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Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Release 1.3(2a)

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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 19.



Note

Release 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

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

Table 1 On-Line Change History

Revision	Date	Description
A0	9/2/2004	Added DDTS CSCed64425 .
B0	11/9/2004	Added DDTS CSCef83504 .
C0	12/4/2004	Added DDTS CSCee01143 .
D0	12/08/2004	Added DDTS CSCin81760 .
E0	12/22/2004	Added DDTS CSCeg61535 .
F0	01/21/2005	Modified DDTS CSCee06496 .
G0	02/22/2005	Added DDTS CSCee89946 , CSCee54650 , CSCed30418 , CSCed33960 , CSCed35086 .
H0	03/24/2005	Added workaround information for all resolved caveats. Added DDTS CSCed13757 , CSCed16845 , CSCed30761 , CSCed32729 , CSCed34025 , CSCed35343 , CSCed42077 , CSCed58155 , CSCed65607 , CSCed75825 , CSCed94302 , CSCee18613 , CSCee43249 , CSCeg13762 , CSCeh21199 . Modified DDTS CSCed10846 , CSCed20053 .



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Table 1 On-Line Change History (continued)

Revision	Date	Description
I0	05/31/2005	Added DDTS CSCeh42252 and CSCeg66225
J0	06/23/2005	Added DDTS CSCei25319
K0	07/29/2005	Added DDTS CSCed57251 and CSCec31365
L0	05/01/2006	Added DDTS CSCeg84871 , CSCei91676 , and CSCej08751
M0	06/06/2006	Removed DDTS CSCed16845 .
N0	02/26/2007	Added DDTS CSCsh27840 .

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Introduction

The Cisco MDS 9000 Family of multilayer directors and fabric switches offer intelligent fabric-switching services that realize maximum performance while ensuring high reliability levels. They 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(2a) 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 and the minimum software version required. See the “[Determining the Software Version](#)” section on [page 4](#).

Table 2 Cisco MDS 9000 Family Supported Hardware Modules and Minimum Software Requirements

Component	Part Number	Description	Applicable Products
Software	M95S1K9-1.3.2	MDS 9500 Series supervisor/fabric-I, enterprise software	MDS 9500 Series only
	M92S1K9-1.3.2	MDS 9216 enterprise software	MDS 9216 only
	M91S1K9-1.3.2	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-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 and Minimum Software Requirements (continued)

Component	Part Number	Description	Applicable Products
LC-type fiber-optic SFP ¹	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 ²	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 ³ 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)	
	DS-CAC-4000W-INT	4000W AC power supply international (cable attached)	
	DS-CAC-1900W	1900W AC power supply	MDS 9506 only
	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

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 for all Cisco MDS 9000 Family products.

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

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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(2a) using any Cisco MDS SAN-OS software release other than Release 1.0(2a).

New Features in Release 1.3(2a)

Cisco MDS SAN-OS Release 1.3(2a) is a maintenance release for switches in the Cisco MDS 9000 Family. See the “[Caveats](#)” section for details on closed and outstanding caveats and limitations.



Note

The *Release Notes* are specific to this release. For the Cisco MDS Release 1.3 documentation set, see the “[Related Documentation](#)” section on page 19.



Caution

Cisco MDS SAN-OS Releases 1.3(2a) and 1.3(3) have been deferred. Please use Cisco MDS SAN-OS Release 1.3(3c) or later.

The following new features are introduced in Release 1.3(2a):

- “[Supported SFPs](#)” section on page 5
- “[New Commands](#)” section on page 5
- “[Deprecated Commands](#)” section on page 6

Supported SFPs

The **show interface interface-type slot/port transceiver** command can only be issued on a switch in the Cisco MDS 9100 Series if the FCOT is present. The following SFPs currently provide real-time diagnostics information for transceivers:

- 10-1954-01 (SX)—1-Gbps Ethernet and 2/1-Gbps Fibre Channel—short wave SFP
- 10-1955-01 (LX)—1-Gbps Ethernet and 2/1-Gbps Fibre Channel—long wave SFP

New Commands

The following new commands are added to Cisco MDS SAN-OS Release 1.3(2a):

- The **zoneset import** command imports the zoneset from the adjacent switch connected through the specified interface.
- The **zoneset export** command exports the zoneset to the adjacent switch connected through the specified VSAN.
- The **clear system reset-reason** command clears the reset-reason information stored in NVRAM and volatile persistent storage:

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- In a Cisco MDS 9500 Series switch, this command clears the reset-reason information stored in NVRAM and volatile persistent storage in the active and standby supervisor modules.
- In a Cisco MDS 9200 Series switch, this command clears the reset-reason information stored in NVRAM and volatile persistent storage in the active supervisor module.
- The **update license url** command updates an existing, expiring license file.
- The **show scsi-target pwwn** command displays the port WWN that is assigned to each OS (Windows, AIX, Solaris, Linux, or HPUX).
- The **discover scsi-target local** command now requires the **os** keyword along with one of the OS options (**aix**, **all**, **hpux**, **linux**, **solaris**, or **windows**).

Refer to *Cisco MDS 9000 Family Configuration Guide* for further information.

Deprecated Commands

The following commands were deprecated:

- **zone merge interface interface-type interface-number import vsan vsan-id** command (replaced by **zoneset import interface interface-type interface-number vsan vsan-id** command).
- **zone merge export vsan vsan-id** (replaced by the **zoneset export vsan vsan-id**).
- **clear license all** command (licenses can only be uninstalled by specifying the file name).

Replaced commands are maintained to ensure compatibility.

Refer to *Cisco MDS 9000 Family Configuration Guide* for further information.

Limitations and Restrictions

The following limitations and restrictions apply to all switches in the Cisco MDS 9000 Family:

- [“Upgrading Modules Under Specific Conditions” section on page 6](#)
- [“Debug Files” section on page 7](#)

Upgrading Modules Under Specific Conditions

When upgrading any switching or services module from Cisco MDS SAN-OS Release 1.3(1) to 1.3(2a), if you perform the following procedure, the module configuration will be lost:

- a. Perform a fresh boot of a switch with 1.3(1) using the **write erase** command before booting
- b. Configure the Gigabit Ethernet IP address
- c. Save the configuration.
- d. Upgrade to Cisco MDS SAN-OS Release 1.3(2a) or downgrade to Release 1.2(x)

This does not happen in the following upgrades:

- From Cisco MDS SAN-OS Release 1.2(x) to Release 1.3(2a)
- From Cisco MDS SAN-OS Release 1.2(x) to Release 1.3(1) and then to Release 1.3(2a)

Refer to [CSCed10846](#) for further information.

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Rolling Upgrades

Any software upgrade for the Caching Services Module (CSM) and the IP Storage (IPS) services module is disruptive. These modules use a rolling upgrade install mechanism whereby, both modules can only be upgraded in sequence. After the first module is upgraded and before the second module is going to be upgraded, the Cisco MDS SAN-OS software introduces a time delay to ensure that all applications in the module reach a steady state. The IPS module require a 5-minute delay before the next IPS module is upgraded to guarantee a stable state. Refer to the *Cisco MDS 9000 Family Configuration Guide* for further information on using the **install all** command or the IPS module.

The CSM module requires a 30 minute delay before the next CSM module is upgraded to guarantee a stable state. Refer to the *Cisco MDS 9000 Family SAN Volume Controller Configuration Guide* for further information on upgrading CSMs.

Debug Files

While upgrading from Cisco MDS SAN-OS Release 1.1(x) or Release 1.2(x) to any other release, debug files such as the tcap-module-1-lc.gz file may be present in the volatile: directory. These files are not indicative of any errors and can be deleted.

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(1)	1.3(2a)
Severity 1		
CSCed10846	O	R
CSCee18613	O	O
CSCeg13762		O
Severity 2		
CSCed18285		R
CSCed19195		R
CSCed27202		O
CSCed30418		O
CSCed33960		O
CSCed35086		O
CSCed42077		O
CSCed57251	O	O
CSCed65607	O	O
CSCed75825	O	O

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Table 3 Release Caveats and Caveats Corrected Reference (continued)

DDTS Number	Software Release (Resolved or Open)	
	1.3(1)	1.3(2a)
CSCee01143	O	O
CSCee06496	O	O
CSCee43249	O	O
CSCef83504	O	O
CSCeg84871	O	O
CSCei25319	O	O
CSCsh27840	O	O
Severity 3		
CSCdz12179	O	O
CSCdz43707	O	R
CSCea45726	O	O
CSCea82028	O	O
CSCeb34865	O	R
CSCec10009	O	O
CSCec31365	O	O
CSCec79467	O	R
CSCed13757	O	O
CSCed14360	O	O
CSCed14920	O	O
CSCed19527		R
CSCed20053		O
CSCed23547		O
CSCed24531		O
CSCed30761		O
CSCed32729	O	O
CSCed34025		O
CSCed35343		O
CSCed58155	O	O
CSCed64425	O	O
CSCed94302	O	O
CSCee54650		O
CSCee89946	O	O
CSCeg61535	O	O
CSCeg66225	O	O
CSCeh21199	O	O

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Table 3 Release Caveats and Caveats Corrected Reference (continued)

DDTS Number	Software Release (Resolved or Open)	
	1.3(1)	1.3(2a)
CSCei91676	O	O
CSCej08751	O	O
CSCin81760	O	O
Severity 4		
CSCeh42252	O	O

Resolved Caveats

- CSCed10846**

Symptom: Module-specific information will not be saved properly in the startup configuration if saved with a fresh boot (boot with no saved config) of 1.3(1) and will be lost when the switch is reload. This does not happen during an upgrade from Cisco MDS SAN-OS Release 1.2(x) to 1.3(1) to 1.3(2a).

Workaround: Do not save startup configuration with a fresh boot of 1.3(1).
- CSCed18285**

Symptom: When a member of an Inter-VSAN Routing (IVR) zone (device, VSAN) is removed and the VSAN of the removed device is not in any of the active IVR zones, data traffic for other devices in other VSANs may be affected in some topologies.

Workaround: Shut down the problem port and then bring it back up.
- CSCed19195**

Symptom: When a switch with a IVR configuration is rebooted, a 0x404e000b error may show up.

Workaround: None. Upgrade to Cisco MDS SAN-OS Release 1.3(2a).
- CSCdz43707**

Symptom: The Fabric Manager or Device Manager reports an error for all operations if the switch is multi-homed (both IPFC-based in-band management and the out-of-band management interface are up) and the Fabric or Device Manager was started using the IPFC address. Typically, you will see a `notInTime window` error in the Device Manager and all SNMP set operations fail.

Workaround: If the switch is multi-homed, then start the Fabric or Device Manager on the switch using the out-of-band management interface IP address.
- CSCeb34865**

Symptom: The following error message is issued when you try configuring switch drop latency:
`changing this parameter is not allowed could not update the value`

Workaround: None. Upgrade to Cisco MDS SAN-OS Release 1.3(2a).
- CSCec31365**

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

Workaround: None.

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- CSCec79467
Symptom: When running with McData's 5.0 firmware, the fabric may stall after the E-port is up.
Workaround: The Cisco MDS SAN-OS Release 1.3(2a) software is compatible with McData's 5.0 or 6.0 firmware.
- CSCed19527
Symptom: When a power-supply fan fails, a Call Home message is not sent out. A syslog error message is printed and a SNMP trap is sent. The **show environment fan** command displays the appropriate status for the power supply fan.
Workaround: None. Upgrade to Cisco MDS SAN-OS Release 1.3(2a).

Open Caveats

- CSCee18613
Symptom: The name server loses route entries (well-known address routes) when a new module is inserted or if an existing module is reset in a Cisco MDS 9000Family switch that has been nondisruptively upgraded to SAN-OS 1.3(2a) or 1.3(3) from a SAN OS release 1.0(x), or 1.1(x), or 1.2(x). This results in the host is unable to communicate with that module.
Workaround:
 - a. This bug is fixed in Release 1.3(3c) and all subsequent releases.
 - b. If you received the Cisco MDS Switch with a factory-installed SAN-OS Release 1.3(x), you will not be affected by this bug.
 - c. If you are currently running SAN-OS Releases 1.0(x), 1.1(x), or 1.2(x) and planning to upgrade to Releases 1.3(2a) or 1.3(3), be sure to schedule a switch reload after the SAN-OS upgrade.
- 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).
- CSCed27202
Symptom: Upon receiving a Type Length Value (TLV) parameter type that is outside of the valid range (0x1 - 0x18), the Cisco Discovery Protocol (CDP) daemon may cause the MDS switch to reload.
Workaround: If you observe this problem in Release 1.3(2a) and earlier, disable CDP.
- CSCed30418
Symptom: Non-MDS switches do not handle IVR frames gracefully, resulting in resources (for example, exchange/memory) not being freed.
Workaround: None.
- CSCed33960
Symptom: When an IVR zone set is displayed using the CLI, duplicate members are displayed in the zones. This does not occur if displayed using the GUI.
Workaround: Use the GUI to display an IVR zone set.

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- CSCed35086

Symptom: Moving a host from one switch to another does not get reflected in the Fabric Manager map.

Workaround: None.
- CSCed42077

Symptom: When a McData switch with firmware 4.01.xx/5.01.xx/5.02.xx in open-fabric mode is attached to a Cisco MDS switch and the hosts attached to the MDS register a symbolic port or node name with the FCNS, the name server on the McData switch may send abort sequences to devices that are locally attached to the McData switch. According to the FC-SW2 spec, (Section 9.3.3 Name Server Objects), Port Symbolic Name and Node Symbolic Name are not mandatory fields in the small name server object. The result is that an end device that successfully registers a symbolic Port/Node name with an MDS switch may cause the McData switch name server to malfunction and send abort sequences to end devices that log into the McData name server.

Workaround: Plug all devices that register symbolic node/port world wide names into the McData. This issue exists as of Cisco MDS firmware up to and including 1.3(3c).
- 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.
- CSCed65607

Symptom: A vulnerability in the Transmission Control Protocol (TCP) specification (RFC 793) was discovered by an external researcher. The successful exploitation enables an adversary to reset any established TCP connection in a much shorter time than was previously discussed publicly. Depending on the attacked protocol, a successful attack may have additional consequences beyond terminated connection. This attack vector is only applicable to those sessions terminating in a device (such as a router, switch, or computer) and not to the sessions that are only passing through the device (for example, transit traffic that is being routed by a router). In addition, this attack vector does not directly compromise data integrity or confidentiality. All Cisco products which contain TCP stack are susceptible to this vulnerability.

This advisory is available at the following website, and it describes this vulnerability as it applies to Cisco products that run Cisco IOS® software.
<http://www.cisco.com/warp/public/707/cisco-sa-20040420-tcp-ios.shtml>

A companion advisory that describes this vulnerability for products that do not run Cisco IOS software is available at
<http://www.cisco.com/warp/public/707/cisco-sa-20040420-tcp-nonios.shtml>.

Workaround: Depending on the application, the connection may get automatically reestablished. In other cases, a user will have to repeat the action (for example, open a new Telnet or SSH session).

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- CSCed75825

Symptom: If a spare supervisor module has the local boot variables pointing to Release 1.0(1) or 1.0(2) images, inserting that spare supervisor module into a functioning switch will cause the active supervisor module to fail. This issue exists in all releases up to and including Release 1.3(3c).

Workaround: If the active supervisor runs any of the affected releases, check the version of the spare supervisor module before inserting it, or issue the **reload module slot-number force-dnld** command immediately after the insertion. The *slot-number* is the number of the slot in which the spare module is inserted.

- CSCee01143

Symptom: You may not be able to login to Fabric Manager or Device Manager using SNMPv3. You may get the following error message:

```
SNMP NotInTimeWindow
```

Workaround: Set the clock on the switch to a different value and then set it to your correct time. For Example.

```
MDS# clock set 04:23:01 26 March 2000
MDS# clock set 04:23:01 11 November 2004
```

After setting the clock, launch FM and verify the connection.

- CSCee06496

Symptom: If you are running Cisco MDS SAN-OS releases 1.1(3), 1.2(1a), 1.2(1b), 1.2(2a), 1.3(1), 1.3(2a), 1.3(3), or 1.3(3c), the following sequence of operations might lead to the failure of one or both supervisor modules simultaneously:

- Removing an IPS-8 module from the switch.
- Inserting a different type of module in the same slot.
- Configuring the new module.
- Issuing the **copy running-config startup-config** command.

Removing the IPS-8 module at any time and replacing with another IPS-8 module does not cause this problem.

Workaround: Before replacing an IPS-8 module with a different type of module in the same slot, upgrade to Cisco MDS SAN-OS Release 1.3(4a).

- 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.

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- 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.
- 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.
- 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.

Workaround: Perform a refresh on Device Manager to clear the problem.
- 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.
- CSCdz12179

Symptom: When the Fabric Manager or Device Manager communicates with the Cisco MDS switch through Virtual Private Network (VPN) or any Network Address Translation (NAT) scheme, a generic error message occurs while adding duplicate zone members from a VPN connection.

Workaround: None. If an error occurs while running through VPN/NAT, all errors will show up as generic errors without a detailed message describing the error.
- CSCea45726

Symptom: The Device Manager shows a port in the down state (red square) when the operational status of the port is up. This rare occurrence is due to the failure cause of the port not being empty (for example, the failure case reflects the `initializing` state).

Workaround: None.
- CSCea82028

Symptom: When a switch is upgraded while the Device Manager for that switch is open, a Java error of class cast exception occurs. When this error occurs, some Device Manager menu items are unusable while other menu items remain in this error state.

Workaround: Close the Device Manager and reopen it.
- CSCec10009

Symptom: When a previously-connected port is disconnected and reconnected to a different port, the old port connection displays a red cross. The tool tip continues to show the presence of the new port and the old port as members of the loop. When this happens the WWN of the new device is both in the tool tip of the nonexistent loop and in the disconnected device. It may take a poll cycle for the PortChannel to appear on the fabric map.

Workaround: Refresh or purge the fabric map to remove the nonexistent (dead) link.
- CSCed13757

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Symptom: When the FCIP write acceleration feature is enabled, IPFC frames and related Fibre Channel exchanges may not be handled correctly—the IPFC traffic generated using a ping function did not follow the specified exchange management assumptions and norms.

Workaround: None.

- CSCed14360

Symptom: If a switch does not have sufficient PortChannels available for an SVC Interface, it will remain in a failure state. This situation can occur if you allocate all 128 PortChannels available in the system. You can verify this failure if you see the `node down` status in the output of the **show interface svc slot/node** command. To confirm that this failure is a result of insufficient PortChannels, issue the **show port-channel usage** command.

Workaround: Identify at least three PortChannels that can be released so they appear in the unused section of the **show port-channel usage** command output. Use the **no interface port-channel number** command to delete unneeded PortChannels. Finally, reset the SVC Interface.

- CSCed14920

Symptom: During a switch upgrade, a 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: Before installing the license, issue the **copy run st** command. After performing this command, the **install license** command should work properly.

- CSCed23547

Symptom: If the switchname of the MDS switch is only assigned numeric characters, the licensing functionality may encounter problems.

Workaround: Modify the switchname to also contain one or more alpha characters.

- CSCed24531

Symptom: An IBM iSERIES server with a Fibre Channel disk HBA (Model 2766) requires the F-port mode to be configured in the MDS switch in order to bring up the attached MDS switch port.

Workaround: For IBM iSERIES sever with Fibre Channel disk HBA (Model 2766), set the MDS switch port mode to F-port instead of using the default auto-mode.

- CSCed30761

Symptom: IP address-based access control for an iSCSI virtual target was not enforced as designed.

Workaround: None.

- CSCed32729

Symptom: When altering an Fx-port state using SNMP, the following error is reported:

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```
snmpset: Agent reported error with variable #1.
.iso.org.dod.internet.mgmt.mib-2.75.1.2.2.1.1.22.0: SNMP: A general
failure occurred on the agent.
```

Workaround: None.

- CSCed34025

Symptom: When adding zone aliases 2048 to a zone, an `Snmp Wrong length` error is displayed.

Workaround: None.

- CSCed35343

Symptom: The `add zoneset` command removes zones with the same name from existing zone sets. Even after adding a new zone, other zone sets don't have the new zone as part of their zone sets. This is only caused by third party applications.

Workaround: Use the `G3 AZD` command with third party applications to add zone sets.

- CSCed58155

Symptom: The Fabric Manager (FM) cannot correlate an iSCSI host with two NIC cards when the iSCSI initiator is identified by the IP address (either from a matching static **iscsi initiator ip-address** command or from an iSCSI interface **switchport initiator id ip-address** command for dynamic initiators). This is a result of the switch putting IP address in the symbolic-node-name field in the FCNS entry for that initiator. This was done to allow zoning based on IP address in ISAN software Release 1.1(x) and 1.2(x) where zone membership for iSCSI initiator can only be based on symbolic-node-name value.

Workaround: To allow FM to show the above-mentioned host properly, the switch will instead fill the FCNS entry's symbolic-node-name field with the actual iSCSI initiator node name (i.e. its IQN name).

This impacts for users who configure zoning based on iSCSI initiator's IP address via the symbolic node name field, e.g.

```
zone name a vsan 1
member symbolic-nodename 10.2.2.112
```

Change the above configuration to the following for this configuration to continue working after upgrading to Release 1.3(4a).

```
zone name a vsan 1
member ip-address 10.2.2.112
```

- 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 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
```

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- CSCed94302

Symptom: Effective Release 1.3.x, despite assigning an IP address to a Gigabit Ethernet interface on a IPS module and enabling that interface (using the **no shutdown** command), a **ping** command to the interface's IP address is not answered.

Workaround: You must explicitly enable either FCIP or iSCSI using the **enable fcip** or **enable iscsi** commands.

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- CSCee54650

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

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

- Connect to the switch using the switch's management IP address
- Use the `svc-config` and `show nodes local` commands to verify that the config node of the required cluster is present in that switch.
- 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.
- Change the cluster IP address back to the original IP address using the same steps defined in Step C.

- 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)
```

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.

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- 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.

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.

- 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.

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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 Release 1.3(2a)*
- *Cisco MDS 9100 Series Quick Start Guide*
- *Cisco MDS 9500 Series and Cisco MDS 9216 Switch Quick Start Guide*
- *Cisco MDS 9100 Series Hardware Installation Guide*
- *Cisco MDS 9216 Switch Hardware Installation Guide*
- *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 and Device Manager User Guide*
- *Cisco MDS 9000 Family Troubleshooting Guide*
- *Cisco MDS 9000 Family System Messages Guide*
- *Cisco MDS 9000 Family MIB Reference Guide*
- *Cisco MDS 9000 Family CIM Programming Reference Guide*

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For information on VERITAS Storage Foundation™ for Networks 1.0, Cisco, refer to the following VERITAS documents available at <http://support.veritas.com/>

- *VERITAS Storage Foundation for Networks Overview*
- *VERITAS Storage Foundation for Networks Installation and Configuration Guide*
- *VERITAS Storage Foundation for Networks Obtaining and Installing Licenses*
- *VERITAS Storage Foundation for Networks GUI Administrator's Guide*
- *VERITAS Storage Foundation for Networks CLI Administrator's Guide*
- *VERITAS Storage Foundation for Networks README*

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

- *Getting Started—IBM TotalStorage SAN Volume Controller Storage Software for Cisco MDS 9000*
- *Configuration Guide—IBM TotalStorage SAN Volume Controller Storage Software for Cisco MDS 9000*
- *Supported Hardware List—IBM TotalStorage SAN Volume Controller Storage Software for Cisco MDS 9000*
- *Supported Software Levels—IBM TotalStorage SAN Volume Controller Storage Software for Cisco MDS 9000*
- *Command Line Interface User's Guide—IBM TotalStorage SAN Volume Controller Storage Software for Cisco MDS 9000*
- *Host Attachment Guide—IBM TotalStorage SAN Volume Controller Storage Software*
- *User Guide—Subsystem Device Driver User's Guide*

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Cisco Product Security Overview

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http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

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- 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

Reporting Security Problems in Cisco Products

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- Emergencies—security-alert@cisco.com
- Nonemergencies—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

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



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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:

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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

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<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:

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- *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:

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