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Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Release 1.0(5)

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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 10.

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/hw/ps4159/ps4358/prod_release_notes_list.html

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

Table 1 On-Line History Change

Revision	Date	Description
A0	06/23/2005	Added DDTS CSCei25319

Contents

This document includes the following section:

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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.

System Requirements

This section describes the system requirements for Cisco MDS SAN-OS Release 1.0(5) and includes the following topics:

- Hardware Supported, page 32
- Determining the Software Version, page 4
- Feature Set, 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	M9500-SF1EK9-1.0.5	MDS 9500 supervisor/fabric-I, enterprise software	MDS 9509 only
	M9200-EK9-1.0.5	MDS9216 enterprise software	MDS 9216 only
Chassis	DS-C9509	MDS 9509 director, base configuration (9-slot chassis, dual 2500W AC power supplies, and dual supervisors — SFPs sold separately)	MDS 9509 only
	DS-C9216-K9	MDS 9216 16-port modular fabric switch (includes sixteen 1 / 2-Gbps Fibre Channel ports, power supply, and expansion slot — SFPs sold separately)	MDS 9216 only
Supervisor modules	DS-X9530-SF1-K9	MDS 9500 supervisor/fabric-I, module	MDS 9509 only
Switching modules	DS-X9016	MDS 9000 16-port 1/2-Gbps Fibre Channel module (SFPs sold separately)	MDS 9509 and 9216
	DS-X9032	MDS 9000 32-port 1/2-Gbps Fibre Channel module (SFPs sold separately)	
LC-type fiber-optic SFP[1]	DS-SFP-FC-2G-SW	1/2-Gbps Fibre Channel — short wave SFP	MDS 9509 and 9216
	DS-SFP-FC-2G-LW	1/2-Gbps Fibre Channel — long wave SFP	

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

Component	Part Number	Description	Applicable Products
Power supplies	DS-CAC-845W	AC Power supply for MDS 9216	MDS 9216 only
	DS-CAC-2500W	2500W AC power supply	MDS 9509 only
	DS-CAC-4000W-US	4000W[2] AC power supply for US (cable attached)	
	DS-CAC-4000W-INT	4000W AC power supply international (cable attached)	
	DS-CDC-2500W	2500W DC power supply	
CompactFlash	MEM-MDS-FLD512M	MDS 9500 supervisor CompactFlash disk, 512MB	MDS 9509 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 9509 and 9216

1. SFP = small form factor pluggable
2. 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 SAN-OS software currently running on a Cisco MDS 9000 Family switch, log in to the switch and enter the **show version** EXEC command.

Feature Set

This Cisco MDS SAN-OS Release 1.0(5) software is packaged in feature sets (also called software images) depending on the platform. The Cisco MDS SAN-OS software feature sets available for the Cisco MDS 9000 Family include Ethernet, Fibre Channel (1 Gbps and 2 Gbps), SNMP, and IP packets.

New and Changed Features in Release 1.0(5)

SAN-OS Release 1.0(5) is a maintenance release for switches in the Cisco MDS 9000 Family. See the "Caveats" section on page 6 for details on closed and outstanding caveats and limitations.

Note The *Release Notes* are specific to this maintenance release. For the rest of the 1.0(5) documentation, refer to the Release 1.0(3a) document set (see the "Related Documentation" section on page 10).

Standby Supervisor Bootup Alert

If a standby supervisor module fails to bootup, the active supervisor module detects that conditions and generates a Call Home event and a SYSLOG message approximately 3 to 6 minutes after the standby supervisor module moves to the `loader>` prompt. The following SYSLOG error message is issued:

```
%DAEMON-2-SYSTEM_MSG:Standby supervisor failed to boot up.
```

This error message is also generated if one of the following situations apply:

- you remain at the `loader>` prompt for an extended period of time, or
- you do not set the boot variables appropriately.

Update to Configuring Buffer-to-Buffer Credits

All 32-port switching modules have a default value of 12 for the Fx, E, and TE modes. These values cannot be changed.

This is not a new or changed feature. The Cisco MDS documentation incorrectly reported this value.

Limitations and Restrictions

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

The auto-sync Option

The **auto-sync** option is disabled by default. If you are replacing a faulty supervisor module, ensure that the **auto-sync option** is enabled so the software versions on both modules synchronize automatically. Once the supervisor synchronization is complete, verify that this option is disabled.

If one supervisor module is functioning and the other is not, boot the functioning supervisor module. Then use the booted supervisor module to bring up the supervisor module that is malfunctioning. Issue the **reload module** *slot* **force-dnld** command (after you log into the switch) where *slot* is the slot number of the malfunctioning supervisor module. If the **auto-sync** option is disabled, the supervisor modules will not synchronize automatically. In this case, enable the **auto-sync** option before issuing the **reload module** *slot* **force-dnld** command. Once the synchronization is complete, verify that this option is disabled.

See Chapter 5, “Software Images” in the *Cisco MDS 9000 Family Configuration Guide*.

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

	Software Release (Resolved or Open)	
DDTS Number	**1.0(4)**	**1.0(5)**
Severity 1		
CSCea53477	O	R
CSCea87033		R
Severity 2		
CSCea62969	O	R
CSCea55971		R
CSCea92168		R
CSCdz31332	O	O
CSCea34106	O	O
CSCeb03026		O
CSCei25319	O	O
Severity 3		
CSCea51806	O	R
CSCeb13441	O	R
CSCea89378	O	R

Table 3 Release Caveats and Caveats Corrected Reference

DDTS Number	Software Release (Resolved or Open)	
	1.0(4)	1.0(5)
CSCea46162	O	R
CSCea88972	O	R
CSCea89199	O	R
CSCdz12179	O	O
CSCdz67484	O	O
CSCea40555	O	O
CSCdz43707	O	O
CSCdz43106	O	O
CSCea47778	O	O

Resolved Caveats

- CSCea53477

  Symptom: Disabling or enabling the beacon mode on an interface may cause Fibre Channel modules to reboot.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea53477

- CSCea87033

  Symptom: A Call Home process might restart after approximately 200-300 Call Home events are generated on the system. The configuration is retained.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea87033

- CSCea62969

  Symptom: Some private loop device initiators (for example, SUN) are not properly registered with FLOGI. This results in the disks not being visible to the initiators.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea62969

- CSCea55971

  Symptom: Fibre channel trace route functionality does not work correctly when issued from the Fabric manager, even though it works properly from CLI.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea55971

- CSCea92168

  Symptom: Fabric Manager may report fewer devices in the fabric than those that are actually present.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea92168

- CSCea51806

  Symptom: The counters for the Fibre Channel PortChannel are not shown correctly. The correct value should be sum of the counters for all member interfaces.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea51806

- CSCeb13441

  Symptom: If a new module is inserted after doing a hitless downgrade to 1.0(3) or 1.0(4) release, it does not come-up properly

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb13441

- CSCea89378

  Symptom: On downgrading to 1.0(4) release, the modules which are supported in later releases, but not in 1.0(4) release, remain powered up. The correct behavior is for unsupported modules to be automatically powered down.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea89378

- CSCea46162

  Symptom: Traceroute fails with a `no route to host` error from the Fabric Manager. The same destination succeeds from the CLI.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea46162

- CSCea88972

  Symptom: During a nondisruptive upgrade if a name server query is pending, some Emulex HBA drivers do not respond to ELS commands issued on the switch, resulting in the link going offline and causing data traffic interruption.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea88972

- CSCea89199

  Symptom: Under certain circumstances access to the switch may be denied and the switch may be unresponsive because of an error in the kernel tty driver.This may happen when you have multiple VSH sessions running simultaneously.

  Please use the following URL for further information:
  http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea89199

Open Caveats

- CSCdz31332

  Symptom: If automatic image synchronization is enabled, and the standby supervisor module is synchronizing the image from the active supervisor, the switch will not stop you from issuing the **reload** command on the active or standby supervisor modules. This may result in a failure to synchronize the images.

  Workaround: Be sure to allow sufficient time for the images to be synchronized before reloading a supervisor module. Use the **show system status redundancy** CLI command to check the standby supervisor status.

- CSCea34106

  Symptom: If you clear a kickstart boot variable that doesn't exist and if a kickstart boot variable with the same name size as the specified variable is stored in the system, the bootvar process crashes.

  Workaround: Clear the kickstart boot variable using the **no boot kickstart** command.

- CSCeb03026

  Symptom: The management interface IP address changes to one of the IP Storage Services (IPS) module Gigabit Ethernet IP addresses after a system software downgrade.

  Workaround: None.

- CSCei25319

  Sympton: 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

- 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.

- CSCdz67484

  Symptom: The Ethereal software application incorrectly decodes the A bit in the Common Service Parameters set as *Normal*, instead of *Alternate* BB_Credit Management.

  Workaround: None. The trace must be interpreted correctly.

- CSCea40555

  Symptom: During a system software upgrade or downgrade procedure, pressing **Ctrl-C** returns a message saying that the install procedure cannot be interrupted, while **Ctrl-Z** returns the prompt without any message. The install procedure continues in either case.

  Workaround: None.

- CSCdz43707

  Symptom: The Fabric Manager or Device Manager reports an error for all operations if the switch is multihomed (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 multihomed, then start the Fabric or Device Manager on the switch using the out-of-band management interface IP address.

- CSCdz43106

  Symptom: The counter values freeze if the Device Manager port monitor window has been up and running for a long time (overnight or a few days).

  Workaround: Close the frozen Device Manager window and re-open Device Manager.

- CSCea47778

  Symptom: If the switch time zone is not UTC (default), the **expire** option for the **username** command returns an error. If the **expire** option is not specified, the **username** command functions properly.

  Workaround: Temporarily change the time zone to UTC while creating a user-account.

Related Documentation

Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family

Quick Start Guide for the Cisco MDS 9000 Family

Cisco MDS 9200 Series Hardware Installation Guide

Cisco MDS 9500 Series Hardware Installation Guide

Cisco MDS 9000 Family Command Reference

Cisco MDS 9000 Family Fabric Manager User Guide

Cisco MDS 9000 Family Troubleshooting Guide

Cisco MDS 9000 Family System Messages Guide

Cisco MDS 9000 Family MIB Reference Guide

Obtaining Documentation

Cisco provides several ways to obtain documentation, 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 on the World Wide Web at this URL:

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

You can access the Cisco website at this URL:

http://www.cisco.com

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

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Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

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http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

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  http://www.cisco.com/en/US/partner/ordering/index.shtml

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We appreciate your comments.

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Note If you purchased this product through a Cisco reseller, contact the reseller directly for technical support. If you purchased this product directly from Cisco, contact Cisco Technical Support at this URL: http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

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Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

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- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

- Priority level 1 (P1)—An existing 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.

Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

http://www.cisco.com/tac

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

http://www.cisco.com/tac/caseopen

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

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- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

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

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide,* and the *Internetworking Design Guide.* For current Cisco Press titles and other information, go to Cisco Press online at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access *Packet* magazine at this URL:

  http://www.cisco.com/go/packet

- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. 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/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

  http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

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