



Cisco MDS 9000 Series Release Notes, Release 9.2(2)

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 the purposes of 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 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 Open Issues section.
December 21, 2022	Added CSCwd55552 in the Open Issues section.
October 27, 2022	Added CSCwb29379 in the Open Issues section.
August 8, 2022	Added CSCwa86129 in the Open Issues section.
May 12, 2022	Added CSCvw91665 in the Open Issues section.
March 23, 2022	Added CSCwb14523 in the Open Issues section.
March 2, 2022	Added CSCwb07996 in the Open Issues section.
February 9, 2022	Added CSCvx86107 in the Resolved Issues section.
January 27, 2022	Added CSCwa60601 in the Open Issues section.
January 25, 2022	Release 9.2(2) 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](#).

FICON

Cisco MDS NX-OS Release 9.2(2) 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 DCNM, see [Cisco DCNM Release Notes](#).

General Upgrading Guidelines

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

- 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 [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.
 - **IP Storage (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 [Limitations and Restrictions](#) 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, ensure that you perform a switchover before upgrading. For more information, see [CSCvt87216](#).
- If you are upgrading from a release prior to Cisco MDS NX-OS Release 9.2(1) or later, ensure that you use the **clear logging onboard txwait** command after upgrading. 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](#).
- If you are upgrading from Cisco MDS NX-OS Release 8.5(1) to Release 9.2(1) or later, ensure that you disable the Fabric Performance Monitor (FPM) feature using the **no feature fpm** command before upgrading. After the switch is upgraded to Release 9.2(1) or later, FPM can be enabled again via the **feature fpm** command.

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.

Table 1. Nondisruptive Upgrade Paths to Cisco MDS NX-OS Release 9.2(2)

Current Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
9.2(1)	Upgrade directly to MDS NX-OS Release 9.2(2)

Current Release	Nondisruptive Upgrade Paths and Ordered Upgrade Steps
8.1(x) and above releases ¹	Upgrade directly to MDS NX-OS Release 9.2(2)
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 9.2(2)
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 9.2(2)
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 9.2(2)
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 9.2(2)

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 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

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 above releases to Cisco MDS NX-OS Release 9.2(1) or later without disabling the feature.

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.
- 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](#).
- 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](#).

Open Systems Nondisruptive Downgrade Paths

Table 2. Nondisruptive Downgrade Paths from NX-OS Release 9.2(2)

Target Release	Nondisruptive Downgrade Paths and Ordered Downgrade Steps
9.2(1)	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
6.2(29) and above releases	Step 1. Downgrade directly to MDS NX-OS Release 8.4(2c) Step 2. Downgrade to the target release
6.2(13a) until 6.2(27)	Step 1. Downgrade directly to MDS NX-OS Release 8.1(1b) Step 2. Downgrade to the target release
All 6.2(x) releases prior to 6.2(13a)	Step 1. Downgrade directly to MDS NX-OS Release 8.1(1b) Step 2. Downgrade to MDS NX-OS Release 6.2(13a) Step 3. Downgrade to the target release

New Hardware Features

There are no new hardware features in Cisco MDS NX-OS Release 9.2(2).

New Software Features

SAN Analytics

The SAN Analytics feature has been enhanced. Support was added for the Cisco MDS 9700 48-Port 64-Gbps Fibre Channel Switching Module. Additionally, new flow metrics were introduced.

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

Transceiver Streaming

Streaming of transceiver information to a SAN Telemetry Streaming receiver was introduced to allow monitoring and troubleshooting of transceiver issues. As a result, the **transceiver** and **transceiver_peer** options have been added to the telemetry **path** command.

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

Smart Licensing Using Policy

The Smart Licensing Using Policy (SLP) feature was introduced. This is an enhanced version of Smart Licensing which provides more flexibility in managing hardware and software licenses across fabrics. Older PAK and Smart Licensing licenses will no longer be supported and will be automatically converted to the new model as of this release. This occurs when you are in online mode or when you upload the RUM report to CSSM when in offline mode.

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

Secure Remote System Message Logging

Support was added for CFS distribution of the existing remote logging server **secure** option. CFS distribution allows the secure option to be configured on one switch and easily distributed to other switches in the same fabric via the **logging distribute** command.

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

IPSec Licensing for Cisco MDS 9220i Switch

The IPsec feature is now included in the default feature set and does not require an ENTERPRISE_PKG license on the Cisco MDS 9220i Fabric Switch.

For more information, see:

- [Cisco MDS 9000 Series Security Configuration Guide, Release 9.x](#)
- [Cisco MDS 9000 Series Licensing Guide, Release 9.x](#).

Secure Erase

The Secure Erase feature was introduced. This feature allows erasure of all customer data from a Cisco MDS module or fabric switch. This returns it to the same state it was when initially shipped from the factory. As a result, the **factory-reset** command was introduced.

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

Transceiver Authenticity Validation

Transceiver authenticity validation was added to verify the serial number, vendor name, and other parameters programmed in transceivers. This allows validation that the transceiver is an authentic Cisco compliant unit.

For more information, see [Cisco MDS 9700 Series Hardware Installation Guide](#).

Unsupported Features

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 the *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 Enhancements

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

DIRL and FPIN

DIRL and FPIN are not supported on switches that are operating in the Cisco NPV mode.

FPIN Notifications

FPIN Notification for oversubscription-based congestion is not supported.

FCIP Support

- In Cisco MDS NX-OS Release 9.2(1) 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(1) 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 7 Gbps. On the 40 Gbps IPS port, the maximum throughput is 28.5 Gbps when 4 FCIP tunnels are created on separate 802.1q VLAN interfaces.
- 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:

- 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 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 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
CSCvz61883	Module hangs or resets after 450-470 days uptime due to 'machine check' error.	9.2(1) 8.5(1)
CSCvz97917	Add missing newlines in kernel nvram crash log output.	9.2(1) 8.5(1) 8.4(2b)

Severity 2 (Severe) Issues

Bug ID	Description	Known Impacted Releases
CSCvg50743	* fcid entry is missing from active zone after trying to register duplicate port name.	9.2(1) 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)
CSCvy27979	Copy/auto-copy for Kernel core doesn't work unless "show cores" is executed.	8.4(2c)
CSCvz05041	LIOD : End to End drops are seen due to SSE delay between fib and queuing driver.	9.2(1)
CSCvz09012	End device ports go errored or not responding after Fabric switch ISSU.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCvz10558	RIB process die during booting up of module DS-X9648-1536K9.	9.2(1) 8.5(1) 8.4(2a), 8.4(2b)

Bug ID	Description	Known Impacted Releases
CSCvz64961	Recover after CPU core stall self detected on supervisor.	9.2(1) 8.5(1) 8.4(2b)
CSCvz65820	VIC sending ABTS due to wrong MAC seen in the PLOGI ACC frame.	9.2(1)
CSCvz85069	Ports stay in 'notConnected' state after losing link.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2) 8.1(1b)
CSCwa23150	ivr hap reset crash cause 2 MDS9710s switches to reboot (8.1(1a)).	9.2(1) 8.5(1) 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCwa35327	Chassis IDPROM corruption.	9.2(1) 8.5(1) 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)

Severity 3 (Moderate) Issues

Bug ID	Description	Known Impacted Releases
CSCvi89878	MDS:User scripts should not have access to /var/tmp folder of MDS switch. Need separate partition.	9.2(1) 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)
CSCvt64521	IPSec enabled FCIP tunnels don't come up after switch or module reload if tunnels are more than 18.	9.2(1) 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)

Bug ID	Description	Known Impacted Releases
CSCvw93277	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)
CSCvw64733	M9220I- 40G CSR4 and LR40G optics link length and nominal bitrate values are incorrect.	9.2(1) 8.5(1)
CSCvx19452	MDS DS-X9648-1536K9 ports moved to notConnected state after many port flaps.	8.5(1)
CSCvx45478	On MDS "system timestamp format rfc5424" is not working for messages sent to remote logging servers.	8.5(1) 8.4(2a), 8.4(2b)
CSCvy79918	Port beaconing is not turning off when external loopback is removed between two FC ports.	9.2(1)
CSCvy91504	GOLD portLoopback test failing on FCSP enabled ports.	9.2(1)
CSCvz06987	M9220i:Beacon not supported for IPS ports.	9.2(1)
CSCvz08698	QSFP-40G-SR4 beacons test fails.	9.2(1)
CSCvz16644	'system auto-collect tech-support' missing from cfg, command completion/inline help not working.	9.2(1) 8.5(1) 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCvz26393	IPStorage interface input error counters not incrementing.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCvz27021	New device continues to receive FPIN even after slow device recovery.	9.2(1)
CSCvz37953	MDS 9710 switch does not allow /31 mask in IPS storage interface.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2)
CSCvz60478	`reload system non-disruptive` fails if volatile memory is full and reloads switch.	9.2(1) 8.5(1) 8.4(2), 8.4(2a), 8.4(2b)

Bug ID	Description	Known Impacted Releases
CSCvz69842	Improve logging when a spinlock lockup occurs.	9.2(1) 8.5(1) 8.4(2b)
CSCvz79970	Members added to existing port-channel DOWN with " Isolation due to port-channel mis-configuration" .	9.2(1) 8.5(1) 8.4(2b)
CSCvz81495	DS-X9648-1536K9: 32 Gbps Module Actlcam crash seen during ISSU.	9.2(1) 8.5(1) 8.4(2), 8.4(2a), 8.4(2b)
CSCvz90613	The local user account login fails with error of " account expired" in 8.4.(2x)/8.5(1) versions.	9.2(1) 8.5(1) 8.4(2a), 8.4(2b)
CSCvz91287	NVRAM diagnostic testing insufficient.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2) 8.1(1), 8.1(1a), 8.1(1b)
CSCwa00789	SSH validation for FIPS enabled switches fails.	9.2(1) 8.5(1)
CSCwa45183	Autozone issues messages on the same devices that are registered without initiator or target.	9.2(1)

Severity 4 (Minor) Issues

Bug ID	Description	Known Impacted Releases
CSCvp74556	Remove ISSU status messages from accounting log.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCvw21421	FEC Uncorrected errors increment at 32G speed during server reboot.	9.2(1) 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)

Bug ID	Description	Known Impacted Releases
		8.1(1), 8.1(1a), 8.1(1b)
CSCvy14809	TCP_SRTT_XCD_CONF_RTT logged based on static RTT of 2000 us, not the configured RTT.	9.2(1) 8.5(1) 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCvy28230	Add 'show fib internal logs' from each module to 'show tech-support details'.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2) 8.1(1), 8.1(1a), 8.1(1b)
CSCvz23127	Interop: IBM XIV Gen3 8G speed- DS-X9648-3072K9 port up takes more time with auto speed & mode.	9.2(1)
CSCwa32672	Callhome test crashes the vshd process.	9.2(1)

Severity 5 (Cosmetic) Issues

Bug ID	Description	Known Impacted Releases
CSCvz63725	Occasionally get false reading for EOBC 'bad packet octets' counter.	9.2(1) 8.5(1)
CSCvz97917	Add missing newlines in kernel nvram crash log output.	9.2(1) 8.5(1) 8.4(2b)

Severity 6 (Enhancement) Issues

Bug ID	Description	Known Impacted Releases
CSCvp35294	Make XBAR sync messages consistent and understandable.	9.2(1) 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)
CSCvt03800	'ivr diagnostics' should report VSANs which are not stable.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)

Bug ID	Description	Known Impacted Releases
		8.3(1), 8.3(2) 8.2(1), 8.2(2) 8.1(1), 8.1(1a), 8.1(1b)
CSCvx86107	Implement monitoring of EOBC counters on active supervisor.	9.2(1) 8.5(1)
CSCvy81666	FCoE debug command causes hosts logouts, error, and does not produce output in large configurations.	9.2(1) 8.5(1) 8.4(1), 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b) 8.3(1), 8.3(2) 8.1(1), 8.1(1a), 8.1(1b)
CSCvz08083	Enhancement request to indicate unsupported SFPs.	9.2(1) 8.5(1)
CSCvz31986	Enhancement: Remove Python2 from MDS.	9.2(1)
CSCvz59317	Duplicate/counterfeit SFP detection.	9.2(1)
CSCvz66984	Need to log debugging info when partition has unexpectedly high usage.	9.2(1)
CSCvz79113	Need to log new location of 'caterr' reset reason on boot up.	9.2(1) 8.5(1) 8.4(2b)

Open 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) 8.4(2), 8.4(2a), 8.4(2b)

Severity 2 (Severe) Issues

Bug ID	Description	Known Impacted Releases
CSCvp48050	MDS 9700 Control Plane Packet drop seen when switch comes up.	9.2(1), 9.2(2) 8.5(1) 8.4(1), 8.4(2), 8.4(2a), 8.4(2b)
CSCvy96554	LIOD: TMM Drops Seen MTS is delayed between SUP PCM to LC_PCM	9.2(1), 9.2(2)

Bug ID	Description	Known Impacted Releases
	process with few 100 ms.	
CSCwa35087	For all platforms: Secure erase failed to initiate if boot variables is not set.	9.2(1), 9.2(2)
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	Service "zone" (PID XXXX) hasn't caught signal 6 (core will be saved).	9.2(1), 9.2(2) 8.4(2), 8.4(2a), 8.4(2b), 8.4(2c)
CSCwb29379	End devices unable to communicate - FCNS rejects all FC CT queries with 'logical busy'	9.2(2) 8.4(2d)

Severity 3 (Moderate) Issues

Bug ID	Description	Known Impacted Releases
CSCuv76123	fcdomain for VSAN hung in "Principal Switch Selection ongoing".	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) 7.x 6.x
CSCvo13212	Running snmpwalk IPv6 displays error "Received source port is zero".	9.2(1), 9.2(2) 8.5(1) 8.4(1), 8.4(2), 8.4(2a), 8.4(2b)
CSCvs99652	842:Analytics ACI entries need to be removed once zone moves from hard to soft zoning.	9.2(1), 9.2(2) 8.5(1) 8.4(2), 8.4(2a), 8.4(2b)
CSCvv99177	MDS 9220i/DS-X9748-3072K9: Stack trace not logging to obfl after kernel panic hit.	9.2(1), 9.2(2) 8.5(1)
CSCvw30360	Interop: QLE2742 with ESX port take around 2 mins to come up after shut/no shut at 32G/auto speed.	9.2(1), 9.2(2)
CSCvz06987	M9220i - switchport beacon disable, turning off link LED to off state.	9.2(1), 9.2(2)
CSCvz13665	Device (host/target) going down causes IOA service engine reload.	9.2(1), 9.2(2)

Bug ID	Description	Known Impacted Releases
CSCvz26266	DS-X9648-1536K9: ACT2 Authentication failure after OIR test and reload.	9.2(1), 9.2(2)
CSCwa09215	After module poweroff/no poweroff or switch reload, VMID entries are missing for some IO's.	9.2(2)
CSCwa59737	64G duplicate SFPs stays in errDisabled state after the first up dup SFP is removed from switch.	9.2(2)
CSCwa60601	`zone convert` command reports " Device alias entry not present" for successfully imported fc-aliases.	9.2(1), 9.2(2) 8.5(1) 8.4(1a), 8.4(2), 8.4(2a), 8.4(2b)
CSCwa69209	Analytics data streaming with GPB format is failing.	9.2(2)
CSCwa72915	Gsync failed on standby because of srv " licmgr" gsync failure, exit status = 7 in VDC 1.	9.2(2)
CSCwd55552	IPS 10/40G port moves to HW_failure state while upgrade/downgrade to 9.x releases with 64G line card	9.3(1), 9.3(2) 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)
CSCwf85545	" port" service crash	9.2(2), 9.2(1a) 8.4(2f), 8.4(2e)

Severity 4 (Minor) Issues

Bug ID	Description	Known Impacted Releases
CSCvf08416	M9132T, M9396S MDS9148T: pam_ftp(ftp:auth): conversation failed syslog is displayed in the show tech details.	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 cmd is causing reinitializing of the error disabled ports	9.2(1), 9.2(2)

Bug ID	Description	Known Impacted Releases
	on other line cards.	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)
CSCvx47587	"Some klm entries are missing" logs when collecting tech-support in M9710.	9.2(1), 9.2(2) 8.5(1)
CSCwa45710	Egress ACL CC failure due to priority seen on 64 Gbps module while running fwd-flow-validation CC after ISSU.	9.2(2)

Severity 6 (Enhancement) Issues

Bug ID	Description	Known Impacted Releases
CSCvo22835	While moving IOA flow between 2 clusters, all flows are briefly suspended.	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) 8.1(1), 8.1(1a), 8.1(1b)
CSCvp70681	SAN telemetry: Receiver stays in "idle", no streaming to one receiver, and single threaded telemetry.	9.2(1), 9.2(2) 8.5(1) 8.4(1), 8.4(2), 8.4(2a), 8.4(2b)
CSCvx37657	Need to log nonvolatile logs about BIOS programming errors.	9.2(1), 9.2(2) 8.5(1) 8.3(2)
CSCwv72945	FCIP engine crash during async replication with Huawei storage.	9.2(1), 9.2(2) 8.5(1)
CSCwb07996	port-monitor not triggering on err-pkt-to-xbar and err-pkt-from-xbar on NX-OS 8.5(1) and later.	9.2(1), 9.2(2) 8.5(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/switches/datacenter/mds9000/sw/8_x/config/licensing/cisco_mds9000_licensing_guide_8x.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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