

Dell S6000 System Release Notes, OS Version 9.14(1.10)

Current Release Version: 9.14(1.10)

Release Date: 2021-09-30

Previous Release Version: 9.14(1.9P4)

Topics:

- [Document Revision History](#)
- [New Dell Networking OS Version 9.14\(1.10\) Features](#)
- [Changes to Default Behavior and CLI Syntax](#)
- [Restrictions](#)
- [Supported Hardware](#)
- [S6000 Upgrade Procedures: Overview](#)
- [VLT Upgrade Procedure](#)
- [Documentation Corrections](#)
- [Deferred Issues](#)
- [Fixed Issues](#)
- [Known Issues](#)
- [Support Resources](#)

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.

New Dell Networking OS Version 9.14(1.10) Features

The following features have been added to the S6000 with Dell Networking OS Version 9.14(1.10).

None

Changes to Default Behavior and CLI Syntax

Following default behavior and CLI syntax changes occurred during the Dell 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.

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.

Supported Hardware

The following hardware is supported with this platform:

Hardware
S6000 chassis
32 40Gbps QSFP+ ports
2 AC/DC PSUs
3 fan subsystems

USB Error Messages

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

NOTE: The rear rack mounting bracket (SA-01-RMB-8) will fit only into racks with depths in the following ranges:

- 22.98 in. to 24.65 in.
- 27.86 in. to 30.34 in.

The following informational error message appear when a USB thumb drive is inserted or removed from the system. No action needs to be taken when these messages appear.

Internal Messages

```
Dell#  
Dell# umass0 at uhub3 port 1 configuration 1 interface 0  
umass0: vendor 0x0930 USB Flash Memory, rev 2.00/1.10, addr 3  
umass0: using SCSI over Bulk-Only  
scsibus0 at umass0: 2 targets, 1 lun per target  
sd0 at scsibus0 target 0 lun 0: <, USB Flash Memory, PMAP> disk removable  
Sep 24 15:17:42: %S6000:0 %KERN-2-INT: umass0 at uhub3 port 1 configuration 1 interface 0  
Sep 24 15:17:42: %S6000:0 %KERN-2-INT: umass0: vendor 0x0930 USB Flash Memory, rev  
2.00/1.10, addr 3  
Sep 24 15:17:42: %S6000:0 %KERN-2-INT: umass0: using SCSI over Bulk-Only  
Sep 24 15:17:42: %S6000:0 %KERN-2-INT: scsibus0 at umass0: 2 targets, 1 lun per target  
Sep 24 15:17:42: %S6000:0 %KERN-2-INT: sd0 at scsibus0 target 0 lun 0: <, USB Flash  
Memory, PMAP> disk removable  
sd0: 3850 MB, 966 cyl, 255 head, 32 sec, 512 bytes/sect x 7884800 sectors  
Sep 24 15:17:43: %S6000:0 %KERN-2-INT: sd0: 3850 MB, 966 cyl, 255 head, 32 sec, 512  
bytes/sect x 7884800 sectors  
Sep 24 15:17:47: %S6000:0 %POLLMGR-2-USER_FLASH_STATE: USB flash disk inserted in  
'usbflash:'
```

Removal Messages

```
Dell#  
Dell#umass0: at uhub3 port 1 (addr 3) disconnected  
sd0(umass0:0:0:0): generic HBA error  
sd0: detached  
scsibus0: detached  
umass0: detached  
Sep 24 15:17:36: %S6000:0 %KERN-2-INT: umass0: at uhub3 port 1 (addr 3) disconnected  
Sep 24 15:17:36: %S6000:0 %KERN-2-INT: sd0(umass0:0:0:0): generic HBA error  
Sep 24 15:17:36: %S6000:0 %KERN-2-INT: sd0: detached  
Sep 24 15:17:36: %S6000:0 %KERN-2-INT: scsibus0: detached  
Sep 24 15:17:36: %S6000:0 %KERN-2-INT: umass0: detached  
Sep 24 15:17:37: %S6000:0 %POLLMGR-2-USER_FLASH_STATE: USB flash disk removed from  
'usbflash:'
```

S6000 Upgrade Procedures: Overview

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

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

Upgrading the S6000 Dell Networking OS Image and Boot Code

The S6000 system is pre-loaded with default Dell Networking OS software.

- NOTE:** If you downgrade from Dell Networking OS version 9.14(1.10) to version 9.6(0.0) or any version prior to 9.6(0.0), any existing quad mode configuration on the following ports is removed: 4, 12, 20, 28, 100, 108, 116, and 124
- NOTE:** If you downgrade from Dell Networking OS version 9.14(1.10) to 9.0(2.0), remove any existing quad mode configuration from the following 40G ports: 4, 12, 20, 28, 100, 108, 116, and 124. To remove any quad mode configuration, use the `no stack-unit port portmode quad` command in CONFIGURATION mode and then save the configuration using the `write memory` command in EXEC PRIVILEGE mode.
- 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.

Bare Metal Provisioning

- NOTE:** If you are using Bare Metal Provisioning (BMP), refer to the Bare Metal Provisioning chapter in the Dell Networking OS Configuration Guide or the Open Automation Guide.

Manual Upgrade Procedure

Follow these steps carefully to upgrade your S6000 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 <0-5 | all> | tftp: | scp: | usbflash:] [A: | B:]`

EXEC Privilege

```
Dell# upgrade system ftp: a:
Address or name of remote host []: 10.16.127.35
Source file name []: FTOS-SI-9.14.1.10.bin
User name to login remote host: ftpuser
Password to login remote host:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
.....!
62056018 bytes successfully copied
System image 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 [0-5] or on all units by using all in the command.

```
Dell#upgrade system stack-unit all A:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

```
Image upgraded to all
Dell#
```

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

```
show boot system stack-unit [0-5 | all]
EXEC PRIVILEGE
```

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

Current system image information in the system:
=====
Type           Boot Type      A                B
-----
stack-unit 0  FLASH BOOT    9.14(1.10) [boot]  9.14(1.9P4)
stack-unit 1  is not present.
stack-unit 2  is not present.
stack-unit 3  is not present.
stack-unit 4  is not present.
stack-unit 5  is not present.
```

5. Upgrade the S6000 Boot Flash and Boot Selector images

```
upgrade boot [all | bootflash-image | bootselector-image] stack-unit [0-5 | all] [booted
| flash: | ftp: | scp: | tftp: | usbflash:]
EXEC Privilege
```

Dell Networking OS version 9.14(1.10) requires S6000 Boot Flash image version 3.1.1.7 and Boot Selector image version 3.1.0.3. The Boot Flash and Boot Selector images can be upgraded together by selecting all in the command. If the user wishes 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.

NOTE: The Boot Flash version packed in Dell Networking OS 9.14(1.10) for S6000 system is 3.1.1.7. Upgrade of Boot Flash to version 3.1.1.7 is not mandatory for proper functioning of the system.

```
Dell#upgrade boot bootflash-image stack-unit 0 ftp:

Address or name of remote host []: 10.16.127.35
Destination file name []: FTOS-SI-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
-----
Unit0          Boot Flash     3.1.1.4         3.1.1.7

*****
* 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 0 [yes/no]: yes

!!!!!!!
Bootflash image upgrade for stack-unit 0 completed successfully.

Dell#upgrade boot bootselector-image stack-unit 0 ftp:

Current Boot information in the system:
=====
Card           BootSelector   Current Version  New Version
-----
Unit0          Boot Selector  3.1.0.3         3.1.0.3

*****
* 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 0 [yes/no]: yes
```

```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Bootselector image upgrade for stack-unit 0 completed successfully.
```

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

```
boot system stack-unit [0-5 | 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
```

```
Dell#write memory
!00:22:59: %STKUNIT0-M:CP %FILEMGR-5-FILESAVED: Copied running-config to
startup-config in flash by default
Dell#
```

8. Reload the unit

```
reload
EXEC PRIVILEGE
```

```
Command      : reload
Mode         : EXEC PRIVILEGE
Dell#reload
Proceed with reload [confirm yes/no]: y
00:23:50: %STKUNIT0-M:CP %CHMGR-5-RELOAD: User request to reload the chassis
```

9. Verify the S6000 has been upgraded to the Dell Networking OS version 9.14(1.10).

```
show version
EXEC PRIVILEGE
```

```
Dell#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 09:27:40 2021
Build Path: /build/build03/SW/SRC
Dell Networking OS uptime is 3 minute(s)

System image file is "system://A"

System Type: S6000
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)
28 Ten GigabitEthernet/IEEE 802.3 interface(s)
25 Forty GigabitEthernet/IEEE 802.3 interface(s)
```

10. Verify that the S6000 has been upgraded to the latest Boot Flash and Boot Selector images.

```
show system stack-unit [0-5]
EXEC PRIVILEGE
```

```
Dell#show system stack-unit 0

-- Unit 0 --
Unit Type      : Management Unit
Status         : online
```

```

Next Boot                : online
Required Type           : S6000 - 32-port TE/FG (SI)
Current Type            : S6000 - 32-port TE/FG (SI)
Master priority         : 0
Hardware Rev            : 4.0
Num Ports               : 128
Up Time                 : 3 min, 24 sec
Dell Networking OS Version : 9.14(1.10)
Jumbo Capable          : yes
POE Capable             : no
FIPS Mode               : disabled
Boot Flash              : 3.1.1.7
Boot Selector           : 3.1.0.3
Memory Size             : 3203911680 bytes
Temperature              : 37C
Voltage                 : ok
Serial Number           : NA
Part Number             : 08YWFG      Rev A00
Vendor Id               : DL
Date Code               : 24092021
Country Code            : CN
Piece Part ID           : CN-08YWFG-28298-398-0104
PPID Revision           : A00
Service Tag             : BX71VS1
Expr Svc Code           : 259 518 346 57
Auto Reboot             : enabled
Burned In MAC           : 90:b1:1c:f4:9c:c0
No Of MACs              : 3

```

```

-- Power Supplies --
Unit   Bay   Status      Type   FanStatus  FanSpeed (rpm)
-----
  0     0     up          AC     up         10368
  0     1     absent      AC     absent      0

```

```

-- Fan Status --
Unit Bay   TrayStatus  Fan0   Speed  Fan1   Speed
-----
  0   0     up          up     10031  up     10031
  0   1     up          up     10031  up     10031
  0   2     up          up     10134  up     10134

```

Speed in RPM

SMARTSCRIPTS

To uninstall and install new SMARTSCRIPTS packages after upgrading to Dell Networking OS, refer to the Open Automation Guide.

Upgrading the CPLD

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

Verify that a CPLD upgrade is required

NOTE: If your CPLD revisions are higher than the ones shown here, DO NOT make any changes. If you have questions regarding the CPLD revision, contact technical support.

Use the following command to identify the CPLD version:

```

Dell#show revision

-- Stack unit 0 --
S6000 SYSTEM CPLD      : 10
S6000 MASTER CPLD     : 12

```

```
S6000 SLAVE CPLD          : 10
```

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      9.14(1.10)      62072761      Sep 24 2021 09:48:25

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

BOOT IMAGE INFORMATION :
-----
      Type          Version          Target          checksum
      boot flash   3.1.1.7         Control Processor  passed

BOOTSEL IMAGE INFORMATION :
-----
      Type          Version          Target          checksum
      boot selector 3.1.0.3         Control Processor  passed

FPGA IMAGE INFORMATION :
-----
      Card          FPGA Name          Version
      stack-unit 0  S6000 SYSTEM CPLD  10
      stack-unit 0  S6000 MASTER CPLD  12
      stack-unit 0  S6000 SLAVE CPLD   10
```

Upgrading the CPLD Image

- NOTE:** The upgrade `fpga-image stack-unit 0 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 3.1.0.3 or above. You can verify this version using the `show system stack-unit 0` command.

To upgrade the CPLD image on S6000, follow these steps:

- Upgrade the CPLD image.

```
upgrade fpga-image stack-unit <id> booted
```

EXEC Privilege

```
Dell# upgrade fpga-image stack-unit 0 booted

Current information for the system:
=====
      Card          Device Name          Current Version          New Version
-----
      Unit0          S6000 SYSTEM CPLD          10                      10
      Unit0          S6000 MASTER CPLD          12                      12
      Unit0          S6000 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 0 [yes/no]: yes
```



```
FPGA upgrade in progress!!! Please do NOT power off the unit!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Upgrade result :
=====
Unit 0 FPGA upgrade successful Unit 0. Please power cycle to take effect.
```

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 the `show revision` command.

```
show revision
EXEC PRIVILEGE
```

```
Dell#show revision

-- Stack unit 0 --
S6000 SYSTEM CPLD      : 10

S6000 MASTER CPLD     : 12

S6000 SLAVE CPLD      : 10
```

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

VLT Upgrade Procedure

Follow this procedure to upgrade the switch to the latest version in a VLT setup:

1. Upgrade the system-flash partition A or B with the new image on both VLT peers. On both the VLT peers, set Primary boot parameter to boot the system from upgraded system flash partition [A or B]. You can enter one of the following options: **flash** — Copies from flash file system (flash://filepath). **ftp** — Copies from remote file system (ftp://userid:password@hostip//filepath). **scp** — Copies from remote file system (scp://userid:password@hostip//filepath). **tftp** — Copies from remote file system (tftp://hostip/filepath).
`upgrade system [flash: | ftp: | scp: | tftp: | usbflash:] [A: | B:]`
EXEC Privilege
2. Reload or power-cycle one of the VLT peers (For Example, Peer 2).
`reload or power cycle`
3. Wait for Peer 2 to come up; VLT adjacency will be established. (Peer 2 - new image and Peer 1 - old image).
4. Wait for the Peer 2 to bring up all VLT LAG ports. Use the command `show vlt detail` to confirm all VLT ports in the local chassis are active.
`show vlt detail`
EXEC Privilege
5. Following upgrade, use the `write memory` command to save the running-config to memory.
`write memory`
EXEC Privilege
6. Ensure both the nodes are now forwarding traffic.
7. When all VLT ports are active on the Peer 2, repeat steps 2 through 5 for the Peer 1.

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. 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 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.

Category	Description
Release Notes	Release Notes description contains more detailed information about the issue.
Work around	<p>Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.</p> <p>The work-around is unnecessary, as the version of code for which this release note is documented has resolved the issue.</p>

Fixed S6000 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 <code>ip ssh server</code> 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 <code>crypto key generate rsa</code> 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	<p>S1 — Crash: A software crash occurs in the kernel or a running process that requires a restart of AFM, the router, switch, or process.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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	<p>Work around describes a mechanism for circumventing, avoiding, or recovering from the issue. It might not be a permanent solution.</p> <p>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.</p>

Known S6000 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 <code>registering</code> state indefinitely.
Release Notes:	In certain scenarios, an MSDP learnt PIM TIB entry stays in <code>registering</code> 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 system.

Documentation Resources

This document contains operational information specific to the S6000 system.

For information about using the S6000, refer to the following documents at <http://www.dell.com/support>:

- *Installing the S6000 System*
- *Quick Start Guide*
- *Dell Networking Command Line Reference Guide for the S6000 System*
- *Dell Networking Configuration Guide for the S6000 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 system.

- For information about using the S6000, 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

 **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.