

# Dell EMC Networking S3100 Series Release Notes, OS Version 9.14(1.10)

This document contains information about open and resolved issues, and operational information specific to the Dell EMC Networking operating software (OS) and the S3100 Series platform.

**Current Release Version:** 9.14(1.10)

**Release Date:** 2021-09-30

**Previous Release Version:** 9.14(1.9P4)

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

## Document Revision History

**Table 1. Revision History**

Date	Description
2021-09	Initial release.

## Requirements

The following requirements apply to the S3100 Series.

### Hardware Requirements

The following table lists the Dell EMC S3100 Series hardware requirements:

**Table 2. System Hardware Requirements**

Platforms	Hardware Requirements
S3124 chassis	<ul style="list-style-type: none"><li>• Twenty-four Gigabit Ethernet 10/100/1000BASE-T RJ-45 ports that support auto-negotiation for speed, flow control, and duplex.</li><li>• Two SFP 1G combo ports.</li><li>• Two SFP+ 10G ports.</li></ul>

**Table 2. System Hardware Requirements (continued)**

Platforms	Hardware Requirements
	<ul style="list-style-type: none"> <li>• 20G expansion slot that supports an optional small form-factor pluggable plus (SFP+) or 10GBase-T module.</li> <li>• Two fixed mini Serial Attached SCSI (mini-SAS) stacking ports HG[21] to connect up to twelve S3100 series switches.</li> </ul>
S3124F chassis	<ul style="list-style-type: none"> <li>• Twenty-four Gigabit Ethernet 100BASEFX/1000BASE-X SFP ports.</li> <li>• Two 1G copper combo ports.</li> <li>• Two SFP+ 10G ports.</li> <li>• 20G expansion slot that supports an optional small form-factor pluggable plus (SFP+) or 10GBase-T module.</li> <li>• Two fixed mini Serial Attached SCSI (mini-SAS) stacking ports HG[21] to connect up to twelve S3100 series switches.</li> </ul>
S3124P chassis	<ul style="list-style-type: none"> <li>• Twenty-four Gigabit Ethernet 10/100/1000BASE-T RJ-45 ports for copper that support auto-negotiation for speed, flow control, and duplex.</li> <li>• Two SFP 1G combo ports.</li> <li>• Two SFP+ 10G ports.</li> <li>• Supports PoE+.</li> <li>• 20G expansion slot that supports an optional small form-factor pluggable plus (SFP+) or 10GBase-T module.</li> <li>• Two fixed mini Serial Attached SCSI (mini-SAS) stacking ports HG[21] to connect up to twelve S3100 series switches.</li> </ul>
S3148P chassis	<ul style="list-style-type: none"> <li>• Forty-eight Gigabit Ethernet 10BASE-T, 100BASE-TX, 1000BASE-T RJ-45 ports that support auto-negotiation for speed, flow control, and duplex.</li> <li>• Two SFP 1G combo ports.</li> <li>• Two SFP+ 10G ports.</li> <li>• Supports PoE+.</li> <li>• 20G expansion slot that supports an optional small form-factor pluggable plus (SFP+) or 10GBase-T module.</li> <li>• Two fixed mini Serial Attached SCSI (mini-SAS) stacking ports HG[21] to connect up to twelve S3100 series switches.</li> </ul>
S3148 chassis	<ul style="list-style-type: none"> <li>• Forty-eight Gigabit Ethernet 10BASE-T, 100BASE-TX, 1000BASE-T RJ-45 ports that support auto-negotiation for speed, flow control, and duplex.</li> <li>• Two SFP 1G combo ports.</li> <li>• Two SFP+ 10G ports.</li> <li>• 20G expansion slot that supports an optional small form-factor pluggable plus (SFP+) or 10GBase-T module.</li> <li>• Two fixed mini Serial Attached SCSI (mini-SAS) stacking ports HG[21] to connect up to twelve S3100 series switches.</li> </ul>

## Software Requirements

The following table lists the Dell EMC S3100 Series software requirements:

**Table 3. System Software Requirements**

Software	Minimum Release Requirement
Dell EMC Networking OS	9.14(1.10)

# New Dell EMC Networking OS Version 9.14(1.10) Features

The following features have been added to the S3100-ON with Dell EMC Networking OS version 9.14(1.10):

None.

## Restrictions

- 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.
- The following features are not available from Dell EMC Networking OS version 9.10(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`)
- In the S3100 series, the `negotiation auto` and the `speed` commands are not available on the combo ports in the hybrid mode. You need to provision the combo port as copper or fiber medium using the `combo-port-type` command.
- Half-Duplex mode is not supported.
- If you use the `interface range` command to select multiple interfaces that are added to the management VRF, the `ipv6 address` command does not display the `autoconfig` option. You can configure the `autoconfig` command on individual interfaces.
- If you use the `interface range` command to select multiple interfaces that are added to the management VRF, the `ipv6 nd` command displays the following options but they do not take effect if you use them:
  - `dns-server`
  - `hop-limit`
  - `managed-config-flag`
  - `max-ra-interval`
  - `mtu`
  - `other-config-flag`
  - `prefix`
  - `ra-guard`
  - `ra-lifetime`
  - `reachable-time`
  - `retrans-timer`
  - `suppress-ra`
- 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.

## Changes to Default Behavior and CLI Syntax

Following default behavior and CLI syntax changes occurred during the Dell EMC 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.
- If you configure an NTP server using a DNS hostname, the switch tries to resolve the name to an IP address instead of the hostname. If it succeeds, the system saves the command using the IP address instead of the hostname, to the `running-config`. If it fails, you see the following error message:

```
Error: Destination name lookup failed for host
<DNS hostname>
```

# Documentation Corrections

Dell EMC Networking OS Configuration guide mentions that the maximum number of source sessions supported on a switch is 4. The guide will be updated later with the following information:

When you configure remote port mirroring, you can create a maximum of 3 source RSPAN sessions with port mirroring direction as either RX or TX. If you want to configure port mirroring for both directions (TX and RX), you can configure a maximum of 2 RSPAN sessions with one monitor session for both directions and the other session with only one direction.

## Deferred Issues

Issues that appear in this section were reported in a previous version of Dell Networking OS version as open, but have since been deferred. Deferred issues are the issues that are found to be invalid, not reproducible, or not scheduled for resolution.

Deferred issues are reported using the following definitions.

Category	Description
<b>PR#</b>	Problem Report number that identifies the issue.
<b>Severity</b>	<b>S1</b> — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process. <b>S2</b> — 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. <b>S3</b> — 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. <b>S4</b> — 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.
<b>Synopsis</b>	Synopsis is the title or short description of the issue.
<b>Release Notes</b>	Release Notes description contains more detailed information about the issue.
<b>Work around</b>	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 S3100 series 9.14(1.0) Software Issues

Issues that appear in this section were reported in Dell EMC 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.

None.


## Fixed Issues

Fixed issues are reported using the following definitions.

Category	Description
<b>PR#</b>	Problem Report number that identifies the issue.
<b>Severity</b>	<b>S1</b> — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process. <b>S2</b> — 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.

<b>Category</b>	<b>Description</b>
	<p><b>S3</b> — 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.</p> <p><b>S4</b> — 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.</p>
<b>Synopsis</b>	Synopsis is the title or short description of the issue.
<b>Release Notes</b>	Release Notes description contains more detailed information about the issue.
<b>Work around</b>	<p>Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.</p> <p>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.</p>

## Fixed S3100 Series 9.14(1.10) Software Issues

 **NOTE:** Dell EMC Networking OS 9.14(1.10) 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 EMC Networking OS version 9.14(1.10):

### PR#170115

<b>Severity:</b>	Sev 3
<b>Synopsis:</b>	The switch may encounter an exception when an incorrect length field is specified in a TACACS packet.
<b>Release Notes:</b>	The switch may encounter an exception when an incorrect length field is specified in a TACACS packet.
<b>Workaround:</b>	None

### PR#170126

<b>Severity:</b>	Sev 2
<b>Synopsis:</b>	In certain scenarios, the NAND flash reports a bad block and causes the switch to become unresponsive.
<b>Release Notes:</b>	In certain scenarios, the NAND flash reports a bad block and causes the switch to become unresponsive.
<b>Workaround:</b>	None

### PR#170159

<b>Severity:</b>	Sev 3
<b>Synopsis:</b>	SSH connections with Cipher Block Chaining (CBC) ciphers are vulnerable.
<b>Release Notes:</b>	SSH connections with Cipher Block Chaining (CBC) ciphers are vulnerable.
<b>Workaround:</b>	Configure a stronger Cipher/MAC/KEX setting using the <code>ip ssh server</code> command.

### PR#170161

<b>Severity:</b>	Sev 2
<b>Synopsis:</b>	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
<b>Release Notes:</b>	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
<b>Workaround:</b>	Create a new 2048 bit RSA key using the <code>crypto key generate rsa</code> command.
<b>PR#170206</b>	
<b>Severity:</b>	Sev 2
<b>Synopsis:</b>	Addressed OpenSSL CVE's: CVE-2021-3711 and CVE-2021-3712.
<b>Release Notes:</b>	The following CVEs have been addressed: <ul style="list-style-type: none"> <li>• CVE-2021-3711</li> <li>• CVE-2021-3712</li> </ul> The CVE database can be accessed here: <a href="https://cve.mitre.org/cve/search_cve_list.html">https://cve.mitre.org/cve/search_cve_list.html</a> .
<b>Workaround:</b>	None
<b>PR#170211</b>	
<b>Severity:</b>	Sev 2
<b>Synopsis:</b>	When a switch with scaled VLANs is reloaded, traffic drop may occur due to a delay in VLAN programming.
<b>Release Notes:</b>	When a switch with scaled VLANs is reloaded, traffic drop may occur due to a delay in VLAN programming.
<b>Workaround:</b>	None

## Known Issues

Known issues are reported using the following definitions.

Category	Description
<b>PR#</b>	Problem Report number that identifies the issue.
<b>Severity</b>	<p><b>S1</b> — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process.</p> <p><b>S2</b> — 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.</p> <p><b>S3</b> — 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.</p> <p><b>S4</b> — 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.</p>
<b>Synopsis</b>	Synopsis is the title or short description of the issue.
<b>Release Notes</b>	Release Notes description contains more detailed information about the issue.
<b>Work around</b>	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.

## Category      Description

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 S3100 Series 9.14(1.10) Software Issues

The following issues are open in Dell EMC Networking OS version 9.14(1.10):

### PR#169841

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

## Upgrade Instructions

The following upgrades are available for the Dell EMC Networking operating system (OS) on S3100 series switches:

1. Upgrade the Dell EMC Networking OS image on S3100 series switches.
2. Upgrade the UBoot from Dell EMC Networking OS.
3. Upgrade the CPLD image.
4. Upgrade the PoE controller.

## Upgrading the Operating Software Image

Upgrade the OS image on S3100 series switches by following the procedure in this section.

- NOTE:** The configurations shown here are examples only and are not intended to duplicate any real system or network.
  - NOTE:** If you installed the Open Automation (OA) package on the S3100 series switch, Dell EMC Networking strongly recommends uninstalling the OA package before you upgrade the Dell EMC Networking OS image. Then reinstall a compatible OA package. In this way, the system installs enhancements and uninstalls incompatible OA packages after the Dell EMC Networking OS upgrade.
  - NOTE:** Dell EMC Networking strongly recommends using the Management Interface to upgrade the new image in both BMP mode and the Upgrade System CLI. Using front-end ports takes more time (approximately 25 minutes) to download and install new image due to the large file size.
  - NOTE:** If you are using bare metal provisioning (BMP), see the *Bare Metal Provisioning* chapter in the *Open Automation Guide*.
1. Save the running configuration on the switch.  
EXEC Privilege mode  
`write memory`
  2. Back up your startup configuration to a secure location (for example, an FTP server as shown here).  
EXEC Privilege mode

```
copy startup-config destination
```

```
DellEMC# copy running-config ftp:
Address or name of remote host []: 10.10.10.10
Destination file name [startup-config]: startup-config
User name to login remote host: host
Password to login remote host: xxxx
!
5179 bytes successfully copied
DellEMC#
```

3. Upgrade the Dell EMC Networking OS on a S3100 series switch.

EXEC Privilege mode

```
upgrade system {flash: | ftp: | nfsmount: | scp: | stack-unit: | tftp:| usbflash:} file-
url [A: | B:]
```

Where {flash: | ftp: | scp: | tftp:| usbflash:} *file-url* specifies the file transfer method and location of the software image file used to upgrade the S3100 series, and is in one of the following formats:

- *flash://directory-path/filename* — Copy from flash file system.
- *ftp://user-id:password@host-ip/file-path* — Copy from remote (IPv4 or IPv6) file system.
- *nfsmount://mount-point/filepath* — Copy from NFS mount file system.
- *scp://user-id:password@host-ip/file-path* — Copy from remote (IPv4 or IPv6) file system.
- *stack-unit:* — Synchronize image to the specified stack unit.
- *tftp://host-ip/file-path* — Copy from remote (IPv4 or IPv6) file system.
- *usbflash://directory-path/filename* — Copy from USB flash file system.

**NOTE:** Dell EMC Networking recommends using FTP to copy the new image with the `upgrade system` command due to the large file size.

```
DellEMC#upgrade system ftp: a:
Address or name of remote host []: 192.168.1.1
Source file name []: FTOS-S3100-9.14.1.10.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
.....!
50155103 bytes successfully copied
System image upgrade completed successfully.
```

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

```
upgrade system stack-unit [1-12 | all] [A: | B:]
EXEC Privilege
```

If A: is specified in the command, the Dell EMC 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 [1–12] or on all units by using all in the command.

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

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

```
show boot system stack-unit [1-12 | all]
EXEC PRIVILEGE
```



The Dell EMC Networking OS versions present in A: and B: can be viewed for individual units by specifying the stack unit id [1-12] in the command or for all the stack units by specifying all in the command.

```
DellEMC#show boot system stack-unit all

Current system image information in the system:
=====
Type           Boot Type           A           B
-----
stack-unit 1   FLASH BOOT          9.14(1.10)   9.14(1.9P4) [boot]
stack-unit 2   FLASH BOOT          9.14(1.10)   9.14(1.9P4) [boot]
stack-unit 3   FLASH BOOT          9.14(1.10)   9.14(1.9P4) [boot]
stack-unit 4   is not present.
stack-unit 5   is not present.
stack-unit 6   is not present.
stack-unit 7   is not present.
stack-unit 8   is not present.
stack-unit 9   is not present.
stack-unit 10  is not present.
stack-unit 11  is not present.
stack-unit 12  is not present.
DellEMC#
```

6. Change the primary boot parameter to the upgraded partition (A: or B:).

Configuration mode

```
boot system stack-unit {1-12 | all} {default | primary | secondary} {flash://file-name |
ftp://file-url | system: {A: | B:} | tftp://file-url }
```

```
DellEMC(conf)#boot system stack-unit all primary system: a:
DellEMC(conf)#
```

7. Save the upgrade configuration so that it is retained after a reload.

EXEC Privilege mode

```
write memory
```

```
DellEMC#write memory

!!!
Sep 24 17:01:33: %STKUNIT2-M:CP %FILEMGR-5-FILESAVED: Copied running-config to
startup-config in flash by default
..Synchronizing data to peer stack-unit
!!!!!!!!!!!!!!!!!!!!!!

DellEMC#
```

8. Reload the system so that the Dell EMC Networking OS image is retrieved from flash.

EXEC Privilege mode

```
reload
```

```
DellEMC#reload

Proceed with reload [confirm yes/no]: yes...
```

9. Verify that the system is upgraded to the latest Dell EMC Networking OS version.

EXEC Privilege mode

```
show version
```

```
DellEMC#show version
Dell EMC Real Time Operating System Software
Dell EMC Operating System Version: 2.0
Dell EMC Application Software Version: 9.14(1.10)
Copyright (c) 1999-2021 by Dell Inc. All Rights Reserved.
Build Time: Fri Sep 24 11:34:10 2021
Build Path: /build/build01/SW/SRC
Dell EMC Networking OS uptime is 1 hour(s), 31 minute(s)
```

```
System image file is "system://A"

System Type: S3124P
Control Processor: Broadcom 56340 (ver A0) with 2 Gbytes (2147483648 bytes) of
memory, core(s) 1.

1G bytes of boot flash memory.

 1 52-port GE/TE (S3100)
 1 28-port GE/TE (S3100)
 1 28-port GE/TE (S3100)
96 GigabitEthernet/IEEE 802.3 interface(s)
 8 Ten GigabitEthernet/IEEE 802.3 interface(s)
DellEMC#
```

10. Check if all the stack units are online after reload.

```
EXEC Privilege mode
show system brief
```

```
DellEMC#show system brief

Stack MAC           : 00:11:33:44:77:86
Reload-Type         : normal-reload [Next boot : normal-reload]

-- Stack Info --
Unit  UnitType      Status      ReqTyp      CurTyp      Version      Ports
-----
 1  Member         online      S3148       S3148       9.14 (1.10)  54
 2  Management     online      S3124P      S3124P      9.14 (1.10)  30
 3  Standby        online      S3124F      S3124F      9.14 (1.10)  30
```

## Upgrade the UBoot from Dell EMC Networking OS

To upgrade the UBoot from Dell EMC Networking OS, perform the following steps:

1. Upgrade the S3100 Series Boot Flash (UBoot) image.

EXEC Privilege

```
upgrade boot bootflash-image stack-unit [<id> | all] [booted | flash: | ftp: | scp: |
tftp: | usbflash:]
```

Dell EMC Networking OS version 9.14(1.10) requires S3100 Series Boot Flash (UBoot) image version 5.2.1.8. The booted option is used to upgrade the Boot Flash (UBoot) image to the image version packed with the loaded Dell EMC Networking OS image. The Boot Flash (UBoot) image version packed with the loaded Dell EMC Networking OS can be found using the `show os-version` command in EXEC Privilege mode.

To upgrade the Boot Flash image of all stack-units, the option `all` can be used.

```
DellEMC#upgrade boot bootflash-image stack-unit all booted

Current Boot information in the system:
=====
  Card                BootFlash          Current Version    New Version
-----
  Unit1              Boot Flash         5.2.1.6            5.2.1.8
  Unit2              Boot Flash         5.2.1.6            5.2.1.8
  Unit3              Boot Flash         5.2.1.6            5.2.1.8

*****
* 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

!!!!.!!!
Bootflash image upgrade for all completed successfully.
DellEMC#
```

## 2. Reload the unit

EXEC Privilege

```
reload
```

## 3. Verify the UBoot image

EXEC Privilege

```
show system stack-unit <id>
```

```
DellEMC#show system stack-unit 1

-- Unit 1 --
Unit Type           : Management Unit
Status              : online
Next Boot           : online
Required Type       : S3124F - 28-port GE/TE (S3100)
Current Type        : S3124F - 28-port GE/TE (S3100)
Master priority     : 0
Hardware Rev        : 5.0
Num Ports           : 30
Up Time             : 4 min, 27 sec
Dell EMC Networking OS Version : 9.14(1.10)
Jumbo Capable       : yes
POE Capable         : no
FIPS Mode           : disabled
Boot Flash          : 5.2.1.8
Boot Selector       : Present
Memory Size         : 2147483648 bytes
Temperature         : 38C
Voltage             : ok
Serial Number       :
Part Number         : Rev
Vendor Id           :
Date Code           :
Country Code        :
Piece Part ID       : N/A
PPID Revision       : N/A
Service Tag         : N/A
Expr Svc Code       : N/A
Auto Reboot         : disabled
Burned In MAC       : f8:10:16:17:18:17
No Of MACs          : 3

-- Module 1 --
Status              : not present

-- Power Supplies --
Unit  Bay  Status      Type      FanStatus  FanSpeed (rpm)
-----
  1    1    up             AC        up          0
  1    2    absent          AC        absent       0

-- Fan Status --
Unit  Bay  TrayStatus  Fan1  Speed  Fan2  Speed
-----
  1    1    up           up    6956  up    7058

Speed in RPM
DellEMC#
```

## Upgrading the CPLD

The S3100 series with the Dell EMC Networking OS Version 9.14(1.10) requires System CPLD revision 24.

**NOTE:** If your CPLD revisions are higher than the ones shown here, DO NOT make any changes. If you have questions regarding the CPLD revision, contact technical support:

## Verify that a CPLD upgrade is required

Use the following command to identify the CPLD version:

```
DelleMC#show revision

-- Stack unit 1 --
S3124F SYSTEM CPLD      : 24
DelleMC#
```

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

```
DelleMC#show os-version

RELEASE IMAGE INFORMATION :
-----
Platform          Version          Size             ReleaseTime
S-Series:S3100    9.14(1.10)      50155103        Sep 24 2021 12:52:25

TARGET IMAGE INFORMATION :
-----
Type              Version          Target           checksum
runtime          9.14(1.10)      Control Processor passed

BOOT IMAGE INFORMATION :
-----
Type              Version          Target           checksum
boot flash       5.2.1.6         Control Processor passed

FPGA IMAGE INFORMATION :
-----
Card              FPGA Name        Version
stack-unit 1     S3148 SYSTEM CPLD 24

PoE-CONTROLLER IMAGE INFORMATION
-----
Type              Version
PoE Controller    2.65
DelleMC#
```

## Upgrading the CPLD Image

- NOTE:** The upgrade `fpga-image stack-unit 1 booted` command is hidden when using the FPGA Upgrade feature in the CLI. However, it is a supported command and is accepted when entered as documented.
- NOTE:** Ensure that the uBoot version is 5.2.1.8 or above. You can verify this version using `show system stack-unit 1` command.

To upgrade the CPLD image on S3100 Series, follow these steps.

- Upgrade the CPLD image.

EXEC Privilege

```
upgrade fpga-image stack-unit <id> booted
```

```
DelleMC#upgrade fpga-image stack-unit 1 booted

Current information for the system:
=====
Card              Device Name        Current Version    New Version
-----
Unit1             S3124F SYSTEM CPLD 23                 24

*****
* 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 ! *
*****
```

```

*****
* When the upgrade has successfully completed, the system will      *
* be automatically rebooted to reload the upgraded components.      *
*****

```

Upgrade image for stack-unit 1 [yes/no]: yes

System fpga upgrade in progress!!! Please do NOT power off the unit!!!

Upgrade result :  
=====

Unit 1 System fpga upgrade in progress.  
It will take a few minutes for the upgrade to complete.  
Unit 1 will auto reboot once the the upgrade is complete.

Please do NOT power off or reload the unit!!!

- The system reboots automatically and waits for the DellEMC prompt. The CPLD version can be verified using show revision command output.

```

EXEC PRIVILEGE
show revision

```

```

DellEMC#show revision

-- Stack unit 1 --
S3124F SYSTEM CPLD      : 24

DellEMC#

```

**NOTE:** Do not power off the system while FPGA upgrade is in progress. For any queries, contact technical support

**NOTE:** When you upgrade the standby and member units of CPLD, the following message displays in the management unit. The unit automatically reboots once the upgrade is complete and joins the stack with the upgraded CPLD.

```

DellEMC#upgrade fpga-image stack-unit 3 booted

```

Current information for the system:

```

=====
Card                Device Name      Current Version  New Version
-----
Unit3               S3124F SYSTEM  23              24

```

```

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

```

```

*****
* When the upgrade has successfully completed, the system will    *
* be automatically rebooted to reload the upgraded components.    *
*****

```

Upgrade image for stack-unit 3 [yes/no]: yes

System fpga upgrade in progress!!! Please do NOT power off the unit!!!

Upgrade result :  
=====

Unit 3 System fpga upgrade in progress.  
It will take a few minutes for the upgrade to complete.  
Unit 3 will auto reboot once the the upgrade is complete.

Please do NOT power off or reload the unit!!!

```
DellEMC#
```

## Upgrading the PoE Controller

Upgrade the PoE controller image on a stack unit of the S3100 series switch.

- Upgrade the PoE controller image on a specified stack unit.

EXEC Privilege mode

```
upgrade poe-controller stack-unit unit-number
```

```
DellEMC#upgrade poe-controller stack-unit 1

Current PoE-Controller information in the system:
=====
Stack Unit          Current Version      New Version
-----
1                   2.65                2.65

*****
* Warning - Upgrading PoE Controller should only be attempted *
* when necessary. Stack-unit will be reset automatically after *
* upgrade. PoE to all ports of the unit would be suspended until *
* upgrade completes and unit gets reloaded successfully. Please do not *
* Reset/Powercycle or Reload. Proceed with caution ! *
*****

Upgrade PoE Controller Firmware for stack-unit 1 ? [yes/no]: yes

PoE Controller upgrade in progress. Please do NOT POWER-OFF the card.
!
Upgrade result :
=====
Slot 1 PoE Controller FirmWare upgrade successful. Resetting the stack-unit.
DellEMC#
```

## Support Resources

The following support resources are available for the S3100 Series.

### Documentation Resources

For information about using the S3100 Series, see the following documents at <http://www.dell.com/support>:

- *Dell EMC Networking S3100 Series Installation Guide*
- *Quick Start Guide*
- *Dell EMC Command Line Reference Guide for the S3100 Series*
- *Dell EMC Configuration Guide for the S3100 Series*

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

### 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 S3100 Series.

- For information about using the S3100 Series, see the documents at <http://www.dell.com/support>.
- For more information about hardware features and capabilities, see the Dell EMC Networking website at <https://www.dellemc.com/networking>.


## Contacting Dell EMC

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

Dell EMC 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 EMC for sales, technical support, or customer service issues:

Go to [www.dell.com/support](http://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.