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# Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Release 1.3(4b)

**Release Date:** June 14, 2004

**Text Part Number:** OL-4959-06 Rev. R0

This document describes the caveats and limitations for switches in the Cisco MDS 9000 Family. Use this document in conjunction with documents listed in the “[Related Documentation](#)” section on page 14.



**Note**

Releases notes are sometimes updated with new information on restrictions and caveats. Refer to the following website for the most recent version of the *Cisco MDS 9000 Family Release Note*:  
[http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod_release_notes_list.html)

**Table 1** shows the on-line change history for this document.

**Table 1 On-Line Change History**

Revision	Date	Description
A0	8/10/2004	Added DDTS <a href="#">CSCef00869</a> .
B0	9/2/2004	Added DDTS <a href="#">CSCed64425</a> .
C0	11/9/2004	Added DDTS <a href="#">CSCef83504</a>
D0	11/17/2004	Added DDTS <a href="#">CSCeg23889</a> and image upgrade references.
E0	12/07/2004	Added DDTS <a href="#">CSCef65409</a>
F0	12/08/2004	Added DDTS <a href="#">CSCin81760</a>
G0	12/22/2004	Added DDTS <a href="#">CSCeg61535</a>
H0	01/14/2005	Added DDTS <a href="#">CSCeg56197</a> .
I0	02/22/2005	Added DDTS <a href="#">CSCee83961</a> , <a href="#">CSCee89946</a> , <a href="#">CSCef06657</a> , <a href="#">CSCee95629</a> , <a href="#">CSCin74613</a> , <a href="#">CSCee04343</a> , <a href="#">CSCef12062</a> , <a href="#">CSCee79377</a> , <a href="#">CSCee65091</a> , <a href="#">CSCee54650</a> , <a href="#">CSCef21105</a>



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**Table 1 On-Line Change History (continued)**

Revision	Date	Description
J0	03/24/2005	Added DDTs <a href="#">CSCed20053</a> , <a href="#">CSCee89946</a> , <a href="#">CSCef06657</a> , <a href="#">CSCef70000</a> , <a href="#">CSCeg13762</a> , <a href="#">CSCeg18886</a> , <a href="#">CSCeh21199</a> . Corrected state of DDTs <a href="#">CSCef65409</a> .
K0	05/31/2005	Added DDTs <a href="#">CSCeh42252</a> and <a href="#">CSCeg66225</a> .
L0	05/23/2005	Added DDTs <a href="#">CSCei25319</a> .
M0	07/29/2005	Added DDTs <a href="#">CSCed57251</a> , <a href="#">CSCeh61610</a> , and .
N0	08/22/2005	Removed DDTs <a href="#">CSCeh61610</a> .
O0	08/23/2005	Added DDTs <a href="#">CSCeh61610</a> .
P0	05/01/2006	Added DDTs <a href="#">CSCeg84871</a> , <a href="#">CSCei91676</a> , <a href="#">CSCej08751</a> , and <a href="#">CSCsc33788</a> .
Q0	06/06/2006	Removed DDTs <a href="#">CSCed16845</a> .
R0	02/26/2007	Added DDTs <a href="#">CSCsh27840</a> .

## Contents

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## Introduction

The Cisco MDS 9000 Family of multilayer directors and fabric switches offers intelligent fabric-switching services that realize maximum performance while ensuring high reliability levels. These switches combine robust and flexible hardware architecture with multiple layers of network and storage management intelligence. This powerful combination enables highly available, scalable storage networks that provide advanced security and unified management features.

The Cisco MDS 9000 Family provides intelligent networking features such as multiprotocol and multitransport integration, virtual SANs (VSANs), advanced security, sophisticated debug analysis tools, and unified SAN management.

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# System Requirements

This section describes the system requirements for Cisco MDS SAN-OS Release 1.3(4b) and includes the following topics:

- [Hardware Supported, page 3](#)
- [Determining the Software Version, page 4](#)

## Hardware Supported

[Table 2](#) lists the hardware components supported on the Cisco MDS 9000 Family.

**Table 2** Cisco MDS 9000 Family Supported Hardware Modules

Component	Part Number	Description	Applicable Products
Software	Not orderable	MDS 9500 Series supervisor/fabric-I, enterprise software	MDS 9500 Series only
		MDS 9216 enterprise software	MDS 9216 only
		MDS 9100 Series enterprise software	MDS 9100 Series only
Chassis	DS-C9509	MDS 9509 director, base configuration (9-slot modular chassis includes 7 slots for switching modules and 2 slots for supervisor modules—SFPs sold separately)	MDS 9509 only
	DS-C9506	MDS 9506 director (6-slot modular chassis includes 4 slots for switching modules and 2 slots for supervisor modules—SFPs sold separately).	MDS 9506 only
	DS-C9216-K9	MDS 9216 16-port semi-modular fabric switch (includes sixteen 1 / 2-Gbps Fibre Channel ports, power supply, and expansion slot—SFPs sold separately)	MDS 9216 only
	DS-C9120-K9	MDS 9120 fixed configuration, non-modular, fabric switch (includes 4 full rate ports and 16 host-optimized ports)	MDS 9120 only
	DS-C9140-K9	MDS 9140 fixed configuration (non-modular) fabric switch (includes 8 full rate ports and 32 host-optimized ports)	MDS 9140 only
Supervisor modules	DS-X9530-SF1-K9	MDS 9500 supervisor/fabric-I, module	MDS 9500 Series only
Switching modules	DS-X9016	MDS 9000 16-port 2/1-Gbps Fibre Channel module (SFPs sold separately)	MDS 9500 Series and 9216
	DS-X9032	MDS 9000 32-port 2/1-Gbps Fibre Channel module (SFPs sold separately)	
Services modules	DS-X9308-SMIP	8-port Gigabit Ethernet IP storage services module.	
	DS-X9304-SMIP	4-port Gigabit Ethernet IP storage services module.	
	DS-X9032-SMV	32-port Fibre Channel Advanced Services Module (ASM).	
	DS-X9560-SMC	Caching Services Module (CSM)	

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**Table 2 Cisco MDS 9000 Family Supported Hardware Modules (continued)**

Component	Part Number	Description	Applicable Products
LC-type fiber-optic SFP <sup>1</sup>	DS-SFP-FC-2G-SW	2/1-Gbps Fibre Channel — short wave SFP	MDS 9000 Family
	DS-SFP-FC-2G-LW	2/1-Gbps Fibre Channel — long wave SFP	
	DS-SFP-FCGE-SW	1-Gbps Ethernet and 2/1-Gbps Fibre Channel—short wave SFP	
	DS-SFP-FCGE-LW	1-Gbps Ethernet and 2/1-Gbps Fibre Channel — long wave SFP	
CWDM <sup>2</sup>	CWDM-SFP-xxxx-2G	Gigabit Ethernet and 2/1-Gbps Fibre Channel SFP LC interface xxxx nm, where xxxx = 1470, 1490, 1510, 1530, 1550, 1570, 1590, or 1610 nm	MDS 9000 Family
	CWDM-MUX-4	Add/drop multiplexer for four CWDM wavelengths	
	CWDM-MUX-8	Add/drop multiplexer for eight CWDM wavelengths	
	CWDM-CHASSIS-2	Two slot chassis for CWDM add/drop multiplexer(s)	
Power supplies	DS-CAC-300W	300W AC power supply	MDS 9100 Series only
	DS-CAC-845W	845W <sup>3</sup> AC power supply	MDS 9216 only
	DS-CAC-2500W	2500W AC power supply	MDS 9509 only
	DS-CDC-2500W	2500W DC power supply	
	DS-CAC-4000W-US	4000W AC power supply for US (cable attached)	MDS 9506 only
	DS-CAC-4000W-INT	4000W AC power supply international (cable attached)	
	DS-CAC-1900W	1900W AC power supply	
	DS-CDC-1900W	1900W DC power supply	
CompactFlash	MEM-MDS-FLD512M	MDS 9500 supervisor CompactFlash disk, 512MB	MDS 9500 Series only
Port analyzer adapter	DS-PAA	A standalone Fibre Channel-to-Ethernet adapter that allows for simple, transparent analysis of Fibre Channel traffic in a switched fabric.	MDS 9000 Family
	DS-PAA-2		

1. SFP = small form factor pluggable

2. CWDM = coarse wave division multiplexing

3. W = Watt

## Determining the Software Version



### Note

We strongly recommend that you use the latest available software release supported by your vendor for all Cisco MDS 9000 Family products.

To determine the version of the Cisco SAN-OS software currently running on a Cisco MDS 9000 Family switch using the CLI, log into the switch and enter the **show version EXEC** command.

To determine the version of the Cisco SAN-OS software currently running on a Cisco MDS 9000 Family switch using the Fabric Manager, view the Switches tab in the information pane, locate the switch, using the IP Address, Logical Name, or WWN, and check its version in the Release column.

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## Image Upgrade

The Cisco MDS SAN-OS software is designed for mission-critical high availability environments. To realize the benefits of nondisruptive upgrades on the Cisco MDS 9500 Directors, we highly recommend that you install dual supervisor modules.

You can nondisruptively upgrade to (or downgrade from) Release 1.3(4b) using any Cisco MDS SAN-OS software release other than Release 1.0(2a).



### Note

Refer to the Determining Software Compatibility section of the *Cisco 9000 Family Configuration Guide* for more details.

## New Features in Release 1.3(4b)

Cisco MDS SAN-OS Release 1.3(4b) is a release for switches in the Cisco MDS 9000 Family. See the “Caveats” section for details on closed and outstanding caveats and limitations.



### Note

For the Release 1.3 documentation set, see the “[Related Documentation](#)” section on page 14.

## Caveats

This section lists the caveats and corrected caveats for this release. Use [Table 3](#) to determine the status of a particular caveat. In the table, “R” indicates a resolved caveat, and “O” indicates an open caveat.

**Table 3** Release Caveats and Caveats Corrected Reference

DDTS Number	Software Release (Resolved or Open)	
	1.3(4a)	1.3(4b)
<b>Severity 1</b>		
<a href="#">CSCee51071</a>	O	O
<a href="#">CSCeg13762</a>	O	O
<b>Severity 2</b>		
<a href="#">CSCee30799</a>	O	R
<a href="#">CSCee43249</a>	O	R
<a href="#">CSCee95629</a>	O	O
<a href="#">CSCed57251</a>	O	O
<a href="#">CSCef00869</a>	O	R
<a href="#">CSCef04575</a>		O
<a href="#">CSCef06657</a>	O	O
<a href="#">CSCef65409</a>	O	O
<a href="#">CSCef83504</a>	O	O

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**Table 3 Release Caveats and Caveats Corrected Reference (continued)**

DDTS Number	Software Release (Resolved or Open)	
	1.3(4a)	1.3(4b)
CSCeg18886	O	O
CSCeg23889	O	O
CSCeg84871	O	O
CSCeh61610	O	O
CSCei25319	O	O
CSCin74613	O	O
CSCsh27840	O	O
<b>Severity 3</b>		
CSCec31365	O	O
CSCed14920	O	O
CSCed20053	O	O
CSCed64425	R	R
CSCee04343	O	O
CSCee26227	O	O
CSCee28076	O	O
CSCee34199	O	O
CSCee38287	O	O
CSCee44707	O	R
CSCee54650	O	O
CSCee65091		O
CSCee79377	O	O
CSCee83961	O	O
CSCee89946	O	O
CSCef06657	O	O
CSCef12062		O
CSCef21105	O	O
CSCef70000	O	O
CSCeg56197	O	O
CSCeg61535	O	O
CSCeg66225	O	O
CSCeh21199	O	O
CSCei91676	O	O
CSCej08751	O	O
CSCin81760	O	O
CSCsc33788	O	O

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**Table 3** Release Caveats and Caveats Corrected Reference (continued)

DDTS Number	Software Release (Resolved or Open)	
	1.3(4a)	1.3(4b)
<b>Severity 4</b>		
<a href="#">CSCeh42252</a>	O	O

## Resolved Caveats

- CSCee30799

**Symptom:** If you add routes to new switches while in **interop** mode and later move the switches back to the default mode, then further updates to the FSPF database are not sent to the new switches, causing routes to be lost after one hour.

If a switch remains in the default mode or **interop** mode, this problem does not arise. It only arises if you move from the **interop** mode to the default mode in an active VSAN.

**Workaround:** Perform one of the following workarounds on each switch which was moved from the interop mode to default mode

- Suspend and unsuspend the VSAN using the **vsan vsan-id suspend** and the **no vsan vsan-id suspend** commands
- Disable and enable FSPF on the VSAN using the **no fspf enable vsan vsan-id** and the **fspf enable vsan vsan-id** commands.

- CSCee43249

**Symptom:** If a malfunctioning device does not swap the source and destination FCIDs, a PLOGI frame sent by this device can cause high CPU utilization. These PLOGI frame errors are reported by the zone server.

**Workaround:** None.

- CSCed57251

**Symptom:** In some rare instances in Cisco MDS SAN-OS Release 1.3, 2.0, and 2.1(1), when the IP Storage Services (IPS) module restarted after a failure, VSAN membership information about iSCSI interfaces was lost. However, a configuration saved with the **copy running-config startup** command was not lost.

**Workaround:** None.

- CSCef00869

**Symptom:** Some sessions on the iSCSI host remain in reconnecting state after the host or the switch is rebooted.

**Workaround:** Manually log off and log on to the switch.

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- CSCed64425
 

**Symptom:** You can TFTP to a Cisco MDS switch through the management interface from any TFTP client. In SAN-OS Releases 1.3(4a), 1.3(4b) and 1.3(5), a default IP access control list (ACL) rule is added to block frames for ports like TFTP, SUNRP and BOOTP.

**Workaround:** For Cisco MDS SAN-OS Releases 1.2(1a), 1.2(1b), 1.2(2a), 1.3(1), 1.3(2a), 1.3(3), and 1.3(3c), manually create the drop rule by issuing the following commands in succession:

```
switch(config)# ip access-list abc deny udp any any eq port 69
switch(config)# ip access-list abc permit ip any any
switch(config)# interface mgmt 0
switch(config-if)# ip access-group abc
```
- CSCee44707
 

**Symptom:** In some rare cases, duplicate ACKs sent from a host to an IP Storage (IPS) services port triggers a TCP fast retransmit even if the IPS port did not receive three consecutive, duplicate ACKs.

**Workaround:** None. This is an enhancement.

## Open Caveats

- CSCee51071
 

**Symptom:** A nondisruptive software upgrade/downgrade between Release 1.3(4a) and Release 1.3(4b) fails when started from the Fabric Manager application due to an SNMP error. This problem is only a result of the SNMP agent and not of the Fabric Manager application.

**Workaround:** Use the command-line interface (CLI) to upgrade/downgrade from Release 1.3(4a) to Release 1.3(4b). Do not use the Fabric Manager to downgrade/upgrade software between these software versions.
- CSCeg13762
 

**Symptom:** A license installation failure occurs on the Cisco MDS 9216A switch running Cisco SAN-OS software releases 1.3(2a), 1.3(4a) and 1.3(5).

**Workaround:** Upgrade to Cisco SAN-OS software releases 1.3(6), 2.0(1b) or later for successful license installation. If desired, the Cisco MDS 9216A switch can then be downgraded to releases 1.3(2a), 1.3(4a), or 1.3(5).
- CSCee95629
 

**Symptom:** After a Cisco MDS switch is power cycled, in some cases, the VRRP state of the IPS interfaces remains in the init state.

**Workaround:** Issue the shutdown command followed by the no shutdown command for the impacted interface to restart the VRRP state machine
- CSCef04575
 

**Symptom:** Cisco MDS SAN-OS Release 1.3(4b) for the Cisco MDS 9000 Family is incompatible with Cisco MDS SVC Release 1.3(4m).

**Workaround:** None.
- CSCef06657
 

**Symptom:** If a host is connected to a Cisco MDS switch that is also connected to a loop (FL/NL port) and the loop goes down, an RSCN is sent to the host and the host performs a name server query. Even if the port is down, the name server continues to respond with the port ID of the offline port.

**Workaround:** None.

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- CSCef65409
 

**Symptom:** SNMP daemon crashes periodically on a Cisco MDS 9000 Family switch running Release 1.3(4a). Issue the **show process memory | include snmp** commands at regular intervals to show the pattern of a memory increase.

**Workaround:** Upgrade to Cisco MDS SAN-OS Release 1.3(6).
- CSCef83504
 

**Symptom:** The system does not recognize a CLI password containing the “\$” character.

**Workaround:** Change your password to a different string that does not include the “\$” character. For an admin user-account, you might have to perform the password-recovery procedure to reset the password.
- CSCeg18886
 

**Symptom:** If multiple “get all next” queries are sent before receiving a response from the first one, some queries might be dropped as they overwhelm the name server buffers. Some arrays do this to improve performance, resulting in dropped queries.

**Workaround:** Upgrade to Cisco MDS SAN-OS Release 1.3(6).
- CSCeg23889
 

**Symptom:** License warning notifications, either through Call Home or system messages, might occur in the following situations:

  - The grace period for a license package was triggered (a feature licensed by that license package had been used). Currently none of the features licensed by this license package are enabled.
  - The grace period for a license package expired. None of the features licensed by this license package are enabled.
- CSCeg84871
 

**Symptom:** When an iSCSI initiator logs in to a Gigabit Ethernet port number 1 on an IPS module in slot 1, the switch sends a login response with the value of the Target Session Identifying Handle (TSIH) field set to zero (0), which is an iSCSI protocol violation. This situation can also occur when an iSCSI initiator logs in to Ethernet PortChannel number 1. The Qlogic iSCSI initiator may verify the TSIH value and reject it.

**Workaround:** None.
- CSCin74613
 

**Symptom:** The license file corrupts when it is saved to a local disk.

**Workaround:** None.
- CSCsh27840
 

**Symptom:** While using an FCIP link for remote SPAN, it is possible that the FCIP link may flap.

**Workaround:** Do not use FCIP links for Remote SPAN.
- CSCeh61610
 

**Symptom:** FCIP Write Acceleration does not work with certain storage replication subsystems.

**Workaround:** None.
- CSCei25319
 

**Symptom:** An error message in the log file occurs because the platform manager component passes the wrong parameter while responding to a SNMP query. In some cases, this results in the query not being responded to.

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**Workaround:** Perform a refresh on Device Manager to clear the problem.

- CSCec31365

**Symptom:** When IVR is enabled, the Fabric-Device Management Interface information is not transferred across VSANs for IVR devices.

**Workaround:** None.

- CSCed14920

**Symptom:** During a switch upgrade, a SAN Volume Controller (SVC) node may not save its entire state under rare circumstances. This results in that node not being part of the cluster after the switch upgrade. Verify this symptom by issuing the **show nodes local** command at the `svc-config` prompt—the command output displays the following information:

- The `cluster state` of the affected SVC node will be `unconfigured`.
- The `node state` of the affected SVC node will be `free`.

**Workaround:** Manually remove the SVC node from the cluster and then add the node back into the cluster. Refer to *Cisco MDS 9000 Family SAN Volume Controller Configuration Guide* for procedural details.

- CSCed20053

**Symptom:** On rare occasions, the **install license** command may fail due to the saved state of the switch configuration. This may occur after saving a remote configuration to the switch using the **copy remote-url start-up** command.

**Workaround:** Issue the **copy ru st** command. The **install license** command should work properly after that.

- CSCee04343

**Symptom:** If the SAN-OS `fc analyzer local display-filter` command is issued in configuration mode with prepended lengthy and intricate filtering strings, it may cause the actual analyzer process to terminate. There is no impact on the stability of the Cisco MDS switch. Configurations without lengthy display-filters work fine.

**Workaround:** None.

- CSCee26227

**Symptom:** If you are logging in to a switch through SSH and you have issued the **aaa authentication login default none** command, you must enter one or more key strokes to log in. If you press the **Enter** key without entering at least one keystroke, your log in will be rejected.

If you are logging in through Telnet, just press the **Enter** key when prompted for password.

**Workaround:** None.

- CSCee28076

**Symptom:** If the switch contains one or more IPS-4 modules with productID DS-X9304-SMIP and a downgrade is performed from Cisco MDS SAN-OS Releases 1.3(3c), 1.3(4), or 1.3(4a) to SAN-OS Releases 1.3(3), 1.3(2a), 1.3(2), or 1.3(1), the service platform terminates abruptly during an SNMP query causing service disruption.

**Workaround:** It is necessary to physically remove all the IPS-4 modules with productID DS-X9304-SMIP prior to starting the downgrade. It is not sufficient to power down the module.

- CSCee34199

**Symptom:** When you issue commands relating to the SVC interface and then issue the **copy** command, the switch may sometimes remain in the hung state for an indefinite period.

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- Workaround:** Enter **Ctrl-C** to exit the hung state, log out of the switch, relogin to the switch, and finally issue the **copy** command.
- CSCee38287

**Symptom:** Users downloading Java Runtime Environment version 1.4.2\_01 or earlier from the EMC Corporation™ website, will not have the necessary SSL authorization certificate to validate the one-click license installation process.

**Workaround:** Upgrade to Java Runtime Environment version 1.4.2\_04 or higher.
- CSCee54650

**Symptom:** Under rare circumstances, it is possible to lose the cluster IP address when the config node fails. This problem is fixed in SAN-OS Release 1.3(5).

**Workaround:** For releases prior to SAN-OS 1.3(5):

  - a. Connect to the switch using the switch's management IP address
  - b. Use the `svc-config` and `show nodes local` commands to verify that the config node of the required cluster is present in that switch.
  - c. Use the `svc-config`, `cluster config cluster-name`, and `ip new-ip-address` commands to change the cluster IP address for the cluster to another random address.
  - d. Change the cluster IP address back to the original IP address using the same steps defined in Step C.
- CSCee65091

**Symptom:** The zone merge feature fails to merge in a large fabric with several zone sets

**Workaround:** None.
- CSCee79377

**Symptom:** With an MDS translatable loop (TL) port, the assignment of proxy ALPA to the same fabric-based target WWN may vary if the sequence of targets joining the fabric changes (for example, after a reboot). This causes problems for private HBAs in HP-UX systems that access more than one fabric-based (public) targets. This is because HP-UX builds device definitions (CxTxDx) based on the ALPA/loop ID.

**Workaround:** Only zone the private HBA with one target pWWN.
- CSCee83961

**Symptom:** Your SSH login may fail if you do not have a local user account on the switch and if you use remote AAA (RADIUS/TACACS+) server authentication. This problem is fixed in SAN-OS 1.3(5).

**Workaround:** For releases prior to SAN-OS 1.3(5), first login through Telnet. Subsequent SSH logins will function after the first Telnet login.
- CSCee89946

**Symptom:** This caveat applies to Release 1.1(1) up to, and including, Release 1.3(4b). The Fibre Channel port link reinitialization sequence triggered by a link down event does not succeed if the switching module is up for more than 248 days and the last shutdown command on that port was issued 248 days prior to the link failure. After the link-down event, the port remains in the link failure or not connected state as shown in the following command output:

```
switch# show interface fc2/1
fc2/1 is down (Link failure or not-connected)
```

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**Workaround:** Issue the shutdown command, followed by the no shutdown command, on the affected port to bring the port back to link-up state as shown in the following command output:

```
switch# config t
switch(config)# interface fc2/1
switch(config)# shutdown
switch(config)# no shutdown
```

Issue the following commands to verify the module uptime.

```
switch# attach module 2
Attaching to module 2 ...
```

To exit type **exit**, to abort type **\$**.

```
module-2# show version
Software
  BIOS:      version 1.0.8
  system:    version 2.0(1) [build 2.0(0.139)]
  BIOS compile time:      08/07/03
  system compile Time:    10/25/2020 12:00:00
Hardware
  RAM 186668 kB
  bootflash: 125184 blocks (block size 512b)
  lc02  uptime is 11 days 18 hours 18 minute(s) 9 second(s)
```

Other notes:

- Any nondisruptive upgrade or downgrade resets the 248-day window.
- Once the shutdown and no shutdown commands are issued, it is good for another 248 days.
- If the switch has been up for a long time and the customer wants to connect new devices to the switch ports, then you may start with the shutdown and no shutdown commands on those ports.
- CSCef06657
 

**Symptom:** If a host is connected to a Cisco MDS switch that is also connected to a loop (FL/NL port) and the loop goes down, an RSCN is sent to the host and the host performs a name server query. Even if the port is down, the name server continues to respond with the port ID of the offline port.

**Workaround:** None.
- CSCef12062
 

**Symptom:** Cisco MDS Fabric Manager and Device Manager users cannot change their own password unless their role has the SNMP server accurately assigned. If RADIUS or TACACS+ is not configured, the SNMPv3 user password is stored locally on the switch and prevents users from changing their own password in FM/DM unless their role is granted access to the snmp-server command. If you permit these users to access the complete SNMP server feature, they can also create new SNMPv3 users and communities with more privileges than themselves.

**Workaround:** None.
- CSCef21105
 

**Symptom:** The Cisco MDS 9500 supervisor module did not send a gratuitous ARP for CSM cluster IP address. This caused the host to lose connectivity to the Cluster IP address during a supervisor switchover. This problem is fixed in SAN-OS 1.3(5).

**Workaround:** For releases prior to SAN-OS 1.3(5), decrease the ARP cache timeout or manually delete the ARP entry for CSM cluster IP address at the host.
- CSCef70000

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**Symptom:** If you downgrade from Cisco MDS SAN-OS Release 1.3(5) to Release 1.3(4), then you might lose your per-VSAN in-order delivery configuration.

**Workaround:** Reconfigure your system with the per-VSAN in-order delivery configuration.

- CSCeg56197

**Symptom:** Configuring the CIM server certificate as listed below might cause your switch to crash.

- Create a self-certified key (xxxxxx.pem file) on an external server (we use a utility under Hi-Command).
- Enter **conf t** to enter configuration mode.
- Enter **cimserver certificate xxxxxx.pem** to install a certificate specified in the file named with a .pem extension.
- Enter **cimserver enablehttps** to enable HTTPS (secure protocol).
- Enter **cimserver enable** to enable the CIM server.
- Enter **Ctrl-z** to quit

**Workaround:** None

- CSCeg61535

**Symptom:** The Telnet server may not be disabled even if you disable it through setup. A telnet session will still work in the switch.

**Workaround:** Issue the **no telnet server enable** command in configuration mode to disable telnet after you login to the switch.

- CSCeg66225

**Symptom:** Password recovery might fail if you use the **copy <config-url> startup** command to save the switch configuration, or if you boot a system image that is older than the image you used to store the configuration and did not use the install all command. The following message might display in syslog or on the console during the process of password recovery.

```
<<ASCII-CFG-2-ACFG_CONFIGURATION_APPLY_ERROR>>
```

**Workaround:** Issue the **write erase** command from the switchboot prompt.




---

**Note** Using the write erase command will erase the configuration. You must reapply the configuration, if externally stored, after the switch login.

---

- CSCeh21199

**Symptom:** If the NetApp file server appliance is configured as an initiator performing a Network Data Management Protocol (NDMP) backup, then the fabric login (FLOGI) process on the MDS switch might terminate because of excessive LSTS requests.

This might happen if your N port or NL port uses extended link services to manage and control a public remote loop. The NetApp file server appliance configuration uses these services, namely LSTS and LINIT, which are documented in the Fibre Channel standards compliance (FC-FLA standard) specification.

**Workaround:** Upgrade to Cisco MDS SAN-OS Release 2.0(4).

- CSCei91676

**Symptom:** If iSCSI virtual targets are configured with more than 50 LUN maps, then erroneous overlapping LUN map system messages appear when the iSCSI initiator is not allowed to log in to these iSCSI virtual targets.

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**Workaround:** Limit the number of configured LUN maps for an iSCSI virtual target to fewer than 50 LUNs.

- CSCej08751

**Symptom:** A Linux host with an iSCSI driver can see only the first eight Logical Units (LUs) of a configured iSCSI virtual target with more than eight LUN maps configured.

**Workaround:** None.

- CSCin81760

**Symptom:** In some rare cases, license features are disabled when the IP address on a management port is changed.

**Workaround:** None. Enable the license features again.

- CSCsc33788

**Symptom:** In rare circumstances, after you issue the **install all** command to upgrade an MDS switch, the upgrade may fail because the installer process fails. When this occurs, you may see a message like the following:

```
%CALLHOME-2-EVENT: SW_CRASH alert for service: installer
The installer failed to respond for 10 times. Exiting ...
Unable to send exit to installer. Return code -1
```

If you upgrade from 1.3(x) to 2.1 or from 2.0(x) to 2.1 and the upgrade fails, and if after the upgrade failure the supervisor modules are running the new software version, but some modules are running the older software version, then the next attempt to execute the **install all** command will trigger this problem.

You should not encounter this problem if you upgrade from 2.1 to a higher version.

**Workaround:** There are two ways to address this issue:

- To non-disruptively upgrade all modules that are running the older software version, issue the **install module *module-number* image** command.
- To disruptively upgrade the modules, issue the **reload module *module-number* force-dnld** command, or reinstall the module.
- CSCeh42252

**Symptom:** If you try to configure SSH key for any of the non-local user- accounts, in some rare cases you might see a core dump on standby.

**Workaround:** First delete the non-local user-account and create it again so that it becomes a local user-account. Then perform any type of configuration for that user-account. User should not perform configuration operations on non- local user-accounts. Non-local user-accounts can be created due to users getting authenticated using RADIUS/TACACS+ server.

## Related Documentation

The documentation set for the Cisco MDS 9000 Family includes the following documents:

- *Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family*
- *Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Releases*
- *Cisco MDS 9100 Series Hardware Installation Guide*
- *Cisco MDS 9216 Switch Hardware Installation Guide*

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- *Cisco MDS 9500 Series Hardware Installation Guide*
- *Cisco MDS 9000 Family Configuration Guide*
- *Cisco MDS 9000 Family SAN Volume Controller Configuration Guide*
- *Cisco MDS 9000 Family Command Reference*
- *Cisco MDS 9000 Family Fabric Manager Switch Configuration Guide*
- *Cisco MDS 9000 Family Troubleshooting Guide*
- *Cisco MDS 9000 Family System Messages Guide*
- *Cisco MDS 9000 Family MIB Quick Reference*
- *Cisco MDS 9000 Family CIM Programming Reference Guide*

For information on VERITAS Storage Foundation™ for Networks for the Cisco MDS 9000 Family, refer to the VERITAS website: <http://support.veritas.com/>

For information on IBM TotalStorage SAN Volume Controller Storage Software for the Cisco MDS 9000 Family, refer to the IBM TotalStorage Support website: <http://www.ibm.com/storage/support/2062-2300/>

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

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170 West Tasman Drive  
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We appreciate your comments.

## Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

[http://www.cisco.com/en/US/products/products\\_security\\_vulnerability\\_policy.html](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

From this site, you can perform these tasks:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories and notices for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

[http://www.cisco.com/en/US/products/products\\_psirt\\_rss\\_feed.html](http://www.cisco.com/en/US/products/products_psirt_rss_feed.html)

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## Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you might have identified a vulnerability in a Cisco product, contact PSIRT:

- Emergencies—[security-alert@cisco.com](mailto:security-alert@cisco.com)
- Nonemergencies—[psirt@cisco.com](mailto:psirt@cisco.com)



### Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.x through 8.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one that has the most recent creation date in this public key server list:

<http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on>

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

## Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

## Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>



### Note

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support Website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID

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or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

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- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

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