# D9485 DAVIC QPSK Bridge Release Note

This release note provides release information for D9485 1.2.17 release software.

## Release Details

This following table lists component version numbers and other details for this release.

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|---|---|
| Release Package Name: | Rel_4P_1_2_17-G |
| Overlay File System: | 1.1.90 |
| Ramdisk: | 1.1.40 |
| Kernel: | 1.1.10 |
| Bootloader: | 1.1.7 |
| Bootloader Environment: | 1.1.5 |
| Flattened Device Tree: | 1.1.10 |
| Primary Microcontroller: | 0.9.3 |
| 3AN Boot FPGA: | 1.0.7 |
| Spartan6 Demodulator FPGA: | 0.2.28 |
| Virtex5 Primary FPGA: | 1.31.0 |
| Chopstick Modulator UPX: | MV_CHP_80000003_20121019-00112320.0007 |

## Document Version:

This is the first draft release of this document.

## Site Requirements

This section includes information on site requirements for running D9485 software release 1.2.17. Please read this entire section before you begin an upgrade.

## System Release Compatibility and Prerequisites

This software can be installed on a network that is running *System Release 4.2 Service Pack 4* and later.

For a complete configuration listing, or to upgrade your system, contact Cisco Services for assistance. Follow the menu options to speak with a service engineer.

### Hardware Requirements

The 1.2.17 release works with all D9485 DAVIC QPSK Bridges that are presently deployed.

### QPSK Software Installation

Refer to the *Model D9485 DAVIC QPSK Bridges Installation and Operation Guide* (part number OL-30211) for instructions on installing the QPSK software.

## Fixed Defects

| Number | Summary |
|---|---|
| CSCun37240 | Fixed an issue where the "Number Transmitted" counter reported via SNMP was not in sync with the value displayed under Statistics->Modulator on the Craft Port/ssh menu and web interfaces. |
| CSCup45008 | Fixed an issue where, if the DNCS stopped responding to a connection previously in use by the D9485, this could cause the D9485 to block for anywhere from minutes to indefinitely while waiting for an RPC response from the DNCS. Added new functionality to perform read/write timeouts on the RPC client sockets and to retry TCP connection attempts every few seconds to re-establish connections without long blocking. |
| CSCup45273 | Fixed an issue where, when connecting to the D9485 via the web interface and the D9485 is rebooted, the page view loaded before the reboot is not being properly dropped and can interfere with the new page view loaded after the reboot. This can cause ""DataTables warning" messages to be displayed and prevent the user from browsing to other web pages. |
| CSCup45287 | Fixed an issue where the System Version page does not update correctly via the web interface when using Internet Explorer 8 as the web browser. |

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| CSCup45300 | "Invalid DAVIC message type" alarms are raised when DAVIC message traffic is received that can't be properly validated. This includes instances where a valid DAVIC message type is found but no MAC address, so the associated packet is discarded as a "broadcast" DAVIC message. The ability was added to capture the contents of invalid DAVIC messages, and messages being flagged as a broadcast message, and write them to the logs to allow post-analysis/decoding of the data in the ATM cells comprising the message. Additionally, the VPI/VCI, MAC address and demod associated with the STB that sent the message is captured and logged. |
| CSCup45326 | Fixed an issue in the D9485's STB controller process where, when logging the contents of a received invalid DAVIC message, the length of the message was not being properly calculated and could result in a process crash/restart. |
| CSCup45337 | Fixed an issue where if a process crashes while holding an IPC (inter-process communication) semaphore lock then this could cause another process to deadlock on the shared IPC semaphore. The kernel will now automatically unlock any IPC semaphore held by a process when it crashes. |
| CSCup45356 | It was discovered that if the D9485 is operating in a network with a high noise floor and/or lots of contention then this could result in it not hearing a response from any given STB when it sends power error and timing error (PETE) correction messages to them. Upon timing out waiting for a response message from a STB, the D9485 was incorrectly resending the PETE correction message again, specifying the same desired adjustment, and this could result in the final adjustment actually being (N + 1) * the desired adjustment, where N is the number of successive timeouts that occur waiting for a response. In other words, STBs were receiving the PETE correction messages, and applying them, but the D9485 was failing to receive the response from some STBs acknowledging the adjustment and so was repeatedly resending the correction messages and forcing these STBs to adjust too much. The D9485 code was modified so that now, if it doesn't receive a response to a PETE correction message, then it resends a message with no (i.e. 0) correction specified to the STB after each timeout until it either gets a response or has reached the maximum retry limit and resets the STB. This issue only appeared to manifest itself when the demod attenuation level was set to 0 dB such that the STB responses to PETE correction messages could get lost due to a high noise floor. |
| CSCup45362 | Updated the version of OpenSSL running on the D9485 to remove a vulnerability to the Heartbleed virus. |
| CSCuf21404 | Fixed an issue where very short Ethernet frames (60 bytes or less) being sent on the broadcast data route would not have their destination IP addresses updated to 255.255.255.255, and would therefore not be seen by any set top boxes which did not yet have an IP address. This caused such boxes to be unable to receive broadcasted cmd2000 commands from the DNCS under some circumstances. |
| CSCup67481 | Fixed a memory leak in the scheduler process which could occur when operating in an environment with a high number of Reservation requests. |

## Known Issues

| Number | Summary |
|---|---|
| CSCup85456 | D9485 clear statistics command fails |