# Dell EMC System S6010–ON 9.14(2.10) Release Notes

This document contains information on open and resolved caveats, and operational information specific to the Dell EMC Networking OS software and the S6010-ON platform. **Current Release Version:** 9.14(2.10) **Release Date:** 2021-06-30

Previous Release Version: 9.14(2.9P1)

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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, refer to the Dell EMC Networking website at: https://www.dellemc.com/networking.

# **Document Revision History**

### **Table 1. Revision History**

Date	Description
2021–06	Initial release.

# **Supported Hardware**

The following hardware is supported with this platform:

Hardware
S6010-ON chassis
Thirty-two QSFP+ ports (40 Gbps)
Two AC/DC PSUs
Five fan subsystems

(i) NOTE: If all the five 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(2.10)			
ONIE	3.26.1.0-3			

# New Dell Networking OS Version 9.14(2.10) 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, refer the respective *Dell EMC System Release Notes*.

• If you downgrade the Dell EMC Networking OS version from 9.14.2.10 to 9.11.0.0 or any older versions, the system displays the following error message even though there is no functional impact:

CDB boot error: C.cdb file format

Before downgrading, save the current configuration and then remove the CDB files (confd\_cdb.tar.gz.version and confd\_cdb.tar.gz). To remove the files, use the following steps:

```
DellEMC#write memory
DellEMC#delete flash://confd_cdb.tar.gz.version
DellEMC#delete flash://confd_cdb.tar.gz
DellEMC#reload
```

- 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.
- 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):
  - PIM ECMP
  - $\circ~$  Static IGMP join (ip igmp static-group)
  - IGMP querier timeout configuration (ip igmp querier-timeout)
  - IGMP group join limit (ip igmp group join-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 S6010–ON switch with Dell EMC Networking OS version 9.14(2.10):

None.

## **Documentation Corrections**

None.

## **Deferred Issues**

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

### Category Description

Issues listed in the "Closed Caveats" 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 caveat.

### Deferred S6010-ON 9.14(2.0) Software Issues

Issues that appear in this section were reported in Dell 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 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	<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.
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 work-around is unnecessary, as the version of code for which this release note is documented has resolved the caveat

### Fixed S6010-ON 9.14(2.10) Software Issues

() NOTE: Dell Networking OS 9.14(2.10) 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 are fixed in Dell Networking OS version 9.14(2.10):

PR# 170039	
Severity:	Sev 3
Synopsis:	The hop limit of neighbor advertisement packets for virtual IPv6 addresses decrease when the packets are incorrectly hashed in VLT.
Release Notes:	The hop limit of neighbor advertisement packets for virtual IPv6 addresses decrease when the packets are incorrectly hashed in VLT.
Workaround:	None

PR# 170044	
Severity:	Sev 2
Synopsis:	In certain scenarios, the switch may restart if there is an exception in the $\verb confd  $ process.
Release Notes:	In certain scenarios, the switch may restart if there is an exception in the $\verb confd  $ process.
Workaround:	None
PR# 170077	
Severity:	Sev 3
Synopsis:	In certain scenarios, the switch may encounter an exception while copying an image from a USB drive to update the operating system.
Release Notes:	In certain scenarios, the switch may encounter an exception while copying an image from a USB drive to update the operating system.
Workaround:	None
PR# 170082	
Severity:	Sev 2
Synopsis:	Time zone configuration does not reflect in the running-config after reload.
Release Notes:	Time zone configuration does not reflect in the running-config after reload.
Workaround:	None
PR# 170098	
Severity:	Sev 3
Synopsis:	Unable to change the root account password.
Release Notes:	Unable to change the root account password.
Workaround:	None
PR# 170104	
Severity:	Sev 2
Synopsis:	MIB walk displays the wrong size for the dot3adAggPortActorOperState object.
Release Notes:	MIB walk displays the wrong size for the dot3adAggPortActorOperState object.
Workaround:	None
PR# 170115	
Severity:	Sev 3

Synopsis:	The switch may encounter an exception when an incorrect length field is specified in a TACACS packet.
Release Notes:	The switch may encounter an exception when an incorrect length field is specified in a TACACS packet.
Workaround:	None

# **Known Issues**

Known issues are reported using the following definitions.

Category	Description
PR#	Problem Report number that identifies the issue.
Severity	<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.
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 work-around is unnecessary, as the version of code for which this release note is documented has resolved the caveat.

### Known S6010-ON 9.14(2.10) Software Issues

The following caveats are open in Dell Networking OS version 9.14(2.10):

None

# Upgrading the ONIE Package for the S6010-ON System

() NOTE: The Dell Networking OS installer package, ONIE-FTOS-SI-ON-9.14.2.10.bin, is required for installing Dell Networking OS on S6000-ON that has only ONIE.

- Zero touch (dynamic): Copy the update ONIE installer for your system to the TFTP/HTTP server. Configure the DHCP options using the ONIE specifications shown at the following link: https://github.com/opencomputeproject/onie/wiki/ Design-Spec-SW-Updating-ONIE.
- 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 (*onie-updater-x86\_64-dell\_s6010\_c2538-r0*). The supported URL types are: HTTP, FTP, TFTP, and FILE.

To upgrade ONIE, 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:

```
Press Esc to stop autoboot ... 5
Grub 2.02~beta2 (Dell EMC Inc)
```

Built by root at ubuntu on Tue May 18 13:43:07 UTC 2021 S6010 Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10

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

- **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:

GNU GRUB version 2.02~beta2+e4a1fe391

**4.** From this menu, choose the ONIE : Update 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 ONIE update mode is enabled and the ONIE prompt appears, as shown:

ONIE: ONIE Update Mode ... Version : 3.26.1.0-3 Build Date: 2021-05-18T22:35-0700 Info: Mounting kernel filesystems... done. Info: Mounting LABEL=ONIE-BOOT on /mnt/onie-boot ... Info: Using eth0 MAC address: 14:18:77:09:72:00 Info: Using eth1 MAC address: 14:18:77:09:72:01 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: ONIE update mode detected. Running updater. Starting: discover... done. Please press Enter to activate this console. To check the install status inspect /var/log/onie.log. Try this: tail -f /var/log/onie.log \*\* ONIE Update Mode Enabled \*\* ONIE:/ # Info: eth0: Checking link... up. Info: Trying DHCPv4 on interface: eth0 ONIE:/ # ONIE:/ #

5. At the ONIE prompt, to stop the ONIE discovery process, enter the following command:

ONIE:/ # onie-discovery-stop

The ONIE discovery stops, as shown:

```
discover: ONIE update mode detected.
Stopping: discover... done.
ONIE:/ #
```

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

```
ONIE:/ # ifconfig eth0 10.16.133.213/16
```

7. Enter the following command to upgrade ONIE:

ONIE:/ # onie-self-update tftp://<tftp-server-address>/onie-updater-x86\_64-s6010\_c2538-r0

(i) NOTE: You must copy the onie-updater-x86 64-s6010 c2538-r0 file to the /tftpboot folder in the server.

ONIE is updated on the system, as shown:

```
discover: ONIE update mode detected.
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/onie-updater-x86 64-s6010 c2538-r0 ...
ONIE: Executing installer: tftp://10.16.127.35/onie-updater-x86 64-s6010 c2538-r0
Verifying image checksum ... OK.
Preparing image archive ... OK.
ONIE: Version
                 : 3.26.1.0-3
ONIE: Architecture : x86 64
                  : s6010 c2538
ONIE: Machine
ONIE: Machine Rev
                  : 0
ONIE: Config Version: 1
Installing ONIE on: /dev/sda
Rebooting...
ONIE:/ # discover: ONIE update mode detected.
Stopping: discover...start-stop-daemon: warning: killing process 541: No such process
done.
Stopping: dropbear ssh daemon... done.
Stopping: telnetd... done.
Stopping: syslogd... done.
Info: Unmounting kernel filesystems
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 4:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
```

```
BIOS (Dell EMC, Inc.) Boot Selector
S6010 3.26.0.0-4
32 port 40G QSFP
POST Configuration
CPU Signature 406D8
CPU FamilyID=6, Model=4D, SteppingId=8, Processor=0
Microcode Revision 125
Platform ID: 0x10041A48
PMG_CST_CFG_CTL: 0x40006
BBL_CR_CTL3: 0x7E2801FF
Misc EN: 0x840081
Gen PM Con1: 0x203808
Therm Status: 0x884E0000
POST Control=0xEA000303, Status=0xE6009F00
BIOS initializations...
CPGC Memtest ..... PASS
```

## Upgrading the DIAG Package for the S6010-ON System

To upgrade the DIAG package, use one of the following two processes:

- Zero touch (dynamic): Copy the update ONIE installer for your system to the TFTP/HTTP server. Configure the DHCP options using the ONIE specifications shown at the following link: <a href="https://github.com/opencomputeproject/onie/wiki/Design-Spec-SW-Updating-ONIE">https://github.com/opencomputeproject/onie/wiki/Design-Spec-SW-Updating-ONIE</a>.
- 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 (diag-installer-x86\_64-s6010\_c 2538-r0.bin). The supported URL types are: HTTP, FTP, TFTP, and FILE.

To upgrade DIAG, 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:

```
Press Esc to stop autoboot ... 5
Grub 2.02~beta2 (Dell EMC Inc)
Built by root at ubuntu on Tue_May_18_13:43:07_UTC_2021
S6010 Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10
```

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

**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:

GNU GRUB version 2.02~beta2+e4a1fe391

4. From this menu, choose the ONIE : Install OS 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 ONIE Installer mode is enabled and the ONIE prompt appears, as shown:

```
GRUB loading.
Version : 3.26.2.10
Build Date: 2021-05-18T18:15-0700
    1.932688] dummy-irq: no IRQ given. Use irq=N
     1.940430] esas2r: driver will not be loaded because no ATTO esas2r devices were
found
     1.982100] mtdoops: mtd device (mtddev=name/number) must be supplied
     3.090824] fmc write eeprom fake-design-for-testing-f001: fmc write eeprom: no
ſ
busid passed, refusing all cards
     3.105813] intel_rapl: driver does not support CPU family 6 model 77
Info: Mounting kernel filesystems... done.
Info: Mounting ONIE-BOOT on /mnt/onie-boot ...
Info: Using bond0 MAC address: 14:18:77:09:72:00
Info: Using eth0 MAC address: 14:18:77:09:72:01
Info: Using eth1 MAC address: 14:18:77:09:72:02
Info: Using gretap0 MAC address: 14:18:77:09:72:03
Info: bond0: Checking link... down.
ONIE: bond0: link down. Skipping configuration.
Info: eth0: Checking link...
ONIE: OS Install Mode ...
ONIE:/ #
```

5. At the ONIE prompt, to stop the ONIE discovery process, enter the following command:

ONIE:/ # onie-discovery-stop

The ONIE discovery stops, as shown:

```
ONIE:/ # onie-discovery-stop
discover: installer mode detected.
Stopping: discover... done.
ONIE:/ #
```

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

ONIE:/ # ifconfig eth0 ip-address/prefix

7. Enter the following command to upgrade DIAG on the S6010–ON system:

onie-nos-install tftp://<tftp-server-adress>/tftpboot/diag-installer-x86\_64-s6010\_c 2538r0.bin

**NOTE:** You must copy the diag-installer-x86\_64-s6010\_c 2538-r0.bin file to the /tftpboot folder in the server.

The DIAG is updated on the system, as shown:

ONIE:/ # onie-nos-install tftp://10.16.127.35/diag-installer-x86 64-s6010 c2538-r0.bin discover: installer mode detected. Stopping: discover... done. Info: Fetching tftp://10.16.127.35/diag-installer-x86 64-s6010 c2538-r0.bin ... diag-installer-x86 6 100% |\*\* \* \* \* \* | 148M 0:00:00 ETA ONIE: Executing installer: tftp://10.16.127.35/diag-installer-x86 64-s6010 c2538r0.bin Ignoring Verifying image checksum ... OK. cur dir / archive path /var/tmp/installer tmp dir /tmp/tmp.OITwcP Preparing image archive ...sed -e '1,/^exit\_marker\$/d' /var/tmp/installer | tar xf -OK. Diag-OS Installer: platform: x86\_64-s6010\_c2538-r0
Found EDA-DIAG partition at (/dev/sda3) /tmp/diag os install mode does not exist, installer would run in update mode Diag OS Installer Mode : UPDATE EDA-DIAG dev is /dev/sda3 Mounted /dev/sda3 on /tmp/tmp.s2OcTQ Update mode: Copying rootfs..... Preparing /dev/sda3 EDA-DIAG for rootfs install untaring into /tmp/tmp.s2OcTQ rootfs copy done Success: Support tarball created: /tmp/tmp.s20cTQ/onie-support.tar.bz2 INSTALLER DONE... Removing /tmp/tmp.OITwcP ONIE: NOS install successful: tftp://10.16.127.35/diag-installer-x86 64-s6010 c2538r0.bin ONIE: Rebooting... ONIE:/ # discover: installer mode detected. Stopping: discover...start-stop-daemon: warning: killing process 3051: No such process done. Stopping: dropbear ssh daemon... done. Stopping: telnetd... done. Stopping: syslogd... done. Info: Unmounting kernel filesystems The system is going down NOW! Sent SIGTERM to all processes

# Installing Dell EMC Networking OS on the S6010-ON using ONIE

**NOTE:** You will need the Dell EMC Networking OS installer package, ONIE-FTOS-S6010-9.14.2.10.bin to install the Dell EMC Networking OS on your S6010-ON system that has only ONIE.

To install the Dell EMC Networking OS version 9.14(2.10) on a new S6010-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:

```
Press Esc to stop autoboot ... 5
Grub 2.02~beta2 (Dell EMC Inc)
Built by root at ubuntu on Tue May_18_13:43:07_UTC_2021
S6010 Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10
```

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

```
Grub 2.02~beta2 (Dell EMC Inc)
Built by root at ubuntu on Tue_May_18_13:43:07_UTC_2021
S6010-ON Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10
```

**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:

GNU GRUB version 2.02~beta2+e4a1fe391

```
+-----
+*ONIE: Install OS
| ONIE: Rescue
| ONIE: Update ONIE
| ONIE: Embed ONIE
| EDA-DIAG
|
| Use the ^ and v keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands
before booting or `c' for a command-line.
```

**4.** From this menu, choose the ONIE : Install OS 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 ONIE Installer mode is enabled and the ONIE prompt appears, as shown:

```
ONIE: OS Install Mode ...
Version : 3.26.1.0-3
Build Date: 2021-05-18T18:15-0700
    1.932721] dummy-irq: no IRQ given. Use irq=N
ſ
    1.940473] esas2r: driver will not be loaded because no ATTO esas2r devices were
found
     1.968421] mtdoops: mtd device (mtddev=name/number) must be supplied
     3.074656] fmc write eeprom fake-design-for-testing-f001: fmc write eeprom: no
busid passed, refusing all cards
     3.089624] intel_rapl: driver does not support CPU family 6 model 77
Info: Mounting kernel filesystems... done.
Info: Mounting ONIE-BOOT on /mnt/onie-boot
Info: Using bond0 MAC address: 14:18:77:09:72:00
Info: Using eth0 MAC address: 14:18:77:09:72:01
Info: Using eth1 MAC address: 14:18:77:09:72:02
Info: Using gretap0 MAC address: 14:18:77:09:72:03
Info: bond0: Checking link... down.
ONIE: bond0: link down. Skipping configuration.
Info: eth0: Checking link... up.
Info: Trying DHCPv4 on interface: eth0
   50.826993] random: nonblocking pool is initialized
[
Warning: Unable to configure interface using DHCPv4: eth0
ONIE: Using default IPv4 addr: eth0: 192.168.3.10/24
```

ONIE: Using link-local IPv4 addr: eth0: 169.254.193.218/16 Info: eth1: Checking link ... down. ONIE: eth1: link down. Skipping configuration. Info: gretap0: Checking link... down. ONIE: gretap0: link down. Skipping configuration. ONIE: Failed to configure bond0 interface ONIE: Failed to configure eth1 interface ONIE: Failed to configure gretap0 interface Starting: dropbear ssh daemon... done. Starting: telnetd... done. Installing for i386-pc platform. /proc/devices: No entry for device-mapper found grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd12) grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda, gpt7, bsd12). /proc/devices: No entry for device-mapper found grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd12). /proc/devices: No entry for device-mapper found grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda, gpt7, bsd12). /proc/devices: No entry for device-mapper found grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd12). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda,gpt7,bsd4). grub-install: warning: Discarding improperly nested partition (hostdisk//dev/ sda, gpt7, bsd12) Installation finished. No error reported. discover: installer mode detected. Running installer. Starting: discover... done. Please press Enter to activate this console. To check the install status inspect /var/log/onie.log. Try this: tail -f /var/log/onie.log \*\* Installer Mode Enabled \*\* ONIE:/ # ONIE:/ #

5. At the ONIE prompt, to stop the ONIE discovery process, enter the following command:

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

The ONIE discovery stops, as shown:

```
ONIE:/ # onie-discovery-stop
discover: installer mode detected.
Stopping: discover... done.
ONIE:/ #
```

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

ONIE:/ # ifconfig eth0 10.16.133.213/16

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

ONIE:/ # onie-nos-install tftp://<tftp-server-address>/ONIE-FTOS-S6010-9.14.2.10.bin

(i) NOTE: You must copy the ONIE-FTOS-S6010-9.14.2.10.bin file to the /tftpboot folder in the server.

(i) NOTE: After the Dell EMC Networking OS installation completes, the system automatically reboots.

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

```
ONIE:/ # onie-nos-install tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.10.bin
discover: installer mode detected.
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.10.bin
ONIE-FTOS-S6010-9-14 100% |**
                                                               105M 0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.10.bin
Verifying image checksum ... OK.
Preparing image archive from /var/tmp/installer ... Done.
Verifying Product Platform..
                      : S6010-ON
Product Name
Image Platform
                      : FTOS-S6010
Image File
                      : FTOS-S6010-9.14.2.10.bin
Image Compatibility
                      : Verified
Verifying MAC Address...
MAC Address is Configured
Image Platform
                      : FTOS-S6010
Deleting Extra partitions... Done.
Creating New partitions... Done.
Creating Hybrid MBR... Done.
Mouting /dev/sda4,/dev/sda5 and /dev/sda6... mkfs.fat 3.0.26 (2021-05-18)
mkfs.fat 3.0.26 (2021-05-18)
mkfs.fat 3.0.26 (2021-05-18)
mkfs.fat 3.0.26 (2021-05-18)
Done.
Installing GRUB on /dev/sda4...Done.
Copying Images... Done.
ONIE: NOS install successful: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.10.bin
ONIE: Rebooting...
ONIE:/ # discover: installer mode detected.
Stopping: discover...start-stop-daemon: warning: killing process 3045: No such process
done.
Stopping: dropbear ssh daemon... done.
Stopping: telnetd... done.
Stopping: syslogd... done.
Info: Unmounting kernel filesystems
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to [ 353.152000] sd 4:0:0:0: [sda] Synchronizing SCSI cache
   353.553722] reboot: Restarting system
[
Γ
   353.559160] reboot: machine restart
```

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

DellEMC#

# Upgrade the S6010-ON Dell EMC Networking OS Image and Boot Code using 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 S6010-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.
- 2. Upgrade the Dell EMC Networking OS in flash partition A: or B:

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

### EXEC Privilege Mode

show boot system stack-unit [1-6] | all] DellEMC#show boot sys stack-unit all Current system image information in the system: \_\_\_\_\_ Туре Boot Type А В \_\_\_\_\_ \_\_\_\_\_ stack-unit 1 FLASH BOOT 9.14(2.10)[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#

4. Upgrade the S6010-ON Boot Flash and Boot Selector images.

EXEC Privilege Mode

```
upgrade boot [all | bootflash-image | bootselector-image] stack-unit [1-6 | all] [booted
| flash: | ftp: | scp: | tftp: | usbflash:]
```

The Boot Flash and Boot Selector images can be upgraded together by selecting all in the command. If you want to upgrade Boot Flash image or Boot Selector image separately, use the bootflash-image or the bootselector-image options separately. Use the booted option to upgrade the Boot flash and Boot Selector images to the image versions packed with the loaded Dell EMC Networking OS image. You can find the Boot Flash and Boot Selector image versions packed with the loaded Dell EMC Networking OS using the show os-version command in the EXEC PRIVILEGE mode. Dell #upgrade boot all stack-unit 1 booted

DellEMC#show os-version	n			
RELEASE IMAGE INFORMAT	ION :			
Platform S-Series:S6010	Version 9.14(2.10)	Size 72268454	Rele May 18 202	easeTime 1 08:40:03
TARGET IMAGE INFORMATIO	ON :			
Type runtime	Version 9.14(2.10)	Control	Target Processor	checksum passed
BOOT IMAGE INFORMATION	:			
Type boot flash	Version 3.26.2.10	Control	Target Processor	checksum passed

BOOTSEL IMAGE INFORMATION : \_\_\_\_\_ Type Version boot selector 3.26.0.0-4 Target checksum Control Processor passed FPGA IMAGE INFORMATION : \_\_\_\_\_ \_\_\_\_\_ CardFPGA NameVersionstack-unit 1S6010-ON SYSTEM CPLD12stack-unit 1S6010-ON MASTER CPLD12stack-unit 1S6010-ON SLAVE CPLD5 DellEMC# DellEMC#upgrade boot bootflash-image stack-unit 1 tftp: Address or name of remote host []: 10.16.127.35 Destination file name []: FTOS-S6010-9.14.2.10.bin 00:09:22 : Discarded 1 pkts. Expected block num : 51. Received block num: 50 Current Boot information in the system: \_\_\_\_\_ BootFlash Current Version New Version Card \_\_\_\_\_ \_\_\_\_\_ 3.26.2.7 3.26.2.10 Unit.1 Boot Flash 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 upgrade Boot Flash image for stack-unit 1 [yes/no]: yes 111111 Bootflash image upgrade for stack-unit 1 completed successfully. DellEMC# DellEMC#upgrade boot bootselector-image stack-unit 1 tftp: Address or name of remote host []: 10.16.127.35 Destination file name []: FTOS-S6010-9.14.2.10.bin 00:12:07 : Discarded 1 pkts. Expected block num : 51. Received block num: 50 Current Boot information in the system: \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ Card BootSelector Current Version New Version 3.26.0.0-3 3.26.0.0-4 Unit1 Boot Selector \* 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 11111111111111111111 Bootselector image upgrade for stack-unit 1 completed successfully.

5. Change the Primary Boot Parameter of the S6010-ON to the upgraded partition A: or B:

CONFIGURATION Mode

boot system stack-unit 1 primary system: [A: | B: | tftp: | ftp:]

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

write memory

```
DellEMC#write memory
!
May 18 14:36:18: %STKUNIT1-M:CP %FILEMGR-5-FILESAVED: Copied running-config to
startup-config in flash by default
```

DellEMC#

7. Reload the unit.

EXEC Privilege Mode

reload

```
Command : reload
Mode : EXEC PRIVILEGE
DellEMC#reload
Proceed with reload [confirm yes/no]: y
```

8. Verify that the ONIE has been upgraded to the Dell EMC Networking OS version 9.14(2.10).

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(2.10)
Copyright (c) 1999-2021 by Dell EMC Inc. All Rights Reserved.
Build Time: Tue May 18 11:00:02 2021
Build Path: /build/build02/SW/SRC
Dell EMC Networking OS uptime is 1 minute(s)
System image file is "system://A"
System Type: S6010-ON
Control Processor: Intel Rangeley with 3 Gbytes (3181780992 bytes) of memory, core(s)
4.
16G bytes of boot flash memory.
  1 32-port TE/FG (S6010)
 32 Forty GigabitEthernet/IEEE 802.3 interface(s)
DellEMC#
```

9. Verify that the ONIE has been upgraded to the latest Boot Flash and Boot Selector images.

EXEC Privilege Mode

show system stack-unit [1-6]

```
DellEMC#show system stack-unit 1
-- Unit 1 --
Unit Type
                            : Management Unit
Status
                            : online
Next Boot
                            : online
Required Type
                            : S6010-ON - 32-port TE/FG (S6010)
                           : S6010-ON - 32-port TE/FG (S6010)
Current Type
Master priority
                            : 0
                            : 2.0
Hardware Rev
Num Ports
                            : 128
                            : 16 min, 17 sec
Up Time
Dell EMC Networking OS Version : 9.14(2.10)
Jumbo Capable
                           : yes
POE Capable
                            : no
FIPS Mode
                            : disabled
                            : 3.26.2.10
Boot Flash
Boot Selector
                           : 3.26.0.0-4
                           : 3177156608 bytes
: 28C
Memory Size
Temperature
Voltage
                           : ok
```

Part Numbe Vendor Id Date Code Country Co Piece Part PPID Revis Service Ta Expr Svc ( Auto Reboo Burned In No Of MACS	ode t ID sion ag Code ot MAC		NA OYVCK0 DG 30102018 TW TW-0YVCK0-2 X01 N/A 0 disabled 14:18:77:09 3	Rev X01 28298-61J-0 0:d9:80	014		
Power Unit Bay	Supplies y Status	Туре	FanStatus	FanSpeed	InPwr	AvgInPwr	AvgInPwrStartTime
1 1 1 2	absent up AC		absent up	0 14752	0 61	0 54	N/A 05/18/2021-02:42
Fan S Unit Bay	Status TrayStatus	Fan1	Speed				
1 1 1 2 1 3 1 4 1 5	up up up up up	up up up up up	10780 10780 10780 10780 10780 10780				
Speed in H DellEMC#	RPM						

# Upgrading the CPLD

The S6010-ON system with Dell EMC Networking OS Version 9.14(2.10) requires System CPLD revision 12, Master CPLD revision 12, and Slave CPLD revision 5.

### Verify that a CPLD upgrade is required

Use the following command to identify the CPLD version:

DellEMC# show revision		
Stack unit 1 S6010-ON SYSTEM CPLD	:	12
S6010-ON MASTER CPLD	:	12
S6010-ON SLAVE CPLD	:	5

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

Dell#show os-versio	n			
RELEASE IMAGE INFOR	MATION :			
Platform S-Series:S6010	Version 9.14(2.10)	Size 67659844	ReleaseTime May 18 2021 11:26:55	
TARGET IMAGE INFORM	ATION :			
Type runtime	Version 9.14(2.10)	Contro	Target l Processor	checksum passed
BOOT IMAGE INFORMAT	ION :			
Type boot flash	Version 3.26.2.10	Control	Target Processor	checksum passed

```
BOOTSEL IMAGE INFORMATION :
_____
                             _____
        Type Version
.ector 3.26.0.0-4
                                           Target
                                                    checksum
boot selector
      Control Processor passed
FPGA IMAGE INFORMATION :
------
                     _____
                              FPGA Name Version
       Card
CardFPGA Namestack-unit 1S6010-ON SYSTEM CPLDstack-unit 1S6010-ON MASTER CPLDstack-unit 1S6010-ON SLAVE CPLD
                                          12
                                               12
                                               5
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.

(i) NOTE: Ensure that the BIOS version is 3.26.0.0-4. You can verify this version using show system stack-unit 1 command.

To upgrade the CPLD image on S6010-ON, follow these steps.

```
1. Upgrade the CPLD image.
 EXEC Privilege Mode
 upgrade fpga-image stack-unit booted
  DellEMC#upgrade fpga-image stack-unit 1 booted
  Current information for the system:
        ______
                  Device Name Current Version New Version
   Card
                   _____
   Unit.1
            S6010-ON SYSTEM CPLD
                                      12
                                                12
            S6010-ON MASTER CPLD
                                      12
   Unit1
                                                12
   Unit1
              S6010-ON SLAVE CPLD
                                      5
                                                 5
     * 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 Unit 1. Please power cycle to take effect.
  DellEMC#May 18 14:50:41: %S6010-ON:1 %DOWNLOAD-6-FPGA UPGRADE: stack-unit 1 fpga
  upgrade success.
```

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.

(i) NOTE: Do not switch on the system with PSU-REAR LED glowing AMBER.

You can alternatively power cycle the switch using the power-cycle stack-unit <1-6> command as follows:

```
DellEMC#power-cycle stack-unit 1
Proceed with power-cycle? Confirm [yes/no]:yes
```

3. The CPLD version can be verified using show revision command output:

```
EXEC Privilege Mode
```

show revision
DellEMC#show revision
-- Stack unit 1 -S6010-ON SYSTEM CPLD : 12
S6010-ON MASTER CPLD : 12
S6010-ON SLAVE CPLD : 5

## Uninstalling Dell EMC Networking OS from the S6010-ON

To uninstall the Dell EMC Networking OS version 9.14(2.10) from the S6010-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:

```
Press Esc to stop autoboot ... 5
Grub 2.02~beta2 (Dell EMC)
Built by root at ubuntu on Tue_May_18_13:43:07_UTC_2021
S6010 Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10
```

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

```
Grub 2.02~beta2 (Dell EMC)
Built by root at ubuntu on Tue May 18 13:43:07 UTC 2021
S6100-ON Boot Flash Label 3.26.2.10 NetBoot Label 3.26.2.10
                      _____
                                                                  _ _ _ _ +
 |Dell EMC Networking OS
 |Dell EMC-Boot Line Interface
 |DIAG-OS
 LONTE
               _____
                                                       _____+
     Use the ^ and v keys to select which entry is highlighted.
     Press enter to boot the selected OS, 'f' to boot Dell EMC Networking OS, 'b' to
go to
     BLI, 'o' to boot ONIE, 'd' to boot DIAG-OS, 'e' to edit the commands
     before booting or 'c' for a command-line.
```

3. From the menu, choose the **ONIE** option.

**INOTE:** 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:

GNU GRUB version 2.02~beta2+e4a1fe391

```
+-----
| ONIE: Install OS
| ONIE: Rescue
|*ONIE: Uninstall OS
| ONIE: Update ONIE
| ONIE: Embed ONIE
| EDA-DIAG
```

Use the ^ and v keys to select which entry is highlighted. Press enter to boot the selected OS, `e' to edit the commands

4. From this menu, choose the ONIE: Uninstall OS option.

before booting or `c' for a command-line.

**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 Networking OS 9.14(2.10) uninstalls:

ONIE: OS Uninstall Mode ... Version : 3.26.1.0-3 Build Date: 2021-05-18T18:15-0700 1.932688] dummy-irq: no IRQ given. Use irq=N 1.940433] esas2r: driver will not be loaded because no ATTO esas2r devices were Γ found 1.982134] mtdoops: mtd device (mtddev=name/number) must be supplied 3.090944] fmc\_write\_eeprom fake-design-for-testing-f001: fmc\_write\_eeprom: no busid passed, refusing all cards 3.105962] intel rapl: driver does not support CPU family 6 model 77 Γ Info: Mounting kernel filesystems... done. Info: Mounting ONIE-BOOT on /mnt/onie-boot Info: Using bond0 MAC address: 14:18:77:09:72:00 Info: Using eth0 MAC address: 14:18:77:09:72:01 Info: Using eth1 MAC address: 14:18:77:09:72:02 Info: Using gretap0 MAC address: 14:18:77:09:72:03 Info: bond0: Checking link... down. ONIE: bond0: link down. Skipping configuration. Info: eth0: Checking link... up. Info: Trying DHCPv4 on interface: eth0 50.851074] random: nonblocking pool is initialized Warning: Unable to configure interface using DHCPv4: eth0 ONIE: Using default IPv4 addr: eth0: 192.168.3.10/24 ONIE: Using link-local IPv4 addr: eth0: 169.254.214.155/16 Info: eth1: Checking link... down. ONIE: eth1: link down. Skipping configuration. Info: gretap0: Checking link... down. ONIE: gretap0: link down. Skipping configuration. ONIE: Failed to configure bond0 interface ONIE: Failed to configure eth1 interface ONIE: Failed to configure gretap0 interface Starting: dropbear ssh daemon... done. Starting: telnetd... done. discover: Uninstall mode detected. Running uninstaller. 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 (500MB) Percent complete: 100% Erase complete. Deleting partition 5 from /dev/sda Erasing internal mass storage device: /dev/sda6 (500MB) Percent complete: 100% Erase complete. Deleting partition 6 from /dev/sda Erasing internal mass storage device: /dev/sda7 (13085MB) Percent complete: 100% Erase complete. Deleting partition 7 from /dev/sda Installing for i386-pc platform. /proc/devices: No entry for device-mapper found Installation finished. No error reported.

Uninstall complete. Rebooting.. discover: Uninstall mode detected. No discover stopped. Stopping: dropbear ssh daemon... done. Stopping: telnetd... done. Stopping: syslogd... done. Info: Unmounting kernel filesystems The system is going down NOW! Sent SIGTERM to all processes Sent SIGKILL to all processes Requesting system reboot [ 297.008151] sd 4:0:0:0: [sda] Synchronizing SCSI cache 297.409957] reboot: Restarting system 297.415391] reboot: machine restart Γ BIOS (Dell EMC, Inc.) Boot Selector S6010 3.26.0.0-4 32 port 40G QSFP POST Configuration CPU Signature 406D8 CPU FamilyID=6, Model=4D, SteppingId=8, Processor=0 Microcode Revision 125 Platform ID: 0x10041A48 PMG\_CST\_CFG\_CTL: 0x40006
BBL\_CR\_CTL3: 0x7E2801FF Misc EN: 0x840081 Gen PM Con1: 0x203808 Therm Status: 0x884D0000 POST Control=0xEA000303, Status=0xE6009F00 BIOS initializations... CPGC Memtest ..... PASS POST: RTC Battery OK at last cold boot RTC date Tuesday 05/18/2021 15:40:49 POST SPD test ..... PASS POST Lower DRAM Memory test Perf cnt (curr, fixed): 0x1D6E66668,0x3ADCD28C8 POST Lower DRAM Memory test ..... PASS POST Lower DRAM ECC check ..... PASS

5. After the uninstallation completes, the system displays the following ONIE prompt: ONIE:/ #

## **Support Resources**

The following support resources are available for theS6010-ON system.

### **Documentation Resources**

This document contains operational information specific to the S6010–ON system.

For information about using the S6010–ON, refer to the following documents at http://www.dell.com/support:

- Installing the S6010-ON System
- Quick Start Guide
- Dell Networking Command Line Reference Guide for the S6010-ON System

• Dell Networking Configuration Guide for the S6010-ON 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 <a href="http://onie.org">http://onie.org</a>.

### 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 S6010–ON system.

- For information about using the S6010–ON, 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 <a href="https://www.dellemc.com/networking">https://www.dellemc.com/networking</a>.
- 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 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 for sales, technical support, or customer service issues:

Go to www.dell.com/support.

### Notes, cautions, and warnings

(i) 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.

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