

Cisco MDS 9000 Series Release Notes

Release 9.4(1)

This document describes the features, issues, and deployment guidelines for the Cisco MDS NX-OS software for use on the Cisco MDS 9000 Series Switches.

Note: The documentation set for this product strives to use bias-free language. For this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

Note: Release notes are updated on an as needed basis with new information on restrictions and issues. See the following website for the most recent version of the [Cisco MDS 9000 Series Release Notes](#).

Date	Description
August 12, 2024	Added CSCwk33644 in the Open Issues section.
December 22, 2023	Added CSCwi36075 to the Open Issues section. Added CSCwf85545 to the Resolved Issues section.
November 06, 2023	Added CSCwy93277 in the Resolved Issues section.
August 18, 2023	Initial Release

Introduction

The Cisco MDS 9000 Series of Multilayer Directors and Fabric Switches provide best-in-class high availability, scalability, security, and management that enables to deploy high-performance storage area networks. Layering a rich set of intelligent features onto a high-performance switch fabric, the Cisco MDS 9000 Series has the flexibility to fit small deployments and to address the stringent requirements of large data center storage environments: high availability, security, scalability, sustainability, ease of management, and seamless integration of new technologies.

About Software Images

The Cisco MDS NX-OS operating system is shipped with the Cisco MDS 9000 Series Switches. The Cisco MDS NX-OS software consists of two images: the kickstart image and the system image. These images can be upgraded or downgraded to different versions. The versions of both images must match for the system to boot.

Each model of the Cisco MDS switch has unique kickstart and system images. For more information on the image names for each Cisco MDS switch, see the [Cisco MDS 9000 NX-OS Software Upgrade and Downgrade Guide, Release 9.x](#).

To download the new Cisco MDS 9000 Series Switches NX-OS software, go to the Storage Networking Software download website at <https://software.cisco.com/download/find/MDS>.

About Firmware Images

Cisco MDS 9000 Series Switches contain a number of hardware components with updatable firmware. The Transceiver Firmware bundle contains updates for various port transceivers. The EPLD Firmware bundle contains updates for programmable logic devices in the system.

These updates can be disruptive and so are not part of the Cisco NX-OS software image. They are released with every Cisco NX-OS release but do not frequently contain changes. Refer to the specific Release Notes for any recommended fixes.

For more information on Transceiver Firmware, see the [Cisco MDS 9000 Series Transceiver Firmware Release Notes, Release 9.4\(1\)](#).

For more information on EPLD bundles, see the [Cisco MDS 9000 Series EPLD Release Notes, Release 9.4\(1\)](#).

Choosing Between Cisco MDS NX-OS Open Systems Releases

Cisco uses release numbering to indicate the maturity of a Cisco MDS NX-OS release train. Cisco MDS NX-OS major versions are incremented when significant software features or hardware support are added. Because of the focus on new features and hardware, all bugs may not yet have been fixed. After an initial release, minor version numbers of the release train are incremented as bugs are resolved, and minor feature enhancements and security patches are integrated. This provides increased stability to the new features and updated security.

For Cisco recommended MDS NX-OS releases for each type of hardware, see [Recommended Releases for Cisco MDS 9000 Series Switches](#) document.

Components Supported

For information on supported software and hardware components, see [Cisco MDS 9000 Series Compatibility Matrix](#).

IBM FICON Qualification Status

Cisco MDS NX-OS Release 9.4(1) is not IBM FICON qualified. For more information on releases that are IBM FICON qualified, see [Cisco MDS 9000 NX-OS and SAN-OS Software Release Notes](#).

Upgrading Cisco MDS NX-OS Software Image

This section lists the guidelines that are recommended for upgrading Cisco MDS NX-OS software images and includes the following topics:

- [General Upgrading Guidelines](#)
- [Open Systems Nondisruptive Upgrade Paths](#)

For detailed instructions for performing a software upgrade using Cisco NDFC, see [Cisco NDFC Release Notes](#).

General Upgrading Guidelines

This section lists the general guidelines for performing a software upgrade:

- Before the software upgrade, collect the output of the **show tech-support details** command. Save the output in a secure location.
- Cisco MDS 9700 Series Director switches support dual redundant supervisor modules. To allow a nondisruptive upgrade on these platforms, ensure that both the modules are installed and functional. The **show module** command must display one with the status “active” and the other as “ha-standby”.

- Use the **show install all impact** <target-system-image> command to determine if the upgrade will be nondisruptive.
- Some features are impacted by whether an upgrade is disruptive or nondisruptive:
 - **Fibre Channel Ports:** Fibre Channel ports can be nondisruptively upgraded without affecting traffic on the ports. See [Open Systems Nondisruptive Upgrade Paths](#) for all MDS NX-OS releases.
 - **Fibre Channel over Ethernet (FCoE) Ports:** FCoE ports can be nondisruptively upgraded without affecting traffic on the ports. See [Open Systems Nondisruptive Upgrade Paths](#) for all MDS NX-OS releases.
 - **IPStorage Ports:** Traffic on IPStorage ports on Cisco MDS 9220i, Cisco MDS 9250i, and Cisco MDS 24/10-Port SAN Extension Modules is disrupted during an upgrade or downgrade. Nodes that are members of VSANs traversing an FCIP ISL are impacted, and a fabric reconfiguration may occur. If supported, iSCSI initiators to the IPStorage ports lose connectivity to iSCSI targets while the upgrade is in progress.
 - **I/O Acceleration:** Traffic that uses I/O Acceleration is disrupted during an upgrade.

Note: In addition to these guidelines, review the information in [Limitations and Restrictions](#) before a software upgrade to determine if a feature may behave differently after the upgrade.
- The same release of the target kickstart and system images in the **install all** command must be used.
- If you are upgrading Cisco MDS 9700 Series Directors from Cisco MDS NX-OS Release 8.3(1), Release 8.3(2), Release 8.4(1), or Release 8.4(1a) to Release 8.4(2) or later releases, ensure that you perform a switchover before upgrading. For more information, see [CSCvt87216](#).
- Starting with Release 9.2(1), the size of the TxWait log file has increased. After the upgrade is complete, ensure that you use **clear logging onboard txwait** to clear the logging area. Otherwise, the file will be automatically deleted and recreated at the new file size when the file size exceeds 512 KB.

For more information, see [Cisco MDS 9000 Series Interfaces Configuration Guide, Release 9.x](#).

Open Systems Nondisruptive Upgrade Paths

Nondisruptive Upgrade Paths to Cisco MDS NX-OS Release 9.4(1)

Current MDS NX-OS Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
9.3(x)	Upgrade directly to MDS NX-OS Release 9.4(1)
9.2(x)	Upgrade directly to MDS NX-OS Release 9.4(1)
8.5(1)	Upgrade directly to MDS NX-OS Release 9.4(1)
8.4(2c), 8.4(2d), 8.4(2e), 8.4(2f)	Upgrade directly to MDS NX-OS Release 9.4(1)
Any 8.x prior to 8.4(2c)	Step 1. Upgrade to MDS NX-OS Release 8.4(2c) or 8.4(2d) or 8.4(2e) or 8.4(2f) Step 2. Upgrade to MDS NX-OS Release 9.4(1)

Current MDS NX-OS Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
7.3(1)DY	Step 1. Upgrade to MDS NX-OS Release 8.1(1b) Step 2. Upgrade to MDS NX-OS Release 8.4(2c) Step 3. Upgrade to MDS NX-OS Release 9.4(1)
6.2(29), 6.2(31), 6.2(33)	Step 1. Upgrade to MDS NX-OS Release 8.4(2c) or 8.4(2d) Step 2. Upgrade to MDS NX-OS Release 9.4(1)

Note: Upgrading MDS NX-OS from unsupported releases to MDS NX-OS Release 9.4(1) is disruptive.

Downgrading Cisco MDS NX-OS Software Image

This section lists the guidelines that are recommended for downgrading Cisco MDS NX-OS software images and includes the following topics:

- [General Downgrading Guidelines](#)
- [Open Systems Nondisruptive Downgrade Paths](#)

General Downgrading Guidelines

This section lists the general guidelines for performing a software downgrade:

- Before the software downgrade, collect the output of the **show tech-support details** command. Save the output in a secure location.
- Cisco MDS 9700 Series Director switches support dual redundant supervisor modules. To allow a nondisruptive downgrade on these platforms, ensure that both the supervisor modules are installed and functional. The **show module** command must display one with status as “active” and the other as “ha-standby”.
- Use the **show install all impact <downgrade-system-image>** command to determine if the downgrade will be nondisruptive.
- From Cisco MDS NX-OS Release 9.4(1), ensure that the LLDP feature is disabled before you perform the downgrade to target release.
- Some features are impacted whether a downgrade is disruptive or nondisruptive:
 - **Fibre Channel Ports:** Fibre Channel ports can be nondisruptively downgraded without affecting traffic on the ports. See [Open Systems Nondisruptive Downgrade Paths](#) for all MDS NX-OS releases.
 - **Fibre Channel over Ethernet (FCoE) Ports:** FCoE ports can be nondisruptively downgraded without affecting traffic on the ports. See [Open Systems Nondisruptive Downgrade Paths](#) for all MDS NX-OS releases.
 - **IPStorage Ports:** Traffic on IPStorage ports on MDS 9220i, MDS 9250i, and MDS 24/10-Port SAN Extension Modules is disrupted during an upgrade or downgrade. Nodes that are members of VSANs traversing an FCIP ISL are impacted, and a fabric reconfiguration may occur. If supported, iSCSI initiators that are connected to the IPStorage ports lose connectivity to iSCSI targets while the upgrade is in progress.
 - **I/O Acceleration:** Traffic that uses I/O Acceleration is disrupted during a downgrade.
- If you are downgrading from this release to a release before Cisco MDS NX-OS Release 9.2(1), ensure that you run the **clear logging onboard txwait** command after the downgrade is complete.

Otherwise, logging to the OBFL TxWait file may cease with an error. For more information, see the [Cisco MDS 9000 Series Interfaces Configuration Guide, Release 9.x](#).

- Any hardware that is not supported by the downgrade release version will be powered down when the downgrade release starts running. Power off and or remove any unsupported components before downgrading. For more information about supported hardware, see [Cisco MDS 9000 Series Compatibility Matrix](#).

Open Systems Nondisruptive Downgrade Paths

Nondisruptive Downgrade Paths from NX-OS Release 9.4(1)

Target MDS NX-OS Release	Nondisruptive Downgrade Paths and Ordered Upgrade Steps
9.3(x)	Downgrade directly to the target release
9.2(x)	Downgrade directly to the target release
8.5(1)	Downgrade directly to the target release
8.4(2c), 8.4(2d), 8.4(2e), 8.4(2f)	Downgrade directly to the target release
Any 8.x prior to 8.4(2c)	Step 1.Downgrade to MDS NX-OS Release 8.4(2c) or 8.4(2d) or 8.4(2e) or 8.4(2f) Step 2.Downgrade to the target release
7.3(1)DY	Step 1.Downgrade to MDS NX-OS Release 8.4(2c) Step 2.Downgrade to MDS NX-OS Release 8.1(1b) Step 3.Downgrade to the target release
6.2(29), 6.2(31), 6.2(33)	Step 1.Downgrade to MDS NX-OS Release 8.4(2c) or 8.4(2d) Step 2.Downgrade to the target release.

Note: Downgrading the MDS NX-OS Release 9.4(1) to unsupported MDS NX-OS releases is disruptive.

New Hardware Features

The following new hardware is supported with Cisco MDS NX-OS release 9.4(1):

- Cisco MDS 9396V Fibre Channel switch (DS-C9396V-K9)

The Cisco MDS 9396V 64 Gbps 96 Port two rack unit (2 RU) Fibre Channel switch provides high-speed Fibre Channel connectivity in the SAN. The switch is built around the Cisco 64 Gbps FC ASIC with integrated analytics and telemetry capabilities. For more information, see the [Cisco MDS 9396V Multilayer Fabric Switch Hardware Installation Guide](#).

New Software Features

Product Impact	Feature	Description
Diagnostics and Serviceability	System reset reasons	<p>The show nvram hardware-log command has been implemented to display the logs of hardware initiated switch reset of the following Fabric Switches:</p> <ul style="list-style-type: none"> • MDS 9124V • MDS 9132T • MDS 9148T • MDS 9148V • MDS 9220i • MDS 9396T • MDS 9396V
Ease of Use	Interface information	<p>The ShowIntStats command has been implemented to display the statistics of FC interfaces, port channels, and transceiver details in tabular format.</p>
	Link Layer Discovery Protocol (LLDP)	<p>Support for LLDP reception and advertisement on the active management interface has been added for all platforms, excluding MDS 9250i, MDS 9148S, and MDS 9396S.</p> <p>For more information, see the Cisco MDS 9000 Series Fundamentals Configuration Guide.</p>
Feature Set	Smart Monitoring and Alerting (SMA)	<p>The SMA feature has been introduced. SMA provides unified monitoring and timely detection of important events or conditions. It generates proactive notifications and helps in maintaining the health of the system. SMA provides flexibility to configure custom thresholds based on your requirements.</p> <p>For more information, see Smart Monitoring and Alerting.</p> <p>SMA is a beta feature in Release 9.4(1). Beta features are intended to be used in lab environments, not in production environments.</p>
Security	Secure Shell (SSH)	<p>Support for controlling allowed SSH ciphers, message authentication codes (MACs), key exchange algorithms, and key types has been added. This feature is supported on the following switches:</p> <ul style="list-style-type: none"> • MDS 9124V • MDS 9132T • MDS 9148T • MDS 9148V • MDS 9220i • MDS 9396T • MDS 9396V • MDS 9700 <p>For more information, see the Cisco MDS 9000 Series Security Configuration Guide.</p>

Product Impact	Feature	Description
	TLS v1.3	<p>Support for TLS version 1.3 on Cisco MDS Fabric Switches has been added. This feature is supported on the following switches:</p> <ul style="list-style-type: none"> • MDS 9124V • MDS 9132T • MDS 9148T • MDS 9148V • MDS 9220i • MDS 9396T • MDS 9396V <p>For more information, see the Cisco MDS 9000 Series Programmability Guide.</p>

Enhanced Software Features

Product Impact	Feature	Description
Ease of Use	Device Connector	The show intersight command has been renamed to show system device-connector command.
	FSPF	<p>FSPF now includes the specific member link protocol when the link is a port-channel. This will appear in the FSPF link state database.</p> <p>For more information see the Cisco MDS 9000 Series Fabric Configuration Guide, Release 9.x.</p>
	Smart Licensing using Policy (SLP)	<p>The show license brief command to display a concise summary of the license status has been added.</p> <p>For more information, see the Cisco MDS 9000 Series Licensing Guide.</p>
Feature Set	HBA ER_RDY	<p>HBA ER_RDY support is extended to the following switches:</p> <ul style="list-style-type: none"> • MDS 9124V • MDS 9148V • MDS 9396V <p>For more information, see the Cisco MDS 9000 Series Interfaces Configuration Guide.</p>
	SAN Analytics	<p>Support for SAN Analytics and SAN Telemetry Streaming on the following switches has been added:</p> <ul style="list-style-type: none"> • MDS 9124V • MDS 9148V <p>For more information, see the Cisco MDS 9000 Series SAN Analytics and SAN Telemetry Streaming Configuration Guide.</p>

Product Impact	Feature	Description
Power Efficiency	Manageability of PSUs in MDS 9700 directors	<p>Support to shut down unneeded PSUs in the following switches has been added:</p> <ul style="list-style-type: none"> • MDS 9706 • MDS 9710 • MDS 9718 <p>This can be used when there are PSUs in the chassis that are not used based on the power requirements of the switch. It prevents unnecessary alarms in system management software, such as NDFC.</p> <p>For more information, see the Cisco MDS 9000 Series Fundamentals Configuration Guide.</p>
	Reduced fan power consumption	<p>The power allocated to each fan tray has been reduced by optimizing the fan speed setting on the following directors:</p> <ul style="list-style-type: none"> • MDS9706 - 150 Watts reduction on allocated power per chassis • MDS9710 - 300 Watts reduction on allocated power per chassis • MDS9718 - 450 Watts reduction on allocated power per chassis <p>For more information, see the Cisco MDS 9700 Series Hardware Installation Guide.</p>

Unsupported Features

SDV feature

Cisco MDS NX-OS Release 9.3(2) and later releases do not support Cisco SAN device virtualization (SDV).

Traditional and Smart Licensing Version 1.0 Licenses

Cisco MDS NX-OS Release 9.2(2) and later releases does not support installation of Product Authorization Key (PAK) or Smart Licensing version 1.0 licenses.

For more information such as how to migrate licenses software updates, see *Smart Licensing Using Policy* chapter in [Cisco MDS 9000 Series Licensing Guide, Release 9.x](#).

Python 2

Support for Python 2 is deprecated from Cisco MDS NX-OS Release 9.2(2). Python 3 remains supported instead. Python 2 scripts should be checked for compatibility with Python 3 to ensure they continue to function as expected.

For more information, see the *Python API* chapter in the [Cisco MDS 9000 Series Programmability Guide, Release 9.x](#).

Zoning Features

LUN zoning, read-only zones, and broadcast zones are no longer supported.

If these features are already configured, completely remove all the configurations that include these features before attempting to boot any module. In addition, you cannot configure these features after you bring up any module.

XRC Acceleration License

From Cisco MDS NX-OS Release 8.1(1a), the Cisco Extended Remote Copy (XRC) acceleration license is obsoleted on Cisco MDS 9000 Series Switches due to improvements in the mainframe XRC feature.

Virtual Router Redundancy Protocol (VRRP)

From Cisco MDS NX-OS Release 8.3(1) and later, the VRRP feature is not supported on Cisco MDS 9000 Series Switches.

Data Encryption Standard (DES) Encryption for SNMP

From Cisco MDS NX-OS Release 8.5(1), AES-128 is the default encryption mechanism for SNMPv3. DES encryption for SNMP is supported only for DES users who upgrade from previous releases to Cisco MDS NX-OS Release 8.5(1). Ensure that you delete all the SNMPv3 users configured with DES encryption before upgrading to Cisco MDS NX-OS Release 8.5(1) and later releases. Any downgrades from Cisco MDS NX-OS Release 8.5(1) will be restricted if any of the SNMPv3 users have DES encryption configured as the privacy protocol. All such users will either need to be deleted or reconfigured to use no privacy protocol or AES128 encryption before downgrading.

For more information, see [Cisco MDS 9000 Series System Management Configuration Guide, Release 9.x](#).

FPIN Notifications

Fabric Performance Impact Notifications (FPIN) notifications for oversubscription-based congestion is not supported.

FCWA, XER, DMM, SME

FCWA, XRC, DMM, and SME features are not supported from Release 8.x.

Limitations and Restrictions

SAN Extension Tuner

SAN Extension Tuner (SET) is not supported on Cisco MDS 9220i switches in Cisco MDS NX-OS Release 8.5(1) or later.

Fibre Channel Read Diagnostic Parameters

Fibre Channel RDP querying is not supported on NP, Port Channel, or FCoE links.

Slow Drain Detection and Congestion Isolation

ER_RDY is not supported on FC interfaces running at 10 Gbps.

FPIN

FPIN is not supported on switches that are operating in NPV mode.

FCIP Support

- In Cisco MDS NX-OS Release 9.2(2) or later releases, FCIP Write Acceleration is not supported between 24/10 SAN Extension Module and Cisco 18+4 MSM module and between 24/10 SAN Extension Module and Cisco SSN16 module.

- In Cisco MDS NX-OS Release 9.2(2) or later releases, Simultaneous use of IVR and FCIP Write Acceleration features is not supported on FCIP tunnels configured on Cisco MDS 9700 Director switches.
- On Cisco MDS 24/10 Port SAN Extension Module, configuring multiple FSPF equal cost paths (ECMP) port channels with FCIP members in the same VSAN is not a valid configuration. If this is configured, then the traffic flows through only one of the port channels.

iSCSI Support

iSCSI is not supported on Cisco MDS 9700 Directors with Cisco MDS 24/10 port SAN Extension Modules and Cisco MDS 9220i multiservice fabric switch.

Cisco TrustSec FC Link Encryption

Cisco TrustSec FC Link Encryption support is available only on certain ports for the following modules and switches:

Model	Description	Cisco TrustSec Capable Ports	Encryption Key Length
DS-X9748-3072K9	64 Gbps Fibre Channel Switching module	9, 11, 13, 15, 25, 27, 29, 31	AES 128 bit
DS-X9648-1536K9	32 Gbps Fibre Channel Switching Module	9-12, 25-28, 41-44	AES 128 bit
DS-X9448-768K9	16 Gbps Fibre Channel Switching module	All FC ports	AES 128 bit
DS-X9334-K9	24/10 Port SAN Extension Module	All FC ports	AES 128 bit
DS-C9132T-K9	MDS 9132T Fabric Switch	9-12, 25-28	AES 128 bit
DS-C9148T-K9	MDS 9148T Fabric Switch	9-12, 25-28, 41-44	AES 128 bit
DS-C9396T-K9	MDS 9396T Fabric Switch	Base ports: 9-12, 25-28, 41-44 LEM ports: 57-60, 73-76, 89-92	AES 128 bit
DS-C9220I-K9	MDS 9220i 32 Gbps 12-Port Fibre Channel Fabric Switch	9-12	AES 128 bit
DS-C9124V-24PEVK9	MDS 9124V 64 Gbps 24-Port Fibre Channel Fabric Switch	9-12	AES 128 bit
DS-C9148V-48PETK9	MDS 9148V 64 Gbps 48-Port Fibre Channel Fabric Switch	9-12, 33-36	AES 128 bit
DS-C9396V-K9	64 Gbps 96 Port Fibre Channel switch	1-4, 25-28, 57-60, 81-84	AES 128 bit

Resolved Issues

Severity 2 (Severe) Issues

Bug ID	Headline	Known Impacted Releases
CSCwd63941	License information unavailable and showing error after ISSU	9.3(2)

Bug ID	Headline	Known Impacted Releases
CSCwe00201	Device alias commit failure due to "registered modules didn't respond to validation request in time"	9.2(1a)
CSCwe09152	Traffic disruption in some zones after a zoneset activation	9.3(2) 8.4(1a)
CSCwe09928	Zoneset activation leads to traffic disruption in some zones	9.3(2) 8.4(2a)
CSCwe25542	Port with a faulty SFP leads to slow CLI or crashes	8.4(2), 8.4(2d)
CSCwe38540	Process "licmgr" crash with Smart Licensing (SLP) on 9.2(2) and above	9.3(1), 9.2(2)
CSCwe50963	vsh core dumped when "callhome test inventory" command is run	9.2(1a)
CSCwf22337	FCIP performance impact caused by RED packet drops	9.3(2)
CSCwf23522	GOLD PwrMgmtBus test not restarted after module replacement	9.3(2), 8.3(2)

Severity 3 (Moderate) Issues

Bug ID	Headline	Known Impacted Releases
CSCwv93277	Interface CRCs not incrementing on MDS 32G modules/switches.	8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2) 8.2(1), 8.2(2) 8.1(1), 8.1(1a), 8.1(1b)
CSCwd54301	25 Gbps IPStorage port stuck in init state after reload of MDS 9220i	9.3(1)
CSCwd56551	Stale analytics ACL entries present in 9.3(1) persist after ISSU	9.3(1), 9.3(2a)
CSCwd61297	Device unable to communicate with other devices using IVR	8.3(2)
CSCwd61554	'show incompatibility' doesn't alert when there is a non-NPE to NPE or NPE to non-NPE image change	8.4(2d)
CSCwd75793	'install all' changing from non-NPE to NPE or NPE to non-NPE returns 'Image verification failed'	9.2(1) 8.1(1)
CSCwe09965	Kernel panic on MDS 9148S	8.4(2d)
CSCwe34191	Add confirmation prompt to `diagnostic start module X test all`	8.1(1)
CSCwe65909	All values in 'show processes memory physical' output are wrong	9.3(2), 9.3(1), 9.2(1) 8.4(2d)

Bug ID	Headline	Known Impacted Releases
CSCwe81005	'lc_port_mgr' service is randomly killed with signal 6 on all 32 Gbps platforms	8.4(2a), 8.4(2)
CSCwe88804	Two wire statistics are missing from 'show system internal platform internal info' command	8.4(2e)
CSCwe91401	EEM applets not applied to standby supervisor	9.3(2), 9.3(1), 9.2(2) 8.4(2e)
CSCwf03327	Spurious MAC_RX_BCAST_XCD_THRESH and MAC_RX_MCAST_XCD_THRESH alerts in OBFL	9.3(2)
CSCwf04833	sac_usd hap reset on MDS DS-X97-SF4-K9 model supervisor	8.4(2c)
CSCwf31168	"zone" service crash	8.4(2e)
CSCwf31249	Multiple "zone" process crashes after zone modification / commit	9.3(2a), 9.3(2), 9.3(1), 9.2(2), 9.2(1a), 9.2(1) 8.4(2f), 8.4(2e), 8.4(2d), 8.4(2c), 8.4(2b), 8.4(2a), 8.4(2), 8.4(1a), 8.4(1), 8.1(1)
CSCwf51655	MDS 9700 supervisor switchover due to kernel panic	8.4(2d)
CSCwf60178	`show tech-support detail` output is missing `show tech-support fcip` command	9.2(1a)
CSCwf85545	"port" service crash	9.3(2a), 9.3(2), 9.3(1), 9.2(2), 9.2(1a) 8.4(2f), 8.4(2e)
CSCwh07393	Spontaneous syslog: Service "ExceptionLog" hasn't caught signal 11	9.2(1a)

Severity 4 (Minor) Issues

Bug ID	Headline	Known Impacted Releases
CSCwd74002	CISCO-ACCELINK DS-SFP-FC64G-SW SFPs reporting high Rx/Tx power warnings when operating at 16G speed	9.3(2)

Severity 5 (Cosmetic) Issues

Bug ID	Headline	Known Impacted Releases
CSCwd36586	Display issue with standby information in 'show tech-support ha'	9.3(1)

Severity 6 (Enhancement) Issues

Bug ID	Headline	Known Impacted Releases
CSCwd31665	Add 'show fdmi internal event-history' to 'show tech-support details' and 'slowdrain'	9.2(2)

Bug ID	Headline	Known Impacted Releases
CSCwe08911	Need to send 'clear FPIN' to end device immediately after congestion clears	9.3(2a), 9.3(2), 9.3(1), 9.2(2), 9.2(1a), 9.2(1) 8.5(1)
CSCwe32809	'show tech-support details' includes an unprintable character before 'show hardware internal errors'	8.4(2d)

Open Issues

Severity 2 (Severe) Issues

Bug ID	Headline	Known Impacted Releases
CSCwv27832	Kernel panic on MDS DS-X97-SF4-K9 model supervisor	8.4(2a), 8.4(1a), 8.4(1)

Severity 3 (Moderate) Issues

Bug ID	Headline	Known Impacted Releases
CSCwe84668	ISLs at 64G auto speed go to notConnected state sometimes after several flaps	9.4(1)
CSCwf16978	ssh-certificate and ssh-public based authorization parse and assign last group from ldap server	9.4(1)
CSCwf36248	LDAP:network-admin role not assigned to user if role is not the first entry in parsed roles	9.4(1)
CSCwf51090	Analytics treats NVME frames as SCSI frames and records incorrect SCSI metrics	9.4(1)
CSCwf78450	Link does not come up on 64 Gbps FC port randomly	9.4(1)
CSCwf94683	GLDN :: MDS[9132U, 9220I, 9148V, 9148T] : WWN Snmpwalk failure	9.4(1)
CSCwf94678	GLDN :: MDS[9396T,9396V] : NTP Snmpwalk failure	9.4(1)
CSCwf87828	M9718 sup3 : Fib process crashed when triggered a reload	9.4(1)
CSCwh10886	callhome module crash on MDS 9396v platform	9.4(1)
CSCwh14489	MDS Fabric Switches can't save large service core files due to dump partition size	9.2(2)
CSCwi36075	Interfaces stuck in offline status after storage processor upgrade	9.4(1a), 9.4(1) 9.3(2a), 9.3(2), 9.3(1)

Severity 4 (Minor) Issues

Bug ID	Headline	Known Impacted Releases
CSCwk33644	Power Supply status of " Powered-dn" causes Amber System Status LED	9.4(2a), 9.4(2) 9.4(1a), 9.4(1)

Severity 5 (Cosmetic) Issues

Bug ID	Headline	Known Impacted Releases
CSCvs67788	" rmon event 5" displays as PMON@INFO instead of NOTIFICATION(5) owner PMON@NOTIFICATION	8.4(1)

Severity 6 (Enhancement) Issues

Bug ID	Headline	Known Impacted Releases
CSCvp13179	Enhancement to FSPF to include a link subtype in LSRs to identify FCIP based port-channels	9.4(1)
CSCvw77444	Need to automatically sync bootflash:/scripts directory between active and standby sups	8.1(1a)
CSCwa89654	Enhancement: Upgrade MDS 9000 nginx version to greater than or equal to 1.20.1	8.4(2c)
CSCwb13413	A fabric module with a faulty link to a linecard is not powered down	8.4(1)
CSCwe86920	Add option to 'show tech-support' to exclude and include subcommands	8.1(1)
CSCwf48167	Span tx is not working in NPV mode on all platforms, rx is working	9.4(1)
CSCwf50173	F port-channel drops initial frames immediately after FLOGI/ACC(FLOGI)	8.1(1b)
CSCwf66251	Need a syslog warning when number of zone members exceeds maximum supported	8.4(2d)

Related Documentation

The documentation set for the Cisco MDS 9000 Series includes the documents that are listed in this section. To find a document online, access the following URL:

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

Cisco Nexus Dashboard Fabric Controller (Formerly DCNM)

http://www.cisco.com/en/US/products/ps9369/tsd_products_support_series_home.html

Release Notes

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-release-notes-list.html>

Licensing Information

<https://www.cisco.com/c/en/us/td/docs/dcn/mds9000/sw/9x/configuration/licensing/cisco-mds-9000-nx-os-licensing-guide-9x.html>

Regulatory Compliance and Safety Information

<http://www.cisco.com/c/en/us/td/docs/switches/datacenter/mds9000/hw/regulatory/compliance/RCSI.html>

Compatibility Information

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-device-support-tables-list.html>

Installation and Upgrade

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-installation-guides-list.html>

Configuration Guides

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-installation-and-configuration-guides-list.html>

CLI

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-command-reference-list.html>

Troubleshooting and Reference

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/tsd-products-support-troubleshoot-and-alerts.html>

Statement of Volatility

<http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/tsd-products-support-troubleshoot-and-alerts.html>

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