Release Notes for the S4810

Dell Networking OS Version 9.6(0.0) November 2014
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For more information on hardware and software features, commands, and capabilities, refer to the Dell Networking website at [www.dell.com/networking](http://www.dell.com/networking).
How To Use This Document

This document contains information on open and resolved caveats, and operational information specific to the Dell Networking OS software and the S4810 platform.

Caveats are unexpected or incorrect behavior, and are listed in order of Problem Report (PR) number within the appropriate sections.

Note: Customers can subscribe to caveat update reports or use the BugTrack search tool to read current information about open and closed software caveats. To subscribe or use BugTrack, visit iSupport at: https://www.force10networks.com/CSPortal20/BugTrack/SearchIssues.aspx.

BugTrack currently tracks software caveats opened in Dell Networking OS version 6.2.1.1 and later.

All Release Notes are available on the Software Center tab of iSupport. The link to the relevant Release Notes for each software version is next to the link for that version: https://www.force10networks.com/CSPortal20/Software/Downloads.aspx

For more information on hardware and software features, commands, and capabilities, refer to the Dell Networking website at www.dell.com/networking.
## Supported Hardware

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports</td>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports, 1 DC power supply and 2 fan subsystem with airflow from I/O side to power supply unit (PSU) side</td>
</tr>
<tr>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports, 1 AC power supply and 2 fan subsystem with airflow from I/O side to power supply unit (PSU) side</td>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports, 1 AC power supply and 2 fan subsystem with airflow from power supply unit (PSU) side to I/O side</td>
</tr>
<tr>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports, 1 DC power supply and 2 fan subsystem with airflow from power supply unit (PSU) side to I/O side</td>
<td>48 port 10G SFP+ ports with 4 QSFP+ 40G ports, 1 AC power supply and 2 fan subsystem with airflow from power supply unit (PSU) side to I/O side</td>
</tr>
<tr>
<td>S4810 Series – Fan with airflow from I/O side to power supply unit (PSU) side</td>
<td>S4810 Series – Fan with airflow from PSU side to I/O side</td>
</tr>
<tr>
<td>S4810 Series – DC Power supply with airflow from I/O side to power supply unit (PSU) side</td>
<td>S4810 Series – DC power supply with airflow from power supply unit (PSU) side to I/O side</td>
</tr>
<tr>
<td>S4810 Series – AC Power supply with airflow from I/O side to power supply unit (PSU) side</td>
<td>S4810 Series – AC Power supply with airflow from power supply unit (PSU) side to I/O side</td>
</tr>
</tbody>
</table>

- Note: Fan Modules and Power supplies (PSUs) are field replaceable units. Dell Networking does not support a mix of power supply types (i.e., AC and DC) in the same switch.
- Note: All fans and PSUs must have the same airflow direction. Should a mixed airflow configuration happen, the switch detects the discrepancy and performs a shutdown, if the module is not replaced within few minutes.

## Supported Brocade Cables

<table>
<thead>
<tr>
<th>Cable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 3 METER 8PACK</td>
</tr>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 5 METER 1PACK</td>
</tr>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 5 METER 8PACK</td>
</tr>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 1 METER 1PACK</td>
</tr>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 1 METER 8PACK</td>
</tr>
<tr>
<td>CUS,PCT B-8000 10GbE TWINAX 3 METER 1PACK</td>
</tr>
</tbody>
</table>
New Dell Networking OS Version 9.6(0.0) Features

The following features have been added to the S4810 with Dell Networking OS Version 9.6(0.0).

<table>
<thead>
<tr>
<th>Feature</th>
<th>Feature Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obscure Password Command</td>
<td>The service obscure-passwords command prevents a user from reading the passwords and keys including RADIUS, TACACS+ keys, router authentication strings, VRRP authentication by obscuring this information with asterisks.</td>
</tr>
<tr>
<td>ntp master &lt;stratum&gt;</td>
<td>Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks. NTP uses a hierarchical, semi-layered system of time sources. Each level of the hierarchy is termed a “stratum” and is assigned a number starting with zero at the top. The number represents the distance from the reference clock and is used to prevent cyclical dependencies in the hierarchy.</td>
</tr>
<tr>
<td>IPv4 SourceGuard Enhancements</td>
<td>The enhancements to the Source Guard feature supports VLAN to validate the host. It also supports port channel interface. Provides support for the discard counters of the packets dropped and for clearing the discard counters.</td>
</tr>
<tr>
<td>SNMP-MIB support</td>
<td>SNMP-MIB supports to display the available memory size on the flash and the software core files generated by the system.</td>
</tr>
<tr>
<td>Auto Negotiation support or pause frames</td>
<td>This enhancement provides user an option to enable / disable the pause frame negotiation.</td>
</tr>
</tbody>
</table>

Accessing u-Boot

Until Dell Networking OS 9.3(0.0), any key can be used to break into u-Boot to change any environment and boot variables. In Dell Networking OS 9.4(0.0) and later releases, only ESC key can be used to break into u-Boot. The Boot Code needs to be upgraded to version 1.2.0.5 in order to enable this feature. For more information on Upgrading Boot Code, see see “Upgrading the S4810 Dell Networking OS Image and Boot Code”.

Restrictions

- When configuring CAM ACL using the cam-acl 12acl 2 ipv4acl 2 ipv6acl 0 ipv4qos 1 l2qos 2 12pt 0 ipmacacl 0 vm-an-qos 0 ecfmacl 2 fcoeac1 4 iscsiopac1 0 command and reloading, the system fails due to a limitation in the BCM SDK 6.3.4.
- If an Intel X520 CNA adapter is used as an FCoE initiator, follow these steps to establish FCoE sessions to send and receive traffic on an S4810 switch:

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Command</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>On the server, uninstall the old Intel driver (version 13.0.0 or older).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Re-install the Intel driver using version 13.5 A00 (or later) from the <a href="http://www.dell.com">http://www.dell.com</a> website.</td>
<td></td>
<td>Important: During the installation, do not select the ISCSI part of the driver; select only the FCoE check box.</td>
</tr>
</tbody>
</table>
3. On each server-facing port, enter the following commands in interface configuration mode.

The `dcbx version cee` command configures a port to use the CEE (Intel 1.01) version of DCBX. Configure server-facing ports with the `shutdown` and `no shutdown` commands as needed. For example:

```
Dell# interface tenGigabitEthernet 0/1
Dell(conf-if-te-0/1)# portmode hybrid
Dell(conf-if-te-0/1)# switchport
Dell(conf-if-te-0/1)# protocol lldp
Dell(conf-lldp)# dcnx port-role auto-downstream
Dell(conf-lldp)# dcnx version cee
Dell(conf-lldp)# exit
Dell(conf-if-te-0/1)# spanning-tree pvst edge-port
Dell(conf-if-te-0/1)# no shutdown
Dell(conf-if-te-0/1)# exit
Dell#
```

4. Display information on FIP-snooped sessions and check the entries in ENode Interface fields to see if you have established the FCoE session on a server-facing port.

```
show fip-snooping sessions EXEC Privilege
```

### Changes to Default Behavior and CLI Syntax

After you upgrade a switch to version 9.6(0.0) or later from an earlier Dell Networking OS version, the interface index value of all interfaces is offset by 16515072. For example:

```
Dell# show interfaces | grep index i
Interface index is 33620994
Interface index is 33883138
Interface index is 34145282
Interface index is 34407426

Dell# show interfaces | grep index i
Interface index is 17105922
Interface index is 17368066
Interface index is 17630210
Interface index is 17892354
```

### S4810 Upgrade Procedures: Overview

To upgrade the Dell Networking OS to version 9.6(0.0) on a S4810 switch, complete these steps:

- Upgrading the S4810 Dell Networking OS Image and Boot Code
- Upgrading the CPLD
- VLT Upgrade Procedure
Upgrading the S4810 Dell Networking OS Image and Boot Code

The S4810 system is pre-loaded with default Dell Networking OS software.

- Note: The configurations shown here are examples only and are not intended to duplicate any real system or network.

- Note: Upgrading to Dell Networking OS version 9.6(0.0) from a version prior to Dell Networking OS version 8.3.12.0 via TFTP is a multi-step process.

  The unit with Dell Networking OS version prior to 8.3.12.0 must be upgraded to Dell Networking OS 8.3.12.0 to increase the size of the partition.

  Then, the unit must be upgraded to Dell Networking OS version 9.1(0.0) to support copy of files greater than 32MB via TFTP.

  The unit must then be upgraded to Dell Networking OS version 9.6(0.0).

- Note: Upgrading to Dell Networking OS version 9.6(0.0) from Dell Networking OS version 8.3.12.0 via TFTP is a two-step process.

  The unit with Dell Networking OS version 8.3.12.0 must be upgraded to Dell Networking OS version 9.1(0.0) to support copy of files greater than 32MB via TFTP.

  The unit can, then be upgraded to Dell Networking OS version 9.6(0.0).

- Note: The S4810 can be upgraded through TFTP to Dell Networking OS version 9.6(0.0) from versions 9.1(0.0) and above without any upgrades to intermediate releases.

- Note: Upgrading to Dell Networking OS version 9.6(0.0) from a version prior to Dell Networking OS version 8.3.12.0 via FTP is a two-step process. The unit must be upgraded to Dell Networking OS version 8.3.12.0 to increase the size of the partition and then upgraded to Dell Networking OS version 9.6(0.0). A unit with Dell Networking OS version 8.3.12.0 or later can be upgraded directly to Dell Networking OS version 9.6(0.0) without any intermediate upgrades.

- Note: The S4810 can be upgraded to Dell Networking OS version 9.6(0.0) from versions 8.3.12.0 and later via FTP and other locations directly without the need to upgrade to any intermediate release.
**Bare Metal Provisioning**

Bare Metal Provisioning (BMP) automates the upgrading and configuration of the switches. Standard upgrades performed with BMP enabled provide a fail-back mechanism, allowing the switch to return to its previous state. If you are using BMP, refer to the *Bare Metal Provisioning chapter* in the *Open Automation Guide*. BMP (formerly called ‘Jumpstart’) is enabled by default when you boot up the switch or when the reload type is configured as BMP (*reload-type bmp* command). To cancel a BMP bootup and apply the startup configuration, enter the *stop bmp* command in EXEC Privilege mode from the console.

To disable BMP for the next reload, enter *reload-type normal-reload* command from CONFIGURATION mode and save the configuration using *write memory* command from EXEC PRIVILEGE mode.

To allow Dell Networking OS Image and configuration file transfers between the File Server and the S4810, configure the File Server with the Image and Configuration File URLs. The system recognizes HTTP, HTTPS, SFTP, TFTP, FTP, USB and Flash URLs.

For example:

- `tftp://<server ip or name>/<filename>`
- `ftp://user:passwd@serverip or name//mypath/Dell-A.B.C.D.bin`
- `flash://filename`
- `http://host[:port]/file-path`
- `https://[<user:pass>@]host[:port]/file-path`
- `sftp://user:passwd@server//path/filename`

**Note:** Upgrade from Dell Networking OS 9.2(0.0) to Dell Networking OS 9.6(0.0) via BMP with config-scr-download option disabled may not apply the older startup configuration file after the upgrade to Dell Networking OS 9.6(0.0). Customers can save the configuration file in an external File Server and add the configuration file in Option 209 in DHCP Server. Then configure reload-type as bmp with config-scr-download option enabled [*reload-type bmp config-scr-download enable*] in CONFIGURATION mode, save the configuration using *write memory* command in EXEC PRIVILEGE mode and then upgrade to Dell Networking OS 9.6(0.0) via BMP.

**Note:** Upgrade from Dell Networking OS 9.3(0.0) to Dell Networking OS 9.6(0.0) via BMP with config-scr-download option disabled will work fine and the startup configuration file will be applied when the S4810 is upgraded to Dell Networking OS 9.6(0.0).

**Manual Upgrade Procedure**

Follow these steps to upgrade your S4810 system.

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Command</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dell Networking recommends that you back up your startup configuration and any important files and directories to an external media prior to upgrading the system.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Upgrade the Dell Networking OS in flash partition A: or B:
   
   upgrade system [flash: | ftp: | scp: | tftp:] [A: | B:]
   
   Dell#upgrade system ftp: a:
   Address or name of remote host []: 10.16.127.35
   Source file name []: FTOS-SE-9.6.0.0.bin
   User name to login remote host: ftpuser
   Password to login remote host: 
   Erasing Sseries Primary Image, please wait
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   ..............................................................................................
   !
   44265906 bytes successfully copied
   System image upgrade completed successfully.
   Dell#

3. In case of a stack setup, upgrade the Dell Networking OS for the stacked units:

   upgrade system stack-unit [0-11 | all] [A: | B:]
   
   If A: is specified in the command, the Dell Networking OS version present in Management unit's A: partition will be pushed to the stack units. If B: is specified in the command, the Management unit's B: will be pushed to the stack units. Upgrade of stack units can be done on individual units by specifying the unit id [0-11] or on all units by using all in the command.

   Dell#upgrade system stack-unit all A:
   !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!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The Dell Networking OS versions present in A: and B: can be viewed for individual units by specifying the stack unit id [0-11] in the command or for all the stack units by specifying all in the command.

Dell#show boot system stack-unit all

Current system image information in the system:

<table>
<thead>
<tr>
<th>Type</th>
<th>Boot Type</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stack-unit 0</td>
<td>FLASH BOOT</td>
<td>9.6(0.0)</td>
<td>9.5(0.0)</td>
</tr>
<tr>
<td>Stack-unit 1</td>
<td>FLASH BOOT</td>
<td>9.6(0.0)</td>
<td>9.5(0.0)</td>
</tr>
<tr>
<td>Stack-unit 2</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 3</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 4</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 5</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 6</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 7</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 8</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 9</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 10</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack-unit 11</td>
<td>is not present.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Upgrade the S4810 Boot Code.
   
   `upgrade boot [flash: | ftp: | scp: | tftp:]`
   
   EXEC Privilege

   Dell Networking OS version 9.6(0.0) requires S4810 Boot Code version 1.2.0.5. If any higher versions of Boot Code are present in the unit, do not upgrade the Boot Code.

   Dell#upgrade boot ftp:
   Address or name of remote host []: 10.16.127.35
   Source file name []: U-boot.1.2.0.5.bin
   User name to login remote host: ftpuser
   Password to login remote host:
   !.....!
   524528 bytes successfully copied
   Dell#

6. In case of a stack setup, upgrade the S4810 Boot Code to the stack units.

   `upgrade boot stack-unit [0-11 | all]`
   
   EXEC Privilege

   The S4810 Boot Code can be upgraded to individual units by specifying the stack unit ID [0-11] in the command or it can be upgraded on all stack units by specifying all in the command.

   Dell#upgrade boot stack-unit all
   !!!!!!!!!!!!
   Dell#

7. Change the Primary Boot Parameter of the S4810 to the upgraded partition A: or B:

   `boot system stack-unit [0-11 | all] primary [system A: | system B: | tftp://<URL>]`
   
   CONFIGURATION

8. Save the configuration so that the configuration will be retained after a reload using write memory command.

   `write [memory]`
   
   EXEC PRIVILEGE

   In case of a stack setup, the configuration will be saved in the Management as well as the Standby units.

   Dell#write memory
   !
   Synchronizing data to peer Stack-unit
   !!!!!!!!!!!!
   Dell#

9. Reload the unit

   `reload`
   
   EXEC PRIVILEGE
10. Verify the S4810 has been upgraded to the Dell Networking OS version 9.6(0.0).

```
Dell#show version
Dell Real Time Operating System Software
Dell Operating System Version: 2.0
Dell Application Software Version: 9.6(0.0)
Copyright (c) 1999-2014 by Dell Inc. All Rights Reserved.
Build Time: Mon Mar 24 00:47:25 PDT 2014
Build Path: /work.local/build/buildSpaces/build06/E9-4-0/SW/SRC
Dell Networking OS uptime is 2 minute(s)
System image file is "system://A"
System Type: S4810
Control Processor: Freescale QorIQ P2020 with 2147483648 bytes of memory, core(s) 1.
128M bytes of boot flash memory.
1 52-port GE/TE/FG (SE)
48 Ten GigabitEthernet/IEEE 802.3 interface(s)
4 Forty GigabitEthernet/IEEE 802.3 interface(s)
```

11. Verify the S4810 has been upgraded to the latest Boot Code

```
Dell#show system stack-unit 0
--  Unit 0  --
Unit Type:               Management Unit
Status:                  online
Next Boot:               online
Required Type:           S4810 - 52-port GE/TE/FG (SE)
Current Type:            S4810 - 52-port GE/TE/FG (SE)
Master priority:         0
Hardware Rev:            3.0
Num Ports:               64
Up Time:                 2 min
Dell Networking OS Version: 9.6(0.0)
Jumbo Capable:           yes
POE Capable:             no
FIPS Mode:               disabled
Boot Flash:              1.2.0.5
```

SSH — SSH host keys are stored in NVRAM. Dell Networking OS regenerates them when Dell Networking OS applies the startup-config and the ip ssh server enable configuration. However, if the SSH client has “Strict Host Key” checking enabled, the SSH client denies access to the Dell Networking OS SSH server. To resolve this issue, you must modify the SSH client settings so that it uses the new key.

SMARTSCRIPTS

To uninstall and install new SMARTSCRIPTS packages after upgrading to Dell Networking OS version 9.6(0.0), refer to the Open Automation Guide - 9.6(0.0).
Upgrading the CPLD

The S4810 system with Dell Networking OS version 9.6(0.0) or later requires CPLD image 7.

Verify that a CPLD upgrade is required

Figure 1-1. Identifying the CPLD version

```
Dell#show revision
-- Stack unit 0 --
S4810 SYSTEM CPLD       : 7
NPU PCI DEVICE ID       : 0xB845 (TRIDENT)
-- Stack unit 1 --
S4810 SYSTEM CPLD       : 7
NPU PCI DEVICE ID       : 0xB845 (TRIDENT)
-- Stack unit 2 --
S4810 SYSTEM CPLD       : 7
NPU PCI DEVICE ID       : 0xB845 (TRIDENT)
```

Figure 1-2. Show CPLD version included with Dell Networking OS image

```
Dell#show os-version
RELEASE IMAGE INFORMATION :  
Platform          Version        Size           ReleaseTime
S-Series: SE         9.6(0.0)      46173468 Sep 29 2014 01:14:42
TARGET IMAGE INFORMATION :  
-------------------------------------------------------------------------
Type          Version                   Target        checksum
runtime         9.6(0.0)           Control Processor      passed
CPLD IMAGE INFORMATION :  
-------------------------------------------------------------------------
Card                      CPLD Name    Version
Stack-unit 0              S4810 SYSTEM CPLD          7
Stack-unit 1              S4810 SYSTEM CPLD          7
Stack-unit 2              S4810 SYSTEM CPLD          7
```
Upgrade the CPLD image

Note: The `upgrade fpga-image stack-unit {0-11} booted` command is hidden when using the FPGA Upgrade feature in the CLI. However, it is a supported command and will be accepted when entered as documented.

To upgrade the CPLD image on the S4810:

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Command</th>
<th>Command Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Shut down all of the interfaces on the system.</td>
<td>shutdown</td>
<td>INTERFACE</td>
</tr>
<tr>
<td></td>
<td>Shutting down the ports prior to upgrading ensures that the stack-unit power is not disrupted while the upgrade is taking place. The ports will come back up following the power cycle.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Upgrade the CPLD image.</td>
<td>upgrade fpga-image stack-unit [0-11] booted</td>
<td>EXEC Privilege</td>
</tr>
</tbody>
</table>

Dell# upgrade fpga-image stack-unit 0 booted

Current FPGA information in the system:
=======================================
Card                      FPGA Name    Current Version     New Version
------------------------------------------------------------------------
Unit0              S4810 SYSTEM CPLD                  7               7
***********************************************************************
*  Warning - Upgrading FPGA is inherently risky and should *
*  only be attempted when necessary. A failure at this upgrade may *
*  cause a board RMA. Proceed with caution !                     *
***********************************************************************
stack-unit 0 will REBOOT to activate the latest Upgraded FPGA version!!!
Upgrade fpga image for stack-unit 0 [yes/no]: yes

FPGA upgrade in progress!!!
!!!!!!!!!!!!!!!

Upgrade result :
================
Unit 0 FPGA upgrade successful. Unit 0 will now reboot to complete the upgrade.
Dell#

Check whether the CPLD has been upgraded to the latest version

3.   | Check whether the CPLD has been upgraded to the latest version | show revision | EXEC PRIVILEGE |
VLT Upgrade Procedure

This procedure should be followed to upgrade VLT from release 8.3.12.x to 9.6(0.0) or later

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Command Syntax</th>
<th>Command Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Upgrade the system-flash partition A or B with the new image on both VLT peers. On both the VLT peers, set Primary boot parameter to boot the system from upgraded system flash partition [A or B]. You can enter one of the following options:</td>
<td>upgrade system [flash:</td>
<td>EXEC Privilege</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ftp:</td>
<td>scp:</td>
</tr>
<tr>
<td>2.</td>
<td>Reload or power-cycle one of the VLT peers (For Example, Peer 2).</td>
<td>reload or power cycle</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Wait for Peer 2 to come up; VLT adjacency will be established. (Peer 2 - new image and Peer 1 - old image). <strong>Note:</strong> Between software versions 8.3.10.0 &amp; 9.4P1 both VLT peers are running different VLT versions, a VLT peering will not established.</td>
<td>show vlt detail</td>
<td>EXEC</td>
</tr>
<tr>
<td>4.</td>
<td>Wait for the Peer 2 to bring up all VLT LAG ports. Use the command <strong>show vlt detail</strong> to confirm all VLT ports in the local chassis are active.</td>
<td>show vlt detail</td>
<td>EXEC</td>
</tr>
<tr>
<td>5.</td>
<td>Following upgrade, use the <strong>write memory</strong> command to save the running-config to memory.</td>
<td>write memory</td>
<td>EXEC Privilege</td>
</tr>
</tbody>
</table>
Documentation Errata

This section describes the errors identified in the previous releases of the Dell Networking OS.

• Several command topics in the Access Control Lists (ACL) chapter of the S4810 Command Reference Guide of 9.2(0.0) and 9.2(0.2) incorrectly specify the log keyword. This keyword is not supported with the corresponding commands in those releases.

• The following note applies to the Post Configuration Script - BMP Mode section of the Configuring BMP chapter of the Open Automation Guide:

   Because the rstimer utility supports only the minute-level precision, the rstimer utility cannot be used for the first time after the ninth minute.

• In the Access Control Lists (ACLs) chapter of all of the platforms' Configuration Guides, some of the show command examples that display the sample output of standard IP ACL configurations in the erroneously contain permit and deny rules for TCP and UDP packets. TCP and UDP packets can be permitted or denied only using extended IP ACLs. The TCP and UDP-related lines contained in the sample output of standard IP ACLs are not relevant for such ACLs.

• The following note applies to the Port Monitoring chapter, for the topic ERPM, the section “Steps for Configuring the Source session” has a correction. The command “no enable” should be replaced with the command “no disable”. This command is given inside the ERPM monitor session in order to activate the ERPM session. This command is a mandatory command and not an “optional” as given in the previous release.

• The following information needs to be included in the intf-type cr4 auto-neg command:

   PowerConnect 8100 Series QSFP DAC CR4 40GB cable fails to link up with the partner switch such as Dell Force10 S4810. After upgrading a PowerConnect 8100 series switch to firmware 5.1.0.1, customer experiences connectivity loss when using 40G QSFP CR4 DAC cables with partner switch. Some partner switch vendors may leave auto-negotiation disabled by default for CR4 connections. As a result, this causes a negotiation mismatch and the QSFP CR4 port link up fails.

   To enable the auto-negotiation on 40G interface of Dell Force10 S4810 switch, use the following specification:

   S4810#conf
   S4810(conf)#int fortyGigE 0/60
   S4810(conf-if-fo-0/60)#intf-type cr4 autoneg

• The Virtual link trunking (VLT) chapter of the Command Reference Guide of the S4810 platform enhances the show vlt brief command to display the VLT delay restore abort threshold value. The enhanced command is delay-restore abort-threshold <interval>.

   Dell#show vlt br

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Command Syntax</th>
<th>Command Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Ensure both the nodes are now forwarding traffic.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: VLT Nodes are upgraded from 8.3.12 to 9.6, 9.1 to 9.6, 9.2 to 9.6, 9.3 to 9.6, 9.4 to 9.6, 9.5 to 9.6. Forwarding traffic will be successful, if the VLT node is upgraded from 8.3.10.0 to 9.XX. Layer 2 switched packets will be flooded until all MACs are learned and Layer 3 routed packets will be dropped until all ARPs are resolved and routes are learned due to version mismatch.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>When all VLT ports are active on the Peer 2, repeat steps 2 through 5 for the Peer 1.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VLT Domain Brief

---

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain ID</td>
<td>1</td>
</tr>
<tr>
<td>Role</td>
<td>Secondary</td>
</tr>
<tr>
<td>Role Priority</td>
<td>32768</td>
</tr>
<tr>
<td>ICL Link Status</td>
<td>Up</td>
</tr>
<tr>
<td>HeartBeat Status</td>
<td>Up</td>
</tr>
<tr>
<td>VLT Peer Status</td>
<td>Up</td>
</tr>
<tr>
<td>Version</td>
<td>6(3)</td>
</tr>
<tr>
<td>Local System MAC address</td>
<td>00:01:e8:8a:e9:91</td>
</tr>
<tr>
<td>Remote System MAC address</td>
<td>00:01:e8:8a:e9:76</td>
</tr>
<tr>
<td>Remote system version</td>
<td>6(3)</td>
</tr>
<tr>
<td>Delay-Restore timer</td>
<td>90 seconds</td>
</tr>
<tr>
<td>Delay-Restore Abort Threshold</td>
<td>60 seconds</td>
</tr>
<tr>
<td>Peer-Routing</td>
<td>Disabled</td>
</tr>
<tr>
<td>Peer-Routing-Timeout timer</td>
<td>0 seconds</td>
</tr>
<tr>
<td>Multicast peer-routing timeout</td>
<td>150 seconds</td>
</tr>
</tbody>
</table>

Dell#
delay-restore abort-threshold <interval>

Increase the Boot Up timer to some value (>60 seconds).

Table 1  delay-restore abort-threshold <interval>

<table>
<thead>
<tr>
<th>Syntax</th>
<th>delay-restore abort-threshold &lt;interval&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To remove use:</td>
</tr>
<tr>
<td></td>
<td>no delay-restore abort-threshold</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Defaults</th>
<th>60 seconds</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Command Modes</th>
<th>VLT DOMAIN</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Command History</th>
<th>Version 9.6(0.0)—Introduced on the S48201T, S4810, S6000, S5000, Z9000, Z9500, IOA, and MXL.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Enter the value (in seconds) to specify the time interval for delay restore timer to abort. This timer is applicable only during reload/boot-up and not in other scenarios (example, ICL flap etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The range is from 1 to 1800 seconds.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Usage Information</th>
<th>To abort VLT delay restore timer as the maximum threshold, the maximum time interval is applied to hold down ICL peer-up in the start-up configurations during the reload.</th>
</tr>
</thead>
</table>

Caveats

The following sections describe problem report (PR) types, and list Resolved and Open PRs:

- Caveat Definitions
- Resolved S4810 Hardware Caveats
- Resolved S4810 9.6(0.0) Software Caveats
- Open S4810 Software Caveats

Note: Customers can subscribe to caveat update reports or use the BugTrack search tool to read current information about open and closed software caveats. Visit the BugTrack tool on iSupport. BugTrack currently tracks software caveats opened in Dell Networking OS version 6.2.1.1 and later.

All Release Notes are available on the Software Center tab of iSupport. The link to the relevant Release Notes for each software version is next to the link for that version.
Caveat Definitions

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR#</td>
<td>Problem Report number that identifies the caveat.</td>
</tr>
</tbody>
</table>

**Severity**
- **S1**—Crash: A software crash occurs in the kernel or a running process that requires a restart of the router or process.
- **S2**—Critical: A caveat that renders the system or a major feature unusable, which can have a pervasive impact on the system or network, and for which there is no workaround acceptable to the customer.
- **S3**—Major: A caveat that effects the functionality of a major feature or negatively effects the network for which there exists a workaround that is acceptable to the customer.
- **S4**—Minor: A cosmetic caveat or a caveat in a minor feature with little or no network impact for which there might be a workaround.

**Synopsis**
Synopsis is the title or short description of the caveat.

**Release Note**
Release Notes description contains more detailed information about the caveat.

**Workaround**
Workaround describes a mechanism for circumventing, avoiding, or recovering from the caveat. It might not be a permanent solution.

Caveats listed in the “Closed Caveats” section should not be present, and the workaround is unnecessary, as the version of code for which this release note is documented has resolved the caveat.

Resolved S4810 Hardware Caveats

None

Resolved S4810 9.6(0.0) Software Caveats

The following caveats have been resolved in the Dell Networking OS version 9.6(0.0):

CLI (Resolved)

**PR# 138499**

**Severity:** Sev 2

**Synopsis:** In rare instances, the system may reboot due to a software exception when CLI commands are edited in terminal windows.

**Release Notes:** When CLI commands are edited in terminal windows resized to small sizes, the system may reboot due to a software exception.

**Workaround:** NA
Layer 2 (Resolved)

PR# 140340
Severity: Sev 2
Synopsis: When VLT peer system is rebooted, system may fail to update ARP entries associated with non-VLT ports.
Release Notes: When servers/hosts in active/standby configuration are connected as non-VLT ports to both VLT systems, the secondary VLT system may fail to update ARP entries associated with non-VLT ports after the primary VLT system is rebooted.
Workaround: None

Microcode (Resolved)

PR# 140496
Severity: Sev 2
Synopsis: System may experience memory leak when it learns new MAC addresses continuously.
Release Notes: When MAC addresses are learned continuously, the system may fail to release allocated memory if internal software processes are busy processing newly learned MAC addresses and may experience a reboot due to memory exhaustion.
Workaround: None

NTP (Resolved)

PR# 139647
Severity: Sev 2
Synopsis: Periodic NTP Stratum changes are getting reported in the logs.
Release Notes: NTP Client association is periodically getting lost and Stratum level toggles between stratum 3/Stratum 4 and Stratum 16 approximately every 15 minutes.
Workaround: None.
PR# 140726
Severity: Sev 2
Synopsis: NTP Stratum changes are reported periodically in the logs
Release Notes: The NTP client association gets periodically lost and the Stratum level toggles between stratum 3/Stratum 4 and Stratum 16 approximately every 15 minutes
Workaround: None

OS / OS Infrastructure (Resolved)

PR# 137426
Severity: Sev 2
Synopsis: System may experience a software exception which might result in Telnet & SSH failure
Release Notes: System may experience a software exception which might result in Telnet & SSH failure
Workaround: None

PR# 139185
Severity: Sev 3
Synopsis: Sometimes, while establishing connection through SSH or telnet, the switch reloads.
Release Notes: Sometimes, while establishing connection through SSH or telnet, the switch reloads.
Workaround: None

PR# 139394
Severity: Sev 2
Synopsis: System in stacking configuration may reboot when SNMP operations are executed to retrieve CPU/Memory utilization statistics.
Release Notes: System in stacking configuration may reboot when SNMP operations are executed to retrieve CPU/Memory utilization statistics.
Workaround:

PR# 140123
Severity: Sev 1
Synopsis: Under certain scenarios, the switch experiences high CPU utilization along with an error message, "SWP-2-NO MORE TIMEOUT"
Release Notes: The system throws the " %SWP-2-NO MORE TIMEOUT: SWP:
swpTimeoutCB_p: queue 18, MACAGENT0 to MACMGR0, timeouts
used: 91, timeout limit: 90" error message, and then goes to high CPU
condition. This may happen when the system clock moves backward by at
least 15 minutes at a time when there are some active MAC learnings in
the system.

Workaround: None

**OSPF (Resolved)**

**PR# 138875**
Severity: Sev 1
Synopsis: Under certain scenarios, while auto-cost reference-bandwidth is
configured, OSPF cost is calculated incorrectly
Release Notes: Under certain scenarios, while auto-cost reference-bandwidth is
configured, OSPF cost is calculated incorrectly
Workaround: None

**PR# 139551**
Severity: Sev 2
Synopsis: A bug in OSPF module causes, NetBSD kernel to throw temporary error
messages
Release Notes: A bug in OSPF module causes, NetBSD kernel to throw temporary error
messages
Workaround: NA

**PR# 141488**
Severity: Sev 2
Synopsis: OSPF session is not coming up with other vendors due to fragmentation of
OSPF Packets under MD5 scenarios
Release Notes: When OSPF is configured with MD5 which makes the OSPF packet bigger
in size than expected which in turn yields fragmentation of OSPF packet.
Due to this reason session is not formed between other vendors.

Workaround: None

**SNMP (Resolved)**
Open S4810 Software Caveats

The latest information related to Open Caveats is available on iSupport through the BugTrack search tool. BugTrack currently tracks software caveats opened in Dell Networking OS version 6.2.1.1 and later.

You must have a user account (see Accessing Dell Networking Technical Support) to access the BugTrack tool.

To use the search tool:

2. Log in.
3. Click the BugTrack link, located in the Quick Links menu directly below the login bar.
   This takes you to the BugTrack search page: https://www.force10networks.com/csportal20/BugTrack/SearchIssues.aspx.
4. Enter for a specific PR or select an Dell Networking OS version, platform, severity, or category to get a list of PRs.
5. Click the Search button.

The PR (or PRs) appears on the page below the tool.

The following caveats are open in Dell Networking OS version 9.6(0.0):

**PR# 140566**

- **Severity:** Sev 2
- **Synopsis:** The system does not return valid data when SNMP Get operations are performed to retrieve CPU and memory utilization statistics
- **Release Notes:** The system does not return valid data when SNMP Get operations are performed to retrieve CPU and memory utilization statistics
- **Workaround:** None

**Spanning Tree (Resolved)**

**PR# 140342**

- **Severity:** Sev 2
- **Synopsis:** In certain scenarios, port-channels in VLT configuration may incorrectly remain in blocking mode
- **Release Notes:** After STP is disabled and enabled on a port-channel in VLT configuration, the port-channel continues to remain in blocking mode in hardware even though the "show spanning-tree" shows the port status as forwarding.
- **Workaround:** None
ARP (Open)

PR# 137550
Severity: Sev 4-Enhancement
Synopsis: In certain scenarios, systems in VLT configuration may experience mismatch between ARP and MAC entries for non-VLT ports.

Release Notes: When servers-hosts operating in active/standby configuration are connected as non-VLT ports, the VLT systems may fail to update corresponding ARP entries after the host's active/standby interface failovers. This can lead to ARP/MAC entry mismatches on the secondary VLT system and thereby trigger traffic outages.

Workaround: None

PR# 140306
Severity: Sev 1
Synopsis: During a MAC move, ARP refresh does not happen for non-VLT ports

Release Notes: During a MAC move, ARP refresh does not happen for non-VLT ports

Workaround: None

PR# 141762
Severity: Sev 2
Synopsis: In some instance, when the link status of VLT ICL flap, the show ip redirect list command may incorrectly show the unresolved next-hops as resolved.

Release Notes: In some instance, when the link status of VLT ICL flap, the show ip redirect list command may incorrectly show the unresolved next-hops as resolved.

Workaround: To display the correct ARP resolve status, re-configure the PBR redirect list after deleting it.

Automation (Open)
PR# 117786
Severity: Sev 3
Synopsis: Partial installation and uninstallation of OA package synchronization in stack environment is not supported
Release Notes: When switch reboots unexpectedly during package installation or uninstallation, the installation or uninstallation is not complete and some partial files may be found.
Workaround: Workaround is to uninstall the package and reinstall.

BGP (Open)

PR# 139939
Severity: Sev 2
Synopsis: When BGP receives update message with Aggregate AS=0 BGP peers are going down.
Release Notes: BGP Peers are going down when the BGP Update message received from the Peer contains Aggregator Attribute Set as AS 0.
Workaround: None

DCB (Open)

PR# 107320
Severity: Sev 3
Synopsis: ETS on PFC enabled PGID’s may not confirm to the configuration, when port-mirroring is enabled and corresponding packets are mirrored.
Release Notes: ETS on PFC enabled PGID’s may not confirm to the configuration, when port-mirroring is enabled and corresponding packets are mirrored.
Workaround: No workaround.

PR# 108226
Severity: Sev 3
Synopsis: In DCBx-CIN version, priorities belonging to 'Strict priority priority-group' are incorrectly listed as ETS type in the 'show ets detail' output
Release Notes: Though priorities are associated to a 'Strict priority priority-group' in a dcb-output profile that is applied to an interface, they are incorrectly listed as ETS type in the priority-level bandwidth splitup that is displayed in the 'show ets detail' output when the interface has dcbx version to be CIN

Workaround: This is just a display issue and doesn't affect the functionality in any way

PR# 110252
Severity: Sev 3
Synopsis: May observe traffic disruption when dcbx port role is changed on any interface
Release Notes: May observe traffic disruption when dcbx port role is changed on any interface
Workaround: No workaround

Layer 2 (Open)

PR# 142322
Severity: Sev 2
Synopsis: In some instances, the port-channel interface will be associated as untagged member of vlan though configured as tagged.
Release Notes: In some instances, if the port-channel interface configured as hybrid mode and pvlan trunk port, it will be associated as untagged member of vlan though configured as tagged.
Workaround: Remove and reconfigure the port-channel interface as the tagged member

Layer 3 (Open)

PR# 126181
Severity: Sev 3
Synopsis: IPv6 address configured on a shutdown interface may be advertised to neighboring devices via routing protocols.
Release Notes: IPv6 address configured on a shutdown interface may be advertised to neighboring devices via routing protocols.
Workaround: Remove and reapply "ipv6 ospf area" to stop advertisement of IPv6 address configured on shutdown interface
LLDP (Open)

PR# 118185
Severity: Sev 3
Synopsis: Tab completion doesn't work for the last keyword in "advertise management-tlv" command.
Release Notes: Tab completion doesn't work for the last keyword in "advertise management-tlv" command.
Workaround: NA

Multicast (Open)

PR# 118133
Severity: Sev 3
Synopsis: Multicast data traffic to receiver connected on orphan port may get affected when IGMP receiver on VLT LAG leaves the group and vice versa
Release Notes: Multicast data traffic to receiver(s) connected on orphan port may get affected when IGMP receiver on VLT LAG leaves the group and vice versa.
Workaround: Configure fast-leave immediate-leave on the PIM/Snooping enabled VLANs.

PR# 118195
Severity: Sev 3
Synopsis: After PIM DR change on a VLT node, multicast data traffic may not reach receivers in some VLANs
Release Notes: On a VLT pair, when a PIM DR undergoes a change of status, receivers in some VLANs stop receiving multicast traffic.
Workaround: clear the pim data base by issueing command "clear pim tib".

PR# 118555
Severity: Sev 3
Synopsis: PIM functionality may not work reliably if PIM is enabled on more than 96 VLANs.
Release Notes: PIM functionality may not work reliably if PIM is enabled on more than 96 VLANs. 96 is the known limit for max number of L3 enabled PIM interfaces in each port-pipe.

Workaround: To recover from this state, the configuration needs to be brought down to 96 VLANs or below and then disable/enable ip multicast routing.

### OA-PROGINT (Open)

#### PR# 133011
Severity: Sev 3
Synopsis: POST method (create) to peer group is not gracefully handled.
Release Notes: POST method (create) to peer group is not gracefully handled.
Workaround: Don't make POST requests to a collection resource, a list entry can be created by making a POST request to a parent container. Issue POST method (create) at peer group parent level.

#### PR# 134046
Severity: Sev 3
Synopsis: POST method won't work for port-mode, switch-port, flow control, port-channel-protocol, mac and IPv6 address.
Release Notes: POST method won't work for port-mode, switch-port, flow control, port-channel-protocol, mac and IPv6 address.
Workaround: Use PATCH / PUT method instead of POST method to configure OS / OS Infrastructure (Open)

#### PR# 108305
Severity: Sev 3
Synopsis: NTP server configured with hostname is not updating the IP change for server.
Release Notes: NTP server configured with hostname is not updating the IP change for server.
Workaround: Unconfigure and reconfigure the NTP server and it resolves to the new IP.

#### PR# 140615
Severity: Sev 2
Synopsis: Issue in NetBSD causes an unhandled software exception, which may cause FTOS to crash

Release Notes: Under rare circumstances, due to incorrect execution of internal threads, the system may raise a software exception leading to crash.

Workaround: NA

**OSPF (Open)**

PR# 140247
Severity: Sev 2
Synopsis: After removing Type-7 NSSA LSAs from the database, corresponding Self-originated Type-5 LSAs are not removed from the database.

Release Notes: OSPF self originated Type-5 LSAs are not removed from database, when the respective type-7 NSSA LSAs are removed from database

Workaround: None.

**Port Monitoring (Open)**

PR# 135656
Severity: Sev 4-Enhancement
Synopsis: In stack setup after redundancy force-failover, the 2nd and 3rd erpm sessions packets get duplicated.

Release Notes: While configuring ERPM in a stack, if OSPF is used as the routing protocol, it is noticed that after issuing a redundancy force-failover, the 2nd and 3rd ERPM session's packets alone get duplicated.

Workaround: Issue is seen with OSPF only. This problem will not be seen with static routes or by using BGP as the routing protocol for reachability to the destination ips in a stacking setup.
RADIUS (Open)

PR# 93105
Severity: Sev 1
Synopsis: Under rare circumstances, RPM would software exception due to incorrect
execution of internal threads
Release Notes: Due to incorrect timing out of an internal thread, RPM could experience a
software exception which in turn causes the RPM to failover/reboot.
Workaround: NA

SNMP (Open)

PR# 140237
Severity: Sev 2
Synopsis: While executing the CLI command "clear counters", the SNMP counters
for the port-channel are cleared.
Release Notes: While executing the CLI command "clear counters", the SNMP counters
for the port-channel are cleared.
Workaround: None

PR# 142488
Severity: Sev 3
Synopsis: Snmpbulkget request is returning error message when polling through
SNMP object name.
Release Notes: Snmpbulkget request is returning error message in the console when
invoking the SNMP object name like system , system uptime etc.
Workaround: If request is sent by setting the non-repeaters value as zero ,it should work
; By default the value is set as one.

Spanning Tree (Open)
Technical Support

Dell Networking Technical Support provides a range of documents and tools to assist you with effectively using Dell Networking equipment and mitigating the impact of network outages.

Accessing Dell Networking Technical Support

The URL for Dell Networking Support is www.dell.com/support.

- On the Dell Networking Support page, enter your service tag if you have it. You can also access the general support information from this page.