

DELL Technologies S3048-ON 9.14 Networking OS Software User Guide

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Rev. A00 November 2021 Dell EMC System S3048-ON 9.14(2.11) Release Notes



This document contains information on open and resolved caveats, and operational information specific to the Dell EMC Networking OS software and the S3048-ON platform.

Current Release Version: 9.14(2.11)

Release Date: 2021-11-25

Previous Release Version: 9.14(2.10)

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Topics:

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NOTE: This document may contain language that is not consistent with current guidelines of Dell Technologies. There are plans to update this document over subsequent releases to revise the language accordingly.

Incorrect behavior or unexpected caveats are listed as the Problem Report (PR) numbers within the appropriate sections

For more information on hardware and software features, commands, and capabilities, see the Dell EMC Networking website at: https://www.dellemc.com/networking.

Document Revision History

Date	Description
2021–11	Initial release.

Supported Hardware

The following hardware is supported with this platform:

Hardware

S3048-ON chassis

Forty-eight 10/100/1000Base-T RJ-45 Ports

Four SFP+ optical ports (10 Gbps)

Management Port

USB 2.0 Port

Serial Console Port

Two AC PSUs

Three fan subsytems

(i) NOTE:

NOTE: If all the three fan trays are found to be empty or faulty, the system shuts down after one minute.

Supported Software

The following software is supported with this platform:

Software	Minimum Release Requirement
Dell EMC Networking OS	9.14(2.11)
ONIE	3.24.1.0-4

NOTE: For information on non-Dell OS versions, refer the Release Notes for the Hardware Platform S3048–ON. **New Dell EMC Networking OS Version 9.14(2.11) Features**

The following features are integrated into the Dell EMC Networking 9.14.2 branch through this release: None

Restrictions

- Prerequisite steps to upgrade the Dell EMC Networking OS from earlier version to 9.14.2.0 or later:
 - 1. Uninstall the older version of the Open Automation (OA) package
 - 2. Upgrade the Dell EMC Networking OS to 9.14.2.0 or later version
 - 3. Install the following OA packages from the respective upgraded version:
 - a. SmartScripts
 - b. Puppet
 - c. Open management infrastructure (OMI)
 - d. SNMP MIB

Prerequisite steps to downgrade the Dell EMC Networking OS from 9.14.2.0 or later to the earlier version:

- 1. Uninstall the OA package of 9.14.2.0 or later version
- 2. Downgrade the Dell EMC Networking OS to an earlier version
- 3. Install the respective OA package from an earlier version

For more information about installing, uninstalling and upgrading the Dell EMC Networking OS and OA package, see the

respective Dell EMC System Release Notes.

• If you downgrade the Dell EMC Networking OS version from 9.14.2.11 to 9.11.0.0 or any older versions, the system displays the following error message even though there is no functional impact:

CDBbooterror: C.cdbfileformat

Before downgrading, save the current configuration and then remove the CDB files (c o n f d _ c d b . t a r . g z . v e r s i o n and

c o n f d _ c d b . t a r . g z). To remove the files, use the following steps:

DellEMC#writememory

DelIEMC#deleteflash://confd_cdb.tar.gz.version

DellEMC#deleteflash://confd_cdb.tar.gz

DellEMC#reload

- While deploying the system in the normal-reload mode in BMP configuration, use the i p s s h s e r v e r e n a b I e command at the beginning of the startup configuration if the write memory command is used at the end of the configuration.
- REST API does not support AAA authentication.
- The following features are not available in the Dell EMC Networking OS from version 9.7(0.0):
 - O PIM ECMP
 - Static IGMP join (ipigmpstatic-group)
 - IGMP querier timeout configuration (ipigmpquerier-timeout)
 - IGMP group join limit (ipigmpgroupjoin-limit)
- Half-Duplex mode is not supported.
- 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

The following behavior and CLI changes are applicable to the S3048–ON switch with Dell EMC Networking OS version

9.14(2.11):

None

Documentation Corrections

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

• The r o u t e r b g p command allows you to configure only one L3 interface with an IPv4 address. The Configuration guide does not mention this limitation and will be corrected in the next release of the guide.

Deferred Issues

Issues that appear in this section were reported in Dell EMC Networking OS version 9.14(2.0) as open, but have since been deferred. Deferred caveats are those that are found to be invalid, not reproducible, or not scheduled for resolution.

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 r estart of AFM, the router, switch, or process.S2 — Critical: An issue that renders the syst em or a major feature unusable, which can have a pervasive impact on the system or ne twork, and for which there is no work-around acceptable to the customer. S3 — Major: A n issue that affects the functionality of a major feature or negatively effects the network f or which there exists a work-around that is acceptable to the customer. S4 — Minor: A c osmetic issue or an issue in a minor feature with little or no network impact for which the re 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 "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.

Deferred S3048-ON 9.14(2.0) Software Issues

Issues that appear in this section were reported in Dell EMC Networking OS version 9.14(2.0) 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 EMC Networking OS version 9.14(2.0): 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 r estart 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-aroun d acceptable to the customer. S3 — Major: An issue that affects the functionality of a major feature or negatively effect s 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 imp act 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 "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.

Fixed S3048-ON 9.14(2.11) Software Issues

NOTE: Dell EMC Networking OS 9.14(2.11) includes fixes for caveats addressed in the previous 9.14 releases. Refer to the respective release notes documentation for the list of caveats fixed in the earlier 9.14 releases.

The following caveats have been resolved in the Dell EMC Networking OS version 9.14(2.11):

PR# 170066

Coverity	Cov. 2
Severity:	Sev 3
Synopsis:	In certain scenarios, performing ssh to a switch may not work as
Release Notes:	In certain scenarios, performing ssh to a switch may not work as expected.
Workaround:	None
PR# 170093 Severity:	Sev 3
Synopsis:	OpenSSH version 8.6p1 that is bundled with 9.14.2.11, fixes vulnerabilities report ed by CVE-2020-12062 and CVE-2020-15778.
Release Notes:	OpenSSH version 8.6p1 that is bundled with 9.14.2.11, fixes vulnerabilities report ed by CVE-2020-12062 and CVE-2020-15778.
Workaround:	None
PR# 170151 Severity:	Sev 2
Synopsis:	A memory leak and stacking protocol loop may be seen when more than two stack links are connected in a stack group.
Release Notes:	A memory leak and stacking protocol loop may be seen when more than two stack links are connected in a stack group.
Workaround:	None
PR# 170159 Severity:	Sev 3
Synopsis:	SSH connections with Cipher Block Chaining (CBC) ciphers are vulnerable.
Release Notes:	SSH connections with Cipher Block Chaining (CBC) ciphers are vulnerable.
Workaround:	Configure a stronger Cipher/MAC/KEX setting using the i p s s h s e r v e r comm and.
PR# 170161 Severity:	Sev 2
Synopsis:	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
Release Notes:	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
Workaround: PR# 170179	Create a new 2048 bit RSA key using the crypto key generaters a command.
Severity:	Sev 2
Synopsis:	In certain scenarios, the switch may encounter an exception when trying to ssh int o it.
Release Notes:	In certain scenarios, the switch may encounter an exception when trying to ssh int o it.

Workaround:	None
Severity:	Sev 2
Synopsis:	A BGP route added using the n e t w o r k command does not get deleted even when the contributing route is deleted.
Release Notes:	A BGP route added using the n e t w o r k command does not get deleted even when the contributing route is deleted.
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 r estart 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-aroun d acceptable to the customer. S3 — Major: An issue that affects the functionality of a major feature or negatively effect s 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 imp act 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 "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.

Known S3048-ON 9.14(2.11) Software Issues

The following caveats are open in Dell EMC Networking OS version 9.14(2.11): None.

Upgrading the sub-components

Ensure to upgrade the sub-components in the following order and reload the switch, where necessary, before proceeding with the next sub-component upgrade.

- 1. Upgrade the BIOS or Boot-selector using the u p g r a d e b o o t b o o t s e l e c t o r i m a g e s t a c k u n i t 1 b o o t e d command.
- 2. Upgrade the GRUB or Bootflash using the u p g r a d e b o o t b o o t f l a s h i m a g e s t a c k u n i t 1 b o o t e d command.
- 3. Upgrade the CPLD using the upgradefpga-imagesystemcpldstack-unit1booted command.

Upgrade the BIOS or Boot Selector

To upgrade the BIOS or Boot Selector from Dell EMC Networking OS, perform the following steps:

1. Upgrade the S3048-ON Boot Selector image.

EXEC Privilege

u p g r a d e b o o t b o o t s e l e c t o r - i m a g e s t a c k - u n i t [< i d > | a I I] [b o o t e d | f I a s h : | f t p : | s c p : | t f t p : | u s b f I a s h :] Dell EMC Networking OS version 9.14(2.11) requires S3048-ON Boot Selector image version 3.24.0.0-11. The booted option is used to upgrade the Boot Selector image to the image version packed with the loaded Dell EMC Networking OS image. The Boot Selector image version packed with the loaded Dell EMC Networking OS can be found using the s h o w o s - v e r s i o n command in EXEC Privilege mode.

```
DellEMC#upgrade boot bootselector-image stack-unit 1 booted
Current Boot information in the system:
______
 Card BootSelector Current Version New Version
Unit1
        Boot Selector 3.24.0.0-9 3.24.0.0-11
  *****************
  * 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 upgrade Boot Selector image for stack-unit 1 [yes/no]: yes
FAN SPEED CHANGE: Fan speed changed to 52 % of the full speed
Bootselector image upgrade for stack-unit 1 completed successfully.
DellEMC#
```

2. Reload the unit.

EXEC Privilege r e l o a d

3. Verify the Boot Selector image.

EXEC Privilege s h o w s y s t e m s t a c k - u n i t < i d >

```
DellEMC#show system stack-unit 1

-- Unit 1 -- Unit Type : Management Unit Status : online  
Next Boot : online  
Required Type : S3048-ON - 52-port GE/TE (SG-ON)  
Current Type : S3048-ON - 52-port GE/TE (SG-ON)  
Master priority : 0  
Hardware Rev : 0.0
```

```
Num Ports : 52
Up Time
                     : 13 min, 15 sec
Dell EMC Networking OS Version: 9.14(2.11)
Jumbo Capable
                    : yes
POE Capable
                      : no
FIPS Mode
                      : disabled
Boot Flash
                     : 3.24.2.9
Boot Selector
                      : 3.24.0.0-11
                : 2127654912 bytes
Memory Size
                     : 30C
Temperature
                      : ok
Voltage
Serial Number
Part Number
                     : NA
                     : OVCY6T Rev A00
Vendor Id
                      : NA
Date Code
                      : NA
              : NA
: CN-123456-DELLI-215-8989
: A00
: NA
Country Code
Piece Part ID
PPID Revision
Service Tag
Expr Svc Code
                     : NA
                     : enabled
Auto Reboot
Burned In MAC
                     : 00:e0:ec:25:d9:50
No Of MACs
-- Power Supplies
Unit Bay Status Type FanStatus FanSpeed(rpm)
______
 1 1 up AC up 8032
1 2 up AC up 8096
-- Fan Status --
Unit Bay TrayStatus Fan1 Speed
-----
1 1 up up 7200
1 2 up up 7200
1 3 up up 7200
                         7200
Speed in RPM
DellEMC#
```

Upgrade the GRUB or Boot Flash

To upgrade the GRUB or Boot Flash from Dell EMC Networking OS, perform the following steps:

1. Upgrade the S3048-ON Boot Flash image.

EXEC Privilege upgradebootbootflash-imagestack-unit[<id>|all][booted|flash:|ftp:|scp:|tftp:|usbflash:]

Upgrade the CPLD

The S3048-ON system with Dell EMC Networking OS Version 9.14(2.11) requires System CPLD revision 10 and Module CPLD revision 9.

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 -- S3048-ON SYSTEM CPLD : 10

S3048-ON MODULE CPLD : 9

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:SG-ON 9.14(2.11) 65838348 Oct 18 2021 08:37:00
TARGET IMAGE INFORMATION :
                                                  Target checksum
Control Processor passed
        Type Version runtime 9.14(2.11) Control
                                                                                 passed
BOOT IMAGE INFORMATION :
            Type Version 3.24.2.9
                                                 Target checksum
Control Processor passed
    boot flash
                                                                                passed
BOOTSEL IMAGE INFORMATION :
Type Version boot selector 3.24.0.0-11
                                                                Target checksum
        Control Processor
                                    passed
FPGA IMAGE INFORMATION :

        Card
        FPGA Name
        Version

        stack-unit 1
        $3048-ON SYSTEM CPLD
        10

        stack-unit 1
        $3048-ON MODULE CPLD
        9

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 will be accepted when entered as documented.

NOTE: Ensure that the BIOS version is 3.24.0.0-11. You can verify this version using show system stack-unit 1 command.

To upgrade the CPLD image on S3048-ON, follow these steps.

1. Upgrade the CPLD image.

EXEC Privilege upgradefpga-imagestack-unit<id>booted

```
DellEMC#upgrade fpga-image stack-unit 1 booted
Current information for the system:
______
 Card
                  Device Name
                            Current Version
                                           New Version
Unit1 S3048-ON SYSTEM CPLD
                                      9
           S3048-ON MODULE CPLD
Unit1
                                       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 !
Upgrade image for stack-unit 1 [yes/no]: yes
FPGA upgrade in progress!!! Please do NOT power off the unit!!!
Upgrade result :
Unit 1 FPGA upgrade successful. Power cycle the Unit 1 to complete the upgrade.
DellEMC#00:04:11: %S3048-ON:1 %DOWNLOAD-6-FPGA UPGRADE: stack-unit 1 fpga upgrade
success.
DellEMC#
Need to power cycle the unit to complete the FPGA upgrade.
```

- 2. Power cycle the system physically. Switch off the system by unplugging the power chords from the REAR PSUs and wait until the PSU FAN–REAR STATUS LED is completely OFF.
 - NOTE: Do not switch on the system with PSU-REAR LED glowing AMBER.

You can alternatively power cycle the switch using the p o w e r - c y c l e s t a c k - u n i t < 1 - 6 > command as follows:

DellEMC#power-cyclestack-unit1Proceedwithpower-cycle?Confirm[yes /no]:yes

3. The CPLD version can be verified using s h o w r e v i s i o n command output :

EXEC Privilege

showrevisionDellEMC#showrevision--Stackunit1-S3048-ONSYSTEMCPLD:10S3048-ONMODULECPLD:9DellEMC#

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

Upgrading ONIE on the S3048-ON

To upgrade the ONIE package you have installed, use one of the following two processes: zero touch (dynamic) update or manual update.

- 1. Zero touch (dynamic): Copy the update ONIE installer and the DIAG installer for your system to the TFTP/ HTTP server.
 - Configure the DHCP options using the ONIE specifications shown at the following link: http://opencomputeproject.github.io/onie/docs/design-spec/updater.html
 - S3048-ONimage>>>>onie-updater-x86_64-s3000_c2338-r0
- 2. Manual: Copy the image onto the TFTP/HTTP servers and boot ONIE. Update the ONIE using the onie-self-

update command, then download and run an ONIE updater image. The supported URL types are: HTTP, FTP, TFTP, and FILE.

S3048-ONimage>>>>onie-updater-x86_64-s3000_c2338-r0

3. UPGRADING ONIE ON AN EXISTING S3048-ON SYSTEM.

The following example uses HTTP to upgrade ONIE.

```
ONIE:/ # onie-self-update tftp://10.16.127.35/onie-updater-x86 64-s3000 c23
38-r0
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/onie-updater-x86_64-s3000_c2338-r0
onie-updater-x86 64- 100% | ****
                                                                    9021k 0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/onie-updater-x86_64-s3000_c2338-r0
Verifying image checksum ... OK.
Preparing image archive ... OK.
ONIE: Version : 3.24.1.0-4
ONIE: Architecture : x86_64
ONIE: Machine : s3000_c2338
ONIE: Machine Rev : 0
ONIE: Config Version: 1
Installing ONIE on: /dev/sda
Rebooting...
ONIE: / # umount: can't remount rootfs read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
```

4. Upgrade the DIAG installer package.

```
ONIE: / # onie-nos-install tftp://10.16.127.35/INSTALLER-DND-SG-2.0.0.5.bin
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/INSTALLER-DND-SG-2.0.0.5.bin
INSTALLER-DND-SG-2.0 100% | ***
                                    ******* 0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/INSTALLER-DND-SG-2.0.0.5.bin
Verifying image checksum ... OK.
Preparing image archive from /installer ... Done.
Mounting /dev/sda3...Done.
Copying Images ... Done.
Installing Menu Entry ...Done.
ONIE:/ # umount: can't remount rootfs read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
```

5. Upgrade the BIOS image using the BIOS image and Flashrom utility included with the diagnostic package.

```
The system is going down NOW!

Sent SIGTERM to all processes

Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache

Restarting system.

machine restart

BIOS (Dell EMC Inc) Boot Selector

S3000 3.24.0.0-11

(48-port 1G/4-port SFP+ 10G)

CPLD JTAG to normal mode... done.

Resetting...
```

Installing Dell EMC Networking OS on the S3048-ON using ONIE

NOTE: The Dell EMC Networking OS installer package, ONIE-FTOS-SG-ON-9.14.2.11.bin, is required for installing Dell EMC

Networking OS on S3048-ON that has only ONIE.

To install the Dell EMC Networking OS version 9.14(2.11) on to the new S3048-ON device, perform the following steps:

1. Boot the system to the ONIE prompt. The following ONIE prompt appears:

ONIE:/#

2. Stop the ONIE discovery process using the following command:

```
ONIE:/#onie-discovery-stop
```

The following message appears:Stopping:discover...done.ONIE:/#

3. Configure an interface and assign an IP address to that interface using the following command:

```
ONIE:/#ifconfigeth0ip-address/prefixup
```

4. Enter the following command to begin the installation process:

```
ONIE:/\#onie-nos-installtftp://10.16.127.35/ONIE-FTOS-SG-ON-9.14.\\ 2.11.bin
```

NOTE: After the Dell EMC Networking OS installation is complete, the system automatically reboots.

Following is the installation and boot log of Dell EMC Networking OS:

```
ONIE:/ #
ONIE:/ #
ONIE: / # onie-nos-install tftp://10.16.127.35/ONIE-FTOS-SG-9.14.2.11.bin
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/ONIE-FTOS-SG-9.14.2.11.bin ..
ONIE-FTOS-SG-9.14.2.11 100% | **
                                                    ******** 95426k 0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/ONIE-FTOS-SG-
.2.7.bin
Verifying image checksum ... OK.
Preparing image archive from /installer ... Done.
Verifying Product Platform ...
                     : ONIE-FTOS-SG-9.14.2.11.bin
Image File
                    : S3048-ON
Product Name
Platform Verified
                      : OK
Deleting Extra partitions... Done.
Creating New partitions... Done.
Creating Hybrid MBR... Done.
Mouting /dev/sda4,/dev/sda5 and /dev/sda6... Done.
Installing GRUB on /dev/sda4...Done.
Copying Images... Done.
```

```
ONIE: / # umount: can't remount rootfs read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
BIOS (Dell EMC) Boot Selector
S3000 3.24.0.0-11
 (48-port 1G/4-port SFP+ 10G)
CPLD JTAG to normal mode... done.
Resetting...
POST Configuration
  CPU Signature 406D8
  CPU FamilyID=6, Model=4D, SteppingId=8, Processor=0
  Microcode Revision 125
  Platform ID: 0x1004183D
  PMG_CST_CFG_CTL: 0x40006
  BBL CR CTL3: 0x7E2801FF
  Misc EN: 0x4000840081
  Gen PM Con1: 0x1008
  Therm Status: 0x88490000
  POST Control=0xEA010303, Status=0xE6009601
BIOS initializations...
CPLD JTAG to normal mode... done.
BIOS initializations...
CPGC Memtest for Channel 0 ..... PASS
ECC enabled: channel 0 MayCCTRL DUNIT REG=0x000200F3
POST:
  RTC Battery OK at last cold boot
  RTC date Monday 10/18/2021 22:35:26
POST SPD test ..... PASS
POST Lower DRAM Memory test
  Short memory cell test
  Perf cnt (curr, fixed): 0x21157AA35,0x31A008980
POST Lower DRAM Memory test ..... PASS
POST Lower DRAM ECC check ..... PASS
Dell DxE configurations...
Broadcom Preemphasis...
  Gen1=0x4, Gen2=0x43
  done.
NPU CDR...
           . .
SM Bus1 PHY...done
DxE POST
POST PCI test ..... PASS
POST NVRAM check ..... PASS
POST overall test results ..... PASS
Version 2.16.1242. Copyright (C) 2021 American Megatrends, Inc.
BIOS Date: 10/18/2021 01:14:04 Ver: 0ACBZ018
Press DEL or F2 to enter setup.
Grub 1.99~rc1 (Dell EMC)
```

5. After the installation completes, the system displays the following DELL EMC prompt:

DellEMC#

Upgrading the S3048-ON Dell EMC Networking OS Image using the Dell EMC Networking OS CLI Bare Metal Provisioning

NOTE: If you are using Bare Metal Provisioning (BMP), see the Bare Metal Provisioning topic in the Dell EMC Networking OS Configuration Guide or the Open Automation Guide.

Manual Upgrade Procedure

Follow these steps carefully to upgrade your S3048-ON systems:

1. Dell EMC Networking recommends that you back up your startup configuration and any important files and directories to an external media prior to upgrading the system.

NOTE: If you are upgrading from Dell EMC Networking OS version 9.10.0.1P5 or earlier, you cannot directly upgrade to version 9.10.0.1P13 or above. Upgrade to version 9.10.0.1P8 first and then upgrade to the required version.

2. Upgrade the Dell EMC Networking OS in flash partition A: or B:

EXEC Privilege

upgradesystem[flash:|ftp:stack-unit<1-6>|tftp:|scp:|usbflash:][A:|B:]

```
DellEMC#upgrade system tftp: a:
Address or name of remote host []: 10.16.127.35
Source file name []: FTOS-SG-9.14.2.11.bin
3d17h59m : Discarded 1 pkts. Expected block num : 62. Received block num: 61
3d17h59m : Discarded 1 pkts. Expected block num : 65. Received block num: 64
. . . . . . . !
62620397 bytes successfully copied
System image upgrade completed successfully.
DellEMC#May 10 11:56:43: %STKUNIT1-M:CP %DOWNLOAD-6-UPGRADE: Upgrade completed
successfully
DellEMC#
DellEMC#upgrade system tftp: b:
Address or name of remote host []: 10.16.127.35
Source file name []: FTOS-SG-9.14.2.11.bin
3d18h2m : Discarded 1 pkts. Expected block num : 51. Received block num: 50
3d18h2m : Discarded 1 pkts. Expected block num : 65. Received block num:
.....
62620397 bytes successfully copied
System image upgrade completed successfully.
DellEMC#May 10 12:00:33: %STKUNIT1-M:CP %DOWNLOAD-6-UPGRADE: Upgrade completed
successfully
DellEMC#
```

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

EXEC Privilege

showbootsystemstack-unit[1-6]|a|I] DellEMC#showbootsystemstack-unit[1-6]|a|I] DellEMC#showbootsystemstack-unit[1-6]|a|I] DellEMC#showbootsystemstack-unit[1-6]|a|I|] DellEMC#showbootsystemstack-uni

Currentsystemimageinformationinthesystem:

```
Type Boot Type A B

stack-unit 1 DOWNLOAD BOOT 9.14(2.11)[boot] 9.14(2.9)

stack-unit 2 is not present.

stack-unit 3 is not present.

stack-unit 4 is not present.

stack-unit 5 is not present.

stack-unit 6 is not present.

DellEMC#

DellEMC#
```

4. Change the Primary Boot Parameter of the S3048-ON to the upgraded partition A: or B: CONFIGURATION

bootsystemstack-unit1primarysystem:[A:|B:|tftp:|ftp:]

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

EXEC Privilege

writememory

DellEMC#writememory!

May 1018:58:59: % STKUNIT1-M: CP% FILEMGR-5-FILESAVED: Copiedrun ning-configtostartup-configinflashbydefault DellEMC#

6. Reload the unit.

EXEC Privilege

reloadCommand:reloadMode:EXECPRIVILEGEDellEMC#reloadProceedwithreload[confirmyes/no]:y

7. Verify the S3048 ON has been upgraded to the Dell EMC Networking OS version 9.14(2.11).

EXEC Privilege

showversion

```
DellEMC#show version
Dell EMC Real Time Operating System Software
Dell EMC Operating System Version: 2.0
Dell EMC Application Software Version: 9.14(2.11)
Copyright (c) 1999-2021 by Dell EMC Inc. All Rights Reserved.
Build Time: Mon Oct 18 10:20:04 2021
Build Path: /build/build01/SW/SRC
Dell EMC Networking OS uptime is 3 day(s), 21 hour(s), 3 minute(s)

System image file is "system://A"

System Type: S3048-ON
Control Processor: Intel Rangeley with 2 Gbytes (2127654912 bytes) of memory, core(s)
2.

8G bytes of boot flash memory.

1 52-port GE/TE (SG-ON)
48 GigabitEthernet/IEEE 802.3 interface(s)
4 Ten GigabitEthernet/IEEE 802.3 interface(s)
DellEMC#
```

Uninstalling Dell EMC Networking OS on the S3048-ON

To uninstall the Dell EMC Networking OS version 9.14(2.11) from the S3048-ON device, perform the following steps:

1. Reboot the system. During the reboot process, the system displays the following message prompting you to press the Esc key in order to stop the auto-boot process:

```
Version 2.16.1242. Copyright (C) 2021 American Megatrends, Inc. BIOS Date: 10/18/2021 01:14:04 15:25:58 Ver: 0ACBZ018

Press DEL or F2 to enter setup.

Grub 1.99~rc1 (Dell EMC)
Built by root at ubuntu on Mon Oct 18 14:42:47 UTC 2021
S3000ON Boot Flash Label 3.24.2.9 NetBoot Label 3.24.2.9

Press Esc to stop autoboot ... 5
```

2. At this prompt message, press the Esc key. The following menu appears:

```
+----+
| Dell EMC Networking OS
| Dell EMC-Boot Line Interface
| DELL-DIAG
| ONIE
```

3. From the menu, choose the ONIE option.

NOTE: To choose an option from the menu, highlight one of the options using the up or down arrow key and press Enter.

The following menu appears:

4. From this menu, choose the ONIE: Uninstall OSoption.

NOTE: To choose an option from the menu, highlight one of the options using the up or down arrow key and press Enter.

The uninstall process begins. Following is the log generated by the system while Dell EMC Networking OS 9.14.2.11 uninstalls:

```
ONIE: OS Uninstall Mode ...
Version : 3.24.1.0-4
Build Date: 2021-10-18T13:53-0700
Info: Mounting kernel filesystems... done.
Info: Mounting LABEL=ONIE-BOOT on /mnt/onie-boot ...
Info: Using eth0 MAC address: 00:85:13:53:99:10
Info: Using eth1 MAC address: 00:85:13:53:99:11
Info: eth0: Checking link... up.
Info: Trying DHCPv4 on interface: eth0
DHCPv4 on interface: eth0 failedONIE: Using default IPv4 addr: eth0: 192.168.3.10/255.255.255.0
Info: eth1: Checking link... down.
ONIE: eth1: link down. Skipping configuration.
ONIE: Failed to configure eth1 interface
Starting: dropbear ssh daemon... done.
Starting: telnetd... done. discover: Uninstall mode detected. Running uninstaller.
Erasing internal mass storage device: /dev/sda3 (300MB)
```

```
Percent complete: 100%
Erase complete.
Deleting partition 3 from /dev/sda
Erasing internal mass storage device: /dev/sda4 (32MB)
 Percent complete: 100%
Erase complete.
Deleting partition 4 from /dev/sda
Erasing internal mass storage device: /dev/sda5 (300MB)
 Percent complete: 100%
Erase complete.
Deleting partition 5 from /dev/sda
Erasing internal mass storage device: /dev/sda6 (300MB)
  Percent complete: 100%
Erase complete.
Deleting partition 6 from /dev/sda
Erasing internal mass storage device: /dev/sda7 (6578MB)
  Percent complete: 100%
Erase complete.
Deleting partition 7 from /dev/sda
Installing for i386-pc platform.
Installation finished. No error reported.
Uninstall complete. Rebooting ...
umount: can't remount rootfs read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
sd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
BIOS (Dell EMC) Boot Selector
S3000 3.24.0.0-11
 (48-port 1G/4-port SFP+ 10G)
CPLD JTAG to normal mode... done.
Resetting...
POST Configuration
 CPU Signature 406D8
  CPU FamilyID=6, Model=4D, SteppingId=8, Processor=0
 Microcode Revision 125
 Platform ID: 0x1004183D
 PMG CST CFG CTL: 0x40006
 BBL_CR_CTL3: 0x7E2801FF
 Misc EN: 0x4000840081
  Gen PM Con1: 0x1008
 Therm Status: 0x884B0000
 POST Control=0xEA010303, Status=0xE6009601
BIOS initializations...
CPLD JTAG to normal mode... done.
BIOS initializations...
CPGC Memtest for Channel 0 ..... PASS
ECC enabled: channel 0 MayCCTRL DUNIT REG=0x000200F3
```

5. After the installation completes, the system displays the following ONIE prompt:

ONIE:/#

Installing a Third Party Operating System

Apart from the Dell EMC Networking OS, you can also install a supported third party operating system on the S3048ON system. For more information on installing a third party operating system, please check the ONIE documentation at

https://github.com/opencomputeproject/onie/wiki/Quick-Start-Guide https://github.com/opencomputeproject/onie/wiki/Quick-Start-Guide and refer to the respective third party OS vendor's website for OS installation instructions.

Support Resources

The following support resources are available for the S3048-ON system.

Documentation Resources

This document contains operational information specific to the S3048–ON system.

For information about using the S3048–ON, refer to the following documents at http://www.dell.com/support:

- Installing the S3048-ON System
- Quick Start Guide
- Dell EMC Networking Command Line Reference Guide for the S3048-ON System
- Dell EMC Networking Configuration Guide for the S3048-ON System

For more information about hardware features and capabilities, refer to the Dell EMC 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 S3048-ON switch.

- For information about using the S3048–ON, refer to the documents at http://www.dell.com/support.
- For more information about hardware features and capabilities, refer to the Dell EMC 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 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.

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.

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Documents / Resources



<u>DELL Technologies S3048-ON 9.14 Networking OS Software</u> [pdf] User Guide S3048-ON, S3048 ON 9.14, S3048 ON 9.14 Networking OS Software, Networking OS Software, OS Software

References

- O Computers, Monitors & Technology Solutions | Dell USA
- Support | Dell US
- Support | Dell US
- Dell Networking Solutions | Dell USA
- O Home · opencomputeproject/onie Wiki · GitHub
- Dell Networking Solutions | Dell USA

Manuals+,