Cisco MDS 9000 Series Release Notes

Release 9.3(1)

This document describes the features, issues, and deployment guidelines for the Cisco MDS NX-OS software for the 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. Refer to the following website for the most recent version of the Cisco MDS 9000 Series Release Notes.

Date	Description
December 22, 2023	Added CSCwi36075 to the Open Issues section.
	Added CSCwf85545 to the Open Issues section.
November 06, 2023	Added CSCvv93277 in the Resolved Issues section.
July 03, 2023	Added CSCwe08911 in the Open Issues section.
June 16, 2023	Add restriction for over subscription caused by FPIN notifications.
March 16, 2023	Added CSCwb48133 in the Resolved Issues section.
February 22, 2023	Added the note for using JRE 1.8.0_91 to run local machine Device Manager.
December 21, 2022	Added 64G Transceivers in the new hardware features section.
	Added CSCwd55552 in the Open Issues section.
November 09, 2022	Added defects in the Resolved Issues section.
October 27, 2022	Added CSCwb29379 in the Resolved Issues section.
August 8, 2022	Added CSCwa86129 in the Open Issues section.
August 2, 2022	Release 9.3(1) became available.

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 as well as to addresses the stringent requirements of large data center storage environments: high availability, security, scalability, 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 Cisco MDS switch has unique kickstart and system images. For more information on the image names for each Cisco MDS switch, see [Cisco MDS 9000 NX-OS Software Upgrade and Downgrade Guide, Release 9.x](#).

To download new Cisco MDS 9000 Series software, including Cisco MDS NX-OS and Cisco DCNM management software, go to the Storage Networking Software download website at https://software.cisco.com/download/find/MDS.

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 defects may not yet have been fixed. After an initial release, minor version numbers of the train are incremented, and only security patches and defect fixes are added, providing better stability to the new features and updated security.

For information about other releases, refer to *Release Notes* on [Cisco MDS 9000 NX-OS and SAN-OS Software](#) documentation page. For Cisco recommended MDS NX-OS releases for each type of hardware, see [Recommended Releases for Cisco MDS 9000 Series Switches](#).

Components Supported

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

To run Device Manager on the local machine, use Java™ Runtime Environment (JRE) 1.8.0_91 as Java™ Network Launch Protocol (JNLP) is supported in the version.

FICON

Cisco MDS NX-OS Release 9.3(1) is not IBM FICON qualified. For more information on releases that are IBM FICON qualified, see http://www.cisco.com/c/en/us/support/storage-networking/mds-9000-nx-os-san-os-software/products-release-notes-list.html.

Upgrading Cisco MDS NX-OS Software Image

This section lists the guidelines recommended for upgrading Cisco MDS NX-OS software image 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:

- On switches with dual supervisor modules ensure both modules are installed and functional. The show module command displays one with a status of "active *" and the other with a status of "ha-standby".

- Install and configure dual supervisor modules before the upgrade.

- Issue the show install all impact upgrade-image command to determine if the upgrade will be nondisruptive.

- Some features are impacted whether an upgrade is disruptive or nondisruptive:

  ◦ **Fibre Channel Ports**: Fibre Channel ports can be nondisruptively upgraded without affecting traffic on the ports. See the "Open Systems Nondisruptive Upgrade Paths" section 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 (IPS) Ports**: Traffic on IPS ports on Cisco MDS 9220i 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 connected to the IPS ports lose connectivity to iSCSI targets while the upgrade is in progress.

  Note: In addition to these guidelines, review the information in the Limitations and Restrictions section before a software upgrade to determine if a feature may possibly behave differently following the upgrade.

  ◦ To upgrade or downgrade to a Cisco MDS NX-OS release version, the same release version of the 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.

  ◦ Ensure that you use the clear logging onboard txwait command after upgrading to this release if the prior release is NX-OS 9.1(1) or earlier. 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

The software upgrade information in this section applies only to Fibre Channel switching traffic. Upgrading system software disrupts IP traffic and intelligent services traffic.

Nondisruptive Upgrade Paths to Cisco MDS NX-OS Release 9.3(1)

Current Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
9.2(x)	Upgrade directly to MDS NX-OS Release 9.3(1)
8.1(x) and above releases[1]	Upgrade directly to MDS NX-OS Release 9.3(1)

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[1] If the SAN Analytics feature is enabled, then disable the SAN Analytics feature using the **no feature analytics** command before upgrading from Cisco MDS NX-OS 8.2(x) or Cisco MDS NX-OS 8.3(x) to Cisco MDS NX-OS Release 9.2(1) or later. However, you can upgrade from Cisco MDS NX-OS Release 8.4(1) and later releases to Cisco MDS NX-OS Release 9.2(1) or later without disabling the feature.

Current Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
All 7.3(x) releases	**Step 1.** Upgrade directly to MDS NX-OS Release 8.1(1b) **Step 2.** Upgrade to MDS NX-OS Release 9.3(1)
6.2(29) and above releases	**Step 1.** Upgrade directly to MDS NX-OS Release 8.4(2c) **Step 2.** Upgrade to MDS NX-OS Release 9.3(1)
6.2(13a) until 6.2(27)	**Step 1.** Upgrade directly to MDS NX-OS Release 6.2(29) **Step 2.** Upgrade to MDS NX-OS Release 8.4(2c) **Step 3.** Upgrade to MDS NX-OS Release 9.3(1)
All 6.2(x) releases prior to 6.2(13a)	**Step 1.** Upgrade directly to MDS NX-OS Release 6.2(13a) **Step 2.** Upgrade to MDS NX-OS Release 6.2(29) **Step 3.** Upgrade to MDS NX-OS Release 8.4(2c) **Step 4.** Upgrade to MDS NX-OS Release 9.3(1)

Downgrading Cisco MDS NX-OS Software Image

This section lists the guidelines recommended for ISSD of Cisco MDS NX-OS software image and includes the following topics:

- General Downgrading Guidelines
- Open Systems Nondisruptive Downgrade Paths

General Downgrading Guidelines

Follow these general guidelines before performing a software downgrade:

- Disable all features that are not supported by the downgrade release. Use the **show incompatibility system** *downgrade-image* command to determine the features that needs to be disabled.

- Use the **show install all impact** *downgrade-image* command to determine if the downgrade is nondisruptive.

- 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 IPS ports on Cisco MDS 9220i 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 connected to the IPS 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 9.3(1)

Target Release	Nondisruptive Downgrade Paths and Ordered Downgrade Steps
9.2(x)	Downgrade to the target release
8.1(x) and above releases	Downgrade to the target release
All 7.3(x) releases	**Step 1.** Downgrade directly to MDS NX-OS Release 8.1(1b) **Step 2.** Downgrade to the target release

New Hardware Features

Cisco MDS 9124V Switch

The Cisco MDS 9124V switch has 24 x 8/16/32/64-Gbps multispeed ports and is a powerful and compact 1 rack unit (1 RU) SAN fabric switch that is particularly fit for energy constrained datacenters. This switch has the following major features:

- Provides consistent 64-Gbps quality performance for every Fibre Channel port on the switch.

- Supports eight 8/16/32/64-Gbps ports in the base variant which can be expanded in increments of 8 ports up to 24 ports. This allows three licensing options of 8, 16 and 24 ports.

- Support for Cisco TrustSec FC Link Encryption is available on ports fc1/9-12

- Smart Licensing Using Policy (SLP) feature is supported on the Cisco MDS 9124V switch.

For more information, see Cisco MDS 9124V-K9 Switch Hardware Installation Guide.

Cisco MDS 9148V Switch

The Cisco MDS 9148V switch has 48 x 8/16/32/64-Gbps multispeed ports and is a powerful and compact 1 rack unit (1 RU) SAN fabric switch that is particularly fit for energy constrained datacenters. This switch has the following major features:

- Provides consistent 64-Gbps quality performance for every Fibre Channel port on the switch.

- Supports eight 8/16/32/64-Gbps ports in the base variant which can be expanded in increments of 8 ports up to 24 ports. This allows four license options of 24, 32, 40, and 48 ports.

- Support for Cisco TrustSec FC Link Encryption is available on ports fc1/9-12 and fc1/33-36.

- Smart Licensing Using Policy (SLP) feature is supported on the Cisco MDS 9148V switch.

For more information, see Cisco MDS 9148V-K9 Switch Hardware Installation Guide.

64 Gbps FC Transceivers

Support for 64 Gbps Fibre Channel shortwave optical transceivers is introduced. 64 Gbps FC transceivers are supported in 64 Gbps-capable interfaces only on the following platforms:

- Cisco MDS 9700 48-Port 64-Gbps Fibre Channel Switching Module (DS-X9748-3072K9)
- Cisco MDS 9148V Fabric Switch (DS-C9148V)
- Cisco MDS 9124V Fabric Switch (DS-C9124V)

For more information, see the Cisco MDS 9000 Series Compatibility Matrix, Release 9.x.

New Software Features

HBA ER-RDY

The HBA ER-RDY feature has been introduced and it is an extension of ER-RDY feature on ISLs. In Cisco MDS Release 9.3(1) ER-RDY mode is extended to include F ports and NP ports. This feature is currently in preview (beta) status for use in non-production environment only.
HBA ER-RDY is not supported on switches in NPV mode. In these situations, DIRL is the recommended congestion management approach.

For more information, see Cisco MDS 9000 Series Interfaces Configuration Guide, Release 9.x.

DIRL NPV support

The DIRL feature has been enhanced to include support for switches in NPV mode.

For more information, see Cisco MDS 9000 Series Interfaces Configuration Guide, Release 9.x.

Fabric Module Error Monitoring

The Fabric Error Monitor feature has been introduced. This feature complements the existing 'Internal CRC Detection and Isolation' feature to allow monitoring of Fabric Module 1 (FAB1) and 3 (FAB3) for internal errors. It has the ability to issue syslog messages as well as shutdown faulty Fabric Modules based on the error rate.

For more information, see Cisco MDS 9000 Series System Management Configuration Guide, Release 9.x.

Ansible Enhancements

For information about Ansible module enhancements, see https://docs.ansible.com/ansible/latest/collections/cisco/nxos/index.html#modules.

FSPF Cost Multiplier for High-speed Links

The Fabric Shortest Path First (FSPF) feature has been enhanced. A link cost multiplier has been introduced to allow accurate path calculation for fabrics with parallel links over 128 Gbps.

For more information, see Cisco MDS 9000 Series Fabric Configuration Guide, Release 9.x.

FPM Enhancements

Fabric Performance Monitor (FPM) is enhanced to include PMON alert values such as TxWait, tx-datarate, tx-datarate-burst alert percentage.

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

25 Gbps Interface Speed

Support for 25 Gbps FCIP encapsulation on Cisco MDS 9220i is introduced, and this is supported on IPS 1/4-5 ports.

For more information, see [Cisco MDS 9000 Series Compatibility Matrix, Release 9.x](#).

Telemetry Interface Statistics

Telemetry interface statistics are enhanced to include new counters such as B2B credit, BBSC to B2B state change, BB transitions to B2 transitions and TxWait for ER-RDY mode.

For more information, see [Cisco MDS 9000 Series SAN Analytics and SAN Telemetry Streaming Configuration Guide, Release 9.x](#).

Show Interface command enhancements

The **show interface** command has been enhanced for FC interfaces to display more detailed drop counters as well as basic transceiver information.

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

Unsupported Features

Traditional and Smart Licensing Version 1.0 Licenses

Cisco MDS NX-OS Release 9.2(2) or later including Cisco MDS NX-OS Release 9.3(1) 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

From Cisco MDS NX-OS Release 9.2(2), Python 2 is deprecated. Python 3 continues to be 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 *Python API* chapter in [Cisco MDS 9000 Series Programmability Guide, Release 9.x](#).

Data Mobility Manager

From Cisco MDS NX-OS Release 8.1(1), the Cisco MDS Data Mobility Manager feature is not supported on Cisco MDS 9000 Series Switches.

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](#).

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 the NPV mode.

FPIN Notification for oversubscription-based congestion is not supported.

HBA ER-RDY

HBA ER-RDY feature is not supported on switches in NPV mode. In these scenarios, DIRL is the recommended congestion management solution.

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, FCIP Write Acceleration along with IVR is not supported on FCIP tunnels configured on Cisco MDS 9700 Series switches.

- FCIP tunnels using Cisco MDS 24/10 Port SAN Extension Module cannot be used across FSPF equal cost paths.
- On Cisco MDS 9220i switches, the maximum throughput on a single FCIP tunnel is 10 Gbps. On the 40 Gbps IPS port, you need 4 FCIP tunnels to achieve max throughput.
- On Cisco MDS 24/10 Port SAN Extension Module, configuring multiple ECMP port channels with FCIP members in the same VSAN is not a valid configuration. If this is configured, then the traffic will flow 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 Fabric Switch.

HVDC PSU Support

The Cisco MDS 9700 HVDC PSU (DS-CHV-3.5KW) is not supported in Cisco MDS NX-OS Releases 8.1(1) and 8.1(1a). Do not attempt to load these releases on devices equipped with these PSUs or the systems will fail to power up.

Cisco TrustSec FC Link Encryption

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

- 48-Port 64-Gbps Fibre Channel Switching Module (DS-X9748-3072K9)
- 48-port 4/8/16/32-Gbps Fibre Channel switching module (DS-X9648-1536K9)
- 48-port 2/4/8/16-Gbps Fibre Channel switching module (DS-X9448-768K9)
- Cisco MDS 9000 24/10-Port SAN Extension Module (DS-X9334-K9)
- Cisco MDS 9132T 32-Gbps 32-Port Fibre Channel Fabric Switch
- Cisco MDS 9148T 32-Gbps 48-Port Fibre Channel Fabric Switch
- Cisco MDS 9396T 32-Gbps 96-Port Fibre Channel Fabric Switch
- Cisco MDS 9220i 32-Gbps 12-Port Fibre Channel Fabric Switch
- Cisco MDS 9124V 64-Gbps 24-Port Fibre Channel Fabric Switch
- Cisco MDS 9148V 64-Gbps 48-Port Fibre Channel Fabric Switch

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

Resolved Issues

Severity 1 (Catastrophic) Issues

Bug ID	Description	Known Impacted Releases
CSCvw91665	MDS crashes with " Anon_Resident_Mem 0 KB being killed due to lack of memory"	9.2(1), 9.2(2)
CSCwa60561	MDS:User scripts(ESRS) causing 100% consumption of /dev/shm folder on MDS switch.	8.4(2), 8.4(2a), 8.4(2b)

Bug ID	Description	Known Impacted Releases
CSCwb36935	MDS switch continuously rebooting	8.5(1)

Severity 2 (Severe) Issues

Bug ID	Description	Known Impacted Releases
CSCvv96554	Timeout-drops seen with in-order-guarantee when MTS messages are delayed to LC_PCM process	9.2(1), 9.2(2)
CSCwa35087	Secure erase fails to initiate if boot variable is not set	9.2(1), 9.2(2)
CSCwa76938	MDS 9132T @ 32G through Apollo MUX doesn't come up after laser is turned off.	8.4(1)
CSCwa86129	Inserting 64G line card into chassis with Sup-1(DS-X97-SF1-K9) causes switch to continuously reboot	9.2(1), 9.2(2)
CSCwb14523	Zone service crashes after zoneset activation	9.2(1), 9.2(2)
CSCwb29379	End devices unable to communicate - FCNS rejects all FC CT queries with 'logical busy'	8.4(2), 8.4(2a), 8.4(2b), 8.4(2c)
CSCwb49923	CPUHOG on linecard may lead to traffic disruption	9.2(2)
CSCwb90438	Radius Daemon hap reset - Reset triggered due to HA policy of Reset	8.4(2d)
CSCwc05040	Add ext3 kernel panic debug to kernel	8.4(2)
CSCwc21467	Custom roles are being removed when MDS is downgraded from version 9.x to 8.x	8.5(1)

Severity 3 (Moderate) Issues

Bug ID	Description	Known Impacted Releases
CSCvs99652	Analytics stops updating when switch changes from hard to soft zoning.	9.2(1), 9.2(2)
CSCvv99177	Stack trace not logged to OBFL after a kernel panic.	8.5(1)
CSCvv93277	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)
CSCvz06987	Port LED extinguished on 10 Gbps IPS ports after disabling Port Beacon.	8.4(2), 8.4(2a), 8.4(2b)
CSCvz13665	IOA service engine reload after loss of connectivity to host/target.	9.2(1), 9.2(2)

Bug ID	Description	Known Impacted Releases
CSCvz26266	Module ACT2 authentication failure after OIR or reload.	8.5(1)
CSCvz91287	NVRAM health status is not displayable	9.2(1), 9.2(2)
CSCwa41784	FCIP engine reset (Port software failure) after IPS interface link down	9.2(1), 9.2(2)
CSCwa44187	licmgr service crash with signal 6	9.2(1), 9.2(2)
CSCwa58490	'show tech' does not collect hardware version information on fabric switches	8.4(1a)
CSCwa60601	`zone convert` command fails with "Device alias entry not present" error.	8.1(1b)
CSCwa69209	Analytics data streaming with GPB format is failing.	7.3
CSCwa77123	CSR request with invalid character in password results in No such file or directory	6.2(13), 6.2(23)
CSCwa96460	'show hardware internal errors' command in 'show tech-support details' is on same line as previous	8.4(1a)
CSCwa96470	Include several hardware fabric crc threshold commands in the 'show tech-support details'	9.2(2)
CSCwb03601	MDS 9700 supervisor/module resets without logging reset cause information	9.2(2)
CSCwb07996	err-pkt-to-xbar and err-pkt-from-xbar counters do not trigger Port Monitor	8.1(1)
CSCwb12451	RLIR generated with incorrect link failure reason of "LRR received B2B"	9.2(1), 9.2(2)
CSCwb19611	MDS 9220i not recording OBFL TCP_RETRANS_RATE_XCD_THRESH and TCP_SRTT_XCD_CONF_RTT	8.5(1)
CSCwb25892	RSCN 'Format Fabric' sent to FICON devices when port-channel member link is shutdown or brought up	8.4(2), 8.4(2a), 8.4(2b)
CSCwb29284	Internal fcns error about invalid VSAN	8.4(1a)
CSCwb35875	OBFL TxWait not being recorded when link is down	9.2(2)
CSCwb48133	MDS 9250i Interface IPStorage1/2 is transmitting with IPStorage1/1's MAC address	9.2(1), 9.2(1a), 9.2(2) 8.5(1)
CSCwb53616	Cisco MDS libxml vulnerability (CVE-2022-23308)	9.2(1), 9.2(2)
CSCwb74960	Callhome Process Causing Hangs in: show callhome, show running-config, copy run start	9.2(1), 9.2(1a), 9.2(2) 8.5(1)

Bug ID	Description	Known Impacted Releases
CSCwb80392	'switchport mode' command not displayed by 'show running-cfg all' when port is in 'auto' mode	9.2(1), 9.2(2)
CSCwb90356	show tech-support details does not include show hardware internal errors on MDS 32G fabric switches	9.2(2)
CSCwc01046	Restore SSH host keys after ISSU	8.4(2b)
CSCwc29600	Credit monitoring disabled on a port after TrustSec exception	9.2(1), 9.2(2)

Severity 4 (Minor) Issues

Bug ID	Description	Known Impacted Releases
CSCvx47587	"Some klm entries are missing" messages when collecting tech-support	9.2(1), 9.2(2)
CSCwa37969	User With Custom Role and "Attribute-Admin" Can't Delete Files	8.5(1)
CSCwa45710	Egress ACL failure while running fwd-flow-validation consistency checker after ISSU	8.4(1)
CSCwa49621	SFP shows 'in sync state' when the link is down	9.2(2)
CSCwa53909	Problems with module exceptionlog entries for XBAR sync failures	8.4(1a)
CSCwa62269	FCNS debug prints fc-4-type value in the wrong bit order	9.2(1), 9.2(1a)
CSCwb05018	GOLD diagnostic test failure syslogs do not contain the correct information	8.1(1)
CSCwb16906	Long fcdomain allowed list generates harmless DATACORRUPTION-DATAINCONSISTENCY message	8.4(2c)
CSCwb33933	'show rscn internal sent-log' event values are not what are being sent to end devices.	9.2(1)
CSCwb64605	Add N9K OUI 0x8C941F and 0x14A2A0 to the default MDS OUI database	8.1(1)
CSCwb71253	IVR logs are not included in show tech-support details	9.2(1), 9.2(2)
CSCwc02208	Add N9K OUI 0x40B5C1 and 0xBC4A56 to the default MDS OUI database.	8.4(2c)
CSCwd06349	Mismatch information in the DCNM - SAN Client while deleting members in the cloned zones	8.4(1)

Severity 5 (Cosmetic) Issues

Bug ID	Description	Known Impacted Releases
CSCwb84305	User ID does not get printed in the accounting log.	8.4(2c)

Bug ID	Description	Known Impacted Releases
CSCwb85846	Temperature sensor shows status as unknown	8.4(2c)

Severity 6 (Enhancement) Issues

Bug ID	Description	Known Impacted Releases
CSCus91969	MDS 9700: Add "show tech-support gold" to "show tech-support"	8.1(1)
CSCvk28980	MDS Front panel 'Fan Status' LED is red when less than 4 fan modules are installed in MDS 9132T	8.2(1), 8.2(2)
CSCvt22402	Add "show fdmi database detail" in show tech-support details and slowdrain	8.1(1)
CSCvu05563	Need SFP insertion/removal syslog messages including SFP type and serial number	8.1(1)
CSCvz59317	Duplicate/counterfeit SFP detection	9.2(1)
CSCvz95625	Enhance PFM to display actual rate limit event values in 'show fpm ingress-rate-limit events'	9.2(1)
CSCwa61394	Improve Invalid Transmission Word and Bit Error Threshold detection	8.5(1)
CSCwa74412	Added command to reset Analytics statistics on 64 Gbps ports	9.2(1)
CSCwb24961	Need to add cmd output of `show ivr internal vdri-fsm` in show tech & show tech ivr	8.1(1)
CSCwb25455	Enhancement to add 'show hardware internal sup-fc0 interface-stats' to 'show tech-support detail'	9.2(2)
CSCwb25630	Enhancement: Global Default Zone Member Max-Limit should state Unique	8.4(2b)
CSCwb38574	Enhancement: ZONE-2-SWITCH_ZONEMEMBER_LIMIT clarification	9.2(1)
CSCwb79690	Additional output needed in show tech module on all linecard platforms	8.1(1)
CSCwb80451	'show interface' does not display all FC drop types	8.5(1)
CSCwc56047	MDS Port-Channel towards N9K standalone switch OUI 0x1859F5 (18:59:F5) does not come up or trunk	9.2(1)
CSCwc65552	Need a command to check fans led status on fabric switches	8.5(1)

Open Issues

Severity 3 (Moderate) Issues

Bug ID	Description	Known Impacted Releases
CSCvo13212	IPv6 snmpwalk triggers "Received source port is zero" error on switch.	9.2(1), 9.2(2)
CSCvy30360	QLE2742 with ESX port takes up to 2 minutes to come up after shut/no shut at 32G/auto speed.	8.5(1)
CSCwa24357	Analytics 'total_abts_count' counter does not count NVMe abort events	8.4(1), 8.4(2), 8.4(2a), 8.4(2b)
CSCwa59737	Interfaces disabled by duplicate 64 Gbps SFP detection cannot be recovered	9.2(1), 9.2(2)
CSCwb65961	On reaching major temperature threshold, front panel status LED is blinking red instead of solid red	9.2(1)
CSCwb75086	PCN/PUN notifications sent when Port Monitor is congestion isolation mode	9.2(2)
CSCwc01126	ACL and RIB Mcast mismatch observed through fwdflow consistency checker	9.3(1)
CSCwc08007	Multi-PID RSCN not sent to host when remote switch connected to target reloads	9.3(1)
CSCwc29646	System reset reason shown as 'unknown' after power supply or fan module air flow conflict shut down	9.3(1)
CSCwc44018	Port goes to errDisabled at 16g speed in flap tests between 32G-64G platforms	9.3(1)
CSCwc55848	HBA diag tests failing on MDS 9148V and 9124V platforms due to latency test failure	9.3(1)
CSCwc59689	VSAN not isolated after ISL up between peers with mismatched FSP cost multipliers	9.3(1)
CSCwd55552	IPS 10/40G port moves to HW_failure state while upgrade/downgrade to 9.x releases with 64G line card	9.3(1)
CSCwf85545	"port" service crash	9.3(1), 9.2(2), 9.2(1a) 8.4(2f), 8.4(2e)
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	Description	Known Impacted Releases
CSCvf08416	'show tech details' triggers 'pam_ftp(ftp:auth): conversation failed - ftpd' syslogs	9.2(1), 9.2(2) 8.5(1) 8.4(1), 8.4(2), 8.4(2a), 8.4(2b) 8.3(2), 8.3(1) 8.2(2), 8.2(1)
CSCvs23106	SCSI target discovery running even after removal of last DS-X9334-K9 module from switch.	9.2(1), 9.2(2) 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)
CSCvt15761	Non-disruptive reload causes reinitialization of error disabled ports on other line cards	9.2(1), 9.2(2) 8.5(1) 8.4(2), 8.4(2a), 8.4(2b)
CSCvv00538	Remove misleading merge failed message for ficonstat in non-FICON VSAN.	9.2(1), 9.2(2) 8.5(1) 8.4(2b)

Severity 6 (Enhancement) Issues

Bug ID	Description	Known Impacted Releases
CSCvo22835	All flows are briefly suspended while moving an IOA flow between 2 clusters.	9.2(1), 9.2(2)
CSCvp70681	Streaming to telemetry receiver stops, receiver stays in "idle" state.	8.5(1)
CSCvx37657	Need to log nonvolatile logs about BIOS programming errors.	8.4(1), 8.4(2), 8.4(2a), 8.4(2b)
CSCvy72945	FCIP engine crash during async replication with storage.	8.3(2), 8.3(1)
CSCwb57583	In-order-guarantee takes over 500 ms when a individual Port Channel member fails.	8.2(2), 8.2(1)
CSCwe08911	Sending clear FPIN to end device, immediately after congestion clear	9.3(2a), 9.3(2), 9.3(1), 9.2(2), 9.2(1a), 9.2(1) 8.5(1)

Related Documentation

The documentation set for the Cisco MDS 9000 Series includes the documents 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

The documentation set for Cisco Prime Data Center Network Manager is available from the following URL:

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

Command-Line Interface

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

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