

Send documentation comments to mdsfeedback-doc@cisco.com



Cisco MDS 9000 Family Release Notes for Storage Services Interface Image Release 4.2(3k)

Release Date: November 29, 2010

Part Number: OL-20651-07 D0

This document describes the caveats and limitations for the Storage Service Interface (SSI) software for the various Cisco MDS Services Modules (SSM, MSM-18/4, and MDS 9222i module). Use this document in conjunction with the documents listed in the “[Related Documentation](#)” section on page 11.



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 Notes*:
http://www.cisco.com/en/US/products/ps5989/prod_release_notes_list.html

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

Table 1 Online History Change

| Revision | Date | Description |
|----------|------------|--|
| A0 | 11/29/2010 | Created release notes. |
| B0 | 12/02/2010 | Added CSCtk60509 to the “ Open Caveats ” section. |
| C0 | 12/07/2010 | Added DDTS CSCtj06133. |
| D0 | 12/09/2010 | Removed DDTS CSCtj06133, and added the information associated with this caveat to the “ Limitations ” section. |

Contents

This document includes the following sections:

- [Introduction, page 2](#)
- [System Requirements, page 2](#)
- [New Features, page 7](#)



Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

- [Limitations, page 8](#)
- [Compatibility Matrix, page 9](#)
- [Caveats, page 9](#)
- [Related Documentation, page 11](#)
- [Obtaining Documentation and Submitting a Service Request, page 13](#)

Introduction

The SSI interface provides the following features:

- Network-based volume management (EMC Invista, Incipient iNSP)
- Network-assisted storage applications using SANTap
- Fibre Channel Write Acceleration (FC-WA) and SCSI flow statistics
- Network-Accelerated Serverless Backup (NASB)
- Data Mobility Manager (DMM)
- Secure Data Erase



Note

As of NX-OS Release 4.1(1b), SAN-OS has been changed to NX-OS. References to SAN-OS releases before 4.1(1b) still apply.

System Requirements

This section describes the system requirements for Cisco MDS NX-OS Release 4.2(3k) and includes the following topics:

- [Components Supported, page 2](#)
- [Determining the Software Version, page 7](#)

Components Supported

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

Table 2 *Cisco MDS 9000 Family Supported Software and Hardware Components*

| Component | Part Number | Description | Applicable Product |
|-----------|----------------|---|----------------------|
| Software | M95S2K9-4.2.3a | MDS 9500 Supervisor/Fabric-2, NX-OS software. | MDS 9500 Series only |
| | M92S2K9-4.2.3a | MDS 9222 Supervisor/Fabric-2, NX-OS software. | MDS 9200 Series only |
| | M92S1K9-4.2.3a | MDS 9216 Supervisor/Fabric-I, NX-OS software. | MDS 9216i only |
| | M91S2K9-4.2.3a | MDS 9100 Supervisor/Fabric-2, NX-OS software. | MDS 9100 Series only |

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

Table 2 Cisco MDS 9000 Family Supported Software and Hardware Components (continued)

| Component | Part Number | Description | Applicable Product |
|-------------------------|---------------|---|-----------------------|
| SSI Interface | SSI-M9K9-423k | Storage Services Interface for NX-OS Release 4.2(3k) | MDS 9000 Family |
| Licenses | M9500SSE184K9 | Storage Services Enabler License for one MSM-18/4 module | MDS 9500 Series only |
| | M9222ISSE1K9 | Storage Services Enabler License | MDS 9222i Switch only |
| | M9200SSE184K9 | Storage Services Enabler License for one MSM-18/4 module | MDS 9200 Series only |
| | M95DMM184K9 | Data Mobility Manager License for one MSM-18/4 module | MDS 9500 Series only |
| | M9222IDMMK9 | Data Mobility Manager License for Cisco MDS 9222i | MDS 9222i Switch |
| Licenses (continued) | M92DMM184K9 | Data Mobility Manager License for one MSM-18/4 module | MDS 9200 Series only |
| | M95DMM184TSK9 | Data Mobility Manager for one MSM-18/4 module — Time limited to 180 days only | MDS 9500 Series only |
| | M9222IDMMTSK9 | Data Mobility Manager — Time limited to 180 days only | MDS 9222i Switch only |
| | M92DMM184TSK9 | Data Mobility Manager for one MSM-18/4 module — Time limited to 180 days only | MDS 9200 Series only |
| Chassis | DS-C9513 | Cisco MDS 9513 Multilayer Director (13-slot multilayer director with 2 slots for Supervisor-2 modules, with 11 slots available for switching modules — SFPs sold separately) | MDS 9513 Switch |
| | DS-C9509 | Cisco MDS 9509 Multilayer Director (9-slot multilayer director with 2 slots for Supervisor modules, with 7 slots available for switching modules — SFPs sold separately) | MDS 9509 Switch |
| | DS-C9506 | Cisco MDS 9506 Multilayer Director (6-slot multilayer director with 2 slots for Supervisor modules, with 4 slots available for switching modules — SFPs sold separately) | MDS 9506 Switch |
| | DS-C9222i-K9 | Cisco MDS 9222i Multilayer Fabric Switch (3-rack-unit (3RU) semimodular multilayer fabric switch with 18 4-Gbps Fibre Channel ports, 4 Gigabit Ethernet ports, and a modular expansion slot for Cisco MDS 9000 Family Switching and Services modules) | MDS 9222i Switch |
| | DS-C9216i-K9 | Cisco MDS 9216i Multilayer Fabric Switch(3RU semi-modular multilayer fabric switch with 14 2-Gbps Fibre Channel ports, 2 Gigabit Ethernet ports, and a modular expansion slot for Cisco MDS 9000 Family Switching and Services modules) | MDS 9216i Switch |
| | DS-C9134-K9 | Cisco MDS 9134 34-Port Multilayer Fabric Switch (1RU fixed-configuration multilayer fabric switch with 32 4-Gbps and 2 10-Gbps Fibre Channel ports) | MDS 9134 Switch |
| | DS-C9124-K9 | Cisco MDS 9124 24-Port Multilayer Fabric Switch (1RU fixed-configuration multilayer fabric switch with 24 4-Gbps Fibre Channel ports) | MDS 9124 Switch |

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

Table 2 Cisco MDS 9000 Family Supported Software and Hardware Components (continued)

| Component | Part Number | Description | Applicable Product |
|--------------------------|------------------|---|--|
| Supervisor Modules | DS-X9530-SF2-K9 | Cisco MDS 9500 Series Supervisor-2 Module | MDS 9500 Series |
| | DS-X9530-SF2A-K9 | Cisco MDS 9500 Series Supervisor-2A Module | MDS 9500 Series |
| Switching Modules | DS-X9016 | Cisco MDS 9000 16-Port Fibre Channel Switching Module with Small Form-Factor Pluggable (SFP) LC (16-port, 2-Gbps Fibre Channel switching module with SFP LC connectors for Cisco MDS 9216i and Cisco MDS 9500 Series) | MDS 9500 Series MDS 9216i Switch |
| | DS-X9032 | Cisco MDS 9000 32-Port 2-Gbps Fibre Channel Switching Module with SFP LC connectors | MDS 9500 Series MDS 9216i Switch |
| | DS-X9112 | Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module with SFP LC connectors | MDS 9500 Series MDS 9200 Series |
| | DS-X9124 | Cisco 24-port 4-Gbps Fibre Channel Switching Module with SFP LC connectors | MDS 9500 Series MDS 9200 Series |
| | DS-X9148 | Cisco MDS 9000 48-port 4-Gbps Fibre Channel Switching Module with SFP LC | MDS 9500 Series Mds 9200 Series |
| | DS-X9704 | Cisco MDS 9000 Family 4-Port 10-Gbps Fibre Channel Switching Module with SFP LC | MDS 9500 Series Mds 9200 Series |
| | DS-X9224-96K9 | Cisco MDS 9000 24-Port 8-Gbps Fibre Channel Switching Module with SFP and SFP+ LC connectors | MDS 9500 Series |
| | DS-X9248-96K9 | Cisco MDS 9000 48-Port 8-Gbps Fibre Channel Switching Module with SFP and SFP+ LC connectors | MDS 9500 Series |
| | DS-X9248-48K9 | Cisco MDS 9000 4/44-Port Host-Optimized 8-Gbps Fibre Channel Switching Module with SFP and SFP+ LC connectors | MDS 9500 Series MDS 9222i Switch |
| | Services Modules | DS-X9304-18K9 | Cisco MDS 9000 18/4-Port Multiprotocol Services Module (MSM-18/4) — 18-port, 4-Gbps Fibre Channel plus 4-port Gigabit Ethernet IP services and switching module with SFP LC connectors |
| DS-X9302-14K9 | | Cisco MDS 9000 14/2-Port Multiprotocol Services Module — 14-port, 2-Gbps Fibre Channel plus 2-port Gigabit Ethernet IP services and switching module with SFP LC connectors | MDS 9500 Series MDS 9216i Switch |
| DS-X9032-SSM | | Cisco MDS 9000 32-Port Storage Services Module — 32-port, 2-Gbps storage services module with SFP LC connectors | MDS 9500 Series MDS 9200 Series |
| External crossbar module | DS-13SLT-FAB1 | Cisco MDS 9513 Switching Fabric1 Module | MDS 9513 Switch |
| | DS-13SLT-FAB2 | Cisco MDS 9513 Switching Fabric2 Module | MDS 9513 Switch |

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

Table 2 Cisco MDS 9000 Family Supported Software and Hardware Components (continued)

| Component | Part Number | Description | Applicable Product |
|-------------------------|--|--|--|
| Optics | DS-X2-FC10G-SR | X2 SC optics, 10-Gbps Fibre Channel for short reach | MDS 9500 Series MDS 9200 Series |
| | DS-X2-FC10G-LR | X2 SC optics, 10-Gbps Fibre Channel for long reach (10 km) | MDS 9500 Series MDS 9200 Series |
| | DS-X2-FC10G-ER | X2 SC optics, 10-Gbps Fibre Channel for extended reach (40 km) | MDS 9500 Series MDS 9200 Series |
| | DS-X2-FC10G-CX4 | X2 SC optics, 10-Gbps Fibre Channel over copper | MDS 9500 Series MDS 9200 Series |
| | DS-X2-E10G-SR | X2 SC optics, 10-Gbps Ethernet for short reach | MDS 9500 Series MDS 9200 Series |
| LC-type fiber-optic SFP | DS-SFP-FC8G-SW | SFP+ optics (LC type) for 2-, 4-, or 8-Gbps Fibre Channel for shortwave mode | MDS DS-X9200 Series switching modules |
| | DS-SFP-FC8G-LW | SFP+ optics (LC type) for 2-, 4-, or 8-Gbps Fibre Channel for longwave mode; supports distances up to 10 km | MDS DS-X9200 Series switching modules |
| | DS-SFP-FC4G-SW | SFP optics (LC type) for 1-, 2-, or 4-Gbps Fibre Channel for shortwave mode | MDS 9124 and DS-X9100 Series switching modules |
| | DS-SFP-FC4G-MR | SFP optics (LC type) for 1-, 2-, or 4-Gbps Fibre Channel for longwave mode; supports distances up to 4 km | MDS 9124 and DS-X9100 Series switching modules |
| | DS-SFP-FC4G-LW | SFP optics (LC type) for 1-, 2-, or 4-Gbps Fibre Channel for longwave mode; supports distances up to 10 km | MDS 9124 and DS-X9100 Series switching modules |
| | DS-SFP-FC-2G-SW | SFP optics (LC type) for 1- or 2-Gbps Fibre Channel for shortwave mode; not supported for use in 4-Gbps-capable ports | MDS 9000 Series |
| | DS-SFP-FC-2G-LW | SFP optics (LC type) for 1- or 2-Gbps Fibre Channel for longwave mode for Cisco MDS 9500, MDS 9200, and MDS 9100 Series; not supported for use in 4-Gbps-capable ports | MDS 9000 Series |
| | DS-SFP-FCGE-SW | SFP optics (LC type) for 1-Gbps Ethernet and 1- or 2-Gbps Fibre Channel for shortwave mode; not supported for use in 4-Gbps-capable ports | MDS 9000 Series |
| | DS-SFP-FCGE-LW | SFP optics (LC type) for 1-Gbps Ethernet and 1- or 2-Gbps Fibre Channel for longwave mode; not supported for use in 4-Gbps-capable ports | MDS 9000 Series |
| DS-SFP-GE-T | SFP (RJ-45 connector) for Gigabit Ethernet over copper | MDS 9000 Series | |

Send documentation comments to mdsfeedback-doc@cisco.com

Table 2 Cisco MDS 9000 Family Supported Software and Hardware Components (continued)

| Component | Part Number | Description | Applicable Product |
|--|------------------|---|------------------------------------|
| Cisco Coarse Wavelength-Division Multiplexing (CWDM) | DS-CWDM-xxxx | CWDM Gigabit Ethernet and 1- or 2-Gbps Fibre Channel SFP LC type, where product number xxxx = 1470, 1490, 1510, 1530, 1550, 1570, 1590, or 1610 nm | MDS 9000 Family |
| | DS-CWDM4Gxxxx | CWDM 4-Gbps Fibre Channel SFP LC type, where product number xxxx = 1470, 1490, 1510, 1530, 1550, 1570, 1590, or 1610 nm | MDS 9000 Family |
| Dense Wavelength-Division Multiplexing (DWDM) | DWDM-X2-xx.xx | DWDM X2 SC optics for 10-Gbps Fibre Channel connectivity to an existing Ethernet DWDM infrastructure, with 15xx.xx nm wavelength, where xx.xx = 60.61, 59.79, 58.98, 58.17, 56.55, 55.75, 54.94, 54.13, 52.52, 51.72, 50.92, 50.12, 48.51, 47.72, 46.92, 46.12, 44.53, 43.73, 42.94, 42.14, 40.56, 39.77, 38.98, 38.19, 36.61, 35.82, 35.04, 34.25, 32.68, 31.90, 31.12, or 30.33 | MDS 9500 Series MDS 9200 Series |
| | DWDM-SFP-xxxx | DWDM Gigabit Ethernet and 1- or 2-Gbps Fibre Channel SFP LC type, where product number xxxx = 3033, 3112, 3190, 3268, 3425, 3504, 3582, 3661, 3819, 3898, 3977, 4056, 4214, 4294, 4373, 4453, 4612, 4692, 4772, 4851, 5012, 5092, 5172, 5252, 5413, 5494, 5575, 5655, 5817, 5898, 5979, or 6061nm | MDS 9000 Family |
| Add/Drop Multiplexer (ADM) | DS-CWDMOADM4A | 4-channel CWDM optical ADM (OADM) module (Cisco CWDM 1470, 1490, 1510, or 1530 NM Add/Drop Module) | MDS 9000 Family |
| | DS-CWDMOADM4B | 4-channel CWDM OADM module (Cisco CWDM 1550, 1570, 1590, or 1610 NM Add/Drop Module) | MDS 9000 Family |
| | DS-CWDM-MUX8A | ADM for 8 CWDM wavelengths | MDS 9000 Family |
| CWDM Multiplexer Chassis | DS-CWDMCHASSIS | 2-slot chassis for CWDM ADMs | MDS 9000 Family |
| Power Supplies | DS-CAC-300W | 300W AC power supply | MDS 9100 Series |
| | DS-C24-300AC | 300W AC power supply | MDS 9124 Switch |
| | DS-CAC-845W | 845W AC power supply for Cisco MDS 9200 Series | MDS9200 Series |
| | DS-CAC-3000W | 3000W AC power supply for Cisco MDS 9509 | MDS 9509 Switch |
| | DS-CAC-6000W | 6000W AC power supply for Cisco MDS 9513 | MDS 9513 Switch |
| | DS-CAC-1900W | 1900W AC power supply for Cisco MDS 9506 | MDS 9506 Switch |
| CompactFlash | MEM-MDS-FLD512M | External 512-MB CompactFlash memory for supervisor module | MDS 9500 Series |
| Port Analyzer Adapter | DS-PAA-2, 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 |
| Smart Card Reader | DS-SCR-K9 | Storage Media Encryption (SME) Smart Card Reader | MDS 9000 Family |

Send documentation comments to mdsfeedback-doc@cisco.com

Table 2 Cisco MDS 9000 Family Supported Software and Hardware Components (continued)

| Component | Part Number | Description | Applicable Product |
|------------|--------------|--|--------------------|
| Smart Card | DS-SC-K9 | SME Smart Card | MDS 9000 Family |
| CD-ROM | M90FM-CD-441 | Cisco MDS 9000 Management Software and Documentation CD-ROM for Cisco MDS 9000 NX-OS Software Release 4.2(3) | MDS 9000 Family |

Determining the Software Version



Note

Use the latest available software release supported by your vendor for all Cisco MDS 9000 Family products.

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

To determine the version of the Cisco NX-OS software currently running on a Cisco MDS 9000 Family switch using the Fabric Manager, from the Switches tab in the information pane, locate the switch using the IP address, logical name, or WWN, and then check its version in the Release column.

Downloading Software

To download the latest Cisco software, access the Software Center at this URL:

<http://www.cisco.com/public/sw-center>



Note

If you would like to request code to be provided under the terms of either GNU General Public License (GPL) or the GNU Lesser General Public License (LGPL), contact mds-software-disclosure@cisco.com.

If SSMs are present in a Cisco MDS 9000 Family switch, these upgrades may be performed as required:

- Upgrading a previously provided package
- Upgrading the SAN-OS image
- Reformatting the SSM add-on image

If you need additional information about installing or upgrading the SSM, refer to the *Cisco MDS 9000 Family Storage Services Module Software Installation and Upgrade Guide*.

New Features

This section describes the new features introduced in this release. For more information about the features listed, see the documentation set listed in the “[Obtaining Documentation and Submitting a Service Request](#)” section on page 13.

The SSI Release 4.2(3k) image is compatible with the following Cisco MDS NX-OS Releases: 4.2(3), 4.2(3a), 4.2(7a), and 4.2(7b).

Send documentation comments to mdsfeedback-doc@cisco.com

There are no new features in this release.

Limitations

This sections lists limitations or restrictions associated with this release.

Length of SANTap Commands

If you execute a SANTap command that is equal to or greater than 18 characters, the command fails and displays an error message like the following:

```
switch# sh santap module 8 dvt
remuser too long
```

Commands that have fewer characters, such as the **sh ivr** command or the **sh zoneset act** command, execute correctly.

You might see this issue if you are collecting information from the supervisor module and you attempt to execute SANTap commands that are 18 characters in length or more.

There are two ways to work around this issue:

- Attach to the module and collect the information on the module itself.
- Enter a command with less than 18 characters.

SANTap Does Not Support VMware vStorage APIs for Array Integration

The Cisco MDS SSI Release 4.2(3k) image for SANTap is not compatible with the Hardware Acceleration vStorage APIs for Array Integration (VAAI) feature of vSphere 4.1.

[Table 3](#) lists the SCSI commands that are issued as part of vSphere 4.1 Hardware Acceleration.

Table 3 *SCSI Commands That are Issued in vSphere 4.1 Hardware Acceleration*

| Command | Opcode |
|-------------------|--------|
| Write same (16) | 0x93 |
| UNMAP | 0x42 |
| Extended copy | 0x83 |
| Compare and Write | 0x89 |
| Compare and Swap | 0xf1 |

For more information about the vSphere 4.1 Hardware Acceleration feature, go to this URL:

http://www.vmware.com/support/vsphere4/doc/vsp_41_new_feat.html#storage

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

Configuring SSM Ports in Auto Mode

Starting with Cisco MDS SAN-OS Release 3.0(1), the SSM front panel ports can no longer be configured in auto mode. Because auto mode is the default for releases prior to Release 3.0(1), you should modify the configuration of the ports before upgrading the SAN-OS software image to NX-OS Release 4.2(3a) to avoid any traffic disruption.

For information on how to reconfigure the SSM ports, refer to the “Reconfiguring SSM Ports Before Upgrading to NX-OS Release 4.2(3a)” section of the [Cisco MDS 9000 Family Release Notes for Cisco MDS NX-OS Release 4.2\(3a\)](#).

Compatibility Matrix

Before upgrading your SSI image, refer to the [Cisco MDS NX-OS Release Compatibility Matrix for Storage Service Interface Images](#), and to Table 11 in the [MDS 9000 Family Release Notes for NX-OS Release 4.2\(3a\)](#). Use Table 11 to determine your nondisruptive upgrade path to Cisco MDS NX-OS Release 4.2(3k).



Note

If you are using SANTap in your environment, you cannot upgrade directly from SAN-OS Release 3.3.x to NX-OS Release 4.2. The only supported upgrade path for SANTap environments is from SAN-OS Release 3.3.x to NX-OS Release 4.1.x to NX-OS Release 4.2.

Caveats

This section lists the open and resolved caveats for Cisco MDS SSI Release 4.2(3k). Use Table 2 to determine the status of a particular caveat. In the table, "O" indicates an open caveat and "R" indicates a resolved caveat.

Table 4 Open and Resolved Caveats for Cisco MDS 9000 SSI Release 4.2(3k)

| DDTS | Status |
|----------------------------|--------|
| Severity 2 | |
| CSCtf64022 | O |
| CSCti56186 | O |
| CSCtj48180 | R |
| CSCtj55894 | R |
| CSCtj85157 | R |
| CSCtk60509 | O |
| Severity 3 | |
| CSCtj67954 | R |
| CSCtg23573 | O |
| CSCtg34105 | O |

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

Table 4 Open and Resolved Caveats for Cisco MDS 9000 SSI Release 4.2(3k)

| DDTS | Status |
|------------|--------|
| Severity 6 | |
| CSCti60854 | O |

Resolved Caveats

- CSCtj48180

Symptom: SANTap fails when the ARL log is retrieved for a session with 2 TB LUNs.

Workaround: This issue is resolved.
- CSCtj55894

Symptom: The SANTap data path processor (DPP) on a AIX host behaves like the NACA bit is not set, even though the bit was set by the Test Unit Ready command.

Workaround: This issue is resolved.
- CSCtj85157

Symptom: A Cisco MDS 9000 switch running SANTap with SSI Release 4.2(3i) reports to the host one less LUN from the front end VSAN than the storage device in the back end VSAN reported.

Workaround: This issue is resolved.
- CSCtj67954

Symptom: A DPP failure causes a Cisco MDS MSM-18/4 module to reload when ESX version 4.1 hosts enable the hardware acceleration feature in a SANTap Recoverpoint environment. This symptom might occur when an ESX 4.1 host is configured to use hardware acceleration.

Workaround: This issue is resolved.

Open Caveats

- CSCtf64022

Symptom: Following an upgrade from Cisco MDS NX-OS Release 4.1(3a) with SSI Release 4.1(3m) to NX-OS Release 4.2(3a) with SSI Release 4.2(3i), the SNMP process may fail.

Workaround: None.
- CSCti56186

Symptom: Following a successful upgrade of the SSI image on a Cisco MDS MSM-18/4 module where SANTap is enabled, SANTap may go into an unknown state.

Workaround: After the upgrade is completely finished, manually reload the Cisco MDS MSM-18/4 module to recover from the unknown state.
- CSCtk60509

Symptom: The SANTap DPP may cause CRC errors in a multiple a FE/BE VSAN setup with a heavy I/O load.

Conditions: This symptom might be seen when SANTap is running on a Cisco MDS MSM-18/4 module or Cisco MDS 9222i module with a multiple FE/BE VSAN configuration, and there is a heavy I/O load on both VSANs.

Send documentation comments to mdsfeedback-doc@cisco.com

Workaround: None.

- CSCtg23573

Symptom: A critical error such as a DPP failure on a service module running SANTap may result in a module or switch reload. The reload may take an extra 10 minutes on a Cisco MDS MSM-18/4 module or a MDS 9222i supervisor module that is running SANTap.

Conditions: This symptom may be seen only when SANTap is running on the Cisco MDS MSM-18/4 module or on a Cisco MDS 9222i supervisor module.

Workaround: None. The delay in the module or switch reload does not have any side effects.

- CSCtg34105

Symptom: If you enter the **vsan delete** command before all SANTap objects are cleared, some SANTap objects may go into an error state due to iSAPI race condition issues.

Workaround: Clean up all SANTap objects before you enter the vsan delete command.

- CSCti60854

Symptom: When you enter the **system default switchport shutdown** command, all iSAPI ports go down.

Workaround: None.

Related Documentation

The documentation set for NX-OS for the Cisco MDS 9000 Family includes the following documents. To find a document online, access the following web site:

http://www.cisco.com/en/US/partner/products/ps5989/tsd_products_support_series_home.html

The documentation set for Cisco Fabric Manager appears in the *Cisco Fabric Manager Release Notes for Release 4.2(3a)*, which is available from the following website:

http://www.cisco.com/en/US/partner/products/ps10495/prod_release_notes_list.html

Release Notes

- *Cisco MDS 9000 Family Release Notes for Cisco MDS NX-OS Releases*
- *Cisco MDS 9000 Family Release Notes for MDS SAN-OS Releases*
- *Cisco MDS 9000 Family Release Notes for Storage Services Interface Images*
- *Cisco MDS 9000 Family Release Notes for Cisco MDS 9000 EPLD Images*

Regulatory Compliance and Safety Information

- *Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family*

Compatibility Information

- *Cisco Data Center Interoperability Support Matrix*

[Send documentation comments to mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)

- *Cisco MDS 9000 NX-OS Hardware and Software Compatibility Information and Feature Lists*
- *Cisco MDS NX-OS Release Compatibility Matrix for Storage Service Interface Images*
- *Cisco MDS 9000 Family Switch-to-Switch Interoperability Configuration Guide*
- *Cisco MDS NX-OS Release Compatibility Matrix for IBM SAN Volume Controller Software for Cisco MDS 9000*
- *Cisco MDS SAN-OS Release Compatibility Matrix for VERITAS Storage Foundation for Networks Software*

Hardware Installation

- *Cisco MDS 9500 Series Hardware Installation Guide*
- *Cisco MDS 9500 Series Supervisor-2A Module Tech Note*
- *Cisco MDS 9200 Series Hardware Installation Guide*
- *Cisco MDS 9100 Series Hardware Installation Guide*
- *Cisco MDS 9124 and Cisco MDS 9134 Multilayer Fabric Switch Quick Start Guide*

Software Installation and Upgrade

- *Cisco MDS 9000 NX-OS Release 4.1(x) and SAN-OS 3(x) Software Upgrade and Downgrade Guide*
- *Cisco MDS 9000 Family Storage Services Interface Image Install and Upgrade Guide*
- *Cisco MDS 9000 Family Storage Services Module Software Installation and Upgrade Guide*

Cisco NX-OS

- *Cisco MDS 9000 Family NX-OS Licensing Guide*
- *Cisco MDS 9000 Family NX-OS Fundamentals Configuration Guide*
- *Cisco MDS 9000 Family NX-OS System Management Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Interfaces Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Fabric Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Quality of Service Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Security Configuration Guide*
- *Cisco MDS 9000 Family NX-OS IP Services Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Intelligent Storage Services Configuration Guide*
- *Cisco MDS 9000 Family NX-OS High Availability and Redundancy Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Inter-VSAN Routing Configuration Guide*

Command-Line Interface

- *Cisco MDS 9000 Family Command Reference*

Send documentation comments to mdsfeedback-doc@cisco.com

Intelligent Storage Networking Services Configuration Guides

- *Cisco MDS 9000 I/O Acceleration Configuration Guide*
- *Cisco MDS 9000 Family SANTap Deployment Guide*
- *Cisco MDS 9000 Family Data Mobility Manager Configuration Guide*
- *Cisco MDS 9000 Family Storage Media Encryption Configuration Guide*
- *Cisco MDS 9000 Family Secure Erase Configuration Guide*
- *Cisco MDS 9000 Family Cookbook for Cisco MDS SAN-OS*

Troubleshooting and Reference

- *Cisco NX-OS System Messages Reference*
- *Cisco MDS 9000 Family NX-OS Troubleshooting Guide*
- *Cisco MDS 9000 Family NX-OS MIB Quick Reference*
- *Cisco MDS 9000 Family NX-OS SMI-S Programming Reference*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

© 2010 Cisco Systems, Inc. All rights reserved.

Send documentation comments to mdsfeedback-doc@cisco.com