DELLTechnologies

Dell S6000–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 Networking OS software and the S6000-ON platform.
Current Release Version: 9.14(1.10)
Release Date: 2021-09-30
Previous Release Version: 9.14(1.9P4)

Topics:

For more information on hardware and software features, commands, and capabilities, refer to the Dell 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
S6000-ON chassis
Thirty-two QSFP+ ports (40 Gbps)

Hardware
Two AC/DC PSUs
Three fan subsystems

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

Supported Software

The following software is supported with this platform:

Software	Minimum Release Requirement
Dell Networking OS	9.14(1.10)
BigSwitch	4.0.0
Cumulus: S6000-ON (S6000 with ONIE)	Cumulus Linux 2.1
ONIE	v3.20.1.3

New Dell Networking OS version 9.14(1.10) Features

The following features have been added to the S6000-ON with Dell 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.

- 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.

- The following features are not available in the Dell 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
- You cannot use the established keyword in an ACL rule, along with the other control flags.
- While using the established keyword in an ACL rule, all the other TCP control flags are masked, to avoid redundant TCP control flags configuration in a single rule. When you use any TCP control flag in an ACL rule, established is masked and other control flags are available.

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.

Installing Dell Networking OS on the S6000-ON using ONIE

(i) **NOTE:** The Dell Networking OS installer package, ONIE-FTOS-SI-ON-9.14.1.10.bin, is required for installing Dell Networking OS on S6000-ON that has only ONIE.

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

1. Zero touch (dynamic): Copy the update ONIE installer and the DIAG installer for your system to the TFTP/ HTTP server.Configure the DHCP options using the ONIE specifications shown at the following link: http:// opencomputeproject.github.io/onie/docs/design-spec/updater.html

   S6000-ON image >>>> onie-updater-x86_64-dell_s6000_s1220-r0

2. Manual: Copy the image onto the TFTP/HTTP servers and boot ONIE. Update the ONIE using the onie-self-update command, then download and run an ONIE updater image.The supported URL types are: HTTP, FTP, TFTP, and FILE.

   S6000-ON image >>>> onie-updater-x86_64-dell_s6000_s1220-r0

3. UPGRADING ONIE ON AN EXISTING S6000—ON SYSTEM.The following example uses TFTP to upgrade ONIE.

```
ONIE:/ # onie-self-update tftp:tftp server IP address/ONIE installer image path
ONIE:/ # onie-self-update tftp://10.11.227.233/onie-updater-x86_64-dell_s6000_s1220-r0
Info: Fetching tftp://10.11.227.233/onie-updater-x86_64-dell_s6000_s1220-r0 ...
onie-updater-x86_64- 100% |*****************************| 8541k 0:00:00
ETA
ONIE: Executing installer: tftp://10.11.227.233/onie-updater-x86_64-dell_s6000_s1220-
r0
...
```

```
...
Reboot.
```

The following example uses HTTP to upgrade ONIE.

```
ONIE:/ # onie-nos-install http:http server IP address/ONIE installer image path
ONIE:/ # onie-nos-install http://10.11.227.233/dell/onie/S6000-ON/image-drop-07022014/
diag-in[Jstaller-x86_64-dell_s6000_s1220-r0.bin
************* Fri Sep 24 14:53:08 PDT 2021 **************

Stopping: discover... done.
Info: Fetching http://10.11.227.223/dell/onie/S6000-ON/image-drop-07022014/diag-
installer-x86_64-dell_s6000_s1220-r0.bin ...
Connecting to 10.11.227.233 (10.11.56.31:80)
installer 33% |********* | 1730k 0:00:01
ETAinstaller 100% |*****************************| 5091k
0:00:00 ETA
ONIE: Executing installer: http://10.11.227.233/dell/onie/S6000-ON/image-
drop-07022014/diag-installer-x86_64-dell_s6000_s1220-r0.bin
Ignoring Verifying image checksum ... OK.
Preparing image archive ...sed -e '1,/^exit_marker$/d' /installer | tar xf - OK.
Diag Installer: platform: x86_64-dell_s6000_s1220-r0
Total Partitions are 2
false
Creating new diag partition /dev/sda3 ...
Warning: The kernel is still using the old partition table.
The new table will be used at the next reboot.
The operation has completed successfully.


The system is going down NOW!.
Sent SIGTERM to all processes
Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
```

4. Upgrade the DIAG installer package.

```
ONIE:/ # onie-nos-install tftp or http:IP address and path
014/diag-in[Jstaller-x86_64-dell_s6000_s1220-r0.bin
************* Fri Sep 24 14:53:08 PDT 2021- **************
Stopping: discover... done.
Info: Fetching http://10.11.56.31/dell/onie/S6000-ON/image-drop-07022014/diag-
installer-x86_64-dell_s6000_s1220-r0.bin ...
Connecting to 10.11.56.31 (10.11.56.31:80)
installer 33% |********* | 1730k 0:00:01
ETAinstaller 100% |*****************************| 5091k
0:00:00 ETA
ONIE: Executing installer: http://10.11.56.31/dell/onie/S6000-ON/image-drop-07022014/
diag-installer-x86_64-dell_s6000_s1220-r0.bin
Ignoring Verifying image checksum ... OK.
Preparing image archive ...sed -e '1,/^exit_marker$/d' /installer | tar xf - OK.
Diag Installer: platform: x86_64-dell_s6000_s1220-r0
Total Partitions are 2
false
Creating new diag partition /dev/sda3 ...
Warning: The kernel is still using the old partition table.
The new table will be used at the next reboot.
The operation has completed successfully.
.
.
.
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
```

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

```
ONIE:/ # flashrom -E -p internal
```

```
flashrom v0.9.14-r1711 on Linux 3.2.35-onie+ (x86_64)
flashrom is free software, get the source code at http://www.flashrom.org

Calibrating delay loop... OK.
Found chipset "Intel CentertonLPC". Enabling flash write... OK.
Found Macronix flash chip "MX25L12805(D)" (16384 kB, SPI) at physical address
0xff000000.
Erasing and writing flash chip... Erase/write done.
ONIE:/ #

ONIE:/ # flashrom -w /tmp/diag/S6000-ON-BIOS-3.20.0.3.bin -p internal

flashrom v0.9.14-r1711 on Linux 3.2.35-onie+ (x86_64)
flashrom is free software, get the source code at http://www.flashrom.org

Calibrating delay loop... OK.
Found chipset "Intel CentertonLPC". Enabling flash write... OK.
Found Macronix flash chip "MX25L12805(D)" (16384 kB, SPI) at physical address
0xff000000.
Reading old flash chip contents... done.
Erasing and writing flash chip... Erase/write done.
Verifying flash... VERIFIED.
ONIE:/ #
.
.
auto reboot
```

S6000–ON Upgrade Procedures: Overview

To upgrade the Dell Networking OS to the latest version, complete these steps:

- Upgrading the S6000–ON Dell Networking OS Image and Boot Code
- Upgrading the CPLD
- VLT Upgrade Procedure

Upgrade the S6000-ON Dell Networking OS Image and Boot Code using Dell Networking OS CLI

Bare Metal Provisioning

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

ⓘ **NOTE:** You cannot directly upgrade from an OS version earlier than 9.11(0.0) to 9.14(1.10) due to space constraints in the boot partition. To do so, upgrade to 9.11(0.0) first.

Manual Upgrade Procedure

Follow these steps carefully to upgrade your S6000-ON systems:

1. Dell 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 Networking OS in flash partition A: or B:

    ```
    upgrade system [flash: | ftp: | stack-unit <1-6 | all> | 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 []: S6K_on
    02:08:59 : Discarded 1 pkts. Expected block num : 51. Received block num: 50
    !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!..
    ..................................................................................................
    ```

```
...........................................................................
.......................................................!
63287484 bytes successfully copied
System image upgrade completed successfully.
DellEMC#Sep 24 14:21:21: %STKUNIT1-M:CP %DOWNLOAD-6-UPGRADE: Upgrade completed
successfully
```

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

   `upgrade system stack-unit [0-11 | all] [A: | B:]`

   EXEC Privilege

   If A: is specified in the command, the Dell Networking OS version present in Management unit's A: partition will be pushed to the stack units. If B: is specified in the command, the Management unit's B: will be pushed to the stack units. Upgrade of stack units can be done on individual units by specifying the unit id [1-6] or on all units by using all in the command.

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

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

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

   EXEC Privilege

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

Current system image information in the system:
===============================================================
Type            Boot Type       A                         B
---------------------------------------------------------------
stack-unit 1  FLASH BOOT      9.14(1.10)[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#
```

5. Upgrade the S6000-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

   Dell Networking OS version 9.14(1.10) requires S6000-ON Boot Flash image version 3.20.2.5 and Boot Selector image version 3.20.0.3. The Boot Flash and Boot Selector images can be upgraded together by selecting all in the command. If the user wants to upgrade Boot Flash image or Boot Selector image separately, the options bootflash-image or bootselector-image needs to be given separately in the command. The booted option is used to upgrade the Boot flash and Boot Selector images to the image versions packed with the loaded Dell Networking OS image. The Boot Flash and Boot Selector image versions packed with the loaded Dell Networking OS can be found using the `show os-version` command in EXEC PRIVILEGE mode. `Dell# upgrade boot all stack-unit 1 booted`

```
DellEMC# show os-version
RELEASE IMAGE INFORMATION :
---------------------------------------------------------------------
     Platform          Version        Size           ReleaseTime
 S-Series:SI-ON        9.14(1.10)    63304169      Sep 24 2021 09:47:31


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

BOOT IMAGE INFORMATION :
---------------------------------------------------------------------
        Type          Version                     Target      checksum
   boot flash         3.20.2.5            Control Processor    passed
```

```
BOOTSEL IMAGE INFORMATION :
-------------------------------------------------------------------------
         Type            Version                      Target      checksum
 boot selector           3.20.0.3           Control Processor      passed

FPGA IMAGE INFORMATION :
-------------------------------------------------------------------------
         Card                        FPGA Name      Version
 stack-unit 1            S6000-ON SYSTEM CPLD           10
 stack-unit 1            S6000-ON MASTER CPLD           12
 stack-unit 1             S6000-ON SLAVE CPLD           10
Dell#

Dell#upgrade boot bootflash-image stack-unit 1 ftp:
Address or name of remote host []: 10.16.127.35
Destination file name []: FTOS-SI-ON-9.14.1.10.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Current Boot information in the system:
=========================================================================
  Card                   BootFlash     Current Version     New Version
-------------------------------------------------------------------------
  Unit1                  Boot Flash        3.20.2.5          3.20.2.5

    ***********************************************************************
    *  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 ftp:
Address or name of remote host []: 10.16.127.35
Destination file name []: FTOS-SI-ON-9.14.1.10.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Current Boot information in the system:
=========================================================================
  Card                   BootSelector   Current Version    New Version
-------------------------------------------------------------------------
    Unit1                Boot Selector        3.20.0.3       3.20.0.3

    ***********************************************************************
    *  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.
```

6. Change the Primary Boot Parameter of the S6000-ON to the upgraded partition A: or B:

   `boot system stack-unit [1-6 | all] primary system: [A: | B: | tftp: | ftp:]`

   CONFIGURATION

7. 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 18:58:59: %STKUNIT1-M:CP %FILEMGR-5-FILESAVED: Copied running-config to
startup-config in flash by default


DellEMC#
```

8. Reload the unit

   reload

   EXEC PRIVILEGE

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

9. Verify that the ONIE has been upgraded to the Dell Networking OS version 9.14(1.10)

   show version

   EXEC PRIVILEGE

```
DellEMC#show version
Dell Real Time Operating System Software
Dell Operating System Version: 2.0
Dell Application Software Version: 9.14(1.10)
Copyright (c) 1999-2021 by Dell Inc. All Rights Reserved.
Build Time: Fri Sep 24 09:28:18 2021
Build Path: /build/build03/SW/SRC
Dell Networking OS uptime is 1 minute(s)

System image file is "system://B"

System Type: S6000-ON
Control Processor: Intel Centerton with 3 Gbytes (3203911680 bytes) of memory,
core(s) 2.

16G bytes of boot flash memory.

  1 32-port TE/FG (SI-ON)
 32 Forty GigabitEthernet/IEEE 802.3 interface(s)
DellEMC#
```

10. Verify that the S6000–ON 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             : S6000-ON - 32-port TE/FG (SI-ON)
Current Type              : S6000-ON - 32-port TE/FG (SI-ON)
Master priority           : 14
Hardware Rev              : 4.0
Num Ports                 : 128
Up Time                   : 1 min, 2 sec
Dell Networking OS Version : 9.14(1.10)
Jumbo Capable             : yes
POE Capable               : no
FIPS Mode                 : disabled
Boot Flash                : 3.20.2.5
Boot Selector             : 3.20.0.3
Memory Size               : 3203911680 bytes
Temperature               : 33C
Voltage                   : ok
```

```
Serial Number            : NA
Part Number              :              Rev
Vendor Id                : DL
Date Code                : 24092021
Country Code             : CN
Piece Part ID            : CN-08YWFG-28298-3AG-0009
PPID Revision            : N/A
Service Tag              : N/A
Expr Svc Code            : 0
Auto Reboot              : enabled
Burned In MAC            : 1a:ba:2a:b8:2d:9d
No Of MACs               : 3

--  Power Supplies  --
Unit   Bay   Status        Type    FanStatus   FanSpeed(rpm)
------------------------------------------------------------
  2     1    up            AC      up          6720
  2     2    down          UNKNOWN down        0

--  Fan  Status  --
Unit Bay   TrayStatus Fan1    Speed   Fan2    Speed
----------------------------------------------------
  2   1     up         up      7021    up      6922
  2   2     up         up      6971    up      7072
  2   3     up         up      7021    up      6971

Speed in RPM
DellEMC#
```

Upgrading the CPLD

The S6000-ON system with Dell Networking OS Version 9.14(1.10) requires System CPLD revision 10, Master CPLD revision 12, and Slave CPLD revision 10.

(i) **NOTE:** For the Port LEDs to work properly with the Dell Networking OS version 9.9(0.0P5), downgrade the CPLD version to 12.

Verify that a CPLD upgrade is required

Use the following command to identify the CPLD version:

```
Dell#show revision

--  Stack unit 1  --
S6000-ON SYSTEM CPLD    : 10

S6000-ON MASTER CPLD    : 12

S6000-ON SLAVE CPLD     : 10
Dell#
```

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

```
Dell# show os-version

RELEASE IMAGE INFORMATION :
---------------------------------------------------------------------
     Platform          Version        Size          ReleaseTime
 S-Series:SI-ON      9.14(1.10)    63304169     Sep 24 2021 09:47:31


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

BOOT IMAGE INFORMATION :
```

```
-----------------------------------------------------------------------
         Type            Version                      Target      checksum
   boot flash            3.20.2.5          Control Processor       passed

BOOTSEL IMAGE INFORMATION :
-----------------------------------------------------------------------
         Type            Version                      Target      checksum
 boot selector           3.20.0.3          Control Processor       passed

FPGA IMAGE INFORMATION :
-----------------------------------------------------------------------
          Card                        FPGA Name      Version
 stack-unit 1              S6000-ON SYSTEM CPLD          10
 stack-unit 1              S6000-ON MASTER CPLD          12
 stack-unit 1               S6000-ON SLAVE CPLD          10
Dell#
```

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 3.20.0.3 or above. You can verify this version using `show system stack-unit 1` command.

To upgrade the CPLD image on S6000-ON, follow these steps.

1. Upgrade the CPLD image.

   `upgrade fpga-image stack-unit [1-6] booted.`

   EXEC Privilege

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

   Current information for the system:
   ========================================================================
     Card                    Device Name     Current Version      New Version
   ------------------------------------------------------------------------
    Unit1          S6000-ON SYSTEM CPLD                10               10
    Unit1          S6000-ON MASTER CPLD                12               12
    Unit1           S6000-ON SLAVE CPLD                10               10

       ******************************************************************
       *  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]:
   ```

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.

3. Switch on the system and wait for the Dell prompt. The CPLD version can be verified using show revision command output :

   `show revision`

   EXEC PRIVILEGE

   ```
   Dell#show revision

   --  Stack unit 1  --
   S6000-ON SYSTEM CPLD     : 10

   S6000-ON MASTER CPLD     : 12
   ```

```
S6000-ON SLAVE CPLD      : 10
Dell#
```

ⓘ **NOTE:** Do not use `power-cycle stack-unit` command to power cycle the system and do not power off the system while FPGA upgrade is in progress. For any queries, contact technical support.

Uninstalling Dell Networking OS on the S6000-ON

To uninstall the Dell Networking OS version 9.14(1.10) from the S6000-ON device, perform the following steps:

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

```
Version 2.15.1236. Copyright (C) 2020 American Megatrends, Inc.
BIOS Date: 09/24/2021 16:30:33 Ver: 0ACAH015
Press DEL or F2 to enter setup.
 Grub 1.99~rc1 (Dell Inc)
 Built by root at ubuntu on Fri_Sep_24_12:07:29_UTC_2021
 S6000ON Boot Flash Label 3.20.2.5 NetBoot Label 3.20.2.5
Press Esc to stop autoboot ... 5
```

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

```
+------------------------------------------------------------------------+
 | FTOS
 | FTOS-Boot Line Interface
 | ONIE
+------------------------------------------------------------------------+
```

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

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

   The following menu appears:

```
+----------------------------------------------------------------+
 | ONIE: Install OS                                               |
 | ONIE: Rescue                                                   |
 |*ONIE: Uninstall OS                                             |
 | ONIE: Update ONIE                                              |
 | ONIE: Embed ONIE                                               |
 | ONIE: Diag                                                             |
 | PLATFORM-DIAG x86_64-dell_s6000_s1220-r0               |
+----------------------------------------------------------------+
```

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(1.10) uninstalls:

```
ONIE: OS Uninstall Mode ...
Version   : feature/workspace-201409041619-dirty
Build Date: 2021-09-24T16:22-0700
Info: Mounting kernel filesystems... done.
Info: Mounting LABEL=ONIE-BOOT on /mnt/onie-boot ...
Info: Using eth0 MAC address: 90:b1:1c:f4:a2:4d
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
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 (300MB)
  Percent complete: 100%
Erase complete.
Deleting partition 5 from /dev/sda
Erasing internal mass storage device: /dev/sda6 (300MB)
  Percent complete: 100%
Erase complete.
Deleting partition 6 from /dev/sda
Erasing internal mass storage device: /dev/sda7 (14032MB)
  Percent complete: 100%
Erase complete.
Deleting partition 7 from /dev/sda
Installing for i386-pc platform.
Installation finished. No error reported.
Uninstall complete.  Rebooting...
umount: can't remount rootfs read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
sd 0:0:0:0: [sda] Synchronizing SCSI cache
Restarting system.
machine restart
BIOS (Dell Inc) Boot Selector
S6000-ON (SI) 3.20.0.3 (32-port TE/FG)


POST Configuration
  CPU Signature 30669
  CPU FamilyID=6, Model=36, SteppingId=9, Processor=0
  Microcode Revision 10b
  POST Control=0xea000303, Status=0xe6009f00
MSRs:
  Platform ID: f09884f046
  PMG_CST_CFG_CTL: 263006
  BBL_CR_CTL3: 7e00010f
  Perf Ctrl & status: 63d, 63d104606000648

  Perf cnt (curr/fixed): 17d50cf4/3f8d8e10
  Clk Flex Max: 0
  Misc EN: 60840080
  Therm Status: 88440000 (offset=0x0)
  MC0 Ctl: 0
  MC0 Status: 0
BIOS initializations...

CPGC Memtest for rank 0 .................... PASS

CPGC Memtest for rank 1 .................... PASS

POST:
  RTC Battery ok at last cold boot (0xb)
  RTC date  Friday 09/24/2021 22:20:38

POST SPD test ............................. PASS


POST Lower DRAM Memory test
  SpeedStep enabled, Processor Bus Ratio=10, Vid=51

  Short memory cell test

  Perf cnt (curr/fixed): 24e32568/24e48b08

POST Lower DRAM Memory test ................ PASS
POST Lower DRAM ECC check .................. PASS

DxE POST

POST Upper DRAM Memory test
  SpeedStep enabled, Processor Bus Ratio=10, Vid=51
```

```
   Short memory cell test

   Perf cnt (curr/fixed): ba0ec40/ba0ede8

POST Upper DRAM Memory test ................. PASS
POST Upper DRAM ECC check ................... PASS

POST PCIe test ............................. PASS
POST NVRAM check ........................... PASS

POST overall test results .................. PASS

POST SPD test .............................. PASS


POST Lower DRAM Memory test
   SpeedStep enabled, Processor Bus Ratio=10, Vid=51

   Short memory cell test

   Perf cnt (curr/fixed): 24e4db50/24e640f0

POST Lower DRAM Memory test ................. PASS
POST Lower DRAM ECC check ................... PASS

DxE POST
POST Upper DRAM Memory test
   SpeedStep enabled, Processor Bus Ratio=10, Vid=51

   Short memory cell test

   Perf cnt (curr/fixed): ba5bf38/ba5c0d8

POST Upper DRAM Memory test ................. PASS
POST Upper DRAM ECC check ................... PASS

POST PCIe test ............................. PASS
POST NVRAM check ........................... PASS

POST overall test results .................. PASS
```

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

Documentation Corrections

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

None

Deferred Issues

Issues that appear in this section were reported in Dell 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.

Category	Description
	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 S6000–ON 9.14(1.0) Software Issues

Issues that appear in this section were reported in Dell Networking OS version 9.14(1.0) 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(1.0):

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.
	The work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.

Fixed S6000–ON 9.14(1.10) Software Issues

ⓘ **NOTE:** Dell 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 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 S6000–ON 9.14(1.10) Software Issues

The following issues are open in Dell 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.

Support Resources

The following support resources are available for the S6000–ON system.

Documentation Resources

This document contains operational information specific to the S6000–ON system.

For information about using the S6000–ON, refer to the following documents at http://www.dell.com/support:
- *Installing the S6000-ON System*

- *Quick Start Guide*
- *Dell Networking Command Line Reference Guide for the S6000-ON System*
- *Dell Networking Configuration Guide for the S6000-ON System*

For more information about hardware features and capabilities, refer to the Dell Networking website at https://www.dell.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 S6000–ON system.

- For information about using the S6000–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.dell.com/networking.
- For more information about the open network installation environment (ONIE)-compatible third-party operating system, refer to http://onie.org.

Contacting Dell

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

ⓘ **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.**