Rev. A00
September 2021

Dell EMC S6010–ON System Release Notes, OS Version 9.14(1.10)

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(1.10)
Release Date: 2021-09-30
Previous Release Version: 9.14(1.9P4)

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

Document Revision History

Table 1. Revision History

Date	Description
2021-09	Initial release.

Supported Hardware

The following hardware is supported with this platform:

Hardware
S6010-ON chassis
Thirty-two QSFP+ ports (40 Gbps)

Hardware
Two AC/DC PSUs
Five fan subsystems

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 Re
Dell EMC Networking OS	9.14(1.10)
ONIE	3.26.1.0-3

New Dell EMC Networking OS Version 9.14(1.10) Features

The following features have been added to the S6010–ON with Dell EMC Networking OS version 9.14(1.10):

None

Restrictions

- If you downgrade the Dell EMC Networking OS version from 9.14(1.10) to 9.11(0.0) or any older version, 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
  ```

- In a VXLAN scenario, hybrid port is not supported.
- 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.
- 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.
- Do not configure the `vxlan-instance` command on the port, which is configured with the `portmode hybrid` command. Do not configure the vxlan-instance enabled port as a member of VLAN, which does not have VXLAN-VNI configuration.
- REST API does not support AAA authentication.
- 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.

- You can use non-Dell qualified cables, adapters, and optics in a S6010-ON switch, but Dell EMC Networking does not guarantee their performance as the S6010-ON does not support non-Dell qualified 40G transceivers. If you insert a non-Dell qualified 40G transceiver into a S6010-ON 40GbE port, the switch places the interface in an error-disabled (operationally down) state and generates a syslog message, such as: `%S6010LC0640:8 %IFAGT-2-TRANSCEIVER_UNSUPPORTED_ERROR: Transceiver in slot 1 port 49 unrecognized, putting interface in operational-down state.`

  To verify the error-disabled status of an interface, enter any of the following show commands.

```
DellEMC# show inventory media
Slot   Port   Type        Media          Serial Number   DellQualified
-------------------------------------------------------------------
   1     49   UNKNOWN     UNKNOWN          USC1D6J           No**
   1     50   QSFP        40GBASE-LR4      UQ90C7B           No**
   1     51   QSFP        40GBASE-SR4      7503835V009Y      Yes
   1     52   QSFP        40GBASE-CR4      10190002          No
   1     53   QSFP        40GBASE-SR4      FE2429470007      Yes
   1     54            Media not present or accessible
** Interface is down(error disabled) as transceiver is not DellQualified

DellEMC# show interfaces fortyGigE 1/49
fortyGigE 1/49 is up, line protocol is down(error-disabled[Transceiver Unsupported])
...
```

- The following features are not available in the Dell EMC Networking OS from version 9.7(0.0):
  - PIM ECMP
  - Static IGMP join (`ip igmp static-group`)
  - IGMP querier timeout configuration (`ip igmp querier-timeout`)
  - IGMP group join limit (`ip igmp group join-limit`)
- You can use the `negotiation auto` command to turn auto-negotiation on or off only on fiber interfaces operating at 1G speed.
- When 1024 or more VNI profiles are configured, the system takes more time to load. Dell EMC recommends to restrict the VNI profiles to be less than 1000.
- If you use the `interface range` command to select multiple interfaces that are added to the management VRF, the `ipv6 address` command does not display the `autoconfig` option. You can configure the `autoconfig` command on individual interfaces.
- If you use the `interface range` command to select multiple interfaces that are added to the management VRF, the `ipv6 nd` command displays the following options but they do not take effect if you use them:
  - dns-server
  - hop-limit
  - managed-config-flag
  - max-ra-interval
  - mtu
  - other-config-flag
  - prefix
  - ra-guard
  - ra-lifetime
  - reachable-time
  - retrans-timer
  - suppress-ra

Changes to Default Behavior and CLI Syntax

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

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

Documentation Corrections

None

Deferred Issues

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

Deferred issues are reported using the following definitions.

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

Deferred S6010–ON 9.14(1.0) Software Issues

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.

Category	Description
Work around	Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution. The work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.

Fixed S6010–ON 9.14(1.10) Software Issues

NOTE: Dell EMC Networking OS 9.14(1.10) includes fixes for issues addressed in previous 9.14 releases. Refer to the respective release notes documentation for the list of issues fixed in earlier 9.14 releases.

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

PR#170115

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

PR#170159

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

PR#170161

Severity:	Sev 2
Synopsis:	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
Release Notes:	SSH connections may be vulnerable with switches running on a 1024 bit RSA key.
Workaround:	Create a new 2048 bit RSA key using the `crypto key generate rsa` command.

PR#170206

Severity:	Sev 2
Synopsis:	Addressed OpenSSL CVE's: CVE-2021-3711 and CVE-2021-3712.
Release Notes:	The following CVEs have been addressed: • CVE-2021-3711

	• CVE-2021-3712 The CVE database can be accessed here: https://cve.mitre.org/cve/search_cve_list.html.
Workaround:	None
PR#170211	
Severity:	Sev 2
Synopsis:	When a switch with scaled VLANs is reloaded, traffic drop may occur due to a delay in VLAN programming.
Release Notes:	When a switch with scaled VLANs is reloaded, traffic drop may occur due to a delay in VLAN programming.
Workaround:	None

Known Issues

Known issues are reported using the following definitions.

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

Known S6010–ON 9.14(1.10) Software Issues

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

PR#169841	
Severity:	Sev 2
Synopsis:	In certain scenarios, an MSDP learnt PIM TIB entry stays in `registering` state indefinitely.
Release Notes:	In certain scenarios, an MSDP learnt PIM TIB entry stays in `registering` state indefinitely.

Workaround:	Set the affected node as a non-designated router in the RPF neighbor interface.

Upgrading the ONIE Package for the S6010-ON System

To upgrade the ONIE 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 (*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 Fri_Sep_24_07:13:20_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 Fri_Sep_24_07:13:20_UTC_2021

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

 Use the ^ and v keys to select which entry is highlighted.
 Press enter to boot the selected OS, 'f' to boot FTOS, '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.

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

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: 2021-09-24T22:35-0700
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:/ #
```

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-updater-x86_64- 100% |*******************************| 16881k  0:00:00 ETA
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
 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: 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 Fri_Sep_24_07:13:20_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 Fri_Sep_24_14:08:18_UTC_2021
 S6010-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                                                                        |
 |ONIE                                                                           |
 +------------------------------------------------------------------------------+
      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.

   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: 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
 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:

```
GRUB loading.
Version   : 3.26.2.10
Build Date: 2021-09-24T18:15-0700
[    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 2538-r0.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
 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-S6010-9.14.1.10.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(1.10) 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 Fri_Sep_24_07:13:20_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 Fri_Sep_24_14:08:18_UTC_2021
 S6010-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                                                                      |
 |ONIE                                                                         |
 +----------------------------------------------------------------------------+
      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.

   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: 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
 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: 2021-09-24T18:15-0700
[    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...

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-S6010-9.14.1.10.bin
```

NOTE: You must copy the `ONIE-FTOS-S6010-9.14.1.10.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-S6010-9.14.1.10.bin
discover: installer mode detected.
Stopping: discover... done.
Info: Fetching tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.1.10.bin ...
ONIE-FTOS-S6010-9-14 100% |*******************************|   105M  0:00:00 ETA
ONIE: Executing installer: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.1.10.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-S6010-9.14.1.10.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 (2021-09-24)
mkfs.fat 3.0.26 (2021-09-24)
mkfs.fat 3.0.26 (2021-09-24)
mkfs.fat 3.0.26 (2021-09-24)
Done.
Installing GRUB on /dev/sda4...Done.
Copying Images... Done.
ONIE: NOS install successful: tftp://10.16.127.35/ONIE-FTOS-S6010-9.14.1.10.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
[  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:

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

   EXEC Privilege

```
DellEMC#upgrade system tftp: A:
Address or name of remote host []: 10.16.127.35
Source file name []: FTOS-S6010-9.14.1.10.bin
00:04:44 : Discarded 1 pkts. Expected block num : 51. Received block num: 50
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!...........
.......................................................................................
.......................................................................................
..................................!
72268454 bytes successfully copied
System image upgrade completed successfully.
DellEMC#Sep 24 14:23:49: %STKUNIT1-M:CP %DOWNLOAD-6-UPGRADE: Upgrade completed
successfully
```

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

   `show boot system stack-unit [1-6] | all]`

   EXEC Privilege

```
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(1.10)[boot]         9.14(1.9P4)
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

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

   EXEC Privilege

   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.
`DellEMC#upgrade boot all stack-unit 1 booted`

```
DellEMC#show os-version

RELEASE IMAGE INFORMATION :
---------------------------------------------------------------------
      Platform          Version       Size            ReleaseTime
 S-Series:S6010      9.14(1.10)    72268454     Sep 24 2021 08:40:03

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

BOOT IMAGE INFORMATION :
---------------------------------------------------------------------
          Type          Version                     Target    checksum
    boot flash         3.26.2.10        Control Processor      passed

BOOTSEL IMAGE INFORMATION :
---------------------------------------------------------------------
          Type          Version                     Target    checksum
 boot selector          3.26.0.0-4
     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#

DellEMC#upgrade boot bootflash-image stack-unit 1 tftp:
Address or name of remote host []: 10.16.127.35
Destination file name []: FTOS-S6010-9.14.1.10.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
------------------------------------------------------------------------
  Unit1                   Boot Flash           3.26.2.7      3.26.2.10

    ***********************************************************************
    *  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-S6010-9.14.1.10.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
------------------------------------------------------------------------
  Unit1                Boot Selector        3.26.0.0-3       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

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
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:

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

   CONFIGURATION

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

   `write [memory]`

   EXEC PRIVILEGE

```
DellEMC#write memory
!
Sep 24 14:36:18: %STKUNIT1-M:CP %FILEMGR-5-FILESAVED: Copied running-config to
startup-config in flash by default

DellEMC#
```

7. Reload the unit

   `reload`

   EXEC PRIVILEGE

```
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(1.10).

   `show version`

   EXEC PRIVILEGE

```
DellEMC#show version
Dell EMC Real Time Operating System Software
Dell EMC Operating System Version:  2.0
Dell EMC Application Software Version:  9.14(1.10)
Copyright (c) 1999-2021 by Dell EMC Inc. All Rights Reserved.
Build Time: Fri Sep 24 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

   `show system stack-unit [1-6]`

EXEC PRIVILEGE

```
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)
Current Type               : S6010-ON - 32-port TE/FG (S6010)
Master priority            : 0
Hardware Rev               : 2.0
Num Ports                  : 128
Up Time                    : 16 min, 17 sec
Dell EMC Networking OS Version : 9.14(1.10)
Jumbo Capable              : yes
POE Capable                : no
FIPS Mode                  : disabled
Boot Flash                 : 3.26.2.10
Boot Selector              : 3.26.0.0-4
Memory Size                : 3177156608 bytes
Temperature                : 28C
Voltage                    : ok
Serial Number              : NA
Part Number                : 0YVCK0     Rev X01
Vendor Id                  : DG
Date Code                  : 24092021
Country Code               : TW
Piece Part ID              : TW-0YVCK0-28298-61J-0014
PPID Revision              : X01
Service Tag                : N/A
Expr Svc Code              : 0
Auto Reboot                : disabled
Burned In MAC              : 14:18:77:09:d9:80
No Of MACs                 : 3

--  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    09/24/2021-02:42

--  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(1.10) 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 CPLD version that is associated with the Dell EMC Networking OS image:

```
DellEMC#show os-version

RELEASE IMAGE INFORMATION :
------------------------------------------------------------------------
      Platform          Version        Size           ReleaseTime
 S-Series:S6010      9.14(1.10)    67659844      Sep 24 2021 11:26:55

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

BOOT IMAGE INFORMATION :
------------------------------------------------------------------------
          Type          Version                    Target    checksum
    boot flash         3.26.2.10        Control Processor      passed

BOOTSEL IMAGE INFORMATION :
------------------------------------------------------------------------
          Type          Version                    Target    checksum
 boot selector          3.26.0.0-4
       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.

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.

   `upgrade fpga-image stack-unit booted`

   EXEC Privilege

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

Current information for the system:
=========================================================================
  Card                    Device Name    Current Version     New Version
-------------------------------------------------------------------------
 Unit1           S6010-ON SYSTEM CPLD                12              12
 Unit1           S6010-ON MASTER CPLD                12              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#Sep 24 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
```

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

   `show revision`

   EXEC PRIVILEGE

```
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 on the S6010-ON

To uninstall the Dell EMC Networking OS version 9.14(1.10) 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 Inc)
 Built by root at ubuntu on Fri_Sep_24_07:13:20_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 Fri_Sep_24_14:08:18_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                                                                           |
 |ONIE                                                                              |
 +----------------------------------------------------------------------------+
      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.

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

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 EMC Networking OS 9.14(1.10) uninstalls:

```
ONIE: OS Uninstall Mode ...
Version   : 3.26.1.0-3
Build Date: 2021-09-24T18:15-0700
[    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: 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
/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
  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 Friday 09/24/2021 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 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.

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

Go to www.dell.com/support.

Notes, cautions, and warnings

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

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

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