

Dell MXL System Release Notes, OS Version 9.14(1.12)

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

Current Release Version: 9.14(1.12)

Release Date: 2022-05-20

Previous Release Version: 9.14(1.10)

Topics:

- [Document Revision History](#)
- [Prerequisites](#)
- [Supported Hardware](#)
- [New Dell Networking OS Version 9.14\(1.12\) Features](#)
- [Restrictions](#)
- [Changes to Default Behavior and CLI Syntax](#)
- [Documentation Corrections](#)
- [Deferred Issues](#)
- [Fixed Issues](#)
- [Known Issues](#)
- [MXL Upgrade Procedures: Overview](#)
- [Upgrading the Dell Networking OS Image, Boot Flash and Boot Selector Images](#)
- [Upgrading the CPLD](#)
- [VLT Upgrade Procedure](#)
- [Support Resources](#)

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

For more information on hardware and software features, commands, and capabilities, refer to the Dell Networking support website at: <https://www.dell.com/support>

Document Revision History

Table 1. Revision History

Date	Description
2022-05	Initial release.

Prerequisites

The Dell Technologies Chassis Management Controller (CMC) version 4.11 or later is required in a Dell Technologies PowerEdge M1000e Enclosure to use an MXL 10/40GbE Switch IO module running Dell Networking OS version 8.3.16.3 or later.

You can use the CMC out-of-band management interface to access and manage an MXL Switch using the Dell Networking OS command-line interface. For more information, refer to the Dell Chassis Management Controller Firmware User's Guide on the Dell Support website at <http://support.dell.com/support/edocs/systems/pem/en/index.htm>.



Supported Hardware

The following hardware is supported with this platform:

Hardware
MXL 10/40GbE Switch IO Module: base module
4-Port 10-Gigabit Ethernet SFP+ module
2-Port 40-Gigabit Ethernet QSFP+ module
4-Port 10GBASE-T module
4-port 2/4/8G FC Flex IO Module

New Dell Networking OS Version 9.14(1.12) Features

The following features have been added to the MXL with Dell Networking OS version 9.14(1.12):

None.

Restrictions

- Fanning out SM4 optics is not supported.
- If you want to downgrade from Dell Networking OS version 9.14(1.12) to an earlier version, you must power cycle the I/O modules using CMC.
- QSFP+ High-Power Optics Usage — Scenarios
 - High-Power Optics is Inserted and Peer Port has No Optics — The peer port is disabled. The peer port gets enabled right after the high-power optics are removed. Both ports are available in the case of low power optics (40G SR4/CR4). The system generates the following syslog:

```
INSERT_OPTICS_HP_QSFP_PEER_PORT_DISABLE: Optics 40GE High power QSFP+ is inserted in port 0/33 and peer port 0/37 is disabled for Optics as only one High power optic can be enabled.
```

- High-Power Optics is Inserted and Peer Port has High / Low Power Optics — The current port will be locked as peer port is already in use, and the system can only support a high-power optic or a pair of low-power optics in fixed ports, as well as in a QSFP module. The user can remove any one of these optics based on their requirement. The system generates the following syslog:
- Low-Power Optics is Inserted and Peer Port has High-Power Optics — The current port is already locked because of the peer port high-power optics. So the current port is already in disabled state. The user can remove any one of these optics based on their requirement. The system generates the following syslog:

```
INSERT_OPTICS_HP_QSFP_PORT_DISABLE: Optics 40GE High power QSFP+ is inserted in port 0/49 and it is not activated unless peer port 0/53 optics is removed as only one High power optic can be enabled. Please remove any one of the optics to avoid any potential thermal overheating to the hardware.
```

```
INSERT_OPTICS_QSFP_DISABLED_PORT: Optics 40GE QSFP+ is inserted in port 0/49 and it is not activated unless peer port 0/53 High Power optics is removed as only one High power optic can be enabled. Please remove any one of the optics to avoid any potential thermal overheating to the hardware.
```

- 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 the server, uninstall the old Intel driver (version 13.0.0 or older).
 - Re-install the Intel driver using version 13.5 A00 (or later) from the <http://www.dell.com> website. Important: During the installation, do not select the iSCSI part of the driver; select only the FCoE check box.



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)# dcbx port-role auto-downstream
Dell(conf-lldp)# dcbx 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

- The following features are not available in the Dell Networking OS from version 9.7(0.0):
 - PIM ECMP
 - Static IGMP join (`ip igmp static-group`)
 - IGMP querier timeout configuration (`ip igmp querier-timeout`)
 - IGMP group join limit (`ip igmp group join-limit`)
 - If the MXL switch is in boot-line interface (BLI) mode:
 - You cannot switch to the CMC console and manage the switch using CMC.
 - You cannot disconnect and reconnect to CMC from the CMC console.
-  **NOTE:** Connect to the CMC console after you exit the BLI interface or after the BLI phase of the bootup finishes.
- After you upgrade the CPLD version on an MXL switch using the BLI, the new CPLD version is not displayed in `show revision` output if you power cycle the switch using the `power-cycle stack-unit` command. Instead, power cycle the MXL switch using the CMC interface.
 - The MXL switch crashes and reboots when an FRU read operation fails.
 - When FRRP is enabled in a VLT domain, no flavor of Spanning tree should concurrently be enabled on the nodes of that specific VLT domain. In essence FRRP and xSTP should not co-exist in a VLT environment.
 - While deploying the system in the normal-reload mode in BMP configuration, use the `ip ssh server enable` command at the beginning of the startup configuration if the `write memory` command is used at the end of the configuration.

Changes to Default Behavior and CLI Syntax

Following default behavior and CLI syntax changes occurred during the Dell Networking OS release:

- To enhance security, the default RSA key size has been changed to 2048 bits from 1024 bits from 9.14.1.10 onwards.

Documentation Corrections

This section describes the errors identified in the current release of the Dell Networking OS.

None.

Deferred Issues

Issues that appear in this section were reported in Dell Networking OS version 9.14(1.0) as open, but have since been deferred. Deferred issues are those that are found to be invalid, not reproducible, or not scheduled for resolution.

Deferred issues are reported using the following definitions.



Category	Description
PR#	Problem Report number that identifies the issue.
Severity	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process. S2 — Critical: An issue 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 work-around acceptable to the customer. S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer. S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.
Synopsis	Synopsis is the title or short description of the issue.
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution. Issues listed in the “Fixed Issues” section should not be present, and the work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.

Deferred MXL 9.14(1.0) Software Issues

Issues that appear in this section were reported in Dell Networking OS version 9.14(1.0) as open, but have since been deferred. Deferred caveats are those that are found to be invalid, not reproducible, or not scheduled for resolution.

The following issues have been deferred in the Dell Networking OS version 9.14(1.0):

None

Fixed Issues

Fixed issues are reported using the following definitions.

Category	Description
PR#	Problem Report number that identifies the issue.
Severity	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process. S2 — Critical: An issue 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 work-around acceptable to the customer. S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer. S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.
Synopsis	Synopsis is the title or short description of the issue.
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution. The work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.



Fixed MXL 9.14(1.12) Software Issues

 **NOTE:** Dell Networking OS 9.14(1.12) includes fixes for issues addressed in previous 9.14 releases. Refer to the respective release notes documentation for the list of issues fixed in earlier 9.14 releases.

The following issues are fixed in Dell Networking OS version 9.14(1.12):

PR#169841

Severity:	Sev 2
Synopsis:	In certain scenarios, an MSDP learnt PIM TIB entry stays in <code>registering</code> state indefinitely.
Release Notes:	In certain scenarios, an MSDP learnt PIM TIB entry stays in <code>registering</code> state indefinitely.
Workaround:	Set the affected node as a non-designated router in the RPF neighbor interface.

PR#170240

Severity:	Sev 2
Synopsis:	AAA accounting request displays an incorrect calling station-id.
Release Notes:	AAA accounting request displays an incorrect calling station-id.
Workaround:	None

PR#170255

Severity:	Sev 2
Synopsis:	The switch encounters an exception when saving the configuration on VLT pair switches simultaneously.
Release Notes:	The switch encounters an exception when saving the configuration on VLT pair switches simultaneously.
Workaround:	None

PR#170301

Severity:	Sev 3
Synopsis:	The <code>BN_mod_sqrt()</code> function, which computes a modular square root, contains a bug that can cause it to loop forever for non-prime moduli(CVE-2022-0778)
Release Notes:	The <code>BN_mod_sqrt()</code> function, which computes a modular square root, contains a bug that can cause it to loop forever for non-prime moduli(CVE-2022-0778)
Workaround:	None

Known Issues

Known issues are reported using the following definitions.



Category	Description
PR#	Problem Report number that identifies the issue.
Severity	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process. S2 — Critical: An issue 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 work-around acceptable to the customer. S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer. S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.
Synopsis	Synopsis is the title or short description of the issue.
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution. Issues listed in the “Fixed Issues” section should not be present, and the work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.

Known MXL 9.14(1.12) Software Issues

The following issues are open in Dell Networking OS version 9.14(1.12):

None

MXL Upgrade Procedures: Overview

To upgrade the Dell Networking OS to the latest version on a MXL switch, complete these steps:

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

Upgrading the Dell Networking OS Image, Boot Flash and Boot Selector Images

NOTE: Upgrading to Dell Networking OS version 9.14(1.12) from a version prior to Dell Networking OS version 8.3.16.4 using TFTP is a two-step process:

1. Upgrade the unit with Dell Networking OS version prior to 8.3.16.4 to Dell Networking OS 8.3.16.4 to support copy of files greater than 32MB using TFTP.
2. Upgrade the unit to Dell Networking OS version 9.14(1.12)

Each MXL 10/40GbE Switch IO module must be upgraded individually to a new Dell Networking OS version.

NOTE: If you are using Bare Metal Provisioning (BMP), refer to the Bare Metal Provisioning chapter in the Dell Networking OS Configuration Guide.

Manual Upgrade Procedure

To upgrade your MXL 10/40GbE switch IO module, follow these steps:

1. Dell Technologies recommends that you back up your startup configuration and any important files and directories to an external media prior to upgrading the system.
2. Upgrade the Dell Networking OS in flash partition A: or B:



```
upgrade system [flash: | ftp: | scp: | tftp:] [A: | B:]
```

EXEC Privilege

```
Dell# upgrade system ftp: A:
Address or name of remote host []: 10.16.127.35
Source file name []: FTOS-XL-9.14.1.12.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Erasing IOM Primary Image, please wait
.!.....
.....
44875621 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 - 5 | all] [A: | B:]
```

EXEC Privilege

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 [0-5] or on all units by using all in the command.

```
Dell# upgrade system stack-unit all A:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!
Image upgrade to all
Dell#
```

4. Verify the Dell Networking OS has been upgraded correctly in the upgraded flash partition

```
show boot system stack-unit [0-5 | all]
```

EXEC PRIVILEGE

The Dell Networking OS versions present in A: and B: can be viewed for individual units by specifying the stack unit id [0-5] 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:
=====
Type                               Boot Type                               A                               B
-----
Stack-unit 0      FLASH BOOT          9.14 (1.12) [boot]          9.14 (1.10)
Stack-unit 1      FLASH BOOT          9.14 (1.12) [boot]          9.14 (1.10)
Stack-unit 2 is not present.
Stack-unit 3 is not present.
Stack-unit 4 is not present.
Stack-unit 5 is not present.
Dell#
```

5. Upgrade the MXL 10/40 GbE switch Boot Flash and Boot Selector images.

```
upgrade boot [all | bootflash-image | bootselector-image] stack-unit [0-5 | all] [booted
| flash: | ftp: | scp: | tftp: | usbflash:] [A: | B:]
```

EXEC Privilege

Dell Networking OS version 9.14(1.12) requires MXL 10/40 GbE Boot Flash image version 4.0.1.3 and Boot Selector image version 4.0.0.2. If any higher versions of Boot Flash or Boot Selector versions are present in the unit, do not upgrade the Boot Flash and Boot Selector images respectively. The Boot Flash and Boot Selector images can be upgraded at the same time by specifying all in the command. These can be upgraded separately by selecting bootflash-image or bootselector-image respectively. The Boot Flash and Boot Selector images can be upgraded for individual stack units by specifying the particular stack unit ID from the range [0-5] in the command. These can be upgraded to all the stack units together by selecting all option instead of the stack unit ID. The Boot Flash and Boot Selector images can be saved in two partitions A: and B: and the user can select the partition to be upgraded by specifying A: or B: in the command.

```
Dell#upgrade boot all stack-unit all ftp: A:
Address or name of remote host []: 10.16.127.35
```



```

Destination file name []: FTOS-XL-9.14.1.12.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Current Boot information in the system:
=====
Card      BootFlash      Current Version      New Version
-----
Unit0     Boot Flash      4.0.1.3              4.0.1.3
Unit1     Boot Flash      4.0.1.3              4.0.1.3
*****
*Warning - Upgrading boot flash is inherently risky and should only      *
*be attempted when necessary.  A failure at this upgrade may cause      *
*a board RMA.  Proceed with caution !                                     *
*****
Proceed Boot Flash image for all units [yes/no]: yes
!!!!!!!!!!!!!!!!!!!!
Erasing IOM Primary Bootflash Image, please wait
!!!!!!!!!!!!!!!!!!!!
Bootflash image upgrade for all completed successfully.
!!!!!!!!!!!!!!!!!!!!
Current Boot information in the system:
=====
Card      BootSelector      Current Version      New Version
-----
Unit0     Boot Selector     4.0.0.2              4.0.0.2
Unit1     Boot Selector     4.0.0.2              4.0.0.2
*****
*Warning -Upgrading boot selectors is inherently risky and should      *
*only be attempted when necessary.  A failure at this upgrade may      *
*cause a board RMA.  Proceed with caution !                             *
*****
Proceed Boot Selector image for all units [yes/no]: yes
!!!
Erasing IOM Boot Selector Image, please wait
!!!!!!!!!!!!!!!!!!!!
Bootselector image upgrade for all completed successfully.
Dell#

```

6. Change the Primary Boot Parameter of the MXL 10/40 GbE switch to the upgraded partition A: or B:
boot system stack-unit [0-5 | all] primary [system A: | system B: | tftp://URL]
CONFIGURATION

7. 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#

```

8. Reload the unit.
reload
EXEC Privilege

```

Dell#reload

Proceed with reload [confirm yes/no]: yes
Mar 24 21:32:27: %STKUNIT0-M:CP %CHMGR-5-RELOAD: User request to reload the chassis
syncing disks... done

```

9. Verify the MXL 10/40 GbE switch has been upgraded to the Dell Networking OS version 9.14(1.12).
show version



EXEC Privilege

```
Dell#show version
Dell EMC Real Time Operating System Software
Dell EMC Operating System Version: 2.0
Dell EMC Application Software Version: 9.14(1.12)
Copyright (c) 1999-2021 by Dell Inc. All Rights Reserved.
Build Time: Thu Mar 24 06:07:13 2022
Build Path: /build/build01/SW/SRC
Dell EMC Networking OS uptime is 4 day(s), 19 hour(s), 32 minute(s)

System image file is "system://A"

System Type: MXL-10/40GbE
Control Processor: MIPS RMI XLP with 2 Gbytes (2147483648 bytes) of memory, core(s) 1.

256M bytes of boot flash memory.

  1 34-port GE/TE/FG (XL)
 48 Ten GigabitEthernet/IEEE 802.3 interface(s)
```

10. Verify the MXL 10/40 GbE switch has been upgraded to the latest Boot Flash and Boot Selector versions.

```
show system stack-unit [0-5]
```

EXEC Privilege

```
Dell#show system stack-unit 0

-- Unit 0 --
Unit Type           : Management Unit
Status              : online
Next Boot           : online
Required Type       : MXL-10/40GbE - 34-port GE/TE/FG (XL)
Current Type        : MXL-10/40GbE - 34-port GE/TE/FG (XL)
Master priority     : 0
Hardware Rev        : 1
Num Ports           : 56
Up Time             : 2 min, 56 sec
Dell Networking OS Version : 9.14(1.12)
Jumbo Capable       : yes
POE Capable         : no
FIPS Mode           : disabled
Boot Flash          : A: 4.0.1.3 [booted]    B: 4.0.1.3
Boot Selector       : 4.0.0.2
```

Upgrading the CPLD

The MXL system with Dell Networking OS version 9.14(1.12) requires CPLD image 6.

Verify that a CPLD upgrade is required

Use the following command to identify the CPLD version:

```
Dell# show revision

-- Stack unit 1 --
IOM SYSTEM CPLD      : 6
Dell#show system stack-unit 1

-- Unit 1 --
Unit Type           : Management Unit
Status              : online
Next Boot           : online
Required Type       : MXL-10/40GbE - 34-port GE/TE/FG (XL)
Current Type        : MXL-10/40GbE - 34-port GE/TE/FG (XL)
Master priority     : 0
Hardware Rev        : X01
```



```

Num Ports          : 56
Up Time            : 6 min, 53 sec
Dell Networking OS Version : 9.14(1.12)
Jumbo Capable      : yes
POE Capable        : no
FIPS Mode          : disabled
Boot Flash         : A: 4.0.1.3      B: 4.0.1.3 [booted]
Boot Selector      : 4.0.0.2
Memory Size        : 2147483648 bytes
Temperature        : 65C
Voltage            : ok
Switch Power       : GOOD
Product Name       : Dell EMC MXL 10/40GbE
Mfg By             : Dell EMC
Mfg Date           :
Serial Number      :
Part Number        : ONVH81X01
Piece Part ID      : N/A
PPID Revision      : N/A
Service Tag        : N/A
Expr Svc Code      : N/A
Chassis Svce Tag   : 29MFHY1
Fabric Id          : B1
Asset tag          :
PSOC FW Rev        : 0xb
ICT Test Date      : 0-0-0
ICT Test Info      : 0x0
Max Power Req      : 31488
Fabric Type        : 0x3
Fabric Maj Ver     : 0x1
Fabric Min Ver     : 0x0
SW Manageability   : 0x4
HW Manageability   : 0x1
Max Boot Time      : 6 minutes
Link Tuning        : unsupported
Auto Reboot        : enabled
Burned In MAC      : 00:01:e8:01:02:05

```

Use the following command to view CPLD version that is associated with the Dell Networking OS image:

```

Dell#show os-version

RELEASE IMAGE INFORMATION :
-----
Platform      Version      Size      ReleaseTime
IOM-Series:XL  9.14(1.12)  45570717  Mar 24 2022 17:21:29

TARGET IMAGE INFORMATION :
-----
Type      Version      Target      checksum
runtime   9.14(1.12)      Control Processor  passed

BOOT IMAGE INFORMATION :
-----
Type      Version      Target      checksum
boot flash 4.0.1.3      Control Processor  passed

BOOTSEL IMAGE INFORMATION :
-----
Type      Version      Target      checksum
boot selector 4.0.0.2      Control Processor  passed

CPLD IMAGE INFORMATION :
-----
Card      CPLD Name      Version
Stack-unit 1  IOM SYSTEM CPLD  6
Dell#

```



Upgrading the CPLD Image

 **NOTE:** The `upgrade fpga-image stack-unit 0 booted` command is hidden when using the `?` feature in the CLI. However, it is a supported command and will be accepted when entered as documented.

To upgrade the CPLD image on an MXL 10/40GbE Switch IO module:

1. Upgrade the CPLD image.

```
upgrade fpga-image stack-unit [0-5] booted
EXEC Privilege
```

```
Dell#upgrade fpga-image stack-unit 0 booted

Current FPGA information in the system:
=====
Card                      FPGA Name          Current Version    New Version
-----
Unit0                     IOM SYSTEM CPLD          6                  6

*****
* 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 !                        *
*****

Upgrade fpga image for stack-unit 0 [yes/no]: yes

FPGA upgrade in progress!!! Please do NOT power off the unit!!!
!!!!!!!!!!!!!!

Upgrade result :
=====
Unit 0 FPGA upgrade successful. power cycle the stack-unit to complete the upgrade.

Dell#
```

2. Power cycle the switch (IO module) using the CMC interface or remove and re-insert the switch (OIR) from the chassis so that the CPLD upgrade takes effect.

 **NOTE:** The `powercycle stack-unit 0` command does not load the latest CPLD version.

3. Check whether the CPLD has been upgraded to the latest version.

```
show revision
EXEC PRIVILEGE
```

```
Dell# show revision
-- Stack unit 0 --
IOM SYSTEM CPLD      : 6
```

VLT Upgrade Procedure

To upgrade the Dell Networking OS in a VLT setup from version 9.2(0.0) to the latest version, upgrade the Dell Networking OS to version 9.3(0.0) first. If you are running the Dell Networking OS version 9.3(0.0) or later, you can upgrade the Dell Networking OS to the latest version. To upgrade the Dell Networking OS, on systems running VLT, perform the following steps:

1. 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: **flash** — Copies from flash file system (flash://filepath). **ftp** — Copies from remote file system (ftp://userid:password@hostip//filepath). **scp** — Copies from remote file system (scp://userid:password@hostip//filepath). **tftp** — Copies from remote file system (tftp://hostip/filepath).

```
upgrade system [flash: | ftp: | scp: | tftp: | usbflash:] [A: | B:]
EXEC Privilege
```

2. Reload or power-cycle one of the VLT peers (For Example, Peer 2).

`reload` or `power cycle`

3. Wait for Peer 2 to come up; VLT adjacency will be established. (Peer 2 - new image and Peer 1 - old image).
4. Wait for the Peer 2 to bring up all VLT LAG ports. Use the command `show vlt detail` to confirm all VLT ports in the local chassis are active.
`show vlt detail`
EXEC Privilege
5. Following upgrade, use the `write memory` command to save the running-config to memory.
`write memory`
EXEC Privilege
6. Ensure both the nodes are now forwarding traffic.
7. When all VLT ports are active on the Peer 2, repeat steps 2 through 5 for the Peer 1.

Support Resources

The following support resources are available for the MXL system.

Documentation Resources

This document contains operational information specific to the MXL system.

For information about using the MXL, refer to the following documents at <http://www.dell.com/support>:

- *Installing the MXL System*
- *Quick Start Guide*
- *Dell Networking Command Line Reference Guide for the MXL System*
- *Dell Networking Configuration Guide for the MXL System*

For more information about hardware features and capabilities, refer to the Dell Networking website at <https://www.dellemc.com/networking>.

For more information about the open network installation environment (ONIE)-compatible third-party operating system, refer to <http://onie.org>.

Issues

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

Finding Documentation

This document contains operational information specific to the MXL system.

- For information about using the MXL, refer to the documents at <http://www.dell.com/support>.
- For more information about hardware features and capabilities, refer to the Dell Networking website at <https://www.dellemc.com/networking>.
- For more information about the open network installation environment (ONIE)-compatible third-party operating system, refer to <http://onie.org>.

Contacting Dell Technologies

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell Technologies product catalog.

Dell Technologies provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell Technologies for sales, technical support, or customer service issues:



Go to www.dell.com/support.



Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

