



Recommended Releases for Cisco MDS 9000 Series Switches

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Revised: June 3, 2024

Recommended Releases for Cisco MDS 9000 Series Switches

Change History

| Date | Description |
|--------------------|--|
| June 03, 2024 | Updated the document with <ul style="list-style-type: none">• Cisco Nexus Dashboard Fabric Controller Release 12.2.1 as the recommended release.• Cisco MDS NX-OS Release 9.4(1a) as the recommend release. |
| Sep 22, 2023 | Updated the document with the following: <ul style="list-style-type: none">• Cisco MDS NX-OS Release 8.4(2f) and Release 9.3(2a) as the recommend release• Cisco Nexus Dashboard Fabric Controller Release 12.1.3b as the recommend release• Cisco DCNM Release 11.5(4) as the recommend release |
| January 23, 2023 | Updated the document with smart licensing recommended release, Cisco MDS NX-OS Release 9.3(2) and non-smart licensing recommended release, Cisco MDS NX-OS Release 9.2(1a). |
| September 22, 2022 | Updated the document with smart licensing recommended release, Cisco MDS NX-OS Release 9.3(1) and non-smart licensing recommended release, Cisco MDS NX-OS Release 9.2(1a). |
| April 6, 2022 | Updated the document with Cisco MDS NX-OS Release 9.2(2) as the recommend releases. |
| March 22, 2022 | Updated the document with Cisco MDS NX-OS Release 8.4(2d) as the recommend releases. |
| September 8, 2021 | Updated the recommend release for Cisco DCNM to release 11.5(1). |
| August 25, 2021 | Added the Cisco MDS 48-Port 64-Gbps Fibre Channel Switching Module and updated its recommended release. |
| July 16, 2021 | Updated the document with Cisco MDS NX-OS Release 8.4(2c) as the recommend releases. |
| May 27, 2021 | Updated the document with Cisco MDS NX-OS Release 6.2(33) as the recommend releases. |
| March 22, 2021 | Added recommended release information for Cisco MDS 9220i switch. |

| Date | Description |
|-------------------|--|
| November 24, 2020 | Updated the recommended release to Cisco MDS NX-OS Release 8.4(2a). |
| June 15, 2020 | <p>Added the MSM-18/4 or SSN-16 Module information for Cisco MDS 9506 and 9513.</p> <p>Removed the following modules because of their end-of-life:</p> <ul style="list-style-type: none"> • Cisco MDS 9000 48-Port 8-Gbps Fibre Channel Switching Module (DS-X9248-96K9) • Cisco MDS 9000 4/44-Port Host-Optimized 8-Gbps Fibre Channel Switching Module (DS-X9248-48K9) • Cisco MDS 9000 Series 4-Port 10-Gbps Fibre Channel Switching Module (DS-X9704) |
| May 21, 2020 | Removed Cisco MDS 9222i and Cisco MDS 9000 Series 18/4-Port Multiservice Module (DS-X9304-18K9) information because of their end-of-support. |
| May 1, 2020 | Updated the recommended release for IOA to Cisco MDS NX-OS Release 8.4(2). |
| April 1, 2020 | Updated the document with Cisco MDS NX-OS Release 6.2(29) and Release 8.4(1a) as the recommend releases. |

This document lists the recommended Cisco MDS NX-OS software release for use with Cisco MDS 9000 Series switches for both new deployments and existing deployments. These are Cisco release recommendations based on important software fixes and hence we recommend that you upgrade to these releases at a minimum, if permitted by your current deployment and SAN design. These recommendations are general and should not replace environment-specific design review efforts. Customers can alternatively deploy more recent software releases to take advantage of newer hardware and software capabilities.

General Recommendation for New Deployments

The current releases for Cisco MDS 9000 Series provides latest security updates.

We recommend the following releases for new Cisco MDS 9000 Series deployments:

| Director Switches | Supported Modules | Recommended Software Release | |
|-------------------|--|------------------------------|--|
| | | 8.x | 9.x |
| Cisco MDS 9718 | Cisco MDS 48-Port 64-Gbps Fibre Channel Switching Module (DS-X9748-3072K9) | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 Series Supervisor-1E (DS-X97-SF1E-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module (DS-X9648-1536K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 48-Port 10-Gbps Fibre Channel over Ethernet (FCoE) Module (DS-X9848-480K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9000 48-port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Crossbar Fabric Switching Module (DS-X9718-FAB1) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 40-Gbps 24-Port FCoE Module (DS-X9824-960K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 24/10 Port SAN Extension Module (DS-X9334-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |

| Director Switches | Supported Modules | Recommended Software Release | |
|-------------------|--|------------------------------|--|
| | | 8.x | 9.x |
| Cisco MDS 9710 | Cisco MDS 48-Port 64-Gbps Fibre Channel Switching Module (DS-X9748-3072K9) | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 Series Supervisor-4 Module (DS-X97-SF4-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module (DS-X9648-1536K) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Crossbar Fabric Switching Module (DS-X9710-FAB3) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 24/10 Port SAN Extension Module (DS-X9334-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 40-Gbps 24-Port FCoE Module (DS-X9824-960K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 Series Supervisor-1 Module (DS-X97-SF1-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9000 48-port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9000 48-Port 10-Gbps FCoE Module (DS-X9848-480K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Crossbar Fabric Switching Module (DS-X9710-FAB1) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |

| Director Switches | Supported Modules | Recommended Software Release | |
|-------------------|--|------------------------------|--|
| | | 8.x | 9.x |
| Cisco MDS 9706 | Cisco MDS 48-Port 64-Gbps Fibre Channel Switching Module (DS-X9748-3072K9) | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 Series Supervisor-4 Module (DS-X97-SF4-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module (DS-X9648-1536K) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Crossbar Fabric Switching Module (DS-X9706-FAB3) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 24/10 Port SAN Extension Module (DS-X9334-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 40-Gbps 24-Port FCoE Module (DS-X9824-960K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9700 Series Supervisor-1 Module (DS-X97-SF1-K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9000 48-port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| | Cisco MDS 9000 48-Port 10-Gbps FCoE Module (DS-X9848-480K9) | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - — |
| | Crossbar Fabric Switching Module (DS-X9706-FAB1) | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - — |

| Fabric Switches | Supported Modules | Recommended Software Release | |
|--|----------------------------|------------------------------|--|
| | | 8.x | 9.x |
| Cisco MDS 9396T 32-Gbps 96-Port Fibre Channel Switch | None (fixed configuration) | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |

| Fabric Switches | Supported Modules | Recommended Software Release | |
|--|-------------------|------------------------------|--|
| | | 8.x | 9.x |
| Cisco MDS 9396S 16G Multilayer Fabric Switch | — | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9220i Fabric Switch | — | 8.5(1) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9250i Multiservice Fabric Switch | — | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9148T 32-Gbps 48-Port Fibre Channel Switch | — | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9148S 16G Multilayer Fabric Switch | — | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9132T 32-Gbps 32-Port Fibre Channel Switch | — | 8.4(2f) | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - 9.2(1a) |
| Cisco MDS 9124V 64-Gbps 24-Port Fibre Channel Switch | — | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - — |
| Cisco MDS 9148V 64-Gbps 48-Port Fibre Channel Switch | — | — | With Smart Licensing - 9.4(1a) With Non-Smart Licensing - — |

Recommendation for SAN Analytics

We recommend to use the current release of Cisco MDS NX-OS. If you are using SAN Analytics and SAN Telemetry Streaming, we recommend that you upgrade the NX-OS version of the switch to Cisco MDS NX-OS Release 8.4(1a) or later releases. See the Cisco MDS NX-OS Release 8.4(1a) or later release notes for nondisruptive upgrade procedure.

Before upgrading from Cisco MDS NX-OS Release 8.2(x) or 8.3(x) to 8.4(1a) or later releases, ensure that you disable the SAN Analytics feature using the **feature analytics** command before upgrading and this is a one time requirement.

Recommendation for FICON Environments

We recommend that customers choose from the following releases qualified by IBM for use in FICON environments:

| Director Switches | Supported Modules | Recommended Software Release |
|-------------------------|---|------------------------------|
| Cisco MDS 9710 and 9706 | Cisco MDS 9700 Series Supervisor-1 Module (DS-X97-SF1-K9) | 8.4(2e) |
| | Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module (DS-X9648-1536K9) | 8.4(2e) |
| | Cisco MDS 9700 48-Port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 8.4(2e) |
| | Crossbar Fabric Switching Module (DS-X9706-FAB1) | 8.4(2e) |
| | Cisco MDS 9700 Series Supervisor-4 Module (DS-X97-SF4-K9) | 8.4(2e) |
| | Cisco MDS 9710 Crossbar Fabric-3 Switching Module (DS-X9710-FAB3) | 8.4(2e) |
| | Cisco MDS 9706 Crossbar Fabric-3 Switching Module (DS-X9706-FAB3) | 8.4(2e) |
| Fabric Switches | Supported Modules | Recommended Software Release |
| MDS 9250i | — | 8.4(2e) |

Recommendation for Cisco Nexus Dashboard Fabric Controller (formerly Cisco Data Center Network Manager)

We recommend that customers choose the following Cisco Nexus Dashboard Fabric Controller (NDFC formerly Cisco Data Center Network Manager(DCNM)):

| NDFC | Recommended Software Release |
|---|------------------------------|
| Cisco Nexus Dashboard Fabric Controller | 12.2.1 |
| Cisco DCNM | 11.5(4) |

Recommendation for Cisco MDS 9000 Series Intelligent Applications

We recommend that customers choose from the following **Cisco MDS 9000 Series Intelligent Applications** recommended releases:

| Intelligent Application | Recommended Software Release |
|-------------------------|------------------------------|
| I/O Accelerator (IOA) | 8.4(2) |

| Intelligent Application | Recommended Software Release |
|---------------------------------------|-------------------------------------|
| Data Mobility Manager (DMM) | 6.2(33) |
| Storage Media Encryption (SME) — Tape | 6.2(27) |
| FICON Tape Acceleration (FTA) | 8.4(2b) |
| XRC Acceleration (XRCA) | 6.2(11e) |

Release Notes

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

Existing Deployments That Use Software Earlier Than One of the Recommended Releases

To the extent possible, we recommend upgrading to one of the NX-OS releases listed previously. If that is not possible, we recommend that you review the [Cisco MDS NX-OS Release Notes](#) for the earlier release and the Bug Tool Kit to determine the impact of any open caveats.

Documentation and Software

For additional information, see the [Cisco MDS 9000 Series Switches](#) product documentation page.

For software, see the [Download Software](#) page.

Obtaining Documentation and Submitting a Service Request

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

<http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>

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End-of-Life and End-of-Sale Extended Support

The following software and hardware modules are available as extended support:

Table 1: General Recommendation for New Deployments

| Director Switches | Supported Modules | Recommended Software Release | |
|-------------------------|--|------------------------------|---------|
| | | 5.x | 6.x |
| Cisco MDS 9506 and 9513 | Cisco MDS 9500 Series Supervisor-2A Module (DS-X9530-SF2AK9) | 5.2(8h) | 6.2(33) |
| | Cisco MDS 9000 8-port 10-Gbps Fibre Channel over Ethernet (FCoE) Module (DS-X9708-K9) | 5.2(8h) | 6.2(33) |
| | Cisco MDS 9000 32-port 8-Gbps Advanced Fibre Channel Switching Module (DS-X9232-256K9) | 5.2(8h) | 6.2(33) |
| | Cisco MDS 9000 48-port 8-Gbps Advanced Fibre Channel Switching Module (DS-X9248-256K9) | 5.2(8h) | 6.2(33) |
| | MSM-18/4 or SSN-16 Module | 5.2(8h) | 6.2(33) |

| Fabric Switches | Supported Modules | Recommended Software Release | |
|--|-------------------|------------------------------|---------|
| | | 5.x | 6.x |
| Cisco MDS 9148 Multilayer Fabric Switch | — | 5.2(8h) | 6.2(33) |
| Cisco MDS 8-Gb Fabric Switch for HP c-Class Blade System | — | 5.2(8h) | 6.2(33) |

Table 2: Recommendation for FICON Environments

| Director Switches | Supported Modules | Recommended Software Release |
|-------------------------|--|------------------------------|
| Cisco MDS 9506 and 9513 | Cisco MDS 9000 32-Port 8-Gbps Advanced Fibre Channel Switching Module (DS-X9232-256K9) | 6.2(11e) |
| | Cisco MDS 9000 48-Port 8-Gbps Advanced Fibre Channel Switching Module (DS-X9248-256K9) | 6.2(11e) |

The software is available as extended support for the following hardware:

| Director Switches | Supported Modules | Recommended Software Release |
|-------------------|--|------------------------------|
| | | 6.x |
| Cisco MDS 9710 | Cisco MDS 9700 Series Supervisor-1 Module (DS-X97-SF1-K9) | 6.2(33) |
| | Cisco MDS 9000 48-port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 6.2(33) |
| | Cisco MDS 9000 48-Port 10-Gbps FCoE Module (DS-X9848-480K9) | 6.2(33) |
| | Crossbar Fabric Switching Module (DS-X9710-FAB1) | 6.2(33) |
| Cisco MDS 9706 | Cisco MDS 9700 Series Supervisor-1 Module (DS-X97-SF1-K9) | 6.2(33) |
| | Cisco MDS 9000 48-port 16-Gbps Fibre Switching Module (DS-X9448-768K9) | 6.2(33) |
| | Cisco MDS 9000 48-Port 10-Gbps FCoE Module (DS-X9848-480K9) | 6.2(33) |
| | Crossbar Fabric Switching Module (DS-X9706-FAB1) | 6.2(33) |

| Fabric Switches | Supported Modules | Recommended Software Release |
|--|-------------------|------------------------------|
| | | 6.x |
| Cisco MDS 9396S 16G Multilayer Fabric Switch | — | 6.2(33) |
| Cisco MDS 9250i Multiservice Fabric Switch | — | 6.2(33) |
| Cisco MDS 9148S 16G Multilayer Fabric Switch | — | 6.2(33) |

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