

Dell EMC System S6010-ON 9.14(2.9P1) 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(2.9P1)

Release Date: 2021-02-18

Previous Release Version: 9.14(2.9)

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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.

NOTE: Customers can subscribe to caveat update reports or use the BugTrack search tool to read current information about open and closed software caveats. To subscribe or use BugTrack, visit iSupport at: https://www.force10networks.com/CSPortal20/BugTrack/SearchIssues.aspx. All Release Notes are available on the Software Center tab of iSupport. The link to the relevant Release Notes for each software version is next to the link for that version: https://www.force10networks.com/CSPortal20/Software/Downloads.aspx.

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

Document Revision History

Table 1. Revision History

Date	Description
2021-02	9.14.2.9P1 - Added Fixed Issues for the release.
2020–12	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(2.9)
ONIE	3.26.1.0-3

New Dell Networking OS Version 9.14(2.9) 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 9.14.2.9 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):
 - o PIM ECMP
 - Static IGMP join (ip igmp static-group)
 - o 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(2.9): 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	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process.
	S2 — Critical: An issue that renders the system or a major feature unusable, which can have a pervasive impact on the system or network, and for which there is no work-around acceptable to the customer.
	S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer.
	S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.
Synopsis	Synopsis is the title or short description of the issue.
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.
	Issues listed in the "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	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process.
	S2 — Critical: An issue that renders the system or a major feature unusable, which can have a pervasive impact on the system or network, and for which there is no work-around acceptable to the customer.
	S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer.
	S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.
Synopsis	Synopsis is the title or short description of the issue.
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.
	Issues listed in the "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(2.9P1) Software Issues

NOTE: Dell EMC Networking OS 9.14(2.9P1) 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 EMC Networking OS version 9.14(2.9P1):

PR# 169575	
Severity:	Sev 2
Synopsis:	In certain scenarios, port configuration does not take effect and you may see the IFMGR-3-IFA_COMM_FAIL syslog error.
Release Notes:	In certain scenarios, port configuration does not take effect and you may see the IFMGR-3-IFA_COMM_FAIL syslog error.
Workaround:	None
PR# 170018	
Severity:	Sev 1
Synopsis:	Ethernet packet type 0x888e is not handled, leading to a memory leak.

Release Notes: Ethernet packet type 0x888e is not handled, leading to a memory leak.

Workaround: None

PR# 170024

Severity: Sev 2

Synopsis: On a fully scaled switch, with all ports fanned out, some ports fail to

OPER UP after reload.

Release Notes: On a fully scaled switch, with all ports fanned out, some ports fail to

OPER UP after reload.

Workaround: None

PR# 170041

Severity: Sev 2

Synopsis: In certain scenarios, in a VLT environment, the switch may encounter

an exception during VLT failover.

Release Notes: In certain scenarios, in a VLT environment, the switch may encounter

an exception during VLT failover.

Workaround: None

Fixed S6010-ON 9.14(2.9) Software Issues

NOTE: Dell Networking OS 9.14(2.9) 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(2.9):

PR# 169919

Severity: Sev 3

Synopsis: The switch may encounter a software exception due to invalid memory

access on bootup.

Release Notes:The switch may encounter a software exception due to invalid memory

access on bootup.

Workaround: None

PR# 169921

Severity: Sev 2

Synopsis: Static routes are not restored when BFD is disabled at interface level.

Release Notes: Static routes are not restored when BFD is disabled at interface level.

Workaround: None

PR# 169972

Severity: Sev 2

Synopsis: DHCPv6 relay-reply packet drops in the L2 VLAN when DHCPv6

relay is configured in the L3 VLAN.

Release Notes: DHCPv6 relay-reply packet drops in the L2 VLAN when DHCPv6

relay is configured in the L3 VLAN.

Workaround: None

PR# 169984

Severity: Sev 2

Synopsis: The switch may encounter a software exception when running the

show ipv6 ospf database router CLI command.

Release Notes:

The switch may encounter a software exception when running the

show ipv6 ospf database router CLI command.

Workaround: None

Known Issues

Known issues are reported using the following definitions.

Category	Description
PR#	Problem Report number that identifies the issue.
Severity	S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process.
	S2 — Critical: An issue that renders the system or a major feature unusable, which can have a pervasive impact on the system or network, and for which there is no work-around acceptable to the customer.
	S3 — Major: An issue that affects the functionality of a major feature or negatively effects the network for which there exists a work-around that is acceptable to the customer.
	S4 — Minor: A cosmetic issue or an issue in a minor feature with little or no network impact for which there might be a work-around.

Synopsis Synopsis is the title or short description of the issue.

Release Notes Release Notes description contains more detailed information about the issue.

Work around Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might

not be a permanent solution.

Issues listed in the "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(2.9) Software Issues

The latest information related to Open Caveats is available on support site through the BugTrack search tool.

(i) NOTE: You must have a user account to access the BugTrack tool.

To use the search tool:

- 1. Go the Main Customer Support page: https://www.force10networks.com/csportal20/Main/SupportMain.aspx.
- 2. Log in.
- 3. Click the BugTrack link, located in the Quick Links menu directly below the login bar.

This takes you to the BugTrack search page: https://www.force10networks.com/csportal20/BugTrack/SearchIssues.aspx.

4. Enter for a specific PR or select an Dell Networking OS version, platform, severity, or category to get a list of PRs.

- 5. Click the Search button.
- 6. Click the PR number to view specific PR details.

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

The following caveats are open in Dell Networking OS version 9.14(2.9):

None.

Upgrading the ONIE Package for the S6010-ON System

- NOTE: The Dell Networking OS installer package, ONIE-FTOS-SI-ON-9.14.2.9.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_Dec_15_13:43:07_UTC_2020
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:

- 4. From this menu, choose the ${\tt ONIE}$: ${\tt Update}$ ${\tt ONIE}$ 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: 2020-12-15T22:35-0700
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
```

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
ONIE: Machine : s6010_c2538
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
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: 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 (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_Dec_15_13:43:07_UTC_2020
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:

- 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: 2020-12-15T18:15-0700

[ 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 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 c2538-
r0.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.s2OcTQ/onie-support.tar.bz2
INSTALLER DONE...
Removing /tmp/tmp.OITwcP
ONIE: NOS install successful: tftp://10.16.127.35/diag-installer-x86 64-s6010 c2538-
r0.bin
ONIE: Rebooting...
ONIE: / # discover: installer mode detected.
Stopping: discover...start-stop-daemon: warning: killing process 3051: No such process
```

```
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-S6010-9.14.2.9.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(2.9) 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_Dec_15_13:43:07_UTC_2020
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:

```
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: 2020-12-15T18:15-0700
     1.932721] dummy-irq: no IRQ given. Use irq=N
     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...
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, qpt7, 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-S6010-9.14.2.9.bin
```

- (i) NOTE: You must copy the ONIE-FTOS-S6010-9.14.2.9.bin file to the /tftpboot folder in the server.
- 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-S6010-9.14.2.9.bin
discover: installer mode detected.
Stopping: discover... done. Info: Fetching tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.9.bin ...
ONIE-FTOS-S6010-9-14 100% | ****
                                                                      105M 0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.9.bin
Verifying image checksum ... OK.
Preparing image archive from /var/tmp/installer ... Done.
Verifying Product Platform...
Product Name
                         : S6010-ON
Image Platform
                         : FTOS-S6010
Image File
                         : FTOS-S6010-9.14.2.9.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 /\text{dev}/\text{sda4}, /\text{dev}/\text{sda5} and /\text{dev}/\text{sda6}... mkfs.fat 3.0.26 (2020-12-15) mkfs.fat 3.0.26 (2020-12-15)
mkfs.fat 3.0.26 (2020-12-15)
mkfs.fat 3.0.26 (2020-12-15)
Done.
Installing GRUB on /dev/sda4...Done.
```

```
Copying Images... Done.
ONIE: NOS install successful: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.2.9.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
[ 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:

EXEC Privilege Mode

```
upgrade system [flash: | ftp: stack-unit <1-6> | tftp: | scp: | usbflash:] [A: | 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:

Type Boot Type A B

stack-unit 1 FLASH BOOT 9.14(2.9)[boot] 9.14(2.8)

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
RELEASE IMAGE INFORMATION :
                      _____

        Platform
        Version
        Size
        ReleaseTime

        S-Series:S6010
        9.14(2.9)
        72268454
        Dec 15 2020 08:40:03

TARGET IMAGE INFORMATION:
______
     Type Version runtime 9.14(2.9)
                                         Target checksum
                               Control Processor passed
BOOT IMAGE INFORMATION:
______
       Type Version Target checksum flash 3.26.2.10 Control Processor passed
  boot flash
BOOTSEL IMAGE INFORMATION :
______
Type Version 3.26.0.0-4
                                         Target checksum
   Control Processor
                     passed
FPGA IMAGE INFORMATION :
CardFPGA NameVersionstack-unit 1$6010-ON SYSTEM CPLD12stack-unit 1$6010-ON MASTER CPLD12stack-unit 1$6010-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-S6010-9.14.2.9.bin
00:09:22 : Discarded 1 pkts. Expected block num : 51. Received block num: 50
Current Boot information in the system:
_____
 Card
                      BootFlash Current Version New Version
_____
                                   3.26.2.7 3.26.2.10
 Unit1
                      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
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-S6010-9.14.2.9.bin
00:12:07 : Discarded 1 pkts. Expected block num : 51. Received block num: 50
Current Boot information in the system:
______
               BootSelector Current Version New Version
                             3.26.0.0-3
 Unit1
               Boot Selector
                                        3.26.0.0-4
  *****************
  * 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:]
```

6. 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 !
Dec 15 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(2.9).

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(2.9)
Copyright (c) 1999-2020 by Dell EMC Inc. All Rights Reserved.
Build Time: Tue Dec 15 11:00:02 2020
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
                            : online
Status
Next Boot
                            : online
Required Type
                           : S6010-ON - 32-port TE/FG (S6010)
                           : S6010-ON - 32-port TE/FG (S6010)
Current Type
Master priority
                            : 2.0
Hardware Rev
Num Ports
                            : 128
Up Time
                            : 16 min, 17 sec
Dell EMC Networking OS Version: 9.14(2.9)
Jumbo Capable : yes
                            : no
POE Capable
FIPS Mode
                            : disabled
Boot Flash
                           : 3.26.2.10
                           : 3.26.0.0-4
Boot Selector
Memory Size
                            : 3177156608 bytes
                            : 28C
Temperature
Voltage
                            : ok
Serial Number
                            : NA
                           : 0YVCK0
Part Number
                                        Rev X01
Vendor Id
                           : DG
                           : 30102018
: TW
Date Code
Country Code
Piece Part ID
                           : TW-0YVCK0-28298-61J-0014
                           : X01
PPID Revision
Service Tag
                            : N/A
Expr Svc Code
                            : 0
                           : disabled
Auto Reboot
                           : 14:18:77:09:d9:80
: 3
Burned In MAC
No Of MACs
-- Power Supplies --
Unit Bay Status Type FanStatus FanSpeed InPwr AvgInPwr AvgInPwrStartTime

1 1 absent absent 0 0 0 N/A
1 2 up AC up 14752 61 54 12/15/2020-02:42
-- Fan Status --
Unit Bay TrayStatus Fan1 Speed
                                         _____
1 1 up up 10780
1 2 up up 10780
1 3 up up 10780
1 4 up up 10780
1 5 up up 10780
Speed in RPM
DellEMC#
```

Upgrading the CPLD

The S6010-ON system with Dell EMC Networking OS Version 9.14(2.9) 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-version
RELEASE IMAGE INFORMATION :

        Platform
        Version
        Size
        ReleaseTime

        S-Series:S6010
        9.14(2.9)
        67659844
        Dec 15 2020 11:26:55

TARGET IMAGE INFORMATION :
        Type Version Target checksum runtime 9.14(2.9) Control Processor passed
BOOT IMAGE INFORMATION :
      Type Version 3.26.2.10
                                                    Target checksum
Control Processor passed
     boot flash
BOOTSEL IMAGE INFORMATION :
 Type Version boot selector 3.26.0.0-4
                                                             Target checksum
         Control Processor passed
FPGA IMAGE INFORMATION:
 Card FPGA Name Version stack-unit 1 S6010-ON SYSTEM CPLD 12 stack-unit 1 S6010-ON MASTER CPLD 12 stack-unit 1 S6010-ON SLAVE CPLD 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
Unit1
Unit1
           S6010-ON SLAVE CPLD
                                   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!!!
111111111111111111111111111111
Upgrade result :
Unit 1 FPGA upgrade successful Unit 1. Please power cycle to take effect.
DellEMC#Dec 15 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.
 - 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
```

 ${\bf 3.}\,$ 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(2.9) 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_Dec_15_13:43:07_UTC_2020
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:

- 4. From this menu, choose the ONIE: Uninstall 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 uninstall process begins. Following is the log generated by the system while Dell Networking OS 9.14(2.9) uninstalls:

```
ONIE: OS Uninstall Mode ...

Version : 3.26.1.0-3

Build Date: 2020-12-15T18:15-0700

[ 1.932688] dummy-irq: no IRQ given. Use irq=N

[ 1.940433] esas2r: driver will not be loaded because no ATTO esas2r devices were 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

Info: Mounting kernel filesystems... done.

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 /proc/devices: No entry for device-mapper found
/proc/devices: No entry for device-mapper found
/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
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
```

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

ONIE:/ #

Support Resources

The following support resources are available for the S6010-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 http://onie.org.

Issues

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

NOTE: You can subscribe to issue update reports or use the BugTrack search tool to read current information about open and closed issues. To subscribe or use BugTrack, visit Dell Support at: https://www.force10networks.com/CSPortal20/BugTrack/SearchIssues.aspx.

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 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 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.