



NEC IPX2400 PBX release 15 using T1 QSIG to Cisco Unified Communications Manager 5.0 and Cisco Emergency Responder 1.3

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Introduction

- The following is an Application Note for Interoperability of a Cisco Unified Communications Manager 5.0, Cisco Emergency Responder 1.3 and Cisco3845 w/ CAMA interface and T1-QSIG trunk with an NEC IPX2400 PBX interconnected via VWIC-2MFT-T1
- The Network Topology diagram shows the test set-up for interoperability between the Cisco Unified Communications Manager and Cisco Emergency Responder connected to the PBX via a T1 QSIG trunk using Cisco3845 MGCP Gateway

Network Topology

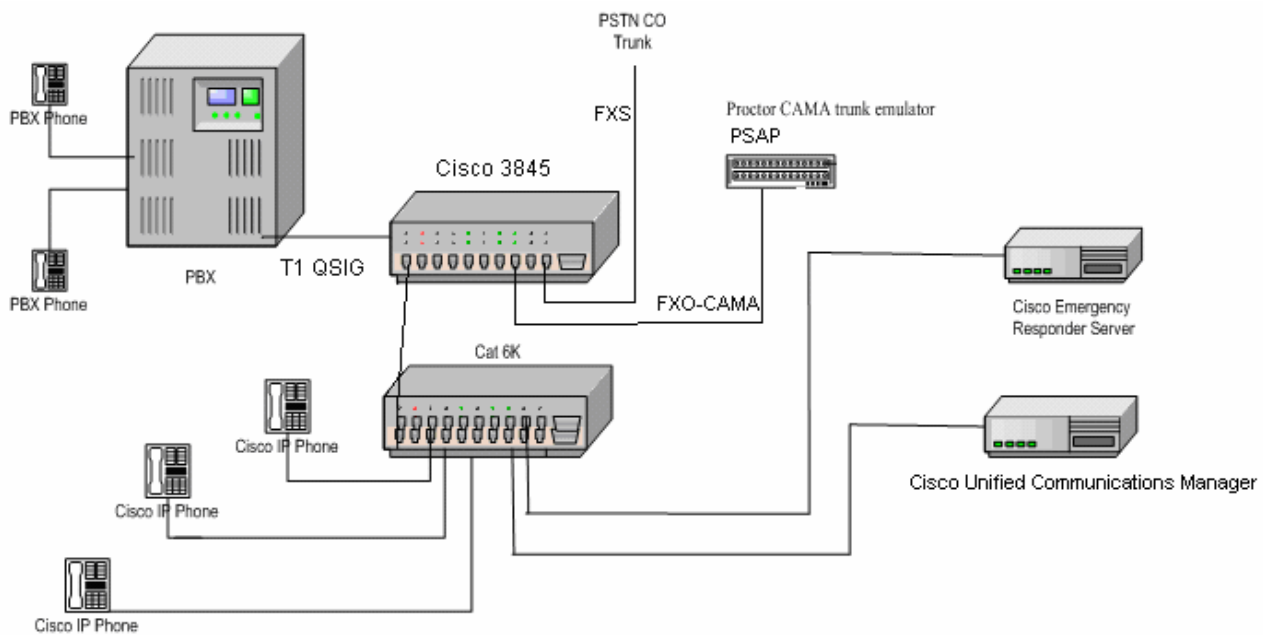


Figure 1. Network Topology or Test Setup

Limitations

- Unique DID numbers must be used to associate with each Emergency Response Location to allow the return call if the 911 caller is disconnected.
- Each available calling party that might dial 911 from the PBX side must have that calling party number configured in the Manually Configured Phones screen of the Cisco Emergency Responder.

System Components

Hardware Requirements

Cisco Hardware

- Cisco 3845 Gateway with NM-HD/VVIC-2MFT-T1 (QSIG trunk) and NM-HD-V2/VIC2-4FXO (CAMA trunk)
- Cisco Cat6K switch
- Cisco Unified Communications Manager server
- Cisco Emergency Responder server



- NEC IPX2400

Software Requirements

- IOS Software releases “c3845-ipvoice-mz.123-14.T4”.
- PBX Software: Version Release 15
- Cisco Unified Communications Manager 5.0 (1.51-346)
- Cisco Emergency Responder 1.3 (0.105)



Features

Features Supported

- Calling Number
- E911 ERL DID number passed to PSAP
- Incoming DID calling to disconnected 911 originating caller

Conclusion

Test emergency 911 call from a PBX digital station was routed to the T1 QSIG trunk, of the Cisco 3845 MGCP gateway, and was correctly associated to the appropriate Emergency Response Location. The call was connected through the Cisco 3845 CAMA trunk to the PSAP Emulator. The Emergency Response Location associated the ten digit DID call back number (ELIN) correctly and sent it to the PSAP, audio connection was also achieved. The PBX digital station was then disconnected.

A return call was originated from an incoming trunk (PSTN side) in the same Cisco Unified Communications Manager Partition. The number dialed was the DID digits of the 10 digit call back number sent to the PSAP on the previous 911 call (ELIN number). The call was routed through to the PBX digital station that had originated the E911 call. The call was disconnected and an alternate trunk was used to dial the same DID number and the call was routed through, again, to the PBX digital station that had originated the E911 call.

Test emergency 911 calls were made from each PBX digital station and Cisco IP phone. All calls were confirmed to select its associated Emergency Response Location and the associated 10 digit DID call back number. In each case, the call was disconnected and the call back number was confirmed to reach the phone that had originated the E911 call.

Emergency 911 calls made from a NEC IPX2400 PBX utilizing a T1 QSIG trunk configured as ISO, associates with the correct Emergency Response Location and routes to the associated PSAP with the correctly formatted 10 digit DID call back number.

The call back DID number routes the return call to the correct phone that had originated the E911 call from the PBX digital phone.



Configuration




Configuring the Cisco Unified Communications Manager

Partitions

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Find and List Partitions

Status
2 records found

Search Options
Find partition where Search Within Results
(name begins with any)

Search Results

	Partition Name	Description
<input type="checkbox"/>	E911	E911
<input type="checkbox"/>	Phones	Phones

Rows per Page







Phone Partition

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator


System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Partition Configuration Related Links: [Back To Find/List](#)

Status
 Status: Ready

Partition Name*	<input type="text" value="Phones"/>
Description	<input type="text" value="Phones"/>
Time Schedule	<input type="text" value=" < None >"/>
Time Zone	<input checked="" type="radio"/> Originating Device <input type="radio"/> Specific Time Zone <input type="text" value="Greenwich Standard Time"/>

 *- indicates required item.



E911 Partition

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Partition Configuration Related Links: [Back To Find/List](#)

Status
Status: Ready

Partition Name*
Description
Time Schedule
Time Zone Originating Device
 Specific Time Zone

*- indicates required item.

Calling Search Space

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Find and List Calling Search Spaces

Status
2 records found

Search Options
Find where begins with Search Within Results
(name begins with any)

Search Results

	CSS Name	Description	Copy
<input type="checkbox"/>	E911CSS		
<input type="checkbox"/>	PhonesCSS	PhonesCSS	

Rows per Page








CSS phones

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Calling Search Space Configuration Related Links: [Back To Find/List](#)

Status
 Status: Ready

Calling Search Space Information

Name*

Description


Route Partitions for this Calling Search Space

Available Partitions

▼ ▲

Selected Partitions
(Ordered by highest priority)

▼ ▲

 *- indicates required item.








CSS E911

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Calling Search Space Configuration Related Links: [Back To Find/List](#)

Status
 Status: Ready

Calling Search Space Information

Name*

Description


Route Partitions for this Calling Search Space

Available Partitions

▼ ▲

Selected Partitions
(Ordered by highest priority)

▼
▲

 *- indicates required item.



CCM IP phones

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Phone Configuration Related Links:

Status
Status: Ready

Association Information

- Line [1] - 4200 in Phones
- Line [2] - Add a new DN
-
-
-
-
- Unassigned Associated Items -----
-
-
-
- Privacy
- None

Phone Type

Product Type: Cisco 7960
Device Protocol: SCCP

Device Information

Registration: Registered with Cisco CallManager CM-BARZA
IP Address: [172.20.110.253](#)
MAC Address*:
Description:
Device Pool*:
Phone Button Template*:
Softkey Template:
Common Phone Profile*:
Calling Search Space:
AAR Calling Search Space:
Media Resource Group List:
User Hold Audio Source:
Network Hold Audio Source:
Location*:
User Locale:
Network Locale:
Built In Bridge*:
Privacy*:
Owner User ID:
Phone Load Name:

Retry Video Call as Audio
 Ignore Presentation Indicators (internal calls only)
 Allow Control of Device from CTI



Protocol Specific Information	
Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration
SUBSCRIBE Calling Search Space	< None >
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	
Expansion Module Information	
Module 1	< None >
Module 1 Load Name	
Module 2	< None >
Module 2 Load Name	
External Data Locations Information (Leave blank to use default)	
Information	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	
Extension Information	
<input type="checkbox"/> Enable Extension Mobility	
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >
Certification Authority Proxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation
Authentication String	
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 1 : 15 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	

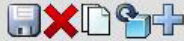


Extension Information	
<input type="checkbox"/>	Enable Extension Mobility
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >
Certification Authority Proxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation
Authentication String	
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 1 : 15 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	
MLPP Information	
MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default
Secure Shell Information	
Secure Shell User	
Secure Shell Password	
Product Specific Configuration	
<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access *	Enabled
Gratuitous ARP *	Enabled
PC Voice VLAN Access *	Enabled
Video Capabilities *	Disabled
Auto Line Select *	Disabled
Web Access *	Enabled


Cisco CallManager Administration For Cisco IP Telecommunication Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Directory Number Configuration



Status

 Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*	4200
Route Partition	Phones ▾
Description	
Alerting Name	Rafa Marquez
ASCII Alerting Name	Rafa Marquez

Allow Control of Device from CTI

Associated Devices

SEP000A416B8539	Edit Device
	Edit Line Appearance



Dissociate Devices

--

Directory Number Settings

Voice Mail Profile	< None > ▾	(Choose <None> to use system default)
Calling Search Space	PhonesCSS ▾	
Presence Group*	Standard Presence group ▾	
AAR Group	< None > ▾	
User Hold Audio Source	< None > ▾	
Network Hold Audio Source	< None > ▾	
Auto Answer*	Auto Answer Off ▾	

Call Forward and Call Pickup Settings

Forward All	Voice Mail Destination	Calling Search Space
-------------	------------------------	----------------------



Call Forward and Call Pickup Settings

	Voice Mail Destination	Calling Search Space
Forward All	<input type="checkbox"/> or <input type="text"/>	< None >
Secondary Calling Search Space for Forward All		< None > Find
Forward Busy Internal	<input type="checkbox"/> or <input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or <input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or <input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/> or <input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/> or <input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or <input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or <input type="text"/>	< None >
No Answer Ring Duration (seconds)	<input type="text"/>	
Call Pickup Group	< None >	

MLPP Alternate Party Settings

Target (Destination)	<input type="text"/>
MLPP Calling Search Space	< None >
MLPP No Answer Ring Duration (seconds)	<input type="text"/>

Line 1 on Device SEP000A416B8539

Display (Internal Caller ID)	Rafa Marquez	Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	Rafa Marquez	
Line Text Label	Rafa Marquez	
ASCII Line Text Label	Rafa Marquez	
External Phone Number Mask	<input type="text"/>	
Message Waiting Lamp Policy*	Use System Policy	
Ring Setting (Phone Idle)*	Use System Default	
Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.

Multiple Call/Call Waiting Settings on Device SEP000A416B8539

Note: The range to select the Max. Number of calls is: 1-200

Maximum Number of Calls*	<input type="text" value="4"/>
Busy Trigger*	<input type="text" value="2"/> (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP000A416B8539

Caller Name

Forwarded Call Information Display on Device SEP000A416B8539

Caller Name

Caller Number

Redirected Number

Dialed Number







CTI Route Points

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Find and List CTI Route Points



   

Status
2 records found

Search Options
Find CTI Route Point where begins with Search Within Results

(device.name begins with any)

Search Results

	Device Name	Description	Device Pool	Calling Search Space	Status	IP Address	Copy
<input type="checkbox"/>	RP911	RP911	Default	E911CSS	Registered with CM-BARZA	172.20.110.254	
<input type="checkbox"/>	RPELIN913	RPELIN913	Default	E911CSS	Registered with CM-BARZA	172.20.110.254	

Rows per page



CTI Route Point 911

Navigation

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

CTI Route Point Configuration Related Links:

Status
Status: Ready

Device Information

Registration	Registered with Cisco CallManager CM-BARZA
IP Address	172.20.110.254
Device Name *	<input type="text" value="RP911"/>
Description	<input type="text" value="RP911"/>
Device Pool *	<input type="text" value="Default"/> (View Details)
Calling Search Space	<input type="text" value="E911CSS"/>
Location	<input type="text" value="Hub_None"/>
User Locale	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
Network Hold MOH Audio Source	<input type="text" value="< None >"/>
User Hold MOH Audio Source	<input type="text" value="< None >"/>

Association Information

- [Line \[1\] - 911 in Phones](#)
- [Line \[2\] - Add a new DN](#)

*- indicates required item.

Cisco CallManager Administration For Cisco IP Telecommunication Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Directory Number Configuration



Status

Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*	911
Route Partition	Phones
Description	
Alerting Name	
ASCII Alerting Name	

Associated Devices

RP911	Edit Device
-------	-----------------------------

[Edit Line Appearance](#)



Dissociate Devices

--

Directory Number Settings

Voice Mail Profile	< None >	(Choose <None> to use system default)
Calling Search Space	E911CSS	
Presence Group*	Standard Presence group	
AAR Group	< None >	
User Hold Audio Source	< None >	
Network Hold Audio Source	< None >	

Call Forward and Call Pickup Settings

Forward All	<input type="checkbox"/> or	Voice Mail Destination	Calling Search Space
			< None >
Secondary Calling Search Space for Forward All			< None >

[Find](#)



Forward All	<input type="checkbox"/> or	<input type="text"/>	< None >	<input type="button" value="Find"/>
Secondary Calling Search Space for Forward All			< None >	
Forward Busy Internal	<input type="checkbox"/> or	<input type="text" value="912"/>	E911CSS	<input type="button" value="Find"/>
Forward Busy External	<input type="checkbox"/> or	<input type="text" value="912"/>	E911CSS	
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text" value="912"/>	E911CSS	
Forward No Answer External	<input type="checkbox"/> or	<input type="text" value="912"/>	E911CSS	
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >	
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >	
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text" value="912"/>	E911CSS	
No Answer Ring Duration (seconds)		<input type="text"/>		
Call Pickup Group		<input type="text" value="< None >"/>		

MLPP Alternate Party Settings

Target (Destination)

MLPP Calling Search Space

MLPP No Answer Ring Duration (seconds)

Line 1 on Device RP911

Display (Internal Caller ID) Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

External Phone Number Mask

Multiple Call/Call Waiting Settings on Device RP911

Note: The range to select the Max Number of calls is: 1-10000

Maximum Number of Calls*

Busy Trigger* (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device RP911

Caller Name

Caller Number

Redirected Number

Dialed Number

i *- indicates required item.







CTI Route Point 913

Navigation Cisco CallManager Administration

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System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

CTI Route Point Configuration Related Links: Back To Find/List



   

Status
 Status: Ready

Device Information

Registration	Registered with Cisco CallManager CM-BARZA
IP Address	172.20.110.254
Device Name *	<input type="text" value="RPELIN913"/>
Description	<input type="text" value="RPELIN913"/>
Device Pool *	<input type="text" value="Default"/> (View Details)
Calling Search Space	<input type="text" value="E911CSS"/>
Location	<input type="text" value="Hub_None"/>
User Locale	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
Network Hold MOH Audio Source	<input type="text" value="< None >"/>
User Hold MOH Audio Source	<input type="text" value="< None >"/>

Association Information

-  [Line \[1\] - 913XXXXXXXXXX in E911](#)
-  [Line \[2\] - Add a new DN](#)

*- indicates required item.



Cisco CallManager Administration For Cisco IP Telecommunication Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Directory Number Configuration



Status

Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*	<input type="text" value="913XXXXXXXXXX"/>
Route Partition	<input type="text" value="E911"/>
Description	<input type="text"/>
Alerting Name	<input type="text"/>
ASCII Alerting Name	<input type="text"/>

Associated Devices

<input type="text" value="RPELIN913"/>	<input type="button" value="Edit Device"/>
--	--



Dissociate Devices

<input type="text"/>

Directory Number Settings

Voice Mail Profile	<input type="text" value="< None >"/>	(Choose <None> to use system default)
Calling Search Space	<input type="text" value="E911CSS"/>	
Presence Group*	<input type="text" value="Standard Presence group"/>	
AAR Group	<input type="text" value="< None >"/>	
User Hold Audio Source	<input type="text" value="< None >"/>	
Network Hold Audio Source	<input type="text" value="< None >"/>	



Call Forward and Call Pickup Settings

Forward All	<input type="checkbox"/>	or	<input type="text"/>	Calling Search Space	< None >	▼
Secondary Calling Search Space for Forward All					< None >	▼
Forward Busy Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward Busy External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Answer Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Answer External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Coverage Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Coverage External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward on CTI Failure	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
No Answer Ring Duration (seconds)	<input type="text"/>					
Call Pickup Group	< None > ▼					

MLPP Alternate Party Settings

Target (Destination)	<input type="text"/>
MLPP Calling Search Space	< None > ▼
MLPP No Answer Ring Duration (seconds)	<input type="text"/>

Line 1 on Device RPELIN913

Display (Internal Caller ID)	<input type="text"/>	Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	<input type="text"/>	
External Phone Number Mask	<input type="text"/>	

Multiple Call/Call Waiting Settings on Device RPELIN913

Note: The range to select the Max Number of calls is: 1-10000

Maximum Number of Calls*	<input type="text" value="5000"/>
Busy Trigger*	<input type="text" value="4500"/> (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device RPELIN913

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

*- indicates required item.

Note: A Backup CER server was not used during testing therefore CTI route point for 912 was not created.



CTI Port

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Phone Configuration Related Links:

Status
Status: Ready

Association Information

- 1 [Line \[1\] - 4250 in Phones](#)
- 2 [Line \[2\] - Add a new DN](#)

Phone Type
Product Type: CTI Port
Device Protocol: SCCP

Device Information

Registration	Registered with Cisco CallManager CM-BARZA
IP Address	172.20.8.50
Device Name*	<input type="text" value="CERSec1"/>
Description	<input type="text"/>
Device Pool*	<input type="text" value="Default"/>
Common Phone Profile*	<input type="text" value="Standard Common Phone Profile"/>
Calling Search Space	<input type="text" value="PhonesCSS"/>
AAR Calling Search Space	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
User Hold Audio Source	<input type="text" value="< None >"/>
Network Hold Audio Source	<input type="text" value="< None >"/>
Location*	<input type="text" value="Hub_None"/>
User Locale	<input type="text" value="< None >"/>
Network Locale	<input type="text" value="< None >"/>
Owner User ID	<input type="text" value="< None >"/>

Ignore Presentation Indicators (internal calls only)

Protocol Specific Information

Presence Group*	<input type="text" value="Standard Presence group"/>
SCCP Phone Security Profile*	<input type="text" value="Standard SCCP Profile for Auto Registration"/>
SUBSCRIBE Calling Search Space	<input type="text" value="< None >"/>

Unattended Port

MLPP Information

MLPP Domain	<input type="text" value="< None >"/>
-------------	---



N

Cisco CallManager Administration For Cisco IP Telecommunication Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Directory Number Configuration



Status

Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*	<input type="text" value="4250"/>
Route Partition	<input type="text" value="Phones"/>
Description	<input type="text"/>
Alerting Name	<input type="text"/>
ASCII Alerting Name	<input type="text"/>

Associated Devices

<input type="text" value="CERSec1"/>	<input type="button" value="Edit Device"/>
--------------------------------------	--



Dissociate Devices

<input type="text"/>

Directory Number Settings

Voice Mail Profile	<input type="text" value="< None >"/>	(Choose <None> to use system default)
Calling Search Space	<input type="text" value="PhonesCSS"/>	
Presence Group*	<input type="text" value="Standard Presence group"/>	
AAR Group	<input type="text" value="< None >"/>	
User Hold Audio Source	<input type="text" value="< None >"/>	
Network Hold Audio Source	<input type="text" value="< None >"/>	

Call Forward and Call Pickup Settings

Forward All	<input type="checkbox"/> or <input type="text"/>	Voice Mail Destination	<input type="text" value="< None >"/>	Calling Search Space	<input type="text" value="< None >"/>
Secondary Calling Search Space for Forward All				<input type="text" value="< None >"/>	<input type="button" value="Find"/>



Call Forward and Call Pickup Settings

Forward All	<input type="checkbox"/>	or	<input type="text"/>	Calling Search Space	< None >	▼
Secondary Calling Search Space for Forward All					< None >	▼
Forward Busy Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward Busy External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Answer Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Answer External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Coverage Internal	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward No Coverage External	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
Forward on CTI Failure	<input type="checkbox"/>	or	<input type="text"/>		< None >	▼
No Answer Ring Duration (seconds)	<input type="text"/>					
Call Pickup Group	< None > ▼					

MLPP Alternate Party Settings

Target (Destination)	<input type="text"/>
MLPP Calling Search Space	< None > ▼
MLPP No Answer Ring Duration (seconds)	<input type="text"/>

Line 1 on Device CERSec1

Display (Internal Caller ID)	<input type="text"/>	Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	<input type="text"/>	
External Phone Number Mask	<input type="text"/>	

Multiple Call/Call Waiting Settings on Device CERSec1

Note: The range to select the Max Number of calls is: 1-200

Maximum Number of Calls*	<input type="text" value="4"/>
Busy Trigger*	<input type="text" value="2"/> (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device CERSec1

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

i *- indicates required item.



Route Patterns for ELINs

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Find and List Route Patterns

Status
4 records found

Search Options
Find Route Patterns where begins with Search Within Results
(numplan.dnorpattern begins with any)

Search Results

	Pattern	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/>	10911.		E911		AALN/S3/SU0/0@tony3845	<input type="button" value="Copy"/>
<input type="checkbox"/>	11911.		E911		AALN/S3/SU0/0@tony3845	<input type="button" value="Copy"/>
<input type="checkbox"/>	13911.		E911		AALN/S3/SU0/0@tony3845	<input type="button" value="Copy"/>
<input type="checkbox"/>	40XX				S0/SU0/DS1-0@tony3845	<input type="button" value="Copy"/>

Rows per Page



Route Pattern 10911

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Route Pattern Configuration Related Links:

Status
 Status: Ready

Pattern Definition

Route Pattern*

Route Partition

Description

Numbering Plan*

Route Filter

MLPP Precedence*

Gateway/Route List*

Route Option
 Route this pattern
 Block this pattern

Call Classification*

Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level*

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*

Calling Name Presentation*

Connected Party Transformations

Connected Line ID Presentation*

Connected Name Presentation*

Called Party Transformations

Discard Digits

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
<input type="text" value="-- Not Selected --"/>	<input type="text" value="< Not Exist >"/>	<input type="text"/>

*- indicates required item.



Route Pattern 11911

Navigation Cisco CallManager Administration Go

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: [Back To Find/List](#) Go

Status
Status: Ready

Pattern Definition

Route Pattern* |11911.
Route Partition E911
Description
Numbering Plan* NANP
Route Filter < None >
MLPP Precedence* Default
Gateway/Route List* AALN/S3/SU0/0@tony3845 (Edit)
Route Option
 Route this pattern
 Block this pattern No Error
Call Classification* OffNet
 Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority
 Require Forced Authorization Code
Authorization Level* 0
 Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask
Calling Party Transform Mask 4089994201
Prefix Digits (Outgoing Calls)
Calling Line ID Presentation* Default
Calling Name Presentation* Default

Connected Party Transformations

Connected Line ID Presentation* Default
Connected Name Presentation* Default

Called Party Transformations

Discard Digits PreDot

Called Party Transformations

Discard Digits PreDot
Called Party Transform Mask
Prefix Digits (Outgoing Calls) 4089994201

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --
Carrier Identification Code
Network Service -- Not Selected -- Service Parameter Name < Not Exist > Service Parameter Value

*- indicates required item.



Route Pattern 13911

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Route Pattern Configuration Related Links: [Back To Find/List](#)

Status
 Status: Ready

Pattern Definition
Route Pattern*
Route Partition
Description
Numbering Plan*
Route Filter
MLPP Precedence*
Gateway/Route List*
Route Option
 Route this pattern
 Block this pattern
Call Classification*
 Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority
 Require Forced Authorization Code
Authorization Level*
 Require Client Matter Code

Calling Party Transformations
 Use Calling Party's External Phone Number Mask
Calling Party Transform Mask
Prefix Digits (Outgoing Calls)
Calling Line ID Presentation*
Calling Name Presentation*

Connected Party Transformations
Connected Line ID Presentation*
Connected Name Presentation*

Called Party Transformations
Discard Digits
Called Party Transformations
Discard Digits
Called Party Transform Mask
Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element
Network Service Protocol
Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
<input type="text" value="-- Not Selected --"/>	<input type="text" value="< Not Exist >"/>	<input type="text"/>

*- indicates required item.



Translation Pattern for ELINs

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Translation Pattern Configuration Related Links:

Status
Status: Ready

Pattern Definition

Translation Pattern

Partition

Description

Numbering Plan

Route Filter

MLPP Precedence*

Calling Search Space

Route Option
 Route this pattern
 Block this pattern

Provide Outside Dial Tone Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*

Calling Name Presentation*

Connected Party Transformations

Connected Line ID Presentation*

Connected Name Presentation*

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)



PSAP Gateway configuration (CAMA TRUNK)

Device Information	
Product	Cisco MGCP FXO Port
Gateway	tony3845
Device Protocol	Analog Access
Registration	Registered with Cisco CallManager CM-BARZA
IP Address	172.20.8.26
End-Point Name *	AALN/S3/SU0/0@tony3845
Description	<input type="text" value="AALN/S3/SU0/0@tony3845"/>
Device Pool*	<input type="text" value="Default"/>
Media Resource Group List	<input type="text" value="< None >"/>
Calling Search Space	<input type="text" value="E911CSS"/>
AAR Calling Search Space	<input type="text" value="< None >"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="< None >"/>
<input type="checkbox"/> Transmit UTF-8 for Calling Party Name	
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	<input type="text" value="< None >"/>
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device
Port Information (Loop Start)	
Port Direction *	<input type="text" value="Bothways"/>
Attendant DN*	<input type="text" value="3000"/>
<input checked="" type="checkbox"/> Unattended Port	
Product Specific Configuration	
Hookflash Timer (50-1550ms) *	<input type="text" value="50"/>
Inter-digit Duration Timer (50-500 ms) *	<input type="text" value="100"/>
Input Gain (-6..14 db) *	<input type="text" value="0"/>
Output Attenuation (0..14 db) *	<input type="text" value="3"/>
Echo Cancellation Enable *	<input type="text" value="Enable"/>
Echo Cancellation Coverage (ms) *	<input type="text" value="8"/>
<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Reset"/>	
<p>i *- indicates required item. i **- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.</p>	



Cisco Unified Communications Manager User

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

End User Configuration Related Links: [Back to Find List Users](#)

Status
 Status: Ready

User Information
LDAP Sync Status: Active
User ID*: certest
Password*:
Confirm Password*:
PIN*: Required Field
Confirm PIN*:
Last name*: CER
Middle name:
First name:
Telephone Number:
Mail ID:
Manager User ID:
Department:
User Locale:
Associated PC:
Digest Credentials:
Confirm Digest Credentials:

Device Associations
Controlled Devices: CERSec1
RP911
RPELIN913 **Device Association**

Extension Mobility
Available Profiles:



Extension Mobility
Available Profiles

--	--

▼ ▲

Controlled Profiles

--	--

Default Profile: < None >

Presence Group*: Standard Presence group

SUBSCRIBE Calling Search Space: < None >

Allow Control of Device from CTI

Directory Number Associations
Primary Extension: < None >

CAPF Information
Associated CAPF Profiles

--	--

Edit Profile

Permissions Information

Groups	Standard CTI Allow Calling Number Modification Standard CTI Enabled
Roles	Standard CTI Allow Calling Number Modification Standard CTI Enabled

- indicates required item.



T1-QSIG Gateway

Navigation Cisco CallManager Administration

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ **Log Off**

Gateway Configuration Related Links: [Back to MGCP Configuration](#)

Status
Status: Ready

Device Information

Product	Cisco MGCP T1 Port
Gateway	tony3845
Device Protocol	Digital Access PRI
Registration	Registered with Cisco CallManager CM-BARZA
IP Address	172.20.110.104
End-Point Name *	S0/SU0/DS1-0@tony3845
Description	<input type="text" value="S0/SU0/DS1-0@tony3845"/>
Device Pool*	<input type="text" value="Default"/>
Call Classification*	<input type="text" value="Use System Default"/>
NetworkLocale	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="< None >"/>
Load Information	<input type="text"/>

Transmit UTF-8 for Calling Party Name
 V150 (subset)

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain	<input type="text" value="< None >"/>
MLPP Indication*	<input type="text" value="Off"/>
MLPP Preemption*	<input type="text" value="Disabled"/>

Interface Information

PRI Protocol Type*	<input type="text" value="PRI ISO QSIG T1"/>
Protocol Side*	<input type="text" value="Network"/>
Channel Selection Order*	<input type="text" value="Top Down"/>
Channel IE Type*	<input type="text" value="Timeslot Number"/>
PCM Type*	<input type="text" value="μ-law"/>
Delay for first restart (1/8 sec ticks)*	<input type="text" value="32"/>



Delay between restarts (1/8 sec ticks)*	4
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input type="checkbox"/> Enable status poll	
<input type="checkbox"/> Unattended Port	
Call Routing Information - Inbound Calls	
Significant Digits*	All
Calling Search Space	PhonesCSS
AAR Calling Search Space	< None >
Prefix DN	
Call Routing Information - Outbound Calls	
Calling Party Presentation*	Default
Calling Party Selection*	Originator
Called party IE number type unknown*	Unknown
Calling party IE number type unknown*	Unknown
Called Numbering Plan*	Unknown
Calling Numbering Plan*	Unknown
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	0
PRI Protocol Type Specific Information	
<input type="checkbox"/> Display IE Delivery	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound	
<input type="checkbox"/> Redirecting Number IE Delivery - Inbound	
<input type="checkbox"/> Send Extra Leading Character in Display IE***	
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable****	
<input type="checkbox"/> MCDN Channel Number Extension Bit Set to Zero**	
<input type="checkbox"/> Send Calling Name In Facility IE	
<input type="checkbox"/> Interface Identifier Present**	
Interface Identifier Value**	
Connected Line ID Presentation (QSIG Inbound Call)*	Default
UUIE Configuration	



— **UUIE Configuration**

Passing Precedence Level Through UUIE

Security Access Level*

— **Product Specific Configuration**



Line Coding *	<input type="text" value="BBZS"/>	<input type="button" value="v"/>
Framing *	<input type="text" value="ESF"/>	<input type="button" value="v"/>
Clock *	<input type="text" value="External"/>	<input type="button" value="v"/>
Input Gain (-6..14 db) *	<input type="text" value="0"/>	
Output Attenuation (-6..14 db) *	<input type="text" value="0"/>	
Echo Cancellation Enable *	<input type="text" value="Enable"/>	<input type="button" value="v"/>
Echo Cancellation Coverage (ms) *	<input type="text" value="8"/>	<input type="button" value="v"/>

- *- indicates required item.
- **- applies to DMS-100 protocol only.
- ***- applies to DMS-100 protocol and DMS-250 protocol only.
- ****- may be required to force ringback from some PBXs.
- *****- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Route Pattern to QSIG Trunk

Navigation Cisco CallManager Administration Go

Cisco CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: [Back To Find/List](#) Go

Status
Info Status: Ready

Pattern Definition

Route Pattern*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence*

Gateway/Route List* [\(Edit\)](#)

Route Option
 Route this pattern
 Block this pattern

Call Classification*

Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level*

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*

Calling Name Presentation*

Connected Party Transformations

Connected Line ID Presentation*

Connected Name Presentation*

Called Party Transformations

Discard Digits

Note: For detailed information regarding QSIG interoperability between CCM and NEC PBX go to:
http://www.cisco.com/warp/public/779/largeent/avid/inter_operability/flash/portal.html

SNMP service must be active

Performance and Monitoring Services			
	Service Name	Status*	Activation Status
	Cisco Serviceability Reporter	Started	Activated
	Cisco CallManager SNMP Service	Started	Activated



Configuring the Cisco Emergency Responder

Cisco Unified Communications Manager Details

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Schedule LAN Switch Details

Cisco CallManager Details

Cisco CallManagers
172.20.110.254

Status: Please enter any change for the current Cisco CallManager

Modify Cisco CallManager

New Update Delete Cancel Changes

Cisco CallManager *	172.20.110.254
CTI Manager *	172.20.110.254
CTI Manager User Name *	certest
CTI Manager Password *	*****
BackUp CTI Manager 1	
BackUp CTI Manager 2	
Telephony Port Begin Address	4250
Number of Telephony Ports	2

* indicates required item

Schedule LAN Switch Details



Cisco Emergency Responder Server group

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Telephony Settings ▶

Cisco ER Group Settings

Specify the values for the configuration attributes and then press Update settings

Status : Ready

Cisco ER Group Name *	<input type="text" value="CERServerGroup"/>
Peer TCP Port *	<input type="text" value="17001"/>
Heart beat Count *	<input type="text" value="3"/>
Heart beat Interval (in sec) *	<input type="text" value="30"/>
Active Call Time out (in min) *	<input type="text" value="180"/>
SMTP Mail Server	<input type="text"/>
Source Mail ID (mandatory if SMTP Server configured)	<input type="text"/>
System Administrator Mail ID	<input type="text"/>
Calling Party Modification	<input type="text" value="enable"/>
SysLog	<input type="text" value="disable"/>
Syslog Server (mandatory if SysLog enabled) (eg:logserver.cisco.com)	<input type="text"/>
Notes	<input type="text"/>

* indicates required item



Telephony Settings

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

◀ Cisco ER Group Settings Server Settings ▶

Telephony settings

Specify the values for the configuration attributes and then press Update settings.

Status :Ready

UDP Port Begin *	<input type="text" value="32000"/>
Inter Cisco ER Group Route Pattern	<input type="text"/>
PSAP Callback Route Point Pattern *	<input type="text" value="913XXXXXXXXXX"/>
ELIN Digit Strip Pattern *	<input type="text" value="913"/>
Route Point for Primary Cisco ER Server *	<input type="text" value="911"/>
Route Point for Standby Cisco ER Server	<input type="text" value="912"/>

* indicates required item

◀ Cisco ER Group Settings Server Settings ▶

Server Settings

Cisco ER Groups
ERL
Phone Tracking
ERL Membership
Reports
Tools
Help
Logout



Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions



◀ Telephony Settings
Onsite Alert Settings ▶

Server Settings for CERServerGroup

Servers

Publisher (primary)

Status : Ready

Modify Server Settings

Update
Delete
Cancel Changes

Server Name *

Host Name * **CER-P**

Debug Package List


<input checked="" type="checkbox"/> CER_DATABASE	<input checked="" type="checkbox"/> CER_SYSADMIN	<input checked="" type="checkbox"/> CER_REMOTEUPDATE
<input checked="" type="checkbox"/> CER_TELEPHONY	<input checked="" type="checkbox"/> CER_PHONETRACKINGENGINE	<input checked="" type="checkbox"/> CER_AGGREGATOR
<input checked="" type="checkbox"/> CER_ONSITEALERT	<input checked="" type="checkbox"/> CER_GROUP	<input checked="" type="checkbox"/> CER_CALLENGINE
<input checked="" type="checkbox"/> CER_CLUSTER		

Trace Package List

<input checked="" type="checkbox"/> CER_DATABASE	<input checked="" type="checkbox"/> CER_SYSADMIN	<input checked="" type="checkbox"/> CER_REMOTEUPDATE
<input checked="" type="checkbox"/> CER_TELEPHONY	<input checked="" type="checkbox"/> CER_PHONETRACKINGENGINE	<input checked="" type="checkbox"/> CER_AGGREGATOR
<input checked="" type="checkbox"/> CER_ONSITEALERT	<input checked="" type="checkbox"/> CER_GROUP	<input checked="" type="checkbox"/> CER_CALLENGINE
<input checked="" type="checkbox"/> CER_CLUSTER		

* indicates required item

Cisco ER Groups
ERL
Phone Tracking
ERL Membership
Reports
Tools
Help
Logout


CISCO SYSTEMS

Onsite Alert Settings
SNMP Settings

Find and List ERLs

[Export ERL data](#)
[Import ERL data](#)

Find Details of ERLs Where contains

and show items per page

To list all items, click Find without entering any search text.

[Configure Default ERL](#)
[Add New ERL](#)

Status : Deleted successfully.

Click on record to view/edit.

Matching Records 1 to 4 of 4


ERL Name	Route/Translation Pattern--ELIN	Onsite Alert Ids.	Street Name	Community Name	State	Copy	Delete	Audit Trail
Default	100911--4000		Tasman	cisco	ca			view..
Test1	10911--4089994....		Tasman	Big Sky	TX			view..
Test2	11911--4089994....		Tasman	Big Sky	TX			view..
Test3	13911--4089994....		Tasman	Big Sky	TX			view..


First | Previous | Next | Last Page of 1

[Configure Default ERL](#)
[Add New ERL](#)

ERL 1

ERL Information for Test1

* indicates required item 

 Help for this screen

ERL Name * **Test1**



Notes

Test ERL (Select if this ERL is used for Synthetic Testing)

ELIN Settings

Route/Translation pattern	<input type="text" value="10911"/>	<input type="button" value="Add"/>	<input type="text" value="10911-4089994200"/>
ELIN	<input type="text" value="4089994200"/>	<input type="button" value="Update"/>	
		<input type="button" value="Remove"/>	

Onsite Alert Settings


Available Onsite Alert IDs	<input type="text"/>		Onsite Alert IDs for the ERL	<input type="text"/>
				


ERL Address

[ALI Details](#)

ERL 2

ERL Information for Test2

* indicates required item 

 Help for this screen

ERL Name * **Test2**



Notes

Test ERL (Select if this ERL is used for Synthetic Testing)

ELIN Settings

Route/Translation pattern	<input type="text" value="11911"/>	<input type="button" value="Add"/>	<input type="text" value="11911-4089994201"/>
ELIN	<input type="text" value="4089994201"/>	<input type="button" value="Update"/>	
		<input type="button" value="Remove"/>	


Onsite Alert Settings


Available Onsite Alert IDs	<input type="text"/>		Onsite Alert IDs for the ERL	<input type="text"/>
				

ERL Address

[ALI Details](#)

ERL Information for Test3

* indicates required item 

 Help for this screen

ERL Name * **Test3**



Notes

Test ERL (Select if this ERL is used for Synthetic Testing)

ELIN Settings

Route/Translation pattern	<input type="text"/>	<input type="button" value="Add"/>	<input type="text" value="13911-4089994203"/>
ELIN	<input type="text"/>	<input type="button" value="Update"/>	
		<input type="button" value="Remove"/>	

Onsite Alert Settings


Available Onsite Alert IDs	<input type="text"/>		Onsite Alert IDs for the ERL	<input type="text"/>
				

ERL Address

[ALI Details](#)

SNMP connection

Cisco ER Groups
ERL
Phone Tracking
ERL Membership
Reports
Tools
Help
Logout


Cisco Systems

Configure ERLs
Schedule

SNMP Settings

- Entries can be added in any order
 - IP Address can consist of a wild card '*' or range of values like 20-30 or an exact number.
 - Entry that is the closest match will be used for a given switch or Cisco CallManager.
 - If no match is found, **public** will be used as the default Read Community string.
 - Some valid IP examples: 64.20.4.9 64.20-30.30-60.* *.*.*.*


Status: Please enter any change for the current SNMP Setting

Modify SNMP Setting

IP Address/Host Name *	Timeout(in sec) *	Retries *	Read Community *
172.20.8.20	<input type="text" value="10"/>	<input type="text" value="2"/>	<input type="text" value="public"/>

* indicates required item

Click on a record to view or modify

IP Address/Host Name	Timeout(in sec)	Retries	Read Community	Delete
172.20.8.20	10	2	public	

Configure ERLs
Schedule



LAN Switch identifying

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

← Cisco CallManager Details [Configure Switch Ports](#) →

LAN Switch Details

LAN Switches

- Export
- Import
- 172.20.8.20
LAN Switch

Status: Please enter any change for the current LAN Switch

Modify LAN Switch

New Update Delete Cancel Changes Locate Switch-Ports

Switch Host Name / IP Address * **172.20.8.20**

Notes

Enable CAM based Phone Tracking

* indicates required item



Switch Port Details

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

LAN Switch Details Configure IP Subnets

Switch Port Details

Find **Configure** [Export](#) [Import](#)

View Switch Port Information

Find ports where All Any of the conditions are satisfied

ERL Name contains

172.20.8.20	3/23	View			
172.20.8.20	3/24	View			
172.20.8.20	3/25	View			
172.20.8.20	3/26	View			
172.20.8.20	3/27	View			
172.20.8.20	3/28	View			
Test3	172.20.8.20	3/29	View	4201	172.20.110.252 Cisco 7960
Test3	172.20.8.20	3/30	View	4200	172.20.110.253 Cisco 7960
172.20.8.20	3/31	View			



Defining Manual Phones (PBX Stations)

Cisco ER Groups ERL Phone Tracking ERL Membership Reports Tools Help Logout

Cisco Emergency Responder Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Configure Unlocated Phones Configure Synthetic Phones

Find and List Manually Configured Phones [Add new Manual phone](#)

[Export](#)
[Import](#)

Find phones where extension

and show items per page
To list all items, click Find without entering any search text.

List Manually Configured Phones

Status: Ready

Matching record(s) 1 to 2 of 2

Line Number	ERL Name	IP Address	MAC Address	Delete
4059	Test2			
4060	Test1			

First Previous Next Last Page of 1

Add/Modify Phones

[Back to Phone Search](#)

Status: Please enter any change for the current Manual Phone

Modify Phones

Line Number *	4060
Phone Type	<input type="text"/>
Version	<input type="text"/>
IP Address	<input type="text"/>
MAC Address	<input type="text"/>
ERL Name *	<input type="text" value="Test1"/>
	<input type="text" value="Test1"/>

* indicates required item

Add/Modify Phones

[Back to Phone Search](#)

Status: Please enter any change for the current Manual Phone

Modify Phones

Line Number *	<input type="text" value="4059"/>
Phone Type	<input type="text"/>
Version	<input type="text"/>
IP Address	<input type="text"/>
MAC Address	<input type="text"/>
ERL Name *	<input type="text" value="Test2"/>
	<input type="text" value="Test2"/>

* indicates required item

Cisco 3845 IOS Gateway Configuration

```

tony3845#sh run
Building configuration...

```

```

Current configuration : 3087 bytes

```

```

!
Version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tony3845
!
boot-start-marker
boot system flash:c3845-ipvoice-mz.123-14.T4.bin
boot-end-marker
!

```




```
linecode b8zs
!
controller E1 4/0/0
shutdown
pri-group timeslots 1-31 service mgcp
!
controller E1 4/0/1
!
!
!
interface GigabitEthernet0/0
ip address 172.20.8.26 255.255.255.0
duplex half
speed 100
media-type rj45
negotiation auto
!
interface GigabitEthernet0/1
ip address 172.20.110.104 255.255.255.0
shutdown
duplex auto
speed auto
media-type rj45
negotiation auto
!
interface Serial0/0/0:23
no ip address
isdn switch-type primary-qsig
isdn protocol-emulate network
isdn incoming-voice voice
isdn T310 120000
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial4/0/0:15
no ip address
shutdown
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
ip default-gateway 172.20.8.1
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.8.1
!
ip http server
!
!
!
```



```
!  
control-plane  
!  
!  
!  
voice-port 0/0/0:23  
!  
voice-port 3/0/0  
signal cama KP-NPD-NXX-XXXX-ST  
dial-type mf  
timing hookflash-out 500  
!  
voice-port 3/0/1  
dial-type mf  
timing hookflash-out 500  
!  
voice-port 3/0/2  
dial-type mf  
timing hookflash-out 500  
!  
voice-port 3/0/3  
dial-type mf  
timing hookflash-out 500  
!  
voice-port 3/1/0  
!  
voice-port 3/1/1  
!  
voice-port 4/0/0:15  
!  
ccm-manager mgcp  
ccm-manager music-on-hold  
ccm-manager config server CM-GUANATOS  
ccm-manager config  
!  
mgcp  
mgcp call-agent CM-GUANATOS 2427 service-type mgcp version 0.1  
mgcp dtmf-relay voip codec all mode out-of-band  
mgcp rtp unreachable timeout 1000 action notify  
mgcp modem passthrough voip mode nse  
mgcp package-capability rtp-package  
no mgcp package-capability res-package  
mgcp package-capability sst-package  
no mgcp package-capability fxr-package  
mgcp package-capability pre-package  
no mgcp timer receive-rtcp  
mgcp sdp simple  
mgcp fax t38 inhibit  
mgcp rtp payload-type g726r16 static  
!
```



```
mgcp profile default
!
!
!
dial-peer voice 999300 pots
service mgcpapp
port 3/0/0
!
dial-peer voice 999301 pots
service mgcpapp
port 3/0/1
!
dial-peer voice 999310 pots
service mgcpapp
port 3/1/0
!
dial-peer voice 999311 pots
service mgcpapp
port 3/1/1
!
dial-peer voice 999302 pots
service mgcpapp
port 3/0/2
!
dial-peer voice 999303 pots
service mgcpapp
port 3/0/3
!
!
line con 0
password cisco
stopbits 1
line aux 0
stopbits 1
line vty 0 4
password cisco
login
!
scheduler allocate 20000 1000
!
End
```

```
tony3845#sh ver
Cisco IOS Software, 3800 Software (C3845-IPVOICE-M), Version 12.3(14)T4, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Thu 08-Sep-05 21:49 by kehsiao
```

```
ROM: System Bootstrap, Version 12.3(11r)T2, RELEASE SOFTWARE (fc1)
```



tony3845 uptime is 1 week, 2 days, 5 hours, 15 minutes
System returned to ROM by power-on
System image file is "flash:c3845-ipvoice-mz.123-14.T4.bin"

Cisco 3845 (revision 1.0) with 485376K/38912K bytes of memory.
Processor board ID FTX0933A1JA
2 Gigabit Ethernet interfaces
55 Serial interfaces
2 Channelized E1/PRI ports
2 Channelized T1/PRI ports
4 Voice FXO interfaces
2 Voice FXS interfaces
DRAM configuration is 64 bits wide with parity enabled.
479K bytes of NVRAM.
125184K bytes of ATA System CompactFlash (Read/Write)

Configuration register is 0x2102

tony3845#

tony3845#sh voice port 3/0/0

Foreign Exchange Office 3/0/0 Slot is 3, Sub-unit is 0, Port is 0
Type of VoicePort is FXO
Operation State is DORMANT
Administrative State is UP
The Last Interface Down Failure Cause is Administrative Shutdown
Description is not set
Noise Regeneration is enabled
Non Linear Processing is enabled
Non Linear Mute is disabled
Non Linear Threshold is -21 dB
Music On Hold Threshold is Set to -38 dBm
In Gain is Set to 0 dB
Out Attenuation is Set to 3 dB
Echo Cancellation is enabled
Echo Cancellation NLP mute is disabled
Echo Cancellation NLP threshold is -21 dB
Echo Cancel Coverage is set to 64 ms
Echo Cancel worst case ERL is set to 6 dB
Playout-delay Mode is set to adaptive
Playout-delay Nominal is set to 60 ms
Playout-delay Maximum is set to 250 ms
Playout-delay Minimum mode is set to default, value 40 ms
Playout-delay Fax is set to 300 ms
Connection Mode is normal
Connection Number is not set
Initial Time Out is set to 10 s
Interdigit Time Out is set to 10 s



Call Disconnect Time Out is set to 60 s
Ringing Time Out is set to 180 s
Wait Release Time Out is set to 30 s
Companding Type is u-law
Region Tone is set for US

Analog Info Follows:

Currently processing none
Maintenance Mode Set to None (not in mtc mode)
Number of signaling protocol errors are 8
Impedance is set to 600r Ohm
Station name None, Station number None
Translation profile (Incoming):
Translation profile (Outgoing):

Voice card specific Info Follows:

Signal Type is cama
Cama Type is KP-NPD-NXX-XXXX-ST

NPD to NPA mapping is :

NPD NPA

0 0

1 0

2 0

3 0

Battery-Reversal is enabled
Number Of Rings is set to 1
Supervisory Disconnect is signal
Answer Supervision is inactive
Hook Status is On Hook
Ring Detect Status is inactive
Ring Ground Status is inactive
Tip Ground Status is inactive
Dial Out Type is mf
Digit Duration Timing is set to 100 ms
InterDigit Duration Timing is set to 100 ms
Pulse Rate Timing is set to 10 pulses/second
InterDigit Pulse Duration Timing is set to 750 ms
Percent Break of Pulse is 60 percent
GuardOut timer is 2000 ms
Minimum ring duration timer is 125 ms
Hookflash-in Timing is set to 600 ms
Hookflash-out Timing is set to 500 ms
Supervisory Disconnct Timing is set to 350 ms

tony3845#



CAT6k configuration

Console> (enable) sh snmp

SNMP: Enabled

RMON: Disabled

Extended RMON Netflow Enabled : None.

Memory usage limit for new RMON entries: 85 percent

EngineId: 00:00:00:09:00:01:97:31:c8:00:00:00

Chassis Alias:

Traps Enabled: None

Port Traps Enabled: None

Community-Access Community-String

read-only public

read-write private

read-write-all secret

Additional- Access-

Community-String Access-Type Number View

Trap-Rec-Address Trap-Rec-Community Trap-Rec-Port Trap-Rec-Owner Trap-Rec-Index

Console> (enable) sh cdp

CDP : enabled

Message Interval : 60

Hold Time : 180

Version : V2

Device Id Format : Other

Console> (enable)

set interface sc0 109 172.20.8.20/255.255.255.0 172.20.8.255

Configuring the NEC IPX2400

The NEC requires a substantial amount of programming and circuit card switch settings to properly install T1 PRI. It is beyond the scope of this document to provide the entire configuration, therefore the NEC information below is directed to NEC techs



The switch settings and software references in this document assume a familiarity with the NEC 2400. It is highly recommended to have a NEC ISDN certified technician setup the NEC portion.

Configure in the following sequence:

- Install Circuit Card
- Configure all software

Circuit Card Configuration (PA-24PRTB)

Switch	Position	Description	Settings
MB		Make Busy	Down
LB	0	Internal Loop Back	Off
	1	External Loop Back	Off
	2	Payload Loop Back	Off
	3	Dch Control Block MBR	Off
SENSE (Rotary)		Protocol 0 = CCIS (NEC proprietary) 1 = NI2 3 = INS1500 5 = AT&T (#4 & #5 ESS) 7 = Nortel DMS100/DMS250 A = Q.SIG	A
SW0	1	ON = Impedance 100 ohms OFF = Impedance 110 ohms	ON
	2	XMT XFMR Ground	OFF
	3	RCV XFMR Ground	OFF
	4	Fixed On	ON
SW1	1	Digital PAD ROM Count Off = 2 ROM chips on board On = 3 ROM chips on board	OFF
	2	Fixed On	ON
	3	ON = 24B OFF = 23B + D	OFF
	4	D-Channel Packet Service	OFF
SW2	1	Equalizer	ON
	2	Equalizer	ON
	3	Equalizer	ON
	4	12/24 Multiframe	ON
	5	AMI/B8ZS	ON
	6	4K Data Link Control	ON
	7	4K Data Link Control	OFF
	8	Fixed ON	ON
SW3	1	RMT Alarm	OFF
	2	RMT Alarm	OFF
	3	Fixed Off	OFF
	4	All "1" Supervision	OFF
	5	Fixed On	ON
	6	Fixed On	ON
	7	Fixed On	ON
	8	Fixed On	ON
SW4	1	Fixed Off (Protocol Selection)	OFF
	2	ON = User OFF = Network	ON
	3	Dch Signal Logic	OFF



	4	Dch Speed Selection	ON
	5	Dch Speed Selection	ON
	6	Fixed On	ON
	7	Fixed On	ON
	8	Fixed On	ON
SW5	1	PAD	ON
	2	PAD	ON
	3	PAD	ON
	4	PAD	ON
	5	PAD	ON
	6	PAD	ON
	7	PAD	ON
	8	Idle Code	OFF

Route (ARTD) Configuration

[IPX-R15_IP::LRTD]

January 27, 2006

* Route Class Data List *

Starting Ending

RT 2

RT 3

RT 2

CDN	Data	CDN	Data	CDN	Data
001	OSGS 0	043	BT 1	085	CSEU 0
002	ONSG 2	044	PRV 0	086	CSEL 0
003	ISGS 0	045	A/D 1	087	CMP 0
004	INSG 2	046	CW 0	088	TALK 0
005	TF 3	047	TPQ 0	089	FOT 0
006	TCL 4	048	BL 0	090	RST 0
007	L/T 1	049	TRKS 0	091	TOCI 0
008	RLP 2	050	DPLY 1	092	TOCD 0
009	TQ 0	051	ACD 0	093	ODGD 0
010	SMDR 0	052	2W/4W 0	094	RLS 0
011	TD 0	053	FAAT 0	095	GWD 0
012	DR 0	054	GW 0	096	H1 0
013	AC 1	055	TCMA 0	097	DT 0
014	TNT 0	056	SMDR3 0	098	CI 0
015	LSG 12	057	HDT 0	099	OID 0
016	SMDR2 0	058	CD 0	100	TKS 0
017	H/M 0	059	CCH 0	101	PAD2 0
018	MC 0	060	TC/EC 0	102	TRM 0
019	ANI 0	061	IRE 0	103	TRPX 0
020	D 0	062	SCR 0	104	LDR 0
021	MSB 0	063	LYER1 0	105	TSC 0
022	MSW 0	064	NET 0	106	SATS 0
023	TR 0	065	INT 10	107	RVPX 0
024	OC 0	066	DC 4	108	DQ 0
025	R/L 0	067	HKS 0	109	SLOV 0
026	RVSD 0	068	SCF 0	110	SDTO 0
027	TL 0	069	SMDR4 0	111	ADVPR 0
028	ANS 1	070	TCMN 0	112	IND 1
029	TELP 0	071	TCMC 0	113	UUI 0
030	PAD 4	072	MFSP 0	114	DCH 0
031	OGRL 1	073	KPST 0	115	CMRT 0
032	ICRL 1	074	KPPT 0	116	PREF 0
033	HD 0	075	STC 0	117	DFS 0
034	GUARD 1	076	MC2 0	118	BOB 0
035	WINK 0	077	MT 0	119	HOLCH 0
036	VAD 0	078	TONE 0	120	IFR 0
037	CLD 0	079	PPTM 0	121	CONV 0
038	FA 0	080	MPTM 0	122	ORRT 0



```

039 BC 0          081 LPTM 0          123 CNI 0
040 TCM 0         082 RSAX 0          124 AOC 0
041 TDMQ 0        083 CST 0          125 MGCOT 0
042 TRSC 0        084 CSEG 0

```

RT 3

```

CDN      Data      CDN      Data      CDN      Data
001 OSGS 0          043 BT 0          085 CSEU 0
002 ONSG 0          044 PRV 0          086 CSEL 0
003 ISGS 0          045 A/D 0          087 CMP 0
004 INSG 0          046 CW 0           088 TALK 0
005 TF 0           047 TPQ 0          089 FOT 0
006 TCL 4          048 BL 0           090 RST 0
007 L/T 1          049 TRKS 0         091 TOCI 0
008 RLP 0          050 DPLY 0         092 TOCD 0
009 TQ 0           051 ACD 0          093 ODGD 0
010 SMDR 0         052 2W/4W 0        094 RLS 0
011 TD 0           053 FAAT 0         095 GWD 0
012 DR 0           054 GW 0           096 H1 0
013 AC 0           055 TCMA 0         097 DT 0
014 TNT 0          056 SMDR3 0        098 CI 0
015 LSG 13         057 HDT 0          099 OID 0
016 SMDR2 0        058 CD 0           100 TKS 0
017 H/M 0          059 CCH 0          101 PAD2 0
018 MC 0           060 TC/EC 0        102 TRM 0
019 ANI 0          061 IRE 0          103 TRPX 0
020 D 0            062 SCR 0          104 LDR 0
021 MSB 0          063 LYER1 0        105 TSC 0
022 MSW 0          064 NET 0          106 SATS 0
023 TR 0           065 INT 10         107 RVPX 0
024 OC 0           066 DC 0           108 DQ 0
025 R/L 0          067 HKS 0          109 SLOV 0
026 RVSD 0         068 SCF 0          110 SDTO 0
027 TL 0           069 SMDR4 0        111 ADVPRA 0
028 ANS 1          070 TCMN 0         112 IND 0
029 TELP 0         071 TCMC 0         113 UUI 0
030 PAD 7          072 MFSP 0         114 DCH 0
031 OGRL 0         073 KPST 0         115 CMRT 0
032 ICRL 0         074 KPPT 0         116 PREF 0
033 HD 0           075 STC 0          117 DFS 0
034 GUARD 0        076 MC2 0          118 BOB 0
035 WINK 0         077 MT 0           119 HOLCH 0
036 VAD 0          078 TONE 0         120 IFR 0
037 CLD 0          079 PPTM 0         121 CONV 0
038 FA 0           080 MPMT 0         122 ORRT 0
039 BC 0           081 LPTM 0         123 CNI 0
040 TCM 0          082 RSAX 0         124 AOC 0
041 TDMQ 0        083 CST 0          125 MGCOT 0
042 TRSC 0        084 CSEG 0

```

NEC Software Release:

```

DISS 03/31/05 10:08:19:965000 IPX-R15_IP
<Lookup:401A>
Success:00:0000
Get: Main Memory

```

Type	Version	Issue	Date
Main Memory	15	02.00	2003/10/09
Boot ROM	H	02.00	2002/11/20



IP	-	-	-
ACDP	-	-	-
MAT	15	02.00	2003/09/05
TCP/IP	5	01.00	2003/09/04
PHDP	2	02.00	2003/08/08

Acronyms

Acronym	Definitions
CAMA	Analog "Centralized Automatic Message Accounting" E911 Trunk
PSAP	Public Service Answering Point



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