct netent_data *);
],[return (0);],[
NET_R_END_RESULT="#define NET_R_END_RESULT(x) return (x)"
NET_R_END_RETURN="#define NET_R_END_RETURN int"
],
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endnetent_r(struct netent_data *);
],[return (0);],[
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
],
)
)
)
,
NET_R_END_RESULT="#define NET_R_END_RESULT(x) /*empty*/"
NET_R_END_RETURN="#define NET_R_END_RETURN void"
)
AC_SUBST(NET_R_END_RESULT)
AC_SUBST(NET_R_END_RETURN)
```

```

AC_CHECK_FUNC(getgrnam_r,,AC_DEFINE(NEED_GETGRNAM_R))
AC_CHECK_FUNC(getgrgid_r,,AC_DEFINE(NEED_GETGRGID_R))

AC_CHECK_FUNC(getgrent_r,
AC_TRY_COMPILE(
[
#include <grp.h>
struct group *getgrent_r(struct group *grp, char *buffer,
 int buflen) { }
],[return (0);],[
GROUP_R_ARGS="#define GROUP_R_ARGS char *buf, int buflen"
GROUP_R_BAD="#define GROUP_R_BAD NULL"
GROUP_R_OK="#define GROUP_R_OK gptr"
GROUP_R_RETURN="#define GROUP_R_RETURN struct group *"
],
)
,
GROUP_R_ARGS="#define GROUP_R_ARGS char *buf, int buflen"
GROUP_R_BAD="#define GROUP_R_BAD NULL"
GROUP_R_OK="#define GROUP_R_OK gptr"
GROUP_R_RETURN="#define GROUP_R_RETURN struct group *"
AC_DEFINE(NEED_GETGRENT_R)
)
AC_SUBST(GROUP_R_ARGS)
AC_SUBST(GROUP_R_BAD)
AC_SUBST(GROUP_R_OK)
AC_SUBST(GROUP_R_RETURN)

AC_CHECK_FUNC(endgrent_r,
,
GROUP_R_END_RESULT="#define GROUP_R_END_RESULT(x) /*empty*/"
GROUP_R_END_RETURN="#define GROUP_R_END_RETURN void"
GROUP_R_ENT_ARGS="#define GROUP_R_ENT_ARGS void"
AC_DEFINE(NEED_ENDGRENT_R)
)
AC_SUBST(GROUP_R_END_RESULT)
AC_SUBST(GROUP_R_END_RETURN)
AC_SUBST(GROUP_R_ENT_ARGS)

AC_CHECK_FUNC(setgrent_r,
,
GROUP_R_SET_RESULT="#undef GROUP_R_SET_RESULT /*empty*/"
GROUP_R_SET_RETURN="#define GROUP_R_SET_RETURN void"
AC_DEFINE(NEED_SETGRENT_R)
)
AC_SUBST(GROUP_R_SET_RESULT)
AC_SUBST(GROUP_R_SET_RETURN)

```



```

AC_CHECK_FUNC(gethostbyname_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct hostent *gethostbyname_r
(const char *name, struct hostent *hp, char *buf, int len, int *h_errnop) {}
],
[return (0);],
[
HOST_R_ARGS="#define HOST_R_ARGS char *buf, int buflen, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD NULL"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK hptr"
HOST_R_RETURN="#define HOST_R_RETURN struct hostent *"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"
HOSTENT_DATA="#undef HOSTENT_DATA"
]
,
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int gethostbyname_r(const char *name,
 struct hostent *result,
 struct hostent_data *hdptr);
],,
[
HOST_R_ARGS="#define HOST_R_ARGS struct hostent_data *hdptr"
HOST_R_BAD="#define HOST_R_BAD (-1)"
HOST_R_COPY="#define HOST_R_COPY hdptr"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS HOST_R_ARGS"
HOST_R_ERRNO="#define HOST_R_ERRNO NULL"
HOST_R_OK="#define HOST_R_OK 0"
HOST_R_RETURN="#define HOST_R_RETURN int"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"
HOSTENT_DATA="#define HOSTENT_DATA 1"
],
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int gethostbyname_r (const char *,
 struct hostent *,

```

```

 char *, size_t,
 struct hostent **,
 int *);
],, [
HOST_R_ARGS="#define HOST_R_ARGS char *buf, size_t buflen, struct hostent **answerp, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD ERANGE"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK 0"
HOST_R_RETURN="#define HOST_R_RETURN int"
HOST_R_SETANSWER="#define HOST_R_SETANSWER 1"
HOSTENT_DATA="#undef HOSTENT_DATA"
],
)))
,
HOST_R_ARGS="#define HOST_R_ARGS char *buf, int buflen, int *h_errnop"
HOST_R_BAD="#define HOST_R_BAD NULL"
HOST_R_COPY="#define HOST_R_COPY buf, buflen"
HOST_R_COPY_ARGS="#define HOST_R_COPY_ARGS char *buf, int buflen"
HOST_R_ERRNO="#define HOST_R_ERRNO *h_errnop = h_errno"
HOST_R_OK="#define HOST_R_OK hptr"
HOST_R_RETURN="#define HOST_R_RETURN struct hostent *"
HOST_R_SETANSWER="#undef HOST_R_SETANSWER"
HOSTENT_DATA="#undef HOSTENT_DATA"
)
AC_SUBST(HOST_R_ARGS)
AC_SUBST(HOST_R_BAD)
AC_SUBST(HOST_R_COPY)
AC_SUBST(HOST_R_COPY_ARGS)
AC_SUBST(HOST_R_ERRNO)
AC_SUBST(HOST_R_OK)
AC_SUBST(HOST_R_RETURN)
AC_SUBST(HOST_R_SETANSWER)
AC_SUBST(HOSTENT_DATA)

AC_CHECK_FUNC(endhostent_r,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int endhostent_r(struct hostent_data *buffer);
], ,
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) return (x)"
HOST_R_END_RETURN="#define HOST_R_END_RETURN int"
HOST_R_ENT_ARGS="#define HOST_R_ENT_ARGS struct hostent_data *hdptr"

```

```

,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endhostent_r(struct hostent_data *ht_data);
],[
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x)"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#define HOST_R_ENT_ARGS struct hostent_data *hdptr"
],
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void endhostent_r(void);
],[
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) /*empty*/"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#undef HOST_R_ENT_ARGS /*empty*/"
],
)
)
)
,
HOST_R_END_RESULT="#define HOST_R_END_RESULT(x) /*empty*/"
HOST_R_END_RETURN="#define HOST_R_END_RETURN void"
HOST_R_ENT_ARGS="#undef HOST_R_ENT_ARGS /*empty*/"
)
AC_SUBST(HOST_R_END_RESULT)
AC_SUBST(HOST_R_END_RETURN)
AC_SUBST(HOST_R_ENT_ARGS)

AC_CHECK_FUNC(sethostent_r,
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern void sethostent_r(int flag, struct hostent_data *ht_data);],[
[HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT /*empty*/"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"],
AC_TRY_COMPILE([

```

```

#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int sethostent_r(int flag, struct hostent_data *ht_data);[],
[HOST_R_SET_RESULT="#define HOST_R_SET_RESULT 0"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN int"],
AC_TRY_COMPILE([
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void sethostent_r (int);[],
[HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"],
)
)
)
,
HOST_R_SET_RESULT="#undef HOST_R_SET_RESULT"
HOST_R_SET_RETURN="#define HOST_R_SET_RETURN void"
)
AC_SUBST(HOST_R_SET_RESULT)
AC_SUBST(HOST_R_SET_RETURN)

```

```

AC_MSG_CHECKING(struct passwd element pw_class)
AC_TRY_COMPILE([
#include <sys/types.h>
#include <pwd.h>
],[struct passwd *pw; pw->pw_class = "";],
AC_MSG_RESULT(yes)
AC_DEFINE(HAS_PW_CLASS)
,
AC_MSG_RESULT(no)
)

```

```

AC_TRY_COMPILE([
#include <sys/types.h>
#include <pwd.h>
void
setpwent(void) {}
],
[return (0);],
SETPWENT_VOID="#define SETPWENT_VOID 1"
,

```

```

SETPWENT_VOID="#undef SETPWENT_VOID"
)
AC_SUBST(SETPWENT_VOID)

AC_TRY_COMPILE([
#include <sys/types.h>
#include <grp.h>
void
setgrent(void) {}
],
[return (0);],
SETGRENT_VOID="#define SETGRENT_VOID 1"
,
SETGRENT_VOID="#undef SETGRENT_VOID"
)
AC_SUBST(SETGRENT_VOID)

AC_CHECK_FUNC(getnetgrent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetgrent_r(char **m, char **u, char **d, char *b, int l) {}
]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS char *buf, int buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getnetgrent_r(char **m, char **u, char **d, char *b, size_t l) {}
]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS char *buf, size_t buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"

```

```

NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
extern int getnetgrent_r(char **, char **, char **, void **);
]
,
[return (0);],
[
NGR_R_ARGS="#define NGR_R_ARGS void **buf"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
NGR_R_PRIVATE="#define NGR_R_PRIVATE 1"
]
,
)
)
)
)
,
NGR_R_ARGS="#define NGR_R_ARGS char *buf, int buflen"
NGR_R_BAD="#define NGR_R_BAD (0)"
NGR_R_COPY="#define NGR_R_COPY buf, buflen"
NGR_R_COPY_ARGS="#define NGR_R_COPY_ARGS NGR_R_ARGS"
NGR_R_OK="#define NGR_R_OK 1"
NGR_R_RETURN="#define NGR_R_RETURN int"
)
AC_SUBST(NGR_R_ARGS)
AC_SUBST(NGR_R_BAD)
AC_SUBST(NGR_R_COPY)
AC_SUBST(NGR_R_COPY_ARGS)
AC_SUBST(NGR_R_OK)
AC_SUBST(NGR_R_RETURN)
AC_SUBST(NGR_R_PRIVATE)

AC_CHECK_FUNC(endnetgrent_r,
NGR_R_END_RESULT="#define NGR_R_END_RESULT(x) return (x)"
NGR_R_END_RETURN="#define NGR_R_END_RETURN int"
NGR_R_ENT_ARGS="#define NGR_R_ENT_ARGS NGR_R_ARGS"

```

```

,
NGR_R_END_RESULT="#define NGR_R_END_RESULT(x) /*empty*/"
NGR_R_END_RETURN="#define NGR_R_END_RETURN void"
NGR_R_ENT_ARGS="#undef NGR_R_ENT_ARGS /*empty*/"
AC_DEFINE(NEED_ENDNETGRENTR)
)
AC_SUBST(NGR_R_END_RESULT)
AC_SUBST(NGR_R_END_RETURN)
AC_SUBST(NGR_R_ENT_ARGS)

AC_CHECK_FUNC(setnetgrent_r,
[
case "$host" in
bsdi)
NGR_R_SET_RESULT="#undef NGR_R_SET_RESULT /*empty*/"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN void"
;;
*)
NGR_R_SET_RESULT="#define NGR_R_SET_RESULT NGR_R_OK"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN int"
;;
esac
]
,
NGR_R_SET_RESULT="#undef NGR_R_SET_RESULT /*empty*/"
NGR_R_SET_RETURN="#define NGR_R_SET_RETURN void"
)
AC_SUBST(NGR_R_SET_RESULT)
AC_SUBST(NGR_R_SET_RETURN)

AC_CHECK_FUNC(innetgr_r,,AC_DEFINE(NEED_INNETGR_R))

AC_CHECK_FUNC(getprotoent_r,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct protoent *getprotoent_r(struct protoent *result,
char *buffer, int buflen) { }
]
,
[return (0);]
,
[
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, int buflen"
PROTO_R_BAD="#define PROTO_R_BAD NULL"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"

```

```

PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS PROTO_R_ARGS"
PROTO_R_OK="#define PROTO_R_OK pptr"
PROTO_R_SETANSWER="#undef PROTO_R_SETANSWER"
PROTO_R_RETURN="#define PROTO_R_RETURN struct protoent *"
]
,
AC_TRY_COMPILE(
[
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int getprotoent_r (struct protoent *, char *, size_t, struct protoent **);

]
,
[return (0);]
,
[
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, size_t buflen, struct protoent **answerp"
PROTO_R_BAD="#define PROTO_R_BAD ERANGE"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"
PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS char *buf, size_t buflen"
PROTO_R_OK="#define PROTO_R_OK 0"
PROTO_R_SETANSWER="#define PROTO_R_SETANSWER 1"
PROTO_R_RETURN="#define PROTO_R_RETURN int"
]
,
)
)
,
PROTO_R_ARGS="#define PROTO_R_ARGS char *buf, int buflen"
PROTO_R_BAD="#define PROTO_R_BAD NULL"
PROTO_R_COPY="#define PROTO_R_COPY buf, buflen"
PROTO_R_COPY_ARGS="#define PROTO_R_COPY_ARGS PROTO_R_ARGS"
PROTO_R_OK="#define PROTO_R_OK pptr"
PROTO_R_SETANSWER="#undef PROTO_R_SETANSWER"
PROTO_R_RETURN="#define PROTO_R_RETURN struct protoent *"
)
AC_SUBST(PROTO_R_ARGS)
AC_SUBST(PROTO_R_BAD)
AC_SUBST(PROTO_R_COPY)
AC_SUBST(PROTO_R_COPY_ARGS)
AC_SUBST(PROTO_R_OK)
AC_SUBST(PROTO_R_SETANSWER)
AC_SUBST(PROTO_R_RETURN)

AC_CHECK_FUNC(endprotoent_r,
AC_TRY_COMPILE(

```



```

[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void endprotoent_r(void);
]
”
[
PROTO_R_END_RESULT="#define PROTO_R_END_RESULT(x) /*empty*/"
PROTO_R_END_RETURN="#define PROTO_R_END_RETURN void"
PROTO_R_ENT_ARGS="#undef PROTO_R_ENT_ARGS"
]
,
)
,
PROTO_R_END_RESULT="#define PROTO_R_END_RESULT(x) /*empty*/"
PROTO_R_END_RETURN="#define PROTO_R_END_RETURN void"
PROTO_R_ENT_ARGS="#undef PROTO_R_ENT_ARGS /*empty*/"
)
AC_SUBST(PROTO_R_END_RESULT)
AC_SUBST(PROTO_R_END_RETURN)
AC_SUBST(PROTO_R_ENT_ARGS)

AC_CHECK_FUNC(setprotoent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setprotoent_r __P((int));
],[],
PROTO_R_SET_RESULT="#undef PROTO_R_SET_RESULT"
PROTO_R_SET_RETURN="#define PROTO_R_SET_RETURN void"
,
)
,
PROTO_R_SET_RESULT="#undef PROTO_R_SET_RESULT"
PROTO_R_SET_RETURN="#define PROTO_R_SET_RETURN void"
)
AC_SUBST(PROTO_R_SET_RESULT)
AC_SUBST(PROTO_R_SET_RETURN)

AC_CHECK_FUNC(getpwent_r,
AC_TRY_COMPILE(

```

```

[
#include <sys/types.h>
#include <pwd.h>
struct passwd *
getpwent_r(struct passwd *pwptr, char *buf, int buflen) {}
]
,
[]
,
PASS_R_ARGS="#define PASS_R_ARGS char *buf, int buflen"
PASS_R_BAD="#define PASS_R_BAD NULL"
PASS_R_COPY="#define PASS_R_COPY buf, buflen"
PASS_R_COPY_ARGS="#define PASS_R_COPY_ARGS PASS_R_ARGS"
PASS_R_OK="#define PASS_R_OK pwptr"
PASS_R_RETURN="#define PASS_R_RETURN struct passwd *"
,
)
,
PASS_R_ARGS="#define PASS_R_ARGS char *buf, int buflen"
PASS_R_BAD="#define PASS_R_BAD NULL"
PASS_R_COPY="#define PASS_R_COPY buf, buflen"
PASS_R_COPY_ARGS="#define PASS_R_COPY_ARGS PASS_R_ARGS"
PASS_R_OK="#define PASS_R_OK pwptr"
PASS_R_RETURN="#define PASS_R_RETURN struct passwd *"
AC_DEFINE(NEED_GETPWENT_R)
)
AC_SUBST(PASS_R_ARGS)
AC_SUBST(PASS_R_BAD)
AC_SUBST(PASS_R_COPY)
AC_SUBST(PASS_R_COPY_ARGS)
AC_SUBST(PASS_R_OK)
AC_SUBST(PASS_R_RETURN)

AC_CHECK_FUNC(endpwent_r,
AC_TRY_COMPILE(
[
#include <pwd.h>
void endpwent_r(FILE **pwfp);
], ,
PASS_R_END_RESULT="#define PASS_R_END_RESULT(x) /*empty*/"
PASS_R_END_RETURN="#define PASS_R_END_RETURN void"
PASS_R_ENT_ARGS="#define PASS_R_ENT_ARGS FILE **pwptr"
,
)
,
PASS_R_END_RESULT="#define PASS_R_END_RESULT(x) /*empty*/"
PASS_R_END_RETURN="#define PASS_R_END_RETURN void"
PASS_R_ENT_ARGS="#undef PASS_R_ENT_ARGS"

```

```

AC_DEFINE(NEED_ENDPWENT_R)
)
AC_SUBST(PASS_R_END_RESULT)
AC_SUBST(PASS_R_END_RETURN)
AC_SUBST(PASS_R_ENT_ARGS)
AC_CHECK_FUNC(setpassent_r,,AC_DEFINE(NEED_SETPASSENT_R))
AC_CHECK_FUNC(setpassent,,AC_DEFINE(NEED_SETPASSENT))

```

```

AC_CHECK_FUNC(setpwent_r,
AC_TRY_COMPILE([
#include <pwd.h>
void setpwent_r(FILE **pwfp);
], ,
PASS_R_SET_RESULT="#undef PASS_R_SET_RESULT /* empty */"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN int"
,
AC_TRY_COMPILE([
#include <pwd.h>
int setpwent_r(FILE **pwfp);
], ,
PASS_R_SET_RESULT="#define PASS_R_SET_RESULT 0"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN int"
,
)
)
,
PASS_R_SET_RESULT="#undef PASS_R_SET_RESULT /*empty*/"
PASS_R_SET_RETURN="#define PASS_R_SET_RETURN void"
AC_DEFINE(NEED_SETPWENT_R)
)
AC_SUBST(PASS_R_SET_RESULT)
AC_SUBST(PASS_R_SET_RETURN)

```

```

AC_CHECK_FUNC(getpwnam_r,,AC_DEFINE(NEED_GETPWNAM_R))
AC_CHECK_FUNC(getpwuid_r,,AC_DEFINE(NEED_GETPWUID_R))

```

```

AC_CHECK_FUNC(getservent_r,
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
struct servent *
getservent_r(struct servent *result, char *buffer, int buflen) { }
],[return (0);],
[
SERV_R_ARGS="#define SERV_R_ARGS char *buf, int buflen"
SERV_R_BAD="#define SERV_R_BAD NULL"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"

```

```

SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS SERV_R_ARGS"
SERV_R_OK="#define SERV_R_OK sptr"
SERV_R_SETANSWER="#undef SERV_R_SETANSWER"
SERV_R_RETURN="#define SERV_R_RETURN struct servent *"
]
,
AC_TRY_COMPILE([
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
int
getservent_r (struct servent *, char *, size_t, struct servent **);
],[return (0);],
[
SERV_R_ARGS="#define SERV_R_ARGS char *buf, size_t buflen, struct servent **answerp"
SERV_R_BAD="#define SERV_R_BAD ERANGE"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"
SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS char *buf, size_t buflen"
SERV_R_OK="#define SERV_R_OK (0)"
SERV_R_SETANSWER="#define SERV_R_SETANSWER 1"
SERV_R_RETURN="#define SERV_R_RETURN int"
]
,
)
,
SERV_R_ARGS="#define SERV_R_ARGS char *buf, int buflen"
SERV_R_BAD="#define SERV_R_BAD NULL"
SERV_R_COPY="#define SERV_R_COPY buf, buflen"
SERV_R_COPY_ARGS="#define SERV_R_COPY_ARGS SERV_R_ARGS"
SERV_R_OK="#define SERV_R_OK sptr"
SERV_R_SETANSWER="#undef SERV_R_SETANSWER"
SERV_R_RETURN="#define SERV_R_RETURN struct servent *"
)
AC_SUBST(SERV_R_ARGS)
AC_SUBST(SERV_R_BAD)
AC_SUBST(SERV_R_COPY)
AC_SUBST(SERV_R_COPY_ARGS)
AC_SUBST(SERV_R_OK)
AC_SUBST(SERV_R_SETANSWER)
AC_SUBST(SERV_R_RETURN)

AC_CHECK_FUNC(endservent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC

```

```

#define __USE_MISC
#include <netdb.h>
void endservent_r(void);
]
,
,
[
SERV_R_END_RESULT="#define SERV_R_END_RESULT(x) /*empty*/"
SERV_R_END_RETURN="#define SERV_R_END_RETURN void "
SERV_R_ENT_ARGS="#undef SERV_R_ENT_ARGS /*empty*/"
]
,
)
,
SERV_R_END_RESULT="#define SERV_R_END_RESULT(x) /*empty*/"
SERV_R_END_RETURN="#define SERV_R_END_RETURN void "
SERV_R_ENT_ARGS="#undef SERV_R_ENT_ARGS /*empty*/"
)
AC_SUBST(SERV_R_END_RESULT)
AC_SUBST(SERV_R_END_RETURN)
AC_SUBST(SERV_R_ENT_ARGS)

AC_CHECK_FUNC(setservent_r,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <netdb.h>
void setservent_r(int);
]
"
[
SERV_R_SET_RESULT="#undef SERV_R_SET_RESULT"
SERV_R_SET_RETURN="#define SERV_R_SET_RETURN void"
]
,
)
,
SERV_R_SET_RESULT="#undef SERV_R_SET_RESULT"
SERV_R_SET_RETURN="#define SERV_R_SET_RETURN void"
)
AC_SUBST(SERV_R_SET_RESULT)
AC_SUBST(SERV_R_SET_RETURN)

AC_TRY_COMPILE(
[

```

```

#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
int inetgr(const char *netgroup, const char *host, const char *user, const char *domain);
]
”
[
INETGR_ARGS="#undef INNETGR_ARGS"
]
,
AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
int inetgr(char *netgroup, char *host, char *user, char *domain);
]
”
[
INETGR_ARGS="#define INNETGR_ARGS char *netgroup, char *host, char *user, char *domain"
]
,
))

AC_TRY_COMPILE(
[
#undef _REENTRANT
#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
void setnetgrent(const char *);
]
”
[
SETNETGRENT_ARGS="#undef SETNETGRENT_ARGS"
]
,
AC_TRY_COMPILE(
[
#undef _REENTRANT

```

```

#define _REENTRANT
#undef __USE_MISC
#define __USE_MISC
#include <unistd.h>
#include <netdb.h>
void setnetgrent(char *);
]
”
[
SETNETGRENT_ARGS="#define SETNETGRENT_ARGS char *netgroup"
]
,
))
AC_SUBST(SETNETGRENT_ARGS)
AC_SUBST(INNETGR_ARGS)

#
Random remaining OS-specific issues involving compiler warnings.
XXXDCL print messages to indicate some compensation is being done?
#
AC_SUBST(ISC_PLATFORM_BRACEPTHREADONCEINIT)
ISC_PLATFORM_BRACEPTHREADONCEINIT="#undef ISC_PLATFORM_BRACEPTHREADONCEINIT"
BROKEN_IN6ADDR_INIT_MACROS="#undef BROKEN_IN6ADDR_INIT_MACROS"

case "$host" in
-bsd3.1)
hack_shutup_sputaux=yes
;;
-bsd4.0)
hack_shutup_sigwait=yes
hack_shutup_sputaux=yes
hack_shutup_in6addr_init_macros=yes
;;
-bsd4.1)
hack_shutup_stdargcast=yes
;;
*-solaris2.8)
hack_shutup_pthreadonceinit=yes
hack_shutup_in6addr_init_macros=yes
;;
esac

case "$hack_shutup_pthreadonceinit" in
yes)
#
Shut up PTHREAD_ONCE_INIT unbraced initializer warnings.
#
ISC_PLATFORM_BRACEPTHREADONCEINIT="#define ISC_PLATFORM_BRACEPTHREADONCEINIT 1"

```

```

;;
esac

case "$hack_shutup_sigwait" in
yes)
#
Shut up a -Wmissing-prototypes warning for sigwait().
#
AC_DEFINE(SHUTUP_SIGWAIT)
;;
esac

case "$hack_shutup_sputaux" in
yes)
#
Shut up a -Wmissing-prototypes warning from <stdio.h>.
#
AC_DEFINE(SHUTUP_SPUTAUX)
;;
esac

case "$hack_shutup_stdargcast" in
yes)
#
Shut up a -Wcast-qual warning from va_start().
#
AC_DEFINE(SHUTUP_STDARG_CAST)
;;
esac

case "$hack_shutup_in6addr_init_macros" in
yes)
AC_DEFINE(BROKEN_IN6ADDR_INIT_MACROS)
;;
esac

#
Substitutions
#
AC_SUBST(BIND9_TOP_BUILDDIR)
BIND9_TOP_BUILDDIR=`pwd`

AC_SUBST_FILE(BIND9_INCLUDES)
BIND9_INCLUDES=$BIND9_TOP_BUILDDIR/make/includes

AC_SUBST_FILE(BIND9_MAKE_RULES)
BIND9_MAKE_RULES=$BIND9_TOP_BUILDDIR/make/rules

```



```
. $srcdir/../../version
BIND9_VERSION="VERSION=${MAJORVER}.${MINORVER}.${PATCHVER}${RELEASETYPE}${RELEASEVER}"
AC_SUBST(BIND9_VERSION)

AC_SUBST_FILE(LIBBIND_API)
LIBBIND_API=$srcdir/api

AC_OUTPUT(
 make/rules
 make/mkdep
 make/includes
 Makefile
 bsd/Makefile
 dst/Makefile
 include/Makefile
 inet/Makefile
 irs/Makefile
 isc/Makefile
 nameser/Makefile
 port_after.h
 port_before.h
 resolv/Makefile
 port/Makefile
 ${PORT_DIR}/Makefile
 ${PORT_INCLUDE}/Makefile
)

Tell Emacs to edit this file in shell mode.
Local Variables:
mode: sh
End:

Found in path(s):
* /opt/cola/permits/1130450060_1615189005.74/0/lib-tar/lib/bind/configure.in
```

## 1.605 cyrus-sasl 2.1.0

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* Tim Martin
* Rob Earhart
* Rob Siemborski
*/
```

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/\* CMU libsasl

\* Tim Martin

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\*/

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Constant-time SSSE3 AES core implementation.
version 0.1

By Mike Hamburg (Stanford University), 2009
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For details see https://shiftright.org/papers/vector_aes/ and
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## 1.608 python-dbus 1.2.12 r0

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**be5c4782eb r0**

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## 1.616 pip 9.0.3

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Copyright (C) <year> <name of author>
```

```
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(at your option) any later version.
```

```
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```
<program> Copyright (C) <year> <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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# 1.622 tftp-hpa 5.2 r0

## 1.622.1 Available under license :

```
/*
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 * LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
 * OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
 * SUCH DAMAGE.
 */
```

# 1.623 iputils 20180629-6.el8

## 1.623.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* ip_parser_linkpoints.h - IP related parser linkpoint decls.
*
* April, 2005
*
* Copyright (c) 2005-2006, 2008-2009, 2014 by cisco Systems, Inc.
* All rights reserved.
*
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/include/ip\_parser\_linkpoints.h

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* util_ip.c -- miscellaneous ip specific utility routines
*
* Feb 2008, Hiral mehta
*
* Copyright (c) 2008, 2014 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/src/ip\_util.c

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# All rights reserved.

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/include/reg/ip\_15\_registry.reg

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/makefile

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/expl\_path/makefile

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/src/src.mk

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/expl\_path/src/src.mk

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```
/*
*-----
* ipaddress_api.h
*
* Febuary 2004
*
* Copyright (c) 2004-2008, 2010-2012, 2014, 2016, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449866_1615188952.97/0/ip-tar/ip/include/ipaddress_api.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* ip_parser_macros.h - IP* macros moved out of
* sys/parser/macros.h
*
* November, 2004
*
* Copyright (c) 2004, 2009-2010 by cisco Systems, Inc.
* All rights reserved.
*-----
*
*/
```

Found in path(s):

```
* /opt/cola/permits/1130449866_1615188952.97/0/ip-tar/ip/include/ip_parser_macros.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* ip_15_registry.h -- Registration Points for IP_15 support
*
* August 2006, Krishna Kumar Maurya
*
* Copyright (c) 2006-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* The file ip_registry.reg has been re-factored into 44 different
* registries to address the 2G problem. The detail regarding the
* mapping of registries into services is available at
* /vob/ios.sys1/deprecated/sys/ip/ip_registry_map.txt
* For further detail regarding the re-factoring of registries,
* please mail in your queries to dolphins@cisco.com
*/
```

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/include/ip\_15\_registry.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* ip\_parser\_linkpoints.c - IP related parser linkpoint definitions.

\*

\* April, 2005

\*

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\*

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/src/ip\_parser\_linkpoints.c

No license file was found, but licenses were detected in source scan.

##

## Component "ip":

##

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##

syntax: 1.0.0

# meta-source files found within component 'ip'

group: generic

{

  reg:

    include/reg/ip\_15\_registry.reg

    include/reg/ip\_registry.reg

}

# migrated from file: 'ip/src/src.mk'

group: top

{

  includes: \$(IOS\_SYSROOT)/ion/include \$(COMPONENT\_ROOT)/posix/include

# These diagnostic disables are temporary and must be removed

# after fixing the problems in the source code

  if: compiler == gcc.c4.7

  {

    cflags : -Wno-error=unused-but-set-variable -Wno-error=enum-compare

```
}
sub: ip_parser
{
 contains:
 src/ip_parser_linkpoints.c
}
sub: ip_registry
{
 contains:
 src/ip_registry.c
}
sub: ip_util
{
 contains:
 src/ip_util.c
}
}
end of group: top
```

##

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/content.lst

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* ip\_util.h

\*

\* February 2005

\*

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\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130449866\_1615188952.97/0/ip-tar/ip/include/ip\_util.h

# 1.624 elfutils 0.178 r0

## 1.624.1 Available under license :

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Version 2, June 1991

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# 1.630 python-pyudev 0.21.0 r0

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xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:xi="http://www.w3.org/2001/XInclude"
xmlns:db="http://docbook.org/ns/docbook">

 <xsl:template name="isc.copyright.format">
 <xsl:param name="text"/>
 <xsl:value-of select="$isc.copyright.leader"/>
 <xsl:value-of select="normalize-space(substring-before($text, '
'))"/>
 <xsl:text>
</xsl:text>
 <xsl:variable name="rest" select="substring-after($text, '
')"/>
 <xsl:if test="translate($rest, '	 ', '')">
 <xsl:call-template name="isc.copyright.format">
 <xsl:with-param name="text" select="$rest"/>
 </xsl:call-template>
 </xsl:if>
 </xsl:template>

 <xsl:variable name="isc.copyright.text">
 <xsl:text>
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 </xsl:text>
 </xsl:variable>

 <xsl:variable name="isc.copyright">
```

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<xsl:call-template name="isc.copyright.format">
 <xsl:with-param name="text">
 <xsl:for-each select="book/info/copyright | refentry/docinfo/copyright">
<xsl:text>Copyright (C) </xsl:text>
<xsl:call-template name="copyright.years">
 <xsl:with-param name="years" select="year"/>
</xsl:call-template>
<xsl:text> </xsl:text>
<xsl:value-of select="holder"/>
 <xsl:value-of select="$isc.copyright.breakline"/>
<xsl:text>
</xsl:text>
</xsl:for-each>
<xsl:value-of select="$isc.copyright.text"/>
 </xsl:with-param>
</xsl:call-template>
</xsl:variable>
</xsl:stylesheet>

```

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- Local variables:

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Pod::Spec.new do |s|

s.name = "DCPathButton"

s.version = "2.1.1"

s.summary = " A beautiful button copy from Path® "

s.description = <<-DESC

DCPathButton is a menu button, design by an famous App Path®.

Since Path® 4.0, it return to use a tab bar instead of a side bar,

and also change the menu button. So I try to implement it and then

the DCPathButton born :)

DESC

s.homepage = "https://github.com/Tangdixi/DCPathButton"

s.license = {

:type => 'MIT',

:text => 'The DCPathButton use the MIT license'

}

s.author = { "Tangdixi" => "Tangdixi@gmail.com" }

s.platform = :ios, '7.0'

s.source = {

:git => "https://github.com/Tangdixi/DCPathButton.git",

:tag => "2.1.1"

}

s.source\_files = 'DCPathButton/Classes/\*.{h,m}'

s.resources = ["DCPathButton/Sounds/\*"]

s.frameworks = 'QuartzCore','AudioToolbox'

s.requires\_arc = true

end

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```
<label opaque="NO" clipsSubviews="YES" userInteractionEnabled="NO" contentMode="left"
horizontalHuggingPriority="251" verticalHuggingPriority="251" text=" Copyright (c) 2015 DC. All rights
reserved." textAlignment="center" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines"
minimumFontSize="9" translatesAutoresizingMaskIntoConstraints="NO" id="8ie-xW-0ye">
```

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```

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## 1.636.1 Available under license :

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```

/*
*-----
* ip_prefixlist_ionized.c - IP Prefix Lists support for ionized processes
*
* August 2001, Siva Yaragalla
*
* Copyright (c) 2001-2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/ip_prefixlist_ionized.c

```

No license file was found, but licenses were detected in source scan.

```
/*-----
* IP routemap test commands
*
* May 2003, Tanya Shastri
*
* Copyright (c) 2003, 2005-2008, 2011-2013, 2015, 2018-2019 by cisco Systems, Inc.
* All rights reserved.
*
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_test_ip_routemap.h
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* Registry for IP routing infrastructure in ION
*
* September 2001, Fan Kong
*
* Copyright (c) 2001-2003, 2005, 2007-2008, 2010 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/iprouting_registry.h
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* Parse chains for router Address Family mode
*
* June 2002, Donnie Savage
*
* Copyright (c) 1998-2011, 2013-2014, 2016, 2018-2019 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/router\_af\_chain.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* exec\_debug\_routemap.h -- Debugging for Route-map IPC

\*

\* July 1998, Wilber Su

\*

\* Copyright (c) 1998, 2001-2002, 2004-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/exec\_debug\_routemap.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* ion\_iprouting\_cmd\_registry.c

\*

\* September 2001, Rashmi Shrivastava

\*

\* Copyright (c) 2001, 2003, 2005-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ion\_iprouting\_cmd\_registry.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* exec\_debug\_routemapapi.h -- Debugging for Route-map API

\*

\* May 2003, Tanya Shastri

\*

\* Copyright (c) 2003-2004, 2007-2008, 2014 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/exec\_debug\_routemapapi.h

No license file was found, but licenses were detected in source scan.

```
/* $Id: exec_show_ip_prefixlist.h,v 3.1.2.1 1997/12/17 21:36:59 enkechen Exp $
```

```
* $Source: /release/111/cvs/Xsys/ip/exec_show_ip_prefixlist.h,v $
```

```
*-----
```

```
* exec_show_ip_prefixlist.h -- Show IP prefix lists
```

```
*
```

```
* July 1997 Enke Chen
```

```
*
```

```
* Copyright (c) 1994-1998, 2000-2001, 2007-2008, 2010 by cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*-----
```

```
* $Log: exec_show_ip_prefixlist.h,v $
```

```
* Revision 3.1.2.1 1997/12/17 21:36:59 enkechen
```

```
* CSCdj61356: Prefix-list - facility for efficient route filtering
```

```
* Branch: FIB_branch
```

```
*
```

```
* Revision 3.1 1997/12/17 01:46:35 enkechen
```

```
* Start with the new file.
```

```
*
```

```
*-----
```

```
* $Endlog$
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_show_ip_prefixlist.h
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
*-----
```

```
* routemap_track.h -- Route map support for tracking
```

```
*
```

```
* March 2003 Shyan Wignarajah
```

```
*
```

```
* Copyright (c) 2003, 2006-2008, 2010, 2012-2014 by cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*-----
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/routemap_track.h
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
*-----
```

```
* Generic prefix list support - prefix lists private header file
```

```
*
```

```
* March 2002, Siva Yaragalla
*
* Copyright (c) 2002, 2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/ip_prefixlist_private.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* iprouting_cmn.c
*
* This file has global definitions common to blob and iprouting proceses.
*
* Copyright (c) 2002-2009, 2011, 2013 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_cmn.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* iprouting_DEBUG_FLAG_BBs.h -- Debugging flag declarations for IP routing
*
* May 1993, John Bashinski
*
* Copyright (c) 1993-2011, 2013, 2015, 2018-2020 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/iprouting_debug_flags.h
No license file was found, but licenses were detected in source scan.
```

```
Id
#
#-----
#
iprouting.startup - ION iprouting process .startup file
#
October, 2001, Fan Kong
#
```

```
#-----

Copyright (c) 2001-2002, 2004-2007 by cisco Systems, Inc.
All rights reserved.

#-----
```

```
name:iprouting.iosproc
path:/sbin
feature:iprouting
level:100
envs:RLIMIT_NOFILE=65535
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting.startup
No license file was found, but licenses were detected in source scan.
```

```
/*
* $Id: route_map.h,v 3.3.12.6 1996/05/04 01:22:42 wilber Exp $
* $Source: /release/112/cvs/Xsys/iprouting/route_map.h,v $
*-----
* route_map.h
*
* Route map support data structures.
*
* Copyright (c) 1986-2020 by cisco Systems, Inc.
* All rights reserved.
*-----
* $Log: route_map.h,v $
* Revision 3.3.12.6 1996/05/04 01:22:42 wilber
* Branch: California_branch
*
* Constrained Multicast Flooding
* - Define MOSPF hello option bit.
*
* Name Access List
*
* Revision 3.3.12.5 1996/04/16 19:02:23 rchandra
* CSCdi54830: IP features commit
* Branch: California_branch
*
* Revision 3.3.12.4 1996/04/05 03:46:42 rchandra
* CSCdi53755: BGP: flap dampening settings not flexible enough
* Branch: California_branch
* - add route-map support to set flap dampening parameters
*
* Revision 3.3.12.3 1996/04/02 07:29:32 dkatz
* CSCdi52277: Redistribution metric problems with IGRP/EIGRP
```

- \* Branch: California\_branch
- \* Always store canonical metrics scaled for IGRP, and make EIGRP do
- \* its own scaling internally. Get the scaling right in all three
- \* places.
- \*
- \* Revision 3.3.12.2 1996/03/28 23:59:20 rchandra
- \* CSCdi52098: BGP: exact keyword not accepted by route-map in community
- \* match
- \* Branch: California\_branch
- \* - fix my silly bug in handling exact community matching
- \* - limit the range of valid community to 0xFFFF0000
- \* - fix a cosmetic bug in show ip community-list
- \*
- \* Revision 3.3.12.1 1996/03/28 22:28:27 rchandra
- \* CSCdi52880: BGP: generate error message for unsupported route-map
- \* options
- \* Branch: California\_branch
- \* - generate error message when unsupported route-map option is used
- \* - treat confederation EBGp neighbors similar to internal neighbors in
- \* best path selection
- \* - fix the bug in bgp\_compare\_med, so that during MED comparison,
- \* confederation information is skipped properly
- \* - confederation EBGp paths should be inserted into the IP table with
- \* internal distance
- \* - do not consider common-AS neighbors as confederation neighbors
- \* - during 'clear ip bgp dampening' avoid skipping paths
- \* - undo the patch to the radix version walker
- \*
- \* Revision 3.3 1996/02/17 01:23:27 myeung
- \* CSCdi49210: match tag clause does not work with static routes
- \*
- \* Revision 3.2 1995/11/17 17:37:17 hampton
- \* Remove old entries from the RCS header logs.
- \*
- \* Revision 3.1 1995/11/09 12:10:38 shaker
- \* Bump version numbers from 2.x to 3.x.
- \*
- \* Revision 2.4 1995/09/25 08:31:20 tli
- \* CSCdi40960: ISP jumbo patch 2
- \*
- \* Revision 2.3 1995/07/12 07:19:12 tli
- \* CSCdi36426: Policy routing will not disable on an interface
- \* - Policy routed packets were creating fastswitching cache entries.
- \* That's not till \_next\_ release.
- \* - Add counters to record packet and byte count on a per route map entry
- \* basis.
- \* - Marketing identified a catastrophic deficiency. Implemented "set ip
- \* tos" and "set ip precedence" to cover this deficiency.



\*  
\* Revision 2.2 1995/07/06 23:12:41 rchandra  
\* CSCdi36759: BGP : Add conditional per neighbor default generation  
\* - add 'neighbor <x.x.x.x> default-originate route-map <tag>' command.

\*  
\* Revision 2.1 1995/06/07 21:10:57 hampton  
\* Bump version numbers from 1.x to 2.x.

\*  
\*-----  
\* \$Endlog\$  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/route\_map.h  
No license file was found, but licenses were detected in source scan.

/\* \$Id: ip\_routing.c,v 3.2 1995/11/17 17:34:11 hampton Exp \$  
\* \$Source: /swtal/cherf.111/ios/sys/iprouting/ip\_routing.c,v \$  
\*-----  
\* ip\_routing.c -- Generic IP routing functions  
\*  
\* Mar 1995 Tony Li  
\*  
\* Copyright (c) 1995-1998, 2002-2008, 2010 by cisco Systems, Inc.  
\* All rights reserved.

\*-----  
\* \$Log: ip\_routing.c,v \$  
\* Revision 3.2 1995/11/17 17:34:11 hampton  
\* Remove old entries from the RCS header logs.  
\*  
\* Revision 3.1 1995/11/09 12:08:05 shaker  
\* Bump version numbers from 2.x to 3.x.  
\*  
\* Revision 2.1 1995/06/07 21:07:03 hampton  
\* Bump version numbers from 1.x to 2.x.  
\*  
\*-----  
\* \$Endlog\$  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_routing.c  
No license file was found, but licenses were detected in source scan.

/\*-----  
\* router\_af\_parse.c  
\*  
\* Route Address Family command and action definitions. Derived from

```
* router_af_chain.c
*
* May 2002, Victor Kamensky
*
* Copyright (c) 2002-2010, 2012, 2014-2016, 2019 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/router_af_parse.c
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* policylist.c - Routines to handle policy-list commands
*
* Apr. 2000, Rex Fernando
*
* Copyright (c) 2000, 2002-2011, 2016-2017, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/policylist.c
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* iprouting_common.h - Basic types for IP routing (IPv4/IPv6)
*
* Contains:
* - address family enum,
* - tableid type and related macros
* - topoid type and related macros
* - private topoid definitions and APIs
* - generic non-routing ID definitions/APIs
*
* Warning: this file should not have any dependency on other header file
* except those where basic C types are defined.
*
* June 2003, Luc Revardel
*
* Copyright (c) 2003-2013, 2016, 2018, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/iprouting\_common.h

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* cfg_int_ip2_vnet_routing.h
*
* Interface VNET submode configuration IP commands.
*
* Copyright (c) 2009-2010 by cisco Systems, Inc.
* All rights reserved.
*
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_int\_ip2\_vnet\_routing.h

No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
*-----
* IP routing show commands
*
* May 1993, Robert Widmer
*
* Copyright (c) 1993-2003, 2005, 2007-2011, 2013, 2015-2020 by cisco Systems, Inc.
* All rights reserved.
*
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/exec\_show\_ip\_routing.h

No license file was found, but licenses were detected in source scan.

```
!-----
! iproutingcmn_router_cmd.sesut - IPv4 Routing Common Router
! Commands Unit Test Routines
!
! December 2007, Chi Iong Ansjory
!
! Copyright (c) 2007 by cisco Systems, Inc.
```

! All rights reserved.  
!-----  
! Sample unit test description file.  
! This file is used for generation of unit test module by SESUT.  
! See [http://wwwin-ses.cisco.com/unittest/sesut\\_ios.html](http://wwwin-ses.cisco.com/unittest/sesut_ios.html) for  
! information about SESUT.  
!  
! Include a description of your test here.  
!  
! This is made up of many sections. Each section header starts with % in  
! first column. It is followed by the section identifier.  
! Lines that have '!' in the first column are considered comments.  
! Blank lines are ignored.  
!  
! You can report success/failure of your test by calling the following  
! functions.  
! Call sesut\_<file prefix>\_testpass to indicate test success.  
! void sesut\_<file prefix>\_testpass(void);  
! Call sesut\_<file prefix>\_testfail to indicate test failure.  
! void sesut\_<file prefix>\_testfail(const char \*fmt, ... );  
! The length of the formatted string should be less than or equal  
! to 255. Else it will be truncated.  
! Prototypes for these functions are included in the header file that  
! is generated by SESUT.

% Cflow

! Enter the files/subsystems in the unit under test.  
! These files will be instrumented for Cflow and MIF(if MIF is  
! available in your view). GDB flag -g is used during compilation.  
! cflow\_list=\$(sub\_mif) xyz.o \$(my\_subsys) abc.o  
! This list is ignored if ses\_iouut is used. ses\_iouut instruments all files  
! in UUT(defined by -old and -new options).

% MIF

! Enter MIF configuration  
! If MIF configuration is not specified and cflow\_list is specified  
! then a default MIF configuration is used.

!./os/free.c  
!./os/buffers.c  
!./os/chunk.c  
!-----  
!malloc  
!malloc\_aligned  
!malloc\_fast  
!malloc\_pcimem  
!malloc\_named  
!chunk\_malloc

```

!getbuffer
!pool_getbuffer

% API
! Include DTD configuration.
! Not all features of DTD are available with SESUT yet.
! List headers/text that contain prototypes for the functions to be tested
! for robustness followed by a line consisting of '-'s followed by
! the list of functions to be tested for robustness.
! It is assumed that a .h file that includes all the text listed above
! the line consisting of '-'s is self-compiling in the same context as
! the one used to compile the .sesut file and has the definitions of
! all the objects whose pointers are referenced.
!master.h
!../testtools/testtools.h
!../testtools/testtools_private.h
!<stdio.h>
!void mynewapi(int,int);
!-----
!mif_enable
!mif_disable
!mif_clear
!mif_lock
!mynewapi

% env
! Use this section to list object modules that are not
! part of the standard build but are used by the tests defined in this
! file. The text following "link:" is inserted into the final link step.
!link: xyz.o abc.o
!
! Use this section to add any special 'CFLAGS' needed to compile sesut
! generated test file
!cflags: -I../http/http_core/include
!cflags: -I../http/http_core/server
!cflags: -I../ios_http_core/config -I../http/http_core/lib
!cflags: -DEW_CONFIG_OPTION_CLIENT_CACHE
!
! You can specify functions to be executed before and after the test.
! pretest is executed before executing the unit test and the posttest is
! executed after executing the unit test. These are executed once regardless
! of the repeat count. The prototypes of these functions are expected to be:
! void <pretest>(void);
! void <posttest>(void);
! Define these functions in the 'model prolog' section. Note that these
! are optional. You can have one or both or none.
!pretest:config_my_feature
!posttest:validate_results

```

```

! If want want your pretest/posttest functions to receive same
! parameters as the test then specify the functions as:
!pretest_withparams:config_my_feature
!posttest_withparams:validate_results
! The prototypes for these functions would be:
! void <pretest_withparams>(<types of parameters>)
! void <posttest_withparams>(<types of parameters>)
! Parameters are specified using "parameter:" keyword in % model" section.
! If both {pre|post}test and {pre|post}test_withparams are specified:
! pretest is executed before pretest_withparams.
! posttest is executed after posttest_withparams.

! You can specify a initializer/finalizer function to be executed
! at the time of test initialization/removal.
! Initializer is executed once during the lifetime of the current instance of
! the test. If the test is part of the image then the initializer is executed
! during subsystem initialization. If the test is a DLST(dynamically loaded)
! then the initializer is executed just after the dynamic load.
! The finalizer is executed when the test is removed (happens when the test is
! being replaced).
! Note that the subsystems in the DLST are not initialized. You must list the
! subsystem init functions in the initializer function. Subsystem header is
! ignored for DLST's. You will not see the subsystems for DLST's listed in
! "show subsys" output.
! Use initializer to perform tasks like registry addition, memory allocation etc.
! Similarly use the finalizer to free these resources. This is an important
! consideration. Treat them like constructor/destructor for the DLST.
!
! The prototypes of these functions are expected to be:
! void <initializer>(void);
! void <finalizer> (void);
! Define these functions in the 'model prolog' section. Note that these
! are optional. You can have one or both or none.
!initializer:my_init
!finalizer:my_finit

% model prolog iou
! This code will be copied unchanged to the start of the generated .c file
! Include definitions, declarations, include statements that
! are used in the model
! You can include stubs for the functions that are not ready yet but are
! invoked.
! If you choose to have pretest and posttest functions include them here.
!
! "model prolog " accepts additional keywords.
! dt - This is meaningful in automation environments. If the test you are
! creating alters global state then use "dt" keyword. This informs

```

```

! automation framework that device should be reloaded prior to
! running next test.
! iou - Use this keyword if the test can be executed under IOU.
! preinit - Use this if the test executes prior to system initialization.
! % model prolog dt

#include IOS_INC(testtools/sesutlib_ios.h)
#include <routing/iprouting_cmn/include/ip_stats.h>
#include <routing/iprouting_cmn/include/iprouting_debug.h>
#include <routing/iprouting_cmn/include/router_af_actions_registry.h>

boolean sesrc;

% model digraph
! Describe the model. You have structured your test as a
! directed graph. Start keywords in column 1. Start the code at an
! offset(2TABS). This line("model digraph") can have an optional keyword.
! That is "vdag". This would generate testcases representing various
! acyclic paths leading from the start node. These tests cover all nodes.
! This does not guarantee that all the edges are covered.
! If your test model is a tree(or hierarchical) or a DAG(Directed Acyclic
! Graph) then you should use this keyword.
!% model digraph vdag
! There are three keywords. They are
! start node <nodeIdentifier> - Specify the start node in the model
! node <nodeIdentifier>: - Begining of a node description.
! Include descriptions for all edges starting at this node.
! If there is code to be executed upon entry to this node
! enter that immediatly following this line but before
! entering any edge description.
! -><nodeIdentifier>: - Begining of an edge description. This describes an
! edge from the node to <n>
! Choose <nodeIdentifier> to be descriptive. Examples: AVLTreeInsert,
! DBSearch, DetachLine
! These identifiers are used during runtime to present execution times
! and other data.
! You can specify parameters for your unit test as follows:
!parameters:(uint interface, char* hostname="abc", uint subInterface=1)
!This should come before the line specifying the start node.
!The parameters can be used in the code for nodes/edges. The values
!for parameters are received via CLI or as a result of direct invocation of
!the generated function. Parameters can be of type 'uint'
!or 'char*'. If values for parameters are provided on CLI defaults are used.
! You should provide default values. If default values are not specified
! then the tool would assign default values. If the type is "uint" the
! default value is 0. Else(type char*) the default value is "".
! During automation the default values are used. Use descriptive names
! for parameters.

```

start node StartNode

! You can place initialization code that needs to be executed

! prior to entering the start node here.

node StartNode:

! ===== 6 APIs from ip\_stats.h/ip\_registry.reg =====

! 1. DEFINE show\_ip\_interface\_with\_topo

```
(void) sesut_execcommand(FALSE, "show ip interface e0/0 topology base stats");
printf("\n----- SESUT Test Reg: show_ip_interface_with_topo -----");
```

! 2. DEFINE clear\_ip\_interface\_with\_topo

```
(void) sesut_execcommand(FALSE, "clear ip interface e0/0 topology base stats");
printf("\n----- SESUT Test Reg: clear_ip_interface_with_topo -----");
```

! 3. DEFINE show\_ip\_traffic\_with\_topo

```
(void) sesut_execcommand(FALSE, "show ip traffic topology base");
printf("\n----- SESUT Test Reg: show_ip_traffic_with_topo -----");
```

! 4. DEFINE clear\_ip\_traffic\_with\_topo

```
(void) sesut_execcommand(FALSE, "clear ip traffic topology base");
printf("\n----- SESUT Test: clear_ip_traffic_with_topo -----");
```

! 5. DEFINE show\_ip\_interface\_stats

```
(void) sesut_execcommand(FALSE, "show ip interface e0/0 stats");
printf("\n----- SESUT Test Reg: show_ip_interface_stats -----");
```

! 6. DEFINE clear\_ip\_interface\_stats

```
(void) sesut_execcommand(FALSE, "clear ip interface e0/0 stats");
printf("\n----- SESUT Test Reg: clear_ip_interface_stats -----");
```

! ===== 2 APIs from iprouting\_debug.h =====

! 1. void

```
! iprouting_debug_arr_ios_set_csb(struct parseinfo_ *csb);
```

```
!iprouting_debug_arr_ios_set_csb(NULL);
```

```
printf("\n----- SESUT Test: iprouting_debug_arr_ios_set_csb() -----");
```

! 2. void

```
! iprouting_ios_call_debug_cmd(struct parseinfo_ *csb);
```



```
!iprouting_ios_call_debug_cmd(NULL);
printf("\n----- SESUT Test: iprouting_ios_call_debug_cmd() -----");
```

```
! ===== 1 API from router_af_actions_registry.reg =====
```

```
! 1. DEFINE address_family_action_named_router REMOTE 3
```

```
sesrc = reg_invoke_address_family_action_named_router(NULL);
printf("\n----- SESUT Test Reg: address_family_action_named_router -----");
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/test/iproutingcmn_router_cmd.sesut
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* iprouting_init_ios.c -- IP Routing Init code for Native IOS only
*
* October 2001, Rashmi Shrivastava
*
* Copyright (c) 2001-2009 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_init_ios.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* exec_clear_routemap.h -- clear route-map counters
*
* Copyright (c) 1986-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_clear_routemap.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
```

\* router\_topology\_parse.c - Router topology command definitions.

\*

\* Sept 2004, Mercia Zheng

\*

\* Copyright (c) 2004-2010, 2019-2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/router\_topology\_parse.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* ipv4\_subsys.c - IPv4 Routing Startup Subsystem

\*

\* July 2005, Mark Schaefer

\*

\* Copyright (c) 2005-2010, 2013 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ipv4\_subsys.c

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* cfg\_routemap\_set.h

\*

\* Process route-map set subcommands.

\*

\* Copyright (c) 1992-1998, 2001-2003, 2007-2019 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_routemap\_set.h

No license file was found, but licenses were detected in source scan.

/\*

```
*-----
* routemap_ios_chain.c -- Route-map generic ios parse chains that
* will be in both RP and VIP/LC
*
* July 1998, Wilber Su
*
* Copyright (c) 1998, 2004-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_ios_chain.c
No license file was found, but licenses were detected in source scan.
```

```
/* $Id: cfg_ip_routing_routing.h,v 3.3.46.3 1996/08/12 16:03:33 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_ip_routing_routing.h,v $
```

```
*-----
* IP routing routing commands
*
* May 1993, Robert Widmer
*
* Copyright (c) 1993-2000, 2002-2009 by cisco Systems, Inc.
* All rights reserved.
*
*-----
* $Log: cfg_ip_routing_routing.h,v $
* Revision 3.3.46.3 1996/08/12 16:03:33 widmer
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
* Revision 3.3.46.2 1996/06/17 23:33:31 hampton
* Implement the long sought parser "default" keyword. [CSCdi60510]
* Branch: California_branch
*
* Revision 3.3.46.1 1996/04/15 21:17:41 bcole
* CSCdi54649: IP Host Modularity, IP Automatic Stub Routing feature
* commit
* Branch: California_branch
*
* Revision 3.3 1995/12/10 00:42:36 pst
* CSCdi38750: Allow static routes with both next hop and interface
* also add "permanent" keyword for non-flapping static routes
*
* Revision 3.2 1995/11/17 17:31:40 hampton
* Remove old entries from the RCS header logs.
```

```

*
* Revision 3.1 1995/11/09 12:04:59 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.4 1995/10/23 18:33:19 pst
* CSCdi42608: allow IP cache ager to be shut down, make the
* "ip cache-ager" and "ip cache-invalidate-delay"
* commands internal only.
*
* Revision 2.3 1995/07/13 21:39:05 ahh
* CSCdi36962: UDP parsing of tacacs-ds port name broken
* Restore "tacacs-ds" as a keyword, but hide it and map it to TACACS_PORT
* for backwards compatibility.
*
* Revision 2.2 1995/07/11 21:52:08 raj
* CSCdi36510: parser doesnt accept ip forward-protocol udp xdmcp
* (Actually the parser didn't accept *any* symbolic names in the position
* of the UDP port number; only numbers. It now uses the UDP_PORT macro
* instead.
*
* Revision 2.1 1995/07/01 12:15:42 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:08:34 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_ip_routing_routing.h
```

No license file was found, but licenses were detected in source scan.

```

/*
*-----
* iprouting_init_ionblob.c -- IP Routing Init code for blog in ION only
*
* October 2001, Rashmi Shrivastava
*
* Copyright (c) 2001-2017 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_init_ionblob.c
```

No license file was found, but licenses were detected in source scan.

```
/* Id
 * $Source$
 *-----
 * IP routing parse chains
 *
 * May 1993, Robert Widmer
 *
 * Copyright (c) 1993-2012, 2015-2016 by cisco Systems, Inc.
 * All rights reserved.
 *
 *-----
 * Log
 *-----
 * $Endlog$
 */
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_chain.c

No license file was found, but licenses were detected in source scan.

```
/* Id
 * $Source$
 *-----
 * route2.c -- Routing Support: User Interface Routines
 *
 * 22-March-1986, Kirk Lougheed
 *
 * Copyright (c) 1986-2020 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 * Log
 *-----
 * $Endlog$
 */
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route2.c

No license file was found, but licenses were detected in source scan.

```
/*
 *-----
 * ip_prefixlist_ionblob.c - IP Prefix Lists support for IONized clients
 *
 * January 2002, Siva Yaragalla
 *
 * Copyright (c) 2002-2003, 2005, 2007-2008 by cisco Systems, Inc.
```

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_prefixlist\_ionblob.c

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* lfafr\_registry.c

\*

\* July 2010, Ahmed Bashandy

\*

\* Copyright (c) 2001, 2003, 2005, 2007-2008, 2010 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/lfafr\_registry.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* route\_map\_ionized.c - Route Maps support for IONized processes

\*

\* July 2001, Siva Yaragalla

\*

\*

\* Route map subsystem for IOS style processes.

\*

\* Copyright (c) 2001-2009, 2011, 2016-2017 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route\_map\_ionized.c

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

```
* Address Family configuration mode commands.
*
* April 1998, Bob Thomas
*
* Copyright (c) 1998-1999, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_af_mode.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* cfg_routetag_list.h -- Route Tag List Parser Command
*
* June 2011, Karthik Subramaniam
*
* Copyright (c) 1997-2001, 2004, 2007-2008, 2011, 2013 by cisco Systems, Inc.
* All rights reserved.
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_routetag_list.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* iprouting_actions_registry.h
*
* Router address family actions registry.
*
* May 2002, Victor Kamensky
*
* Copyright (c) 2002-2003, 2007-2008, 2010 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/include/router_af_actions_registry.h
```

No license file was found, but licenses were detected in source scan.

```
/* Id
 * $Source$
 *-----
 * C F G _ R O U T E R _ T A B L E - M A P . H
 *
 * Copyright (c) 1993-1996, 1999, 2001, 2003, 2005-2019 by cisco Systems, Inc.
 * All Rights Reserved
 *-----
 * Log
 *-----
 * $Endlog$
 */
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_router\_table-map.h  
No license file was found, but licenses were detected in source scan.

```
/*-----
 * ip_stats.h - IP for topology aware stats
 *
 * Feburary 2006, Jonsky Hsu
 *
 * Copyright (c) 2006-2008 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 */
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/ip\_stats.h  
No license file was found, but licenses were detected in source scan.

```
/* $Id: iprouting_init.c,v 1.1 2003/06/13 18:30:09 dsavage Exp dsavage $
 * $Source: /view/dsavage-CSCdy77097-rip-V123/vob/ios.sys2/sys/iprouting/iprouting_init.c,v $
 *-----
 * iprouting_init.c -- initialize IP Routing Protocol support.
 *
 * 20-August-1985, Kirk Lougheed
 *
 * Copyright (c) 1985-2012, 2016, 2018-2019 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 * $Log: iprouting_init.c,v $
 * Revision 1.1 2003/06/13 18:30:09 dsavage
 * Initial revision
 *
```



```
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_init.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* Debugging flag declarations for protocol filter manager - ION
*
* Jan 2006, Mercia Zheng
*
* Copyright (c) 2005-2008 by cisco Systems, Inc.
* All Rights Reserved
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/protofltr_debug_flags_ion.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* exec_show_routetag_list.h
*
* Copyright (c) 1993-1996, 1998, 2003-2008, 2011 by cisco Systems, Inc.
* All rights reserved.
*
* Command parsing chain for "show route-tag".
*-----
*
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_show_routetag_list.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* iprouting_parser_linkpoints.h - iprouting parser linkpoint decls.
*
* April, 2005
*
* Copyright (c) 2005, 2007-2008, 2015 by cisco Systems, Inc.
* All rights reserved.
*
*/
```

\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/iprouting\_parser\_linkpoints.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* routemap\_api.c -- Dynamic routemap APIs.

\*

\* May 2003, Tanya Shastri

\*

\* Copyright (c) 2003, 2005-2015, 2018-2019 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/routemap\_api.c

No license file was found, but licenses were detected in source scan.

/\*-----

\* iprouting\_parse\_blob.c

\*

\* Parser support for IP ROUTING .

\* This file implements proxy eols that call iprouting parser remote

\* registries.

\*

\* September 2001, Rashmi Shrivastava

\*

\* Copyright (c) 2001-2009 by cisco Systems, Inc.

\* All Rights Reserved

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_parse\_blob.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* router\_topology\_parse.h

\*

\* Router topology parser functions declarations.

\*

\* Sept 2004, Mercia Zheng

\*

\* Copyright (c) 2004-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/router\_topology\_parse.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* C F G \_ R O U T E R \_ O U T P U T - D E L A Y . H

\*

\* router RIP inter-frame gap subcommand

\*

\* Aug 1996, Dawn Li

\*

\* Copyright (c) 1996, 1998-1999, 2001, 2007-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_output-delay.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* route.h -- IP routing definitions

\*

\* 22-March-1986, Kirk Lougheed

\*

\* Copyright (c) 1986-2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/route.h

No license file was found, but licenses were detected in source scan.

```
/*-----
* router_af_actions_registry.c
*
* Router address family actions registry.
*
* May 2002, Victor Kamensky
*
* Copyright (c) 2002-2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/router\_af\_actions\_registry.c

No license file was found, but licenses were detected in source scan.

```
/*-----
* protofltr_public.h
*
* Routing protocol filter manager Public API definitions
*
* Dec 2008, Mercia Zheng
*
* Copyright (c) 2008-2009 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/protofltr\_public.h

No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
*-----
* iprouting_registry.c
*
* September 2001, Fan Kong
*
* Copyright (c) 2001, 2003, 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
```

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_registry.c  
No license file was found, but licenses were detected in source scan.

/\* \$id: iprouting\_actions.c,v 3.2.60.2 1996/08/23 22:02:29 jserpa Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/iprouting\_actions.c,v \$

\*-----

\* IP routing specific parsing functions.

\*

\* August 1994, Bruce Cole

\*

\* Copyright (c) 1994-2010, 2012, 2015, 2017-2018 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: iprouting\_actions.c,v \$

\* Revision 3.2.60.2 1996/08/23 22:02:29 jserpa

\* CSCdi67021: router ospf <as> gets nv-ramed in reverse order of

\* configuration

\* Branch: California\_branch

\*

\* Revision 3.2.60.1 1996/04/15 21:18:11 bcole

\* CSCdi54649: IP Host Modularity, IP Automatic Stub Routing feature

\* commit

\* Branch: California\_branch

\*

\* Revision 3.2 1995/11/17 17:34:38 hampton

\* Remove old entries from the RCS header logs.

\*

\* Revision 3.1 1995/11/09 12:08:28 shaker

\* Bump version numbers from 2.x to 3.x.

\*

\* Revision 2.1 1995/06/07 21:07:33 hampton

\* Bump version numbers from 1.x to 2.x.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_actions.c  
No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* cfg\_router\_input-queue.h

```
*
* September 1997, Dawn Li
*
* Copyright (c) 1997-2002, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_input-queue.h
```

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* cfg_router_topology_mode.h - router topology configuration sub mode
* commands.
*
* Sept 2004, Mercia Zheng
*
* Copyright (c) 2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_router_topology_mode.h
```

No license file was found, but licenses were detected in source scan.

```
/* $Id: cfg_router_traffic-share.h,v 3.3.20.1 1996/08/12 16:03:58 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_router_traffic-share.h,v $
*-----
* cfg_router_traffic-share.h - parsing of the traffic-share command
*
* Oct 1993 Tony Li
*
* Copyright (c) 1993-1999, 2001-2002, 2004-2009, 2015 by cisco Systems, Inc.
* All rights reserved.
*-----
* $Log: cfg_router_traffic-share.h,v $
* Revision 3.3.20.1 1996/08/12 16:03:58 widmer
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
```

```

*
* Revision 3.3 1996/02/01 23:34:03 widmer
* CSCdi45325: Change Keyword/Set to use Keyword_Id macro
*
* Revision 3.2 1995/11/17 17:32:35 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:06:21 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:16:07 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:13:22 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_traffic-
share.h

```

No license file was found, but licenses were detected in source scan.

```

/*
*-----
* routemap_ios_blob.c -- Route map support routines that can be shared
* by RP and VIP/LC
*
* October 14, 2001 Siva Yaragalla
*
* Copyright (c) 2001-2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_ios_blob.c

```

No license file was found, but licenses were detected in source scan.

```

/*
*-----
* msg_routemap.c -- Message system definitions for Route-map
*
* Copyright (c) 2003, 2007-2008 by cisco Systems, Inc.
* All rights reserved.

```

```
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/msg_routemap.c
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
* Id
```

```
* $Source$
```

```
*-----
```

```
* route3.c -- Routing Support: Router command and related routines
```

```
*
```

```
* 15-June-1987, Kirk Lougheed
```

```
*
```

```
* Copyright (c) 1987-2021 by cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*-----
```

```
* Log
```

```
*-----
```

```
* $Endlog$
```

```
*/
```

```
/*
```

```
 * If its not a per-user distribute-list, we have to configure the
 * route-map for pflist_def too - its used to restore default when
 * a per-user distribute-list is un-configured as well as for
 * nvgen purposes. All this mess, only for the interface specific
 * version.
```

```
 */
```

```
/*
```

```
 * This command is only valid for ipv4 and nsap AFs in BGP.
 * However it is accepted for other BGP AFs
 * for backwards compatibility. However, no action
 * is taken for these AFs and it is not nvgen'ed
 * either. Check out cfg_router_default.h for
 * more details.
```

```
 */
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/route3.c
```

No license file was found, but licenses were detected in source scan.

```
/* Id
```

```
* $Source$
```

```
*-----
```

```
* Exit from BGP Address Family mode.
```

```
*
```

```
* Sept 1998, Bob Thomas
```



```
*
* Copyright (c) 1998-1999, 2007-2009 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_af_exit.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* protofltr_debug.h -- Routing protocol filter manager debug flag
*
* Jan 2006, Mercia Zheng
*
* Copyright (c) 2005-2008 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/protofltr_debug.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* cfg_router_maximum-paths.h
*
* 22-May-2016, Les Ginsberg
*
* Copyright (c) 2016 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/cfg_router_maximum-sec-paths.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* iprouting_debug.h -- Debugging declarations for IP routing
*
```

```
* May 1993, John Bashinski
*
* Copyright (c) 1993-2010 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

```
Found in path(s):
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/iprouting_debug.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* iprouting_parser_linkpoints.c - iprouting parser linkpoint defs.
*
* April, 2005
*
* Copyright (c) 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*
*-----
*/
```

```
Found in path(s):
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_parser_linkpoints.c
No license file was found, but licenses were detected in source scan.
```

```
/* $Id: cfg_router_offset.h,v 3.3.20.4 1996/09/04 23:46:26 mikel Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_router_offset.h,v $
*-----
* C F G _ R O U T E R _ O F F S E T . H
*
* Copyright (c) 1992-1998, 2002, 2004-2008 by cisco Systems, Inc.
* All Rights Reserved
*-----
* $Log: cfg_router_offset.h,v $
* Revision 3.3.20.4 1996/09/04 23:46:26 mikel
* CSCdi65889: offset-list doesnt work for EIGRP
* Branch: California_branch
* Re-enable offset-list command as well as adding offset-list out support,
* and fix offset-list to work with access-lists
*
* Revision 3.3.20.3 1996/08/12 16:03:48 widmer
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
*/
```

```

* Revision 3.3.20.2 1996/05/04 01:21:23 wilber
* Branch: California_branch
*
* Constrained Multicast Flooding
* - Define MOSPF hello option bit.
*
* Name Access List
*
* Revision 3.3.20.1 1996/04/09 05:54:35 mikel
* CSCdi49628: EIGRP ignores outgoing offset-list
* Branch: California_branch
* disable offset-list command from eigrp router config
*
* Revision 3.3 1996/02/01 23:33:59 widmer
* CSCdi45325: Change Keyword/Set to use Keyword_Id macro
*
* Revision 3.2 1995/11/17 17:32:19 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:53 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:15:58 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:12:58 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_offset.h

```

No license file was found, but licenses were detected in source scan.

```

/*
*-----
* network_constants.h -- General Networking Constants
*
* June 2002, interest-idb
*
* Copyright (c) 2002-2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/network\_constants.h

No license file was found, but licenses were detected in source scan.

```
/*-----
* routing_context_chain.c
*
* Parse chain file for routing context support.
*
* March 2009, Derek Yeung
*
* Copyright (c) 2009, 2015 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/routing\_context\_chain.c

No license file was found, but licenses were detected in source scan.

```
/*-----
* IOS prefix list support.
*
* March 2005, Sarath Chandran
*
* Copyright (c) 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_prefixlist\_ios.c

No license file was found, but licenses were detected in source scan.

```
/*-----
* routemap_debug_flags.h -- Routemap debugging support
*
* July 1998, Wilber Su
*
* Copyright (c) 1998, 2004, 2007-2008, 2014 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routemap\_debug\_flags.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* cfg\_router\_auto\_summary.h

\*

\* October 1993

\*

\* Copyright (c) 1993-1996, 1999-2009 by cisco Systems, Inc.

\* All rights reserved.

\*

\* Supports the router subcommand "auto-summary". Configures auto aggregation

\* of routing information to the network number level.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/internal\_inc/cfg\_router\_auto\_summary.h

No license file was found, but licenses were detected in source scan.

##

## content.lst file for iprouting\_cmn

## See EDCS-905060 for more details.

##

## Oct 2010, Manu Pathak

##

## Copyright (c) 2010-2011, 2016 by cisco Systems, Inc.

## All rights reserved.

##

syntax: 1.0.0

# iprouting\_cmn meta-source files

group: iprouting\_cmn-generic

{

enum:

    iprouting\_cmn/include/enum/iprouting\_api.enum

reg:

    iprouting\_cmn/include/reg/ion\_iprouting\_cmd\_registry.reg

    iprouting\_cmn/include/reg/iprouting\_registry.reg

    iprouting\_cmn/include/reg/lfafr\_registry.reg

    iprouting\_cmn/include/reg/route\_map\_registry.reg

    iprouting\_cmn/include/reg/router\_af\_actions\_registry.reg

    iprouting\_cmn/include/reg/router\_topology\_registry.reg

```

 iprouting_cmn/include/reg/routing_context_registry.reg
}
end of group: iprouting_cmn-generic

iprouting_cmn source files
group: iprouting_cmn
{
 includes:
 ../generic/routing/iprouting_cmn/include
 $(COMPONENT_ROOT)/routing/iprouting_cmn/include
 $(COMPONENT_ROOT)/routing/iprouting_cmn/internal_inc
 $(COMPONENT_ROOT)/routing/iprouting_cmn/src
 $(COMPONENT_ROOT)/routing
 $(COMPONENT_ROOT)/posix/include
 $(IOS_SYSROOT)/ion/include
 $(IOS_SYSROOT)/crypto/ca
 $(IOS_SYSROOT)/crypto/ca/certcinc
 $(IOS_SYSROOT)/crypto/ca/bsafeinc
 $(IOS_SYSROOT)/crypto/ca/provider/include
 defines: CRYPTOCv5 CERTCv5
 cflags: -Wno-parentheses -Wno-uninitialized
 sub: ion_iprouting_cmd_registry
 {
 context: os==ion
 contains:
 iprouting_cmn/src/ion_iprouting_cmd_registry.c
 }
 sub: iprouting_blob
 {
 contains:
 iprouting_cmn/src/ip_routing.c
 iprouting_cmn/src/ip_stats.c
 iprouting_cmn/src/iprouting_actions.c
 iprouting_cmn/src/iprouting_chain.c
 iprouting_cmn/src/iprouting_debug.c
 iprouting_cmn/src/iprouting_init_blob.c
 iprouting_cmn/src/iprouting_setup.c
 iprouting_cmn/src/protofltr_debug.c
 iprouting_cmn/src/route3_blob.c
 iprouting_cmn/src/routemap_debug.c
 iprouting_cmn/src/router_af_chain.c
 iprouting_cmn/src/router_topology_chain.c
 iprouting_cmn/src/routing_context_chain.c
 }
 sub: iprouting_cmn
 {
 contains:
 iprouting_cmn/include/msg_iproute.rc

```

```

 iprouting_cmn/src/iprouting_cmn.c
}
sub: iprouting_common_blob
{
 contains:
 iprouting_cmn/src/ip_prefixlist_chain.c
 iprouting_cmn/src/policylist_blob.c
 iprouting_cmn/src/route_map_blob.c
 iprouting_cmn/src/routemap_track.c
}
sub: iprouting_common_ionblob
{
 context: os==ion
 contains:
 iprouting_cmn/src/ip_prefixlist_ionblob.c
 iprouting_cmn/src/route_map_ionblob.c
}
sub: iprouting_common_ionized
{
 context: os==ion
 contains:
 iprouting_cmn/src/ip_prefixlist_ionized.c
 iprouting_cmn/src/policylist_ionized.c
 iprouting_cmn/src/route_map_ionized.c
}
sub: iprouting_common_misc
{
 contains:
 iprouting_cmn/src/ip_prefixlist.c
 iprouting_cmn/src/msg_routemap.c
 iprouting_cmn/src/policylist.c
 iprouting_cmn/src/route_map.c
 iprouting_cmn/src/routetag_list.c
}
sub: iprouting_common_nbcmn
{
 contains:
 iprouting_cmn/src/route_map_nbcmn.c
}
sub: iprouting_common_nonblob
{
 contains:
 iprouting_cmn/src/ip_prefixlist_ios.c
 iprouting_cmn/src/policylist_ios.c
}
sub: iprouting_init_ios
{
 contains:

```

```

 iprouting_cmn/src/iprouting_init_ios.c
}
sub: iprouting_ionblob
{
 context: os==ion
 contains:
 iprouting_cmn/src/iprouting_init_ionblob.c
 iprouting_cmn/src/iprouting_parse_blob.c
 iprouting_cmn/src/router_af_parse_blob.c
}
sub: iprouting_ionized
{
 context: os==ion
 contains:
 iprouting_cmn/src/iprouting_init_ionized.c
 iprouting_cmn/src/route3_ionized.c
}
sub: iprouting_misc
{
 contains:
 iprouting_cmn/src/routemap_api.c
 iprouting_cmn/src/routemap_api_util.c
 iprouting_cmn/src/routemap_internal.c
}
sub: iprouting_nonblob
{
 contains:
 iprouting_cmn/src/iprib_api_svr.c
 iprouting_cmn/src/iprouting_init.c
 iprouting_cmn/src/iprouting_stats.c
 iprouting_cmn/src/protofltr.c
 iprouting_cmn/src/route1.c
 iprouting_cmn/src/route2.c
 iprouting_cmn/src/route3.c
 iprouting_cmn/src/router_af_parse.c
 iprouting_cmn/src/router_topology_parse.c
}
sub: iprouting_parser
{
 contains:
 iprouting_cmn/src/iprouting_parser_linkpoints.c
}
sub: iprouting_registry
{
 contains:
 iprouting_cmn/src/iprouting_registry.c
}
sub: ipv4_subsys

```



```

{
 contains:
 iprouting_cmn/src/ipv4_subsys.c
}
sub: lfafrr_registry
{
 contains:
 iprouting_cmn/src/lfafrr_registry.c
}
sub: route_map_globs
{
 contains:
 iprouting_cmn/src/route_map_globs.c
}
sub: route_map_registry
{
 contains:
 iprouting_cmn/src/route_map_registry.c
}
sub: routemap_common_blob
{
 contains:
 iprouting_cmn/src/routemap_ios_blob.c
}
sub: routemap_common_ionized
{
 context: os==ion
 contains:
 iprouting_cmn/src/route_map_http_ion.c
}
sub: routemap_common_nonblob
{
 contains:
 iprouting_cmn/src/routemap_ios.c
 iprouting_cmn/src/routemap_track_ios.c
}
sub: routemap_ios_chain
{
 contains:
 iprouting_cmn/src/routemap_ios_chain.c
}
sub: routemap_lc_ipc
{
 context: os==ios
 contains:
 iprouting_cmn/src/route_map_globs.c
 iprouting_cmn/src/routemap_api.c
 iprouting_cmn/src/routemap_api_util.c
}

```

```

 iprouting_cmn/src/routemap_debug.c
 iprouting_cmn/src/routemap_internal.c
 iprouting_cmn/src/routemap_ios_chain.c
 iprouting_cmn/src/routetag_list.c
}
sub: router_af_actions_registry
{
 contains:
 iprouting_cmn/src/router_af_actions_registry.c
}
sub: router_topology_registry
{
 contains:
 iprouting_cmn/src/router_topology_registry.c
}
sub: routing_context
{
 contains:
 iprouting_cmn/src/routing_context.c
}
sub: routing_context_registry
{
 contains:
 iprouting_cmn/src/routing_context_registry.c
}
}
end of group: iprouting_cmn

```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/content.lst

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_routemap\_set\_policy.h,v 3.3.52.1 1996/05/21 09:53:12 thille Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_routemap\_set\_policy.h,v \$

\*-----

\* cfg\_routemap\_set\_policy.h -- Policy specific route map clauses

\*

\* Mar 1995 Tony Li

\*

\* Copyright (c) 1995-1996, 2000, 2002, 2004, 2007-2009 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: cfg\_routemap\_set\_policy.h,v \$

\* Revision 3.3.52.1 1996/05/21 09:53:12 thille

\* CSCdi51599: multiple /interface/ literals bloat code.

\* Branch: California\_branch

\* Save another 392 bytes by doing away with duplicate literals.

\*

```

* Revision 3.3 1995/11/28 19:50:39 widmer
* CSCdi44251: Replace Ifelse(csb->in_help)/Eval with Func
*
* Revision 3.2 1995/11/17 17:31:55 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:18 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.3 1995/06/21 18:16:03 widmer
* CSCdi36227: Fix parse chain alternates
*
* Revision 2.2 1995/06/15 15:18:47 widmer
* CSCdi35889: parser transition structures should be static
*
* Revision 2.1 1995/06/07 21:05:42 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/include/cfg_routemap_set_policy.h
No license file was found, but licenses were detected in source scan.

```

```

/*
*-----
* exec_debug_protofltr.h
*
* Jan 2006, Mercia Zheng
*
* Copyright (c) 2005-2009 by cisco Systems, Inc.
*
* All Rights Reserved
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_debug_protofltr.h
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----
* route1.c -- Routing Support: Common Routines
*

```

```
* 22-March-1986, Kirk Lougheed
*
* Copyright (c) 1986-2020 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/route1.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* routemap_track_ios.c -- Route map support for tracking
* Functions shared by rp & vip.
*
* March 2003 Shyan Wignarajah
*
* Copyright (c) 2003-2010, 2013-2014, 2016 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_track_ios.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* route_map_registry.h -- Registration Points for Route Maps support in ION
*
* July 2001, Siva Yaragalla
*
* Copyright (c) 2001, 2003, 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/route_map_registry.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* IP routing table flap statistics collection facility.
```

\*  
\* Nov 1996, Ravi Chandra  
\*  
\* Copyright (c) 1995-1998, 2001-2005, 2007-2010 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_stats.c

No license file was found, but licenses were detected in source scan.

/\* \$Id: rouource\_commande\_map.c,v 3.4.10.11 1996/07/09 07:35:58 dawnli Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/route\_map.c,v \$

\*-----

\* route\_map.c -- Route map support routines.

\*

\* 23-January-1993

\*

\* Copyright (c) 1986-2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: route\_map.c,v \$

\* Revision 3.4.10.11 1996/07/09 07:35:58 dawnli

\* CSCdi57006: route-map in configuration are stored/displayed in reverse

\* order

\* Branch: California\_branch

\*

\* Revision 3.4.10.10 1996/06/28 23:19:51 hampton

\* Remove gratuitous casting. [CSCdi61655]

\* Branch: California\_branch

\*

\* Revision 3.4.10.9 1996/06/05 08:27:06 rchandra

\* CSCdi59547: Routemap: %SYS-4-REGEXP: NULL string parameter error

\* Branch: California\_branch

\* - do not pass null path to route\_map\_match\_aspath

\*

\* Revision 3.4.10.8 1996/06/03 23:24:12 ahh

\* CSCdi59119: IP: NAT should support named access-lists

\* And extended access-lists and non-contiguous address pools.

\* Branch: California\_branch

\*

\* Revision 3.4.10.7 1996/05/04 01:22:39 wilber

\* Branch: California\_branch

\*

\* Constrained Multicast Flooding

\* - Define MOSPF hello option bit.

\*

- \* Name Access List
- \*
- \* Revision 3.4.10.6 1996/04/16 19:02:21 rchandra
- \* CSCdi54830: IP features commit
- \* Branch: California\_branch
- \*
- \* Revision 3.4.10.5 1996/04/05 03:46:40 rchandra
- \* CSCdi53755: BGP: flap dampening settings not flexible enough
- \* Branch: California\_branch
- \* - add route-map support to set flap dampening parameters
- \*
- \* Revision 3.4.10.4 1996/04/02 07:29:30 dkatz
- \* CSCdi52277: Redistribution metric problems with IGRP/EIGRP
- \* Branch: California\_branch
- \* Always store canonical metrics scaled for IGRP, and make EIGRP do
- \* its own scaling internally. Get the scaling right in all three
- \* places.
- \*
- \* Revision 3.4.10.3 1996/03/28 23:59:18 rchandra
- \* CSCdi52098: BGP: exact keyword not accepted by route-map in community
- \* match
- \* Branch: California\_branch
- \* - fix my silly bug in handling exact community matching
- \* - limit the range of valid community to 0xFFFF0000
- \* - fix a cosmetic bug in show ip community-list
- \*
- \* Revision 3.4.10.2 1996/03/28 22:28:25 rchandra
- \* CSCdi52880: BGP: generate error message for unsupported route-map
- \* options
- \* Branch: California\_branch
- \* - generate error message when unsupported route-map option is used
- \* - treat confederation EBGp neighbors similar to internal neighbors in
- \* best path selection
- \* - fix the bug in bgp\_compare\_med, so that during MED comparison,
- \* confederation information is skipped properly
- \* - confederation EBGp paths should be inserted into the IP table with
- \* internal distance
- \* - do not consider common-AS neighbors as confederation neighbors
- \* - during 'clear ip bgp dampening' avoid skipping paths
- \* - undo the patch to the radix version walker
- \*
- \* Revision 3.4.10.1 1996/03/18 20:29:32 gstovall
- \* Branch: California\_branch
- \* Elvis has left the building. He headed out to California, and took the
- \* port ready changes with him.
- \*
- \* Revision 3.2.26.3 1996/03/16 06:58:25 gstovall
- \* Branch: DeadKingOnAThrone\_branch

- \* Make the king aware of V111\_1\_3.
- \*
- \* Revision 3.2.26.2 1996/03/07 09:50:41 mdb
- \* Branch: DeadKingOnAThrone\_branch
- \* cisco and ANSI/POSIX libraries.
- \*
- \* Revision 3.2.26.1 1996/02/20 01:04:27 dstine
- \* Branch: DeadKingOnAThrone\_branch
- \* Sync from DeadKingOnAThrone\_baseline\_960122 to
- \* DeadKingOnAThrone\_baseline\_960213
- \*
- \* Revision 3.4 1996/02/24 02:01:55 pst
- \* CSCdi49774: modularize regexp's for bgp (part 3)
- \*
- \* Revision 3.3 1996/02/01 06:06:17 hampton
- \* Migrate files out of the parser directory. [CSCdi47717]
- \* Step 2: Change all files which reference the moved parser files to
- \* point to their new locations.
- \*
- \* Revision 3.2 1995/11/17 17:37:13 hampton
- \* Remove old entries from the RCS header logs.
- \*
- \* Revision 3.1 1995/11/09 12:10:35 shaker
- \* Bump version numbers from 2.x to 3.x.
- \*
- \* Revision 2.6 1995/09/25 08:31:19 tli
- \* CSCdi40960: ISP jumbo patch 2
- \*
- \* Revision 2.5 1995/07/06 23:12:39 rchandra
- \* CSCdi36759: BGP : Add conditional per neighbor default generation
- \* - add 'neighbor <x.x.x.x> default-originate route-map <tag>' command.
- \*
- \* Revision 2.4 1995/06/23 14:26:05 widmer
- \* CSCdi36318: multiple route-map commands are not accepted
- \* Fix route-map command NV generation
- \*
- \* Revision 2.3 1995/06/15 15:18:52 widmer
- \* CSCdi35889: parser transition structures should be static
- \*
- \* Revision 2.2 1995/06/08 08:59:19 tli
- \* CSCdi35274: route-map test-1 crashes IOS
- \* - If a route map does not set any routing information, it should be
- \* equivalent to not having policy routed the packet.
- \* - "match length" clauses were having their flag stepped on because the
- \* flag update routine didn't know about the clause.
- \*
- \* Revision 2.1 1995/06/07 21:10:53 hampton
- \* Bump version numbers from 1.x to 2.x.

```
*
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/route_map.c
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* cfg_routemap_set_ip.h -- IP specific route-map clauses
*
* Mar 1995 Tony Li
*
* Copyright (c) 1995-1998, 2000-2004, 2006-2013, 2016, 2019 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_routemap_set_ip.h
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* Registry for IP FRR infrastructure
*
* July 6, 2010 Ahmed Bashandy
*
* Copyright (c) 2001-2003, 2005, 2007-2008, 2010 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/lfafr_registry.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
```



```
* router_af_parse.h
*
* Route Address Family parser functions declarations.
*
* May 2002, Victor Kamensky
*
* Copyright (c) 2002, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/router_af_parse.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* iprouting_parser_macros.h - Routing macros moved out of
* sys/parser/macros.h
*
* November, 2004
*
* Copyright (c) 2004-2011, 2013, 2015, 2018 by cisco Systems, Inc.
* All rights reserved.
*-----
*
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/include/iprouting_parser_macros.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* routemap_debug.c -- Routemap debugging support
*
* July 1998, Wilber Su
*
* Copyright (c) 1998, 2004, 2006-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_debug.c
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* route_map_globs.c
*
* This file has the route map globals common to blob (for lc images)
* and routing process(for routing images).
*
* Copyright (c) 2002-2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/route_map_globs.c
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* routemap_ios.c -- Route map support routines that can be shared
* by RP and VIP/LC
*
* July 1998 Wilber Su
*
* Copyright (c) 1998-2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_ios.c
No license file was found, but licenses were detected in source scan.
```

```
/*-----
* route_map_ionblob.c -- Route Maps support for ION Blob
*
* October 2001, Siva Yaragalla
*
* Copyright (c) 2001-2009, 2011, 2013, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/route_map_ionblob.c
No license file was found, but licenses were detected in source scan.
```

```
/*-----
```

```
* topo_aware.h - Define multi-topology awareness
*
* March 2005, Les Ginsberg
*
* Copyright (c) 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/topo_aware.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* CFG_ROUTER_TOPO_REDISTRIBUTE.H
*
* October 2004, Lisa Z Xu
*
* Copied from and modified based on cfg_router_redistribute.h.
* Warning:
* If you modify this file, please also check cfg_router_redistribute.h
* to see if the changes apply to config-router mode as well.
*
* Copyright (c) 2004-2011, 2018-2021 by Cisco Systems, Inc.
* All Rights Reserved
*-----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/src/cfg_router_topo_redistribute.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id: cfg_router_distribute.h,v 3.3.50.2.6.1 1996/09/12 19:08:19 perryl Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_router_distribute.h,v $
*-----
* CFG_ROUTER_DISTRIBUTE.H
*
* Copyright (c) 1992-2001, 2003-2012, 2015-2016, 2018 by cisco Systems, Inc.
* All Rights Reserved
*-----
* $Log: cfg_router_distribute.h,v $
* Revision 3.3.50.2.6.1 1996/09/12 19:08:19 perryl
* Branch: Att-branch
* Allow virtual-access interface for distribute-list
*
* Revision 3.3.50.2 1996/08/12 16:03:44 widmer
```

```

* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
* Revision 3.3.50.1 1996/05/04 01:21:18 wilber
* Branch: California_branch
*
* Constrained Multicast Flooding
* - Define MOSPF hello option bit.
*
* Name Access List
*
* Revision 3.3 1995/12/04 06:47:13 tli
* CSCdi43559: IP: distribute-list 101 out should work
*
* Revision 3.2 1995/11/17 17:32:10 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:34 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:15:52 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:12:36 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/cfg_router_distribute.h

```

No license file was found, but licenses were detected in source scan.

```

/* Id
* $Source$
*-----
*
* parser_defs_route_map.h
*
* Constant definition for route-map command and associated subcommands.
*
* Copyright (c) 1985-1996, 1999, 2001, 2004-2005, 2007-2008, 2011, 2014-2015 by cisco Systems, Inc.
* All rights reserved.

```

```
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/parser\_defs\_route\_map.h  
No license file was found, but licenses were detected in source scan.

```
/*-----
* ip_stats.c - IP for topology aware stats
*
* April 2006, Jonsky Hsu
*
* Copyright (c) 2006-2010 by cisco Systems, Inc.
* All rights reserved.
*
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_stats.c  
No license file was found, but licenses were detected in source scan.

```
/*
*-----
* protofltr.h
*
* Routing protocol filter manager Public API definitions
*
* Jan 2006, Mercia Zheng
*
* Copyright (c) 2005-2011, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/protofltr.h  
No license file was found, but licenses were detected in source scan.

```
/*-----
* router_af_actions.h
*
* Router Address Family action declarations.
*
* May 2002, Victor Kamensky
```

\*  
\* Copyright (c) 2002, 2004-2005, 2007-2008 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/router\_af\_actions.h  
No license file was found, but licenses were detected in source scan.

/\*\$Id: cfg\_router\_maximum-paths.h,v 3.2 1995/11/17 17:32:11 hampton Exp \$  
\* \$Source: /swtal/cherf.111/ios/sys/iprouting/cfg\_router\_maximum-paths.h,v \$

\*-----  
\* cfg\_router\_maximum-paths.h  
\*  
\* <July> 1994 rchandra  
\*  
\* Copyright (c) 1994-2016, 2019 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\* \$Log: cfg\_router\_maximum-paths.h,v \$  
\* Revision 3.2 1995/11/17 17:32:11 hampton  
\* Remove old entries from the RCS header logs.  
\*  
\* Revision 3.1 1995/11/09 12:05:39 shaker  
\* Bump version numbers from 2.x to 3.x.  
\*  
\* Revision 2.1 1995/07/01 12:15:53 tli  
\* CSCdi36508: Rationalize parser file placement, part I  
\* Rationalize iprouting  
\*  
\* Revision 2.1 1995/06/07 22:12:44 hampton  
\* Bump version numbers from 1.x to 2.x.  
\*  
\*-----  
\* \$Endlog\$  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_maximum-paths.h  
No license file was found, but licenses were detected in source scan.

/\* \$Id\$  
\* \$Source\$  
\*-----  
\* cfg\_router\_validate.h  
\*  
\*-----

\* Nob to allow user to decide whether or not system should sanity check  
\* source IP address of incoming routing updates.  
\*  
\* March 1994, Bruce Cole  
\*  
\* Copyright (c) 1994-2002, 2007-2008 by cisco Systems, Inc.  
\* All rights reserved.

\*-----  
\* \$Log\$  
\*-----  
\* \$Endlog\$  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_validate.h  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* routemap\_debug.h -- Routemap debugging support  
\*  
\* July 1998, Wilber Su  
\*  
\* Copyright (c) 1998, 2004, 2007-2008 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routemap\_debug.h  
No license file was found, but licenses were detected in source scan.

/\* \$Id: exec\_show\_route-map.h,v 3.2.60.1 1996/08/12 16:04:13 widmer Exp \$  
\* \$Source: /release/112/cvs/Xsys/iprouting/exec\_show\_route-map.h,v \$  
\*-----  
\* exec\_show\_route-map.h  
\*  
\* Copyright (c) 1993-1996, 1998, 2003-2008, 2011 by cisco Systems, Inc.  
\* All rights reserved.  
\*  
\* Command parsing chain for "show route-map".  
\*-----  
\* \$Log: exec\_show\_route-map.h,v \$  
\* Revision 3.2.60.1 1996/08/12 16:04:13 widmer  
\* CSCdi65725: Create Eolns macro that defaults csb->which to 0  
\* Branch: California\_branch  
\* Add Eolns and Nvgenns macro that default csb->which to 0

```

* Remove hidden keyword help strings
*
* Revision 3.2 1995/11/17 17:33:31 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:07:29 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:16:22 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:25:36 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/exec_show_route-map.h
No license file was found, but licenses were detected in source scan.

```

```

/*-----
* route_map_def.h - Route Map Tyep Definition
*
* Feb, 2006 Allen Hu
*
* Copyright (c) 2006-2008, 2017 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/route_map_def.h
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----
* iprouting_parser.h -- IP routing parser API header file
*
* April - 2007, Selva Subramanian
*
* Copyright (c) 2001-2009 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```



Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_parser.h

No license file was found, but licenses were detected in source scan.

```
#-----
iproutingcmn_router_cmd.run-doxxygen -- Run-doxxygen Configuration File for
IP Routing Common Router Commands

December 2007, Chi Iong Ansjory

Copyright (c) 2007-2008, 2012 by cisco Systems, Inc.
All rights reserved.
#-----

#-----
RUN-DOXYGEN CONFIG FILE

The variables defined in this file are used by the run-doxxygen script to
execute doxygen and generate API documentation.
This file will be sourced by a bourne shell script (/bin/sh)
and so must follow the bourne shell script syntax

This default configuration file is setup to work for the XOS project.
If you want to reuse it, you must customize the properties below in order to
make it work for your project.

For more help contact doxygen-trolls@cisco.com
#-----

The PROJECT_NAME variable is a single word (or a sequence of words surrounded
by quotes) that should identify the project.

PROJECT_NAME=IPROUTINGCMN_ROUTER_CMD

The PROJECT_NUMBER tag can be used to enter a project or revision number.
This could be handy for archiving the generated documentation or
if some version control system is used.

PROJECT_NUMBER=0.1.0.2

The latest version of doxygen can be picked on the shared storage
of the XOS/Component Framework team
This executable can only run on linux 2.6 !!!!
#DOXYGEN=/auto/ios_comp/tools/doxygen-1.5.4/bin/doxygen
Change this sanity check when doxygen will be supported for other hosts
#host=`uname -s`
#host_version=`uname -r`
```

```

#if [$host != "Linux"]; then
 #echo "Error: this wrapper can only be executed from Linux"
 #exit
#fi
#if [$host_version \< "2.6"]; then
 #echo "Error: this wrapper requires Linux 2.6 or higher"
 #exit
#fi
#
#
The location of the latex suite, this is needed only if the PDF
generation option is used (-f)
This binary is also only available on linux 2.6
#
#LATEX_PATH=/auto/ios_comp/tools/tetex/bin/i686-pc-linux-gnu
#LATEX_PATH=/usr/bin
#
#-----

Use this variable to specify one or more wildcard pattern (like *.cpp
and *.h) to filter out the source-files in the directories.

FILE_PATTERNS="ip_stats.h iprouting_debug.h router_af_actions_registry.reg"

Exclude all internal defines (defines used to guard against multiple
inclusions of the same header file)
EXCLUDE_SYMBOLS="__*_H__ reg_add* reg_delete* service_* reg_used* \
_reg_add* reg_inv_* reg_svr* _registry* registry* REG_ELOG *_GEN_ID \
*_DEFINED *_argt *_res \
bgp* ospf* debug* route_debug* igrp* ipcache* ipproc* ip_mobile* netred* \
iprouting_acl DEBUG_ROUTING_PROT MISC_DEBUG_VARS \
DEBUG_ROUTING* ALTP_BGF* __DEBUG_FLAGS* \
iprouting_debug_init iprouting_set_debug_array iprouting6_debug_list_command \
iprouting_debug_list_command iprouting_nsap_debug_list_command \
iprouting_debug_acl_notify \
reg_invoke_address_family_action_get_entries \
reg_invoke_address_family_action_nvgen_exit"

When all symbols in a project start with a common prefix, by default all
symbols will be put under the same header in the alphabetical index.
The IGNORE_PREFIX tag can be used to specify one or more prefixes that
should be ignored while generating the index headers. This will allow
to spread the symbol index more evenly.

IGNORE_PREFIX="xos_XOS_"

If the EXTRACT_ALL tag is set to YES doxygen will assume all entities in
documentation are documented, even if no documentation was available.

```

# Private class members and static file members will be hidden unless  
# the EXTRACT\_PRIVATE and EXTRACT\_STATIC tags are set to YES

EXTRACT\_ALL=YES

# If the EXTRACT\_STATIC tag is set to YES all static members of a file  
# will be included in the documentation.

EXTRACT\_STATIC=YES

# If the HIDE\_UNDOC\_MEMBERS tag is set to YES, Doxygen will hide all  
# undocumented members of documented classes, files or namespaces.  
# If set to NO (the default) these members will be included in the  
# various overviews, but no documentation section is generated.  
# This option has no effect if EXTRACT\_ALL is enabled.

HIDE\_UNDOC\_MEMBERS=NO

#-----

# VARIABLES RELATED TO DOXYGEN OUTPUT

# This is the root of the destination folder (local variable)  
# Note that the archive area and the workspace area do not have to share the  
# same destination root.

DST\_BASE=/auto/ios\_comp/iprouting\_cmh

# This is the URL through which the DST\_BASE folder can be accessed  
# from the intranet. This URL depends on the location of the storage.  
# Contact IT to find out the correct URL.

# (Local variable)

URL\_DST\_BASE=http://sjc-filer29a-web/projects/ios\_comp/iprouting\_cmh

# ---- WORKSPACE AREA

# Relative path (to DST\_BASE) - used by OUTPUT\_WORKSPACE (local variable)

WORKSPACE\_FOLDER=api-docs

# This is the full pathame of the root under which all normal output folders will be located

OUTPUT\_WORKSPACE=\$DST\_BASE/\$WORKSPACE\_FOLDER

# This is the URL of the above OUTPUT\_WORKSPACE directory

# Only used for displaying where to access the documentation after the doxygen run

URL\_WORKSPACE=\$URL\_DST\_BASE/\$WORKSPACE\_FOLDER

# ---- ARCHIVE AREA

# Relative path (to DST\_BASE) - used by OUTPUT\_ARCHIVE (local variable)

ARCHIVE\_FOLDER=archive/xoslib

# This is the full pathame of the root under which all archive output folders will be located

OUTPUT\_ARCHIVE=\$DST\_BASE/\$ARCHIVE\_FOLDER

# This is the URL of the above OUTPUT\_WORKSPACE directory  
# Only used for displaying where to access the documentation after the doxygen run  
URL\_ARCHIVE=\$URL\_DST\_BASE/\$ARCHIVE\_FOLDER

#-----

# VARIABLES RELATED TO DOXYGEN INPUT

# This is the root of the API source code (local variable)  
SRC\_BASE=/vob/cisco.comp/routing/iprouting\_cmn

# This is the location of all the API public header files (or directories)  
# In XOS all public header files are located in one directory  
API\_PUBLIC="\$SRC\_BASE/include \$SRC\_BASE/include/reg"  
#API\_PUBLIC="\$SRC\_BASE/include"

# This is the location of all the API source code, used with option -all only  
# if you want to generate doxygen documentation for the source code  
# (only useful for internal code review)  
# Do not put the content of API\_PUBLIC as it is added automatically  
API\_ALL="\$SRC\_BASE/shared \$SRC\_BASE/ios \$SRC\_BASE/iox \$SRC\_BASE/linux"

# The EXAMPLE\_PATH tag can be used to specify one or more files or  
# directories that contain example code fragments that are included (see  
# the @example command).

EXAMPLE\_PATH=\$SRC\_BASE/test/src

# The IMAGE\_PATH tag can be used to specify one or more  
# directories that contain image that are included in the documentation (see  
# the @image command).  
# This is only used/relevant if you have images in your API documentation.

IMAGE\_PATH=\$DST\_BASE/api-docs-images

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-  
tar/iprouting\_cmn/docs/iproutingcmn\_router\_cmd.run-doxygen  
No license file was found, but licenses were detected in source scan.

/\* \$Id: exec\_clear\_ip\_prefixlist.h,v 3.1.2.1 1997/12/17 21:36:58 enkechen Exp \$  
\* \$Source: /release/111/cvs/Xsys/ip/exec\_clear\_ip\_prefixlist.h,v \$  
\*-----  
\* exec\_clear\_ip\_prefixlist.h  
\*  
\* July 1997, Enke Chen  
\*

\* Copyright (c) 1995-1998, 2000-2001, 2007-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: exec\_clear\_ip\_prefixlist.h,v \$

\* Revision 3.1.2.1 1997/12/17 21:36:58 enkechen

\* CSCdj61356: Prefix-list - facility for efficient route filtering

\* Branch: FIB\_branch

\*

\* Revision 3.1 1997/12/17 01:46:34 enkechen

\* Start with the new file.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/exec\_clear\_ip\_prefixlist.h

No license file was found, but licenses were detected in source scan.

/\*

\* P A R S E R \_ D E F S \_ R O U T E R . H

\*

\* \$Id: parser\_defs\_router.h,v 3.1.40.2 1996/07/30 06:56:06 rchandra Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/parser\_defs\_router.h,v \$

\*

\* Copyright (c) 1985-2020 by cisco Systems, Inc.

\* All rights reserved.

\*

\*-----

\* \$Log: parser\_defs\_router.h,v \$

\* Revision 3.1.40.2 1996/07/30 06:56:06 rchandra

\* CSCdi64489: BGP: private-AS number cannot be removed from AS-path

\* Branch: California\_branch

\* - add 'neighbor x.x.x.x remove-private-AS' command.

\* - add 'inbound' keyword to 'neighbor x.x.x.x soft-reconfiguration'

\* command (CSCdi64487)

\*

\* Revision 3.1.40.1 1996/04/16 19:02:10 rchandra

\* CSCdi54830: IP features commit

\* Branch: California\_branch

\*

\* Revision 3.1 1996/02/01 04:58:48 hampton

\* Migrate files out of the parser directory. [CSCdi47717]

\* Step 1: Create copies of the files to be moved in their new location.

\*

\* Revision 3.2 1995/11/17 18:52:17 hampton

\* Remove old entries from the RCS header logs.

\*

```

* Revision 3.1 1995/11/09 12:56:05 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.4 1995/08/28 21:14:47 rchandra
* CSCdi39436: BGP : Allow conditional unsuppression of suppressed routes
* - add 'neighbor x.x.x.x unsuppress-map <map>' command
*
* Revision 2.3 1995/07/06 23:11:21 rchandra
* CSCdi36759: BGP : Add conditional per neighbor default generation
* - add 'neighbor <x.x.x.x> default-originate route-map <tag>' command.
*
* Revision 2.2 1995/06/30 20:24:40 rchandra
* CSCdi36620: BGP requires IBGP neighbors to be fully meshed
*
* Revision 2.1 1995/06/07 22:31:08 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/parser_defs_router.h
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----
* iprouting_blob_undef.c -- undefined symbols from blob when
* routing subsystems are pulled out
*
* October, 2002 Phil Winterfield
*
* Copyright (c) 2001-2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_blob_undef.c
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----

```

\* iprouting\_commands.h -- Support for extern command function declaration

\*

\* September 2001, Rashmi Shrivastava

\*

\* Copyright (c) 2001-2010, 2013, 2016 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-  
tar/iprouting\_cmn/internal\_inc/iprouting\_commands.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: ip\_prefixlist.c,v 1.1 2011/02/02 21:47:40 vkoshi Exp vkoshi \$

\* \$Source: /view/vkoshi-

comp\_routing\_rel5.rel4\_1\_1\_19.2460.ss.comp1.port/vob/ss.comp1/routing/iprouting\_cmn/src/ip\_prefixlist.c,v \$

\*-----

\* Generic prefix list support.

\*

\* June 1997, Enke Chen

\*

\* Copyright (c) 1997-2012, 2016, 2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: ip\_prefixlist.c,v \$

\* Revision 1.1 2011/02/02 21:47:40 vkoshi

\* checkin by port\_commit

\*

\* Revision 3.1.2.4 1998/03/20 17:03:32 enkechen

\* CSCdj88889: Prefix-list: sho ip prefix-list summ does not pause

\* Branch: FIB\_branch

\*

\* Revision 3.1.2.3 1998/02/23 19:43:44 enkechen

\* CSCdj75270: Prefix-list: optimization for downloading large lists

\* Branch: FIB\_branch

\*

\* Revision 3.1.2.2 1998/02/11 01:55:32 soma

\* Merge FIB\_L3 branch into FIB branch

\*

\* Revision 3.1.2.1.8.1 1998/01/29 00:59:02 enkechen

\* CSCdj77190: Prefix-list: mishandling of long prefix-list names

\* Branch: FIB\_L3\_branch

\*

\* Revision 3.1.2.1 1997/12/17 21:37:00 enkechen

\* CSCdj61356: Prefix-list - facility for efficient route filtering

\* Branch: FIB\_branch

\*

\* Revision 3.1 1997/12/17 01:46:33 enkechen

\* Start with the new file.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_prefixlist.c

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_router\_network.h,v 3.2.60.1 1996/08/12 16:03:46 widmer Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_router\_network.h,v \$

\*-----

\* C F G \_ R O U T E R \_ N E T W O R K . H

\*

\* Copyright (c) 1992-2002, 2004-2009, 2013, 2018 by cisco Systems, Inc.

\* All Rights Reserved

\*-----

\* \$Log: cfg\_router\_network.h,v \$

\* Revision 3.2.60.1 1996/08/12 16:03:46 widmer

\* CSCdi65725: Create Eolns macro that defaults csb->which to 0

\* Branch: California\_branch

\* Add Eolns and Nvgenns macro that default csb->which to 0

\* Remove hidden keyword help strings

\*

\* Revision 3.2 1995/11/17 17:32:18 hampton

\* Remove old entries from the RCS header logs.

\*

\* Revision 3.1 1995/11/09 12:05:49 shaker

\* Bump version numbers from 2.x to 3.x.

\*

\* Revision 2.2 1995/09/25 08:30:52 tli

\* CSCdi40960: ISP jumbo patch 2

\*

\* Revision 2.1 1995/07/01 12:15:58 tli

\* CSCdi36508: Rationalize parser file placement, part I

\* Rationalize iprouting

\*

\* Revision 2.1 1995/06/07 22:12:56 hampton

\* Bump version numbers from 1.x to 2.x.

\*

\*-----

\* \$Endlog\$

\*/



Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_network.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_router\_redistribute.h,v 3.4.20.3 1996/08/12 16:03:50 widmer Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_router\_redistribute.h,v \$

\*-----  
\* C F G \_ R O U T E R \_ R E D I S T R I B U T E . H

\* Warning:

\* If you modify this file, please also check cfg\_router\_topo\_redistribute.h

\* to see if the changes apply to config-router-topo mode as well.

\*

\* Copyright (c) 1992-2012, 2014-2015, 2018-2021 by cisco Systems, Inc.

\* All Rights Reserved

\*-----

\* \$Log: cfg\_router\_redistribute.h,v \$

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_redistribute.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* route3\_ionized.c

\*

\* ION specific route3.c parser functions.

\*

\* March 2002, Victor Kamensky

\*

\* Copyright (c) 2002, 2005-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route3\_ionized.c

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

```

* iprouting_init_blob.c -- Partner file (in blob) for iprouting_init.c
*
* 27-August-2001, Fan Kong
*
* Copyright (c) 2001-2011, 2015, 2019 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_init_blob.c
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: exec_show_protocols.h,v 3.3.20.1 1996/08/12 16:04:12 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/exec_show_protocols.h,v $
*-----
* EXEC_SHOW_PROTOCOLS.H
*
* Copyright (c) 1992-1996, 2007-2009 by cisco Systems, Inc.
* All Rights Reserved
*-----
* $Log: exec_show_protocols.h,v $
* Revision 3.3.20.1 1996/08/12 16:04:12 widmer
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
* Revision 3.3 1996/01/29 07:08:56 hampton
* Remove command number arguments passed to parse routines that only
* perform a single function. [CSCdi47717]
*
* Revision 3.2 1995/11/17 17:33:30 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:07:27 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:16:21 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:25:21 hampton
* Bump version numbers from 1.x to 2.x.
*

```

```
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_show_protocols.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id: cfg_router_neighbor.h,v 3.3.20.1 1996/08/12 16:03:45 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_router_neighbor.h,v $
```

```
*-----
```

```
* C F G _ R O U T E R _ N E I G H B O R . H
```

```
*
```

```
* Copyright (c) 1992-2002, 2004-2010, 2012, 2018 by cisco Systems, Inc.
```

```
* All Rights Reserved
```

```
*-----
```

```
* $Log: cfg_router_neighbor.h,v $
```

```
* Revision 3.3.20.1 1996/08/12 16:03:45 widmer
```

```
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
```

```
* Branch: California_branch
```

```
* Add Eolns and Nvgenns macro that default csb->which to 0
```

```
* Remove hidden keyword help strings
```

```
*
```

```
* Revision 3.3 1996/02/01 23:33:57 widmer
```

```
* CSCdi45325: Change Keyword/Set to use Keyword_Id macro
```

```
*
```

```
* Revision 3.2 1995/11/17 17:32:14 hampton
```

```
* Remove old entries from the RCS header logs.
```

```
*
```

```
* Revision 3.1 1995/11/09 12:05:42 shaker
```

```
* Bump version numbers from 2.x to 3.x.
```

```
*
```

```
* Revision 2.1 1995/07/01 12:15:55 tli
```

```
* CSCdi36508: Rationalize parser file placement, part I
```

```
* Rationalize iprouting
```

```
*
```

```
* Revision 2.1 1995/06/07 22:12:48 hampton
```

```
* Bump version numbers from 1.x to 2.x.
```

```
*
```

```
*-----
```

```
* $Endlog$
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/cfg_router_neighbor.h
```

No license file was found, but licenses were detected in source scan.

```
/* Id
 * $Source$
 *-----
 * CFG_ROUTER_DEFAULTS.H
 *
 * Copyright (c) 1992-2011, 2013, 2015-2016, 2019 by cisco Systems, Inc.
 * All Rights Reserved
 *-----
 * Log
 *-----
 * $Endlog$
 */
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_default.h
No license file was found, but licenses were detected in source scan.
```

```
/*
 *-----
 * Registry for IP route commands in ION
 *
 * September 2001, Rashmi Shrivastava
 *
 * Copyright (c) 2001, 2003-2008 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 */
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/ion_iprouting_cmd_registry.h
No license file was found, but licenses were detected in source scan.
```

```
/*-----
 * routemap_api_util.c -- Dynamic routemap API utility functions.
 *
 * May 2003, Tanya Shastri
 *
 * Copyright (c) 2003, 2005-2010, 2020 by cisco Systems, Inc.
 * All rights reserved.
 *-----
 */
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_api_util.c
No license file was found, but licenses were detected in source scan.
```

```
/* Id
```

```

* $Source$
*-----
* cfg_router_summary_addr.h
*
* Supports the router subcommand "summary-address". Provides IP aggregation
* configuration.
*
* Copyright (c) 1992-2004, 2007-2010, 2015, 2018 by cisco Systems, Inc.
* All rights reserved.
*
* Longer description here.
*-----
* Log
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/cfg_router_summary_addr.h
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: route_map.h,v 3.3.12.6 1996/05/04 01:22:42 wilber Exp $
* $Source: /release/112/cvs/Xsys/iprouting/route_map.h,v $
*-----
* policylist.h -- Policy list support data structures
*
* April 2000, Rex Fernando
*
* Copyright (c) 2000, 2002-2003, 2005, 2007-2011 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/policylist.h
No license file was found, but licenses were detected in source scan.

```

```

/*
*-----
* route_map_blob.c -- Route Map Subsystem
*
* Aug 2001, Siva Yaragalla
*
* Copyright (c) 2001-2012, 2014-2018 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route\_map\_blob.c

No license file was found, but licenses were detected in source scan.

/\* \$Id: ip\_prefixlist.h,v 3.1.2.3 1998/02/23 19:43:44 enkechen Exp \$

\* \$Source: /release/111/cvs/Xsys/ip/ip\_prefixlist.h,v \$

\*-----

\* Generic prefix list support.

\*

\* June 1997, Enke Chen

\*

\* Copyright (c) 1997-2008, 2010 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: ip\_prefixlist.h,v \$

\* Revision 3.1.2.3 1998/02/23 19:43:44 enkechen

\* CSCdj75270: Prefix-list: optimization for downloading large lists

\* Branch: FIB\_branch

\*

\* Revision 3.1.2.2 1998/02/11 01:55:34 soma

\* Merge FIB\_L3 branch into FIB branch

\*

\* Revision 3.1.2.1.8.1 1998/01/29 01:02:13 enkechen

\* CSCdj77191: Reduce several chunk size parameters to save memory

\* Branch: FIB\_L3\_branch

\*

\* Revision 3.1.2.1 1997/12/17 21:37:00 enkechen

\* CSCdj61356: Prefix-list - facility for efficient route filtering

\* Branch: FIB\_branch

\*

\* Revision 3.1 1997/12/17 01:46:32 enkechen

\* Start with the new file.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/ip\_prefixlist.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* router\_topology\_registry.c

\*

\* Router topology registry.

\*

\* Sept 2004, Mercia Zheng

\*  
\* Copyright (c) 2004-2005, 2007-2008 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/router\_topology\_registry.c  
No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_router\_distance.h,v 3.2.60.1 1996/05/04 01:21:16 wilber Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_router\_distance.h,v \$

\*-----

\* C F G \_ R O U T E R \_ D I S T A N C E . H

\*

\* The bgp version must come before the weight version so that both NVGEN  
\* and normal processing happen correctly.

\*

\* Copyright (c) 1992-1999, 2001-2010, 2015-2016, 2019-2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: cfg\_router\_distance.h,v \$

\* Revision 3.2.60.1 1996/05/04 01:21:16 wilber

\* Branch: California\_branch

\*

\* Constrained Multicast Flooding

\* - Define MOSPF hello option bit.

\*

\* Name Access List

\*

\* Revision 3.2 1995/11/17 17:32:05 hampton

\* Remove old entries from the RCS header logs.

\*

\* Revision 3.1 1995/11/09 12:05:29 shaker

\* Bump version numbers from 2.x to 3.x.

\*

\* Revision 2.1 1995/07/01 12:15:50 tli

\* CSCdi36508: Rationalize parser file placement, part I

\* Rationalize iprouting

\*

\* Revision 2.1 1995/06/07 22:12:30 hampton

\* Bump version numbers from 1.x to 2.x.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/cfg_router_distance.h
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* protofltr_debug.c - Debug functions for protocol filter manager
*
* Mercia Zheng, Jan 2006
*
* Copyright (c) 2006-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/protofltr_debug.c
No license file was found, but licenses were detected in source scan.
```

```
/*
*-----
* cfg_router_topology.h - router topology configuration mode command
*
* Sept 2004, Mercia Zheng
*
* Copyright (c) 2004-2005, 2007-2009, 2013 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_router_topology.h
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* Registry for routing context for RP and LC common code.
*
* September 2009, Derek Yeung
*
* Copyright (c) 2009 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```



Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routing\_context\_registry.h

No license file was found, but licenses were detected in source scan.

```
/*-----
* exec_routing_context.h
*
* This file defines the routing-context command syntax.
*
* March 2009, Derek Yeung
*
* Copyright (c) 2009-2010, 2015, 2020 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/exec\_routing\_context.h

No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
*-----
* routing_context_registry.c
*
* September 2009, Derek Yeung
*
* Copyright (c) 2009 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/routing\_context\_registry.c

No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
*-----
* Address-family command; enters Address Family mode.
*
* Sept 1998, Bob Thomas
*
*/
```

\* Copyright (c) 1998-1999, 2001-2010, 2012, 2018 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_router\_af.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* cfg\_router\_topology\_exit.h - Exit from router topology sub mode.

\*

\* Sept 2004, Mercia Zheng

\*

\* Copyright (c) 2004, 2006-2009 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_router\_topology\_exit.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* protofltr.c -- Routing protocol filter manager support routines

\*

\* Jan 2006, Mercia Zheng

\*

\* Copyright (c) 2005-2011, 2020 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/protofltr.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* protofltr\_debug\_flags.h -- Protofltr manager debug flags declarations

\*

\* Jan 2006, Mercia Zheng

\*

\* Copyright (c) 2005-2008 by Cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/protofltr\_debug\_flags.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* routemap\_internal.c -- Internal funtions of routemap code.

\*

\* May 2003, Tanya Shastri

\*

\* Copyright (c) 2003, 2005-2009, 2011-2019 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/routemap\_internal.c

No license file was found, but licenses were detected in source scan.

/\* \$Id: iprouting\_actions.h,v 3.2 1995/11/17 17:34:39 hampton Exp \$

\* \$Source: /swtal/cherf.111/ios/sys/iprouting/iprouting\_actions.h,v \$

\*-----

\* IP routing specific parsing functions.

\*

\* August 1994, Bruce Cole

\*

\* Copyright (c) 1994, 2004-2008, 2015 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log: iprouting\_actions.h,v \$

\* Revision 3.2 1995/11/17 17:34:39 hampton

\* Remove old entries from the RCS header logs.

\*

\* Revision 3.1 1995/11/09 12:08:30 shaker

\* Bump version numbers from 2.x to 3.x.

\*

\* Revision 2.1 1995/06/07 21:07:35 hampton

\* Bump version numbers from 1.x to 2.x.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/iprouting\_actions.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* policylist\_ionized.c - Routines to handle policy-list commands for

\* IONized processes.

\*

\* November 2003, Siva Yaragalla

\*

\* Copyright (c) 2003-2005, 2007-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/policylist\_ionized.c

No license file was found, but licenses were detected in source scan.

/\* \$Id: exec\_debug\_ip\_routing.h,v 3.3.20.1 1996/06/27 04:40:57 mikel Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/exec\_debug\_ip\_routing.h,v \$

\*-----

\* IP routing debug commands

\*

\* May 1993, Robert Widmer

\*

\* Copyright (c) 1993-2003, 2005-2009, 2019 by cisco Systems, Inc.

\* All rights reserved.

\*

\*-----

\* \$Log: exec\_debug\_ip\_routing.h,v \$

\* Revision 3.3.20.1 1996/06/27 04:40:57 mikel

\* CSCdi37749: <debug ip eigrp> help wrong

\* Branch: California\_branch

\* clean up ip-eigrp AS debugging

\*

\* Revision 3.3 1996/02/01 23:34:07 widmer

\* CSCdi45325: Change Keyword/Set to use Keyword\_Id macro

\*

\* Revision 3.2 1995/11/17 17:33:17 hampton

\* Remove old entries from the RCS header logs.

\*

\* Revision 3.1 1995/11/09 12:07:09 shaker

\* Bump version numbers from 2.x to 3.x.

```

*
* Revision 2.2 1995/11/08 21:06:22 shaker
* Merge Arkansas_branch into 11.1 mainline.
*
* Revision 2.1 1995/07/01 12:16:15 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:18:58 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/exec_debug_ip_routing.h
No license file was found, but licenses were detected in source scan.

```

```

/*
*-----
* msg_iproute.c - Message file for iproute facility
*
* July 17, 1990, Kevin Paul Herbert
*
* Copyright (c) 1990-2013, 2015-2017, 2019 by Cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/msg_iproute.rc
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: cfg_routemap_exit.h,v 3.2.60.1 1996/08/12 16:03:34 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_routemap_exit.h,v $
*-----
* cfg_routemap_exit.h
*
* exit - exit from route-map configuration mode
*
* Copyright (c) 1992-1996, 2007-2009 by cisco Systems, Inc.
* All Rights Reserved
*-----
* $Log: cfg_routemap_exit.h,v $
* Revision 3.2.60.1 1996/08/12 16:03:34 widmer
* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch

```

```

* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
* Revision 3.2 1995/11/17 17:31:42 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:03 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:15:44 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:12:09 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_routemap_exit.h
No license file was found, but licenses were detected in source scan.

```

```

/*
*-----
* routemap_track.c -- Route map support for tracking
* Functions which run on RP (not VIP).
*
* March 2003 Shyan Wignarajah
*
* Copyright (c) 2003-2008, 2013-2014 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routemap_track.c
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: iprouting_setup.c,v 3.4.4.1 1996/06/28 01:21:03 snyder Exp $
* $Source: /release/112/cvs/Xsys/iprouting/iprouting_setup.c,v $
*-----
* IP Routing setup commands
*
* May 1993, Robert Widmer
*
* Copyright (c) 1993-2002, 2007-2008, 2010 by cisco Systems, Inc.

```

```

* All rights reserved.
*
*-----
* $Log: iprouting_setup.c,v $
* Revision 3.4.4.1 1996/06/28 01:21:03 snyder
* CSCdi61601: fix some char * that should have been char [] in iprouting
* Branch: California_branch
*
* You get space back for the pointer
* You get space back for each reference
* You get bytes out of data space
*
* Revision 3.4 1996/03/09 22:56:04 widmer
* CSCdi47890: HTTP server doesnt work
* Add HTTP server
*
* Revision 3.3 1995/11/28 03:58:38 widmer
* CSCdi44175: Add setup_printf to replace sprintf in setup code
*
* Revision 3.2 1995/11/17 17:34:53 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:08:42 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/06/07 21:07:55 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_setup.c
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----
* cfg_routemap_match_ip.h -- IP specific route-map clauses
*
* March 1995 Tony Li
*
* Copyright (c) 1995-1998, 2000-2002, 2004-2005, 2007-2010, 2014 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----

```

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_routemap\_match\_ip.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* cfg\_route\_default.h

\*

\* September 2016, Yingzhen Qu

\*

\* Copyright (c) 2016 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_route\_default.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* routemap\_api.h -- Dynamic routemap API definitions.

\*

\* May 2003, Tanya Shastri

\*

\* Copyright (c) 2003, 2005-2009, 2011, 2013, 2015, 2018-2019 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routemap\_api.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* iprouting\_init\_ionized.c - ION specific IP Routing Protocol support.

\*

\* September 2001, Chandra Appanna

\*

\* Copyright (c) 2001-2012 by cisco Systems, Inc.



\* All rights reserved.

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/iprouting\_init\_ionized.c

No license file was found, but licenses were detected in source scan.

/\*

\*

\*-----

\* Generic route tag list support.

\*

\* June 2011, Karthik Subramaniam

\*

\* Copyright (c) 1997-2008, 2010-2012 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routetag\_list.h

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

\*-----

\* IP routing clear commands

\*

\* May 1993, Robert Widmer

\*

\* Copyright (c) 1993-1999, 2001-2002, 2004-2010 by cisco Systems, Inc.

\* All rights reserved.

\*

\*-----

\* \$Log\$

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/exec\_clear\_ip\_routing.h

No license file was found, but licenses were detected in source scan.

```

/* $Id: cfg_router_metric.h,v 3.2 1995/11/17 17:32:13 hampton Exp $
* $Source: /swtal/cherf.111/ios/sys/iprouting/cfg_router_metric.h,v $
* -----
* C F G _ R O U T E R _ M E T R I C . H
*
* Copyright (c) 1992-2002, 2004, 2006-2009 by cisco Systems, Inc.
* All Rights Reserved
* -----
* $Log: cfg_router_metric.h,v $
* Revision 3.2 1995/11/17 17:32:13 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:41 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:15:54 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:12:46 hampton
* Bump version numbers from 1.x to 2.x.
*
* -----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_metric.h
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: cfg_router_timers.h,v 3.2.60.1 1996/04/15 21:17:46 bcole Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_router_timers.h,v $
* -----
* C F G _ R O U T E R _ T I M E R S . H
*
* Copyright (c) 1992-1999, 2002, 2004-2011, 2018 by cisco Systems, Inc.
* All Rights Reserved
* -----
* $Log: cfg_router_timers.h,v $
* Revision 3.2.60.1 1996/04/15 21:17:46 bcole
* CSCdi54649: IP Host Modularity, IP Automatic Stub Routing feature
* commit
* Branch: California_branch
*
* Revision 3.2 1995/11/17 17:32:28 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:06:09 shaker

```

```
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:16:04 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:13:13 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/cfg_router_timers.h
```

No license file was found, but licenses were detected in source scan.

```
/* $Id
* $Source
*-----
* iprib_api_svr.c -- IP Routing Information Base (RIB) API definitions
*
* August-2001, Fan Kong
*
* Copyright (c) 2001-2012, 2019 by cisco Systems, Inc.
* All rights reserved.
*-----
* $Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprib_api_svr.c
```

No license file was found, but licenses were detected in source scan.

```
/*
*-----
* C F G _ R O U T E R _ B F D . H
*
* Copyright (c) 2004-2008, 2010-2011, 2015 by cisco Systems, Inc.
* All Rights Reserved
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_router_bfd.h
```

No license file was found, but licenses were detected in source scan.

```
/*-----
* router_topology_registry.h
*
* Router topology registry.
*
* Sept 2004, Mercia Zheng
*
* Copyright (c) 2004, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/router_topology_registry.h
No license file was found, but licenses were detected in source scan.
```

```
/* Id
* $Source$
*-----
* iprouting_debug.c -- Debugging routines for IP routing
*
* May 1993, John Bashinski
*
* Copyright (c) 1993-2010, 2019 by Cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/iprouting_debug.c
No license file was found, but licenses were detected in source scan.
```

```

#-----
iprouting_api.enum - IP Routing public API enum definitions

August 2009, Prashant Srinivas

Copyright (c) 2009-2010 by cisco Systems, Inc.
All rights reserved.
#-----
#
```

```
BEGIN IPRROUTING_API
```

```
#
```

```
Enumeration of the possible reasons for disabling routing on an interface
```

```
#
```

```
Note, string length of the LONG description, should be <= 16 chars,
```

```
and contain nothing but alfanumerical characters and _
```

```
#
```

```
ENUM routing_disable_flag_t
```

```
 ITEM ROUTING_DISABLE_FLAG_INT_IF
```

```
 LONG "Internal_IF"
```

```
 END ITEM
```

```
END ENUM
```

```
END
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/enum/iprouting\_api.enum

No license file was found, but licenses were detected in source scan.

```
/*
```

```
*-----
```

```
* route_map_ion.h - Route map support data structures specific to ION.
```

```
*
```

```
* January 2002, Siva Yaragalla
```

```
*
```

```
* Copyright (c) 2002-2009, 2011 by cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*-----
```

```
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/route\_map\_ion.h

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* route3_blob.c
```

```
*
```

```
* IOS and blob specific route3.c parser functions.
```

```
*
```

```
* March 2002, Victor Kamensky
```

```
*
```

```
* Copyright (c) 2002-2003, 2005, 2007-2008 by cisco Systems, Inc.
```

```
* All rights reserved.
```

```
*-----
```

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route3\_blob.c

No license file was found, but licenses were detected in source scan.

/\* \$Id\$

\* \$Source\$

-----

\* cfg\_routemap\_match.h

\*

\* Process route-map match subcommands.

\*

\* Copyright (c) 1992-1999, 2002-2005, 2007-2012, 2018 by cisco Systems, Inc.

\* All rights reserved.

-----

\* \$Log\$

-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_routemap\_match.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_router.h,v 3.2.60.2 1996/08/12 16:03:38 widmer Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_router.h,v \$

-----

\* C F G \_ R O U T E R . H

\*

\* Enter router subcommand mode

\*

\* Copyright (c) 1992-2002, 2005, 2007-2009, 2015, 2017-2018 by cisco Systems, Inc.

\* All rights reserved.

-----

\* \$Log: cfg\_router.h,v \$

\* Revision 3.2.60.2 1996/08/12 16:03:38 widmer

\* CSCdi65725: Create Eolns macro that defaults csb->which to 0

\* Branch: California\_branch

\* Add Eolns and Nvgenns macro that default csb->which to 0

\* Remove hidden keyword help strings

\*

\* Revision 3.2.60.1 1996/04/15 21:17:43 bcole

\* CSCdi54649: IP Host Modularity, IP Automatic Stub Routing feature

\* commit

\* Branch: California\_branch

\*

\* Revision 3.2 1995/11/17 17:31:56 hampton

```

* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:20 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/07/01 12:15:46 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:12:17 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_router.h
No license file was found, but licenses were detected in source scan.

```

```

/*-----
* routing_context.c
*
* This file has global definitions for routing context support
* common to blob and iprouting proceses.
*
* March 2009, Derek Yeung
*
* Copyright (c) 2009 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routing_context.c
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: cfg_routemap_match_policy.h,v 3.3 1995/11/28 19:50:34 widmer Exp $
* $Source: /swtal/cherf.111/ios/sys/iprouting/cfg_routemap_match_policy.h,v $
*-----
* cfg_routemap_match_policy.h -- Route map match clauses for policy
* routing.
*
* Mar 1995 Tony Li
*
* Copyright (c) 1995, 2001-2002, 2007-2009, 2014-2015 by cisco Systems, Inc.
* All rights reserved.
*-----

```

```

* $Log: cfg_routemap_match_policy.h,v $
* Revision 3.3 1995/11/28 19:50:34 widmer
* CSCdi44251: Replace Ifelse(csb->in_help)/Eval with Func
*
* Revision 3.2 1995/11/17 17:31:48 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:10 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.3 1995/06/21 18:16:00 widmer
* CSCdi36227: Fix parse chain alternates
*
* Revision 2.2 1995/06/15 15:18:44 widmer
* CSCdi35889: parser transition structures should be static
*
* Revision 2.1 1995/06/07 21:05:32 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/include/cfg_routemap_match_policy.h

```

No license file was found, but licenses were detected in source scan.

```

/*
*
*-----
* Generic tag list support.
*
* June 2011, Karthik Subramaniam
*
* Copyright (c) 1997-2008, 2010-2012 by cisco Systems, Inc.
* All rights reserved.
*-----
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/routetag_list.c

```

No license file was found, but licenses were detected in source scan.

```

/*-----
* route3_parse.h
*
* Route parser functions declarations.

```



\*  
\* March 2002, Victor Kamensky  
\*  
\* Copyright (c) 2002, 2005-2008 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/route3\_parse.h  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* route\_map\_nbcmn.c -- Route map support non-Blob common routines  
\*  
\* October 2001, Siva Yaragalla  
\*  
\* Copyright (c) 2001-2013, 2018, 2020 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route\_map\_nbcmn.c  
No license file was found, but licenses were detected in source scan.

/\*  
\*-----  
\* ip\_prefixlist\_chain.c - Parse chains for IP Prefix Lists  
\*  
\* August 2001, Siva Yaragalla  
\*  
\* Copyright (c) 2001-2008 by cisco Systems, Inc.  
\* All rights reserved.  
\*-----  
\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/ip\_prefixlist\_chain.c  
No license file was found, but licenses were detected in source scan.

/\*-----  
\* routing\_context.h - Routing Context library API  
\*  
\* March 2009, Derek Yeung  
\*  
\* Copyright (c) 2009 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routing\_context.h

No license file was found, but licenses were detected in source scan.

/\*-----

\* route\_map\_registry.c

\*

\* July 2001, Siva Yaragalla

\*

\* Copyright (c) 2001, 2003, 2007-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route\_map\_registry.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* routemap\_internal.h

\*

\* Route map support data structures.

\* To be included only by routemap code.

\*

\* Copyright (c) 1986-2003, 2005-2009, 2011, 2013-2015, 2018 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/routemap\_internal.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: ip\_routing.h,v 3.2 1995/11/17 17:34:12 hampton Exp \$

\* \$Source: /swtal/cherf.111/ios/sys/iprouting/ip\_routing.h,v \$

\*-----

\* ip\_routing.h -- Generic IP routing declarations

\*

\* Mar 1995 Tony Li

\*

\* Copyright (c) 1995, 1998, 2004, 2006-2008 by cisco Systems, Inc.

\* All rights reserved.

\*-----

```
* $Log: ip_routing.h,v $
* Revision 3.2 1995/11/17 17:34:12 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:08:06 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.1 1995/06/07 21:07:05 hampton
* Bump version numbers from 1.x to 2.x.
*
* -----
* $Endlog$
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/internal_inc/ip_routing.h
No license file was found, but licenses were detected in source scan.
```

```
/*
* -----
* route_capability.h
*
* August 2003, Peter Psenak
*
* Copyright (c) 2003-2004, 2007-2009, 2011, 2015 by Cisco Systems, Inc.
* All rights reserved.
* -----
*/
```

Found in path(s):

```
*/opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/include/route_capability.h
No license file was found, but licenses were detected in source scan.
```

```
/* $Id: cfg_int_ip2_routing.h,v 3.2.60.1 1996/08/12 16:03:24 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_int_ip2_routing.h,v $
* -----
* cfg_int_ip2_routing.h
*
* May 1994, Derek Yeung
*
* Copyright (c) 1993-1996, 1998-1999, 2007-2009 by cisco Systems, Inc.
* All rights reserved.
*
* IP routing interface commands that must be after the encapsulation command
* in NV order.
* -----
* $Log: cfg_int_ip2_routing.h,v $
* Revision 3.2.60.1 1996/08/12 16:03:24 widmer
```

```

* CSCdi65725: Create Eolns macro that defaults csb->which to 0
* Branch: California_branch
* Add Eolns and Nvgenns macro that default csb->which to 0
* Remove hidden keyword help strings
*
* Revision 3.2 1995/11/17 17:31:23 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:04:31 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.2 1995/08/04 03:07:45 dstine
* CSCdi37681: Need event logging for EIGRP
*
* Revision 2.1 1995/07/01 12:15:32 tli
* CSCdi36508: Rationalize parser file placement, part I
* Rationalize iprouting
*
* Revision 2.1 1995/06/07 22:05:27 hampton
* Bump version numbers from 1.x to 2.x.
*
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_int_ip2_routing.h
No license file was found, but licenses were detected in source scan.

```

```

/* Id
* $Source$
*-----
* cfg_route_map.h
*
* Enter route-map subcommand mode
*
* Copyright (c) 1992-1996, 2001-2002, 2007-2010, 2017 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/

```

Found in path(s):

```

* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/cfg_route_map.h
No license file was found, but licenses were detected in source scan.

```

```

/* $Id: cfg_routemap_set_ip_policy.h,v 3.3.52.1 1996/06/18 19:06:39 widmer Exp $
* $Source: /release/112/cvs/Xsys/iprouting/cfg_routemap_set_ip_policy.h,v $
* -----
* cfg_routemap_set_ip_policy.h -- IP policy specific route map clauses
*
* Mar 1995 Tony Li
*
* Copyright (c) 1995-1998, 2000, 2002, 2004, 2007-2009 by cisco Systems, Inc.
* All rights reserved.
* -----
* $Log: cfg_routemap_set_ip_policy.h,v $
* Revision 3.3.52.1 1996/06/18 19:06:39 widmer
* CSCdi59706: parser lets you set tos/precedence bits forever (input
* loop)
* Branch: California_branch
*
* Revision 3.3 1995/11/28 19:50:38 widmer
* CSCdi44251: Replace Ifelse(csb->in_help)/Eval with Func
*
* Revision 3.2 1995/11/17 17:31:53 hampton
* Remove old entries from the RCS header logs.
*
* Revision 3.1 1995/11/09 12:05:16 shaker
* Bump version numbers from 2.x to 3.x.
*
* Revision 2.5 1995/08/16 01:01:15 tli
* CSCdi38512: Policy: TOS and precedence long help says match instead of
* set
*
* Revision 2.4 1995/07/12 07:19:09 tli
* CSCdi36426: Policy routing will not disable on an interface
* - Policy routed packets were creating fastswitching cache entries.
* That's not till _next_ release.
* - Add counters to record packet and byte count on a per route map entry
* basis.
* - Marketing identified a catastrophic deficiency. Implemented "set ip
* tos" and "set ip precedence" to cover this deficiency.
*
* Revision 2.3 1995/06/21 18:16:02 widmer
* CSCdi36227: Fix parse chain alternates
*
* Revision 2.2 1995/06/15 15:18:47 widmer
* CSCdi35889: parser transition structures should be static
*
* Revision 2.1 1995/06/07 21:05:39 hampton
* Bump version numbers from 1.x to 2.x.
*
* -----

```

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/cfg\_routermap\_set\_ip\_policy.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_router\_passive-interface.h,v 3.2.60.1 1996/08/12 16:03:49 widmer Exp \$

\* \$Source: /release/112/cvs/Xsys/iprouting/cfg\_router\_passive-interface.h,v \$

\* -----

\* C F G \_ R O U T E R \_ P A S S I V E \_ I N T . H

\*

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\* -----

\* \$Log: cfg\_router\_passive-interface.h,v \$

\* -----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_passive-interface.h

No license file was found, but licenses were detected in source scan.

/\* \$Id: cfg\_ip\_prefixlist.h,v 3.1.2.2 1998/02/23 19:43:42 enkechen Exp \$

\* \$Source: /release/111/cvs/Xsys/ip/cfg\_ip\_prefixlist.h,v \$

\* -----

\* cfg\_ip\_prefix.h -- IP Prefix List Parser Commands

\*

\* June 1997, Enke Chen

\*

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\* -----

\* \$Log: cfg\_ip\_prefixlist.h,v \$

\* Revision 3.1.2.2 1998/02/23 19:43:42 enkechen

\* CSCdj75270: Prefix-list: optimization for downloading large lists

\* Branch: FIB\_branch

\*

\* Revision 3.1.2.1 1997/12/17 21:36:57 enkechen

\* CSCdj61356: Prefix-list - facility for efficient route filtering

\* Branch: FIB\_branch

\*

\* Revision 3.1 1997/12/17 01:46:33 enkechen

\* Start with the new file.

\*

\*-----

\* \$Endlog\$

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/cfg\_ip\_prefixlist.h

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* route\_map\_http\_ion.c

\*

\* March, 2003 Phil Winterfield

\*

\*

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\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/route\_map\_http\_ion.c

No license file was found, but licenses were detected in source scan.

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Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/reg/route\_map\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/reg/router\_topology\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/makefile

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/reg/ion\_iprouting\_cmd\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/reg/router\_af\_actions\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/.signature/makefile

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-

tar/iprouting\_cmn/include/reg/routing\_context\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/reg/iprouting\_registry.reg

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/reg/lfafrf\_registry.reg

No license file was found, but licenses were detected in source scan.

/\*

\*-----

\* policylist\_ios.c - IOS stubs for notification routines

\*

in policylist code

\*

```
* Jun 2005, Tony P. Ambalathingal
*
* Copyright (c) 2003, 2005, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):  
\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/policylist\_ios.c  
No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
*-----
* cfg_router_flash-threshold.h
*
* January 1998, 2001 Dawn Li
*
* Copyright (c) 1998-1999, 2001, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
* Log
*-----
* $Endlog$
*/
```

Found in path(s):  
\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/internal\_inc/cfg\_router\_flash-threshold.h  
No license file was found, but licenses were detected in source scan.

```
/*
*-----
* ip_prefixlist_ion.h - IP Prefix Lists support for ION
*
* June 2002, Siva Yaragalla
*
* Copyright (c) 2002, 2005, 2007-2017 by cisco Systems, Inc.
* All rights reserved.
*-----
*/
```

Found in path(s):  
\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/include/ip\_prefixlist\_ion.h  
No license file was found, but licenses were detected in source scan.

```
/* Id
* $Source$
```



```
*-----
* router_topology_chain.c - Parser chains of router topology sub mode
* for multi-topology routing support
* Sept 2004, Mercia Zheng
*
```

```
* Copyright (c) 2004-2010, 2019 by cisco Systems, Inc.
* All rights reserved.
*-----
```

```
* Log
*-----
```

```
* $Endlog$
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-tar/iprouting_cmn/src/router_topology_chain.c
```

No license file was found, but licenses were detected in source scan.

```
/* Id
```

```
* $Source$
*-----
```

```
* exec_show_ip_extcommunity-list.h
*
```

```
* April 2000, Rex Fernando
*
```

```
* Copyright (c) 2000, 2002-2003, 2007-2008 by cisco Systems, Inc.
* All rights reserved.
*-----
```

```
* $Endlog$
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1130450046_1615190725.52/0/iproute-254-
tar/iprouting_cmn/internal_inc/exec_show_ip_policylist.h
```

No license file was found, but licenses were detected in source scan.

```
/*-----
```

```
* router_af_parse_blob.c
*
```

```
* Address family submode command - proxy EOLs
*
```

```
* May 2002, Victor Kamensky
*
```

```
* Copyright (c) 2002-2005, 2007-2009 by cisco Systems, Inc.
* All Rights Reserved
*-----
```

```
* $Endlog$
```

```
*/
```

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/router\_af\_parse\_blob.c

No license file was found, but licenses were detected in source scan.

/\*

\*-----  
\* policylist\_blob.c - Routines to handle policy-list commands.

\* Common for IOS and ION Blob.

\*

\* November 2003, Siva Yaragalla

\*

\* Copyright (c) 2003-2008, 2010 by cisco Systems, Inc.

\* All rights reserved.

\*-----

\*/

Found in path(s):

\* /opt/cola/permits/1130450046\_1615190725.52/0/iproute-254-tar/iprouting\_cmn/src/policylist\_blob.c

# 1.637 ncurses 6.1+20190803 r0

## 1.637.1 Available under license :

Upstream source <https://invisible-island.net/ncurses/ncurses-examples.html>

Current ncurses maintainer: Thomas Dickey <[dickey@invisible-island.net](mailto:dickey@invisible-island.net)>

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On Debian systems, the complete text of the GNU General  
Public License can be found in '/usr/share/common-licenses/GPL-2'

-- vile: txtmode file-encoding=utf-8

Upstream source <https://invisible-island.net/ncurses/ncurses.html>

This package is used for testing builds of ncurses.

Current ncurses maintainer: Thomas Dickey <[dickey@invisible-island.net](mailto:dickey@invisible-island.net)>

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Files: doc/html/NCURSES-Programming-HOWTO.html

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-- vile:txtmode fc=72

-- \$Id: COPYING,v 1.7 2019/01/05 23:51:47 tom Exp \$

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## 1.638.1 Available under license :

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To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be

allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square

root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the

source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one

of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

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c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

## TERMS AND CONDITIONS

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### 1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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```
<one line to give the program's name and a brief idea of what it does.>
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```

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If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
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```



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<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice

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\* `configure.ac`, `Makefile.am`: The original versions were derived from the ones in the XML Catalog Manager project, version 2.2.

Author: Julio Merino <jmmv@users.sourceforge.net>

\* `atf-c/ui.c`: The `format_paragraph` and `format_text` functions were derived from the ones in the Monotone project, revision 3a0982da308228d796df35f98d787c5cff2bb5b6.

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\* `atf-c++/detail/io.hpp`, `atf-c++/detail/io.cpp`, `atf-c++/detail/io_test.cpp`: These files were derived from the `file_handle`, `systembuf`, `pipe` and `pistream` classes and tests found in the Boost.Process library.

Author: Julio Merino <jmmv84@gmail.com>

\* `admin/check-style.sh`, `admin/check-style-common.awk`, `admin/check-style-cpp.awk`, `admin/check-style-shell.awk`: These files, except the first one, were first implemented in the Buildtool project. They were later adapted to be part of Boost.Process and, during that process, the shell script was created.

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=====  
vim: filetype=text:textwidth=75:expandtab:shiftwidth=2:softtabstop=2

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<!-- \$Id\$ -->

<!-- Generate ISC copyright comments from Docbook copyright metadata. -->

```
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:xi="http://www.w3.org/2001/XInclude"
xmlns:db="http://docbook.org/ns/docbook">

<xsl:template name="isc.copyright.format">
 <xsl:param name="text"/>
 <xsl:value-of select="$isc.copyright.leader"/>
 <xsl:value-of select="normalize-space(substring-before($text, '
'))"/>
 <xsl:text>
</xsl:text>
 <xsl:variable name="rest" select="substring-after($text, '
')"/>
 <xsl:if test="translate($rest, '	 ', '')">
 <xsl:call-template name="isc.copyright.format">
 <xsl:with-param name="text" select="$rest"/>
 </xsl:call-template>
 </xsl:if>
</xsl:template>

<xsl:variable name="isc.copyright.text">
 <xsl:text>
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 </xsl:text>
</xsl:variable>

<xsl:variable name="isc.copyright">
 <xsl:call-template name="isc.copyright.format">
 <xsl:with-param name="text">
 <xsl:for-each select="book/info/copyright | refentry/docinfo/copyright">
 <xsl:text>Copyright (C) </xsl:text>
 <xsl:call-template name="copyright.years">
 <xsl:with-param name="years" select="year"/>
 </xsl:call-template>
 <xsl:text> </xsl:text>
 <xsl:value-of select="holder"/>
 <xsl:value-of select="$isc.copyright.breakline"/>
 <xsl:text>
</xsl:text>
 </xsl:for-each>
 </xsl:with-param>
 </xsl:call-template>
</xsl:variable>
```

```
<xsl:value-of select="$isc.copyright.text"/>
 </xsl:with-param>
</xsl:call-template>
</xsl:variable>
</xsl:stylesheet>
```

<!--

- Local variables:

- mode: sgml

- End:

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## 1.648 shadow-utils 4.6-12.el8

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```
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```
/*
```

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\*

\* File: port.c

\* Purpose: Manages untagged priority setting for port

\*/

Found in path(s):

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## 1.649 pciutils 3.6.2 r0

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This is free software, and you are welcome to redistribute it
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```

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```
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'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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# 1.650 libcxx 7.1.0 r0

## 1.650.1 Available under license :

```
; RUN: llc < %s -mtriple=s390x-linux-gnu -mcpu=zEC12 -verify-machineinstrs | FileCheck %s
;
; Test that early if conversion produces LOCR with operands of the right
; register classes.
```

```
define void @autogen_SD4739(i8*) {
; CHECK-NOT: Expected a GR32Bit register, but got a GRX32Bit register
BB:
 %L34 = load i8, i8* %0
 %Cmp56 = icmp sgt i8 undef, %L34
 br label %CF246
```

```
CF246: ; preds = %CF246, %BB
 %S1163 = select i1 %Cmp56, i8 %L34, i8 undef
 br i1 undef, label %CF246, label %CF248
```

```
CF248: ; preds = %CF248, %CF246
 store i8 %S1163, i8* %0
 br label %CF248
}
```

```
=====
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```

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```
; RUN: llc -mtriple=aarch64-apple-ios %s -o - | FileCheck %s
```

```
define <16 x double> @test_sitofp_fixed(<16 x i32> %in) {
; CHECK-LABEL: test_sitofp_fixed:
```

```
; First, extend each i32 to i64
```

```

; CHECK-DAG: sshll2.2d [[BLOCK0_HI:v[0-9]+]], v0, #0
; CHECK-DAG: sshll2.2d [[BLOCK1_HI:v[0-9]+]], v1, #0
; CHECK-DAG: sshll2.2d [[BLOCK2_HI:v[0-9]+]], v2, #0
; CHECK-DAG: sshll2.2d [[BLOCK3_HI:v[0-9]+]], v3, #0
; CHECK-DAG: sshll.2d [[BLOCK0_LO:v[0-9]+]], v0, #0
; CHECK-DAG: sshll.2d [[BLOCK1_LO:v[0-9]+]], v1, #0
; CHECK-DAG: sshll.2d [[BLOCK2_LO:v[0-9]+]], v2, #0
; CHECK-DAG: sshll.2d [[BLOCK3_LO:v[0-9]+]], v3, #0

; Next, convert each to double.
; CHECK-DAG: scvtf.2d v0, [[BLOCK0_LO]]
; CHECK-DAG: scvtf.2d v1, [[BLOCK0_HI]]
; CHECK-DAG: scvtf.2d v2, [[BLOCK1_LO]]
; CHECK-DAG: scvtf.2d v3, [[BLOCK1_HI]]
; CHECK-DAG: scvtf.2d v4, [[BLOCK2_LO]]
; CHECK-DAG: scvtf.2d v5, [[BLOCK2_HI]]
; CHECK-DAG: scvtf.2d v6, [[BLOCK3_LO]]
; CHECK-DAG: scvtf.2d v7, [[BLOCK3_HI]]

; CHECK: ret
%flt = sitofp <16 x i32> %in to <16 x double>
%res = fdiv <16 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0>
ret <16 x double> %res
}

```

; This one is small enough to satisfy isSimple, but still illegally large.

```
define <4 x double> @test_sitofp_fixed_shortish(<4 x i64> %in) {
```

```
; CHECK-LABEL: test_sitofp_fixed_shortish:
```

```
; CHECK-DAG: scvtf.2d v0, v0
```

```
; CHECK-DAG: scvtf.2d v1, v1
```

```
; CHECK: ret
```

```
%flt = sitofp <4 x i64> %in to <4 x double>
```

```
%res = fdiv <4 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0>
```

```
ret <4 x double> %res
```

```
}
```

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```
; RUN: llc -march=hexagon < %s
```

```
; REQUIRES: asserts
```

```
; The two loads based on %struct.0, loading two different data types
; cause LSR to assume type "void" for the memory type. This would then
; cause an assert in isLegalAddressingMode. Make sure we no longer crash.
```

```
target triple = "hexagon"
```

```
%struct.0 = type { i8*, i8, %union.anon.0 }
```

```
%union.anon.0 = type { i8* }
```

```
define hidden fastcc void @fred() unnamed_addr #0 {
```

```
entry:
```

```
br i1 undef, label %while.end, label %while.body.lr.ph
```

```
while.body.lr.ph: ; preds = %entry
```

```
br label %while.body
```

```
while.body: ; preds = %exit.2, %while.body.lr.ph
```

```
%lsr.iv = phi %struct.0* [%cgep22, %exit.2], [undef, %while.body.lr.ph]
```

```
switch i32 undef, label %exit [
```

```
 i32 1, label %sw.bb.i
```

```
 i32 2, label %sw.bb3.i
```

```
]
```

```
sw.bb.i: ; preds = %while.body
```

```

unreachable

sw.bb3.i: ; preds = %while.body
unreachable

exit: ; preds = %while.body
switch i32 undef, label %exit.2 [
 i32 1, label %sw.bb.i17
 i32 2, label %sw.bb3.i20
]

sw.bb.i17: ; preds = %.exit
%0 = bitcast %struct.0* %lshr.iv to i32*
%1 = load i32, i32* %0, align 4
unreachable

sw.bb3.i20: ; preds = %exit
%2 = bitcast %struct.0* %lshr.iv to i8**
%3 = load i8*, i8** %2, align 4
unreachable

exit.2: ; preds = %exit
%cgep22 = getelementptr %struct.0, %struct.0* %lshr.iv, i32 1
br label %while.body

while.end: ; preds = %entry
ret void
}

```

```

attributes #0 = { nounwind optsize "target-cpu"="hexagonv55" }
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```

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```
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;
; D31946
; Check that we dont end up with the ""LLVM ERROR: Cannot select" error.
; Additionally ensure that the output code actually put fp128 values in SSE registers.
```

```
declare fp128 @llvm.fabs.f128(fp128)
```

```
declare fp128 @llvm.copysign.f128(fp128, fp128)
```

```
define fp128 @TestSelect(fp128 %a, fp128 %b) {
 %cmp = fcmp ogt fp128 %a, %b
 %sub = fsub fp128 %a, %b
 %res = select i1 %cmp, fp128 %sub, fp128 0xL00000000000000000000000000000000
 ret fp128 %res
; CHECK-LABEL: TestSelect:
; CHECK movaps 16(%rsp), %xmm1
; CHECK-NEXT callq __subtf3
; CHECK-NEXT testl %ebx, %ebx
; CHECK-NEXT jg .LBB0_2
; CHECK-NEXT # %bb.1:
; CHECK-NEXT movaps .LCPI0_0(%rip), %xmm0
; CHECK-NEXT .LBB0_2:
; CHECK-NEXT addq $32, %rsp
; CHECK-NEXT popq %rbx
; CHECK-NEXT retq
}
```

```
define fp128 @TestFabs(fp128 %a) {
 %res = call fp128 @llvm.fabs.f128(fp128 %a)
 ret fp128 %res
; CHECK-LABEL: TestFabs:
; CHECK andps .LCPI1_0(%rip), %xmm0
; CHECK-NEXT retq
}
```

```
define fp128 @TestCopysign(fp128 %a, fp128 %b) {
 %res = call fp128 @llvm.copysign.f128(fp128 %a, fp128 %b)
 ret fp128 %res
; CHECK-LABEL: TestCopysign:
; CHECK andps .LCPI2_1(%rip), %xmm0
; CHECK-NEXT orps %xmm1, %xmm0
; CHECK-NEXT retq
}
```



```

define fp128 @TestFneg(fp128 %a) {
 %mul = fmul fp128 %a, %a
 %res = fsub fp128 0xL00000000000000008000000000000000, %mul
 ret fp128 %res
; CHECK-LABEL: TestFneg:
; CHECK movaps %xmm0, %xmm1
; CHECK-NEXT callq __multf3
; CHECK-NEXT xorps .LCPI3_0(%rip), %xmm0
; CHECK-NEXT popq %rax
; CHECK-NEXT retq
}

```

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## 1.651 python-decorator 4.4.0 r0

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## 1.653 libaio 0.3.111 r0

## 1.654 unbound 1.4.22

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## 1.655 zlib 1.2.11 r0

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# 1.656 fnv-hash-algorithm 1.8

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#### A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes

2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#

This is a bundle of X.509 certificates of public Certificate Authorities (CA). These were automatically extracted from Mozilla's root certificates file (certdata.txt). This file can be found in the mozilla source tree:

<http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#>

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```
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```

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```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
```

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Ty Coon, President of Vice
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```
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```

```
#define __LICENSE_H
```

```
static inline int license_is_gpl_compatible(const char *license)
```

```

{
return (strcmp(license, "GPL") == 0
|| strcmp(license, "GPL v2") == 0
|| strcmp(license, "GPL and additional rights") == 0
|| strcmp(license, "Dual BSD/GPL") == 0
|| strcmp(license, "Dual MIT/GPL") == 0
|| strcmp(license, "Dual MPL/GPL") == 0);
}

#endif

/* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)
* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
*
* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
* http://www.hypermall.com/
* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
* interrupts us (except possibly for removal/insertion of the cable?)
* 10/4/97 - began heavy inline documentation of the code. Corrected typos
* and spelling mistakes.
* 10/5/97 - added code to handle PHY interrupts, disable PHY on
* loss of link, and correctly re-enable PHY when link is
* re-established. (put back CFG_PHYIE)
*
* Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
*
* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
*
* Linux driver for the IDT77201 NICStAR PCI ATM controller.
* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
* see init_nicstar() for PHY initialization to change this. This driver
* expects the Linux ATM stack to support scatter-gather lists
* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
*
* Implementing minimal-copy of received data:
* IDT always receives data into a small buffer, then large buffers
* as needed. This means that data must always be copied to create
* the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
* Fix is simple: make large buffers large enough to hold entire
* SDU, and leave <small_buffer_data> bytes empty at the start. Then
* copy small buffer contents to head of large buffer.
* Trick is to avoid fragmenting Linux, due to need for a lot of large
* buffers. This is done by 2 things:
* 1) skb->destructor / skb->atm.recycle_buffer
* combined, allow nicstar_free_rx_skb to be called to
* recycle large data buffers
* 2) skb_clone of received buffers
* See nicstar_free_rx_skb and linearize_buffer for implementation
* details.

```

\*  
\*  
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\*  
\* M. Welsh, 6 July 1996  
\*  
\*  
\*/

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Thanks go to the following people for patches and contributions:

Michael Hunold <m.hunold@gmx.de>  
for the initial saa7146 driver and its recent overhaul

Christian Theiss  
for his work on the initial Linux DVB driver

Marcus Metzler <mocm@metzlerbros.de>  
Ralph Metzler <rjkm@metzlerbros.de>  
for their continuing work on the DVB driver

Michael Holz <kju@debian.org>  
for his contributions to the dvb-net driver

Diego Picciani <d.picciani@novacompt.it>  
for CyberLogin for Linux which allows logging onto EON  
(in case you are wondering where CyberLogin is, EON changed its login  
procedure and CyberLogin is no longer used.)

Martin Schaller <martin@smurf.franken.de>  
for patching the cable card decoder driver

Klaus Schmidinger <Klaus.Schmidinger@cadsoft.de>  
for various fixes regarding tuning, OSD and CI stuff and his work on VDR

Steve Brown <sbrown@cortland.com>  
for his AFC kernel thread

Christoph Martin <martin@uni-mainz.de>  
for his LIRC infrared handler

Andreas Oberritter <obi@linuxtv.org>  
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Florian Schirmer <jolt@tuxbox.org>  
Ronny Strutz <3des@elitedvb.de>  
Wolfram Joost <dbox2@frokaschwei.de>

...and all the other dbox2 people  
for many bugfixes in the generic DVB Core, frontend drivers and  
their work on the dbox2 port of the DVB driver

Oliver Endriss <o.endriss@gmx.de>  
for many bugfixes

Andrew de Quincey <adq\_dvb@lidskialf.net>  
for the tda1004x frontend driver, and various bugfixes

Peter Schildmann <peter.schildmann@web.de>  
for the driver for the Technisat SkyStar2 PCI DVB card

Vadim Catana <skystar@moldova.cc>  
Roberto Ragusa <r.ragusa@libero.it>  
Augusto Cardoso <augusto@carhil.net>  
for all the work for the FlexCopII chipset by B2C2,Inc.

Davor Emard <emard@softhome.net>  
for his work on the budget drivers, the demux code,  
the module unloading problems, ...

Hans-Frieder Vogt <hfvogt@arcor.de>  
for his work on calculating and checking the crc's for the  
TechnoTrend/Hauppage DEC driver firmware

Michael Dreher <michael@5dot1.de>  
Andreas 'randy' Weinberger  
for the support of the Fujitsu-Siemens Activy budget DVB-S

Kenneth Aafly <ke-aa@frisurf.no>  
for adding support for Typhoon DVB-S budget card

Ernst Peinlich <e.peinlich@inode.at>  
for tuning/DiSEqC support for the DEC 3000-s

Peter Beutner <p.beutner@gmx.net>  
for the IR code for the ttusb-dec driver

Wilson Michaels <wilsonmichaels@earthlink.net>  
for the lgdt330x frontend driver, and various bugfixes

Michael Krufky <mkrufky@linuxtv.org>  
for maintaining v4l/dvb inter-tree dependencies

Taylor Jacob <rtjacob@earthlink.net>  
for the nxt2002 frontend driver

Jean-Francois Thibert <jeanfrancois@sagetv.com>  
for the nxt2004 frontend driver

Kirk Lapray <kirk.lapray@gmail.com>  
for the or51211 and or51132 frontend drivers, and  
for merging the nxt2002 and nxt2004 modules into a  
single nxt200x frontend driver.

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```
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```

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```
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under certain conditions; type `show c' for details.
```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
```

Ty Coon, President of Vice

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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

# 1.666 python3-jinja2 2.11.2 r0

## 1.666.1 Available under license :

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Found in path(s):

```
* /opt/cola/permits/1155142552_1620384683.72/0/jinja2-2-11-2-1-tar-gz/Jinja2-2.11.2/LICENSE.rst
```

No license file was found, but licenses were detected in source scan.

```
import io
```

```
import re
```

```
from setuptools import find_packages
```

```
from setuptools import setup
```

```
with io.open("README.rst", "rt", encoding="utf8") as f:
```

```
 readme = f.read()
```

```
with io.open("src/jinja2/__init__.py", "rt", encoding="utf8") as f:
```

```
 version = re.search(r'__version__ = "(.*?)"', f.read(), re.M).group(1)
```

```
setup(
```

```
 name="Jinja2",
```

```
 version=version,
```

```
 url="https://palletsprojects.com/p/jinja/",
```

```
 project_urls={
```

```
 "Documentation": "https://jinja.palletsprojects.com/",
```

```
 "Code": "https://github.com/pallets/jinja",
```

```
 "Issue tracker": "https://github.com/pallets/jinja/issues",
```

```
 },
```

```
 license="BSD-3-Clause",
```

```
 author="Armin Ronacher",
```

```
 author_email="armin.ronacher@active-4.com",
```

```
 maintainer="Pallets",
```

```
 maintainer_email="contact@palletsprojects.com",
```

```
 description="A very fast and expressive template engine.",
```

```

long_description=readme,
classifiers=[
 "Development Status :: 5 - Production/Stable",
 "Environment :: Web Environment",
 "Intended Audience :: Developers",
 "License :: OSI Approved :: BSD License",
 "Operating System :: OS Independent",
 "Programming Language :: Python",
 "Programming Language :: Python :: 2",
 "Programming Language :: Python :: 2.7",
 "Programming Language :: Python :: 3",
 "Programming Language :: Python :: 3.5",
 "Programming Language :: Python :: 3.6",
 "Programming Language :: Python :: 3.7",
 "Programming Language :: Python :: 3.8",
 "Programming Language :: Python :: Implementation :: CPython",
 "Programming Language :: Python :: Implementation :: PyPy",
 "Topic :: Internet :: WWW/HTTP :: Dynamic Content",
 "Topic :: Software Development :: Libraries :: Python Modules",
 "Topic :: Text Processing :: Markup :: HTML",
],
packages=find_packages("src"),
package_dir={"": "src"},
include_package_data=True,
python_requires=">=2.7, !=3.0.*, !=3.1.*, !=3.2.*, !=3.3.*, !=3.4.*",
install_requires=["MarkupSafe>=0.23"],
extras_require={"i18n": ["Babel>=0.8"]},
entry_points={"babel.extractors": ["jinja2 = jinja2.ext:babel_extract[i18n]"]},
)

```

Found in path(s):

\* /opt/cola/permits/1155142552\_1620384683.72/0/jinja2-2-11-2-1-tar-gz/Jinja2-2.11.2/setup.py

No license file was found, but licenses were detected in source scan.

Metadata-Version: 2.1

Name: Jinja2

Version: 2.11.2

Summary: A very fast and expressive template engine.

Home-page: <https://palletsprojects.com/p/jinja/>

Author: Armin Ronacher

Author-email: [armin.ronacher@active-4.com](mailto:armin.ronacher@active-4.com)

Maintainer: Pallets

Maintainer-email: [contact@palletsprojects.com](mailto:contact@palletsprojects.com)

License: BSD-3-Clause

Project-URL: Documentation, <https://jinja.palletsprojects.com/>

Project-URL: Code, <https://github.com/pallets/jinja>

Project-URL: Issue tracker, <https://github.com/pallets/jinja/issues>

Description: Jinja

=====

Jinja is a fast, expressive, extensible templating engine. Special placeholders in the template allow writing code similar to Python syntax. Then the template is passed data to render the final document.

It includes:

- Template inheritance and inclusion.
- Define and import macros within templates.
- HTML templates can use autoescaping to prevent XSS from untrusted user input.
- A sandboxed environment can safely render untrusted templates.
- AsyncIO support for generating templates and calling async functions.
- I18N support with Babel.
- Templates are compiled to optimized Python code just-in-time and cached, or can be compiled ahead-of-time.
- Exceptions point to the correct line in templates to make debugging easier.
- Extensible filters, tests, functions, and even syntax.

Jinja's philosophy is that while application logic belongs in Python if possible, it shouldn't make the template designer's job difficult by restricting functionality too much.

## Installing

-----

Install and update using `pip`\_:

.. code-block:: text

```
$ pip install -U Jinja2
```

.. \_pip: <https://pip.pypa.io/en/stable/quickstart/>

## In A Nutshell

-----

.. code-block:: jinja

```
{% extends "base.html" %}
{% block title %}Members{% endblock %}
{% block content %}

```

```

{% for user in users %}
 {{ user.username }}
{% endfor %}

{% endblock %}

```

## Links

-----

- Website: <https://palletsprojects.com/p/jinja/>
- Documentation: <https://jinja.palletsprojects.com/>
- Releases: <https://pypi.org/project/Jinja2/>
- Code: <https://github.com/pallets/jinja>
- Issue tracker: <https://github.com/pallets/jinja/issues>
- Test status: [https://dev.azure.com/pallets/jinja/\\_build](https://dev.azure.com/pallets/jinja/_build)
- Official chat: <https://discord.gg/t6rrQZH>

Platform: UNKNOWN

Classifier: Development Status :: 5 - Production/Stable

Classifier: Environment :: Web Environment

Classifier: Intended Audience :: Developers

Classifier: License :: OSI Approved :: BSD License

Classifier: Operating System :: OS Independent

Classifier: Programming Language :: Python

Classifier: Programming Language :: Python :: 2

Classifier: Programming Language :: Python :: 2.7

Classifier: Programming Language :: Python :: 3

Classifier: Programming Language :: Python :: 3.5

Classifier: Programming Language :: Python :: 3.6

Classifier: Programming Language :: Python :: 3.7

Classifier: Programming Language :: Python :: 3.8

Classifier: Programming Language :: Python :: Implementation :: CPython

Classifier: Programming Language :: Python :: Implementation :: PyPy

Classifier: Topic :: Internet :: WWW/HTTP :: Dynamic Content

Classifier: Topic :: Software Development :: Libraries :: Python Modules

Classifier: Topic :: Text Processing :: Markup :: HTML

Requires-Python: >=2.7, !=3.0.\*, !=3.1.\*, !=3.2.\*, !=3.3.\*, !=3.4.\*

Description-Content-Type: text/x-rst

Provides-Extra: i18n

Found in path(s):

\* /opt/cola/permits/1155142552\_1620384683.72/0/jinja2-2-11-2-1-tar-gz/Jinja2-2.11.2/src/Jinja2.egg-info/PKG-INFO

\* /opt/cola/permits/1155142552\_1620384683.72/0/jinja2-2-11-2-1-tar-gz/Jinja2-2.11.2/PKG-INFO

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