



# Cisco MDS 9000 Family 8-Gbps Fibre Channel Switching Modules Hardware Release Notes

---

For Installation in a Sun™ Storage Area Network

Sun Microsystems, Inc.  
[www.sun.com](http://www.sun.com)

Part No. 820-6799-10  
November 2008, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2008 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, StorEdge, StorageTek, FlexLine, Sun Fire, Sun Blade, Sun Enterprise, SunSolve, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc., or its subsidiaries, in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright 2008 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, États-Unis. Tous droits réservés.

Sun Microsystems, Inc. possède les droits de propriété intellectuelle relatifs à la technologie décrite dans ce document. En particulier, et sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs des brevets américains listés sur le site <http://www.sun.com/patents>, un ou les plusieurs brevets supplémentaires ainsi que les demandes de brevet en attente aux États-Unis et dans d'autres pays.

Ce document et le produit auquel il se rapporte sont protégés par un copyright et distribués sous licences, celles-ci en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Tout logiciel tiers, sa technologie relative aux polices de caractères, comprise, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit peuvent dériver des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux États-Unis et dans d'autres pays, licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, AnswerBook2, docs.sun.com, StorEdge, StorageTek, FlexLine, Sun Fire, Sun Blade, Sun Enterprise, SunSolve, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc., ou ses filiales, aux États-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux États-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface utilisateur graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox dans la recherche et le développement du concept des interfaces utilisateur visuelles ou graphiques pour l'industrie informatique. Sun détient une licence non exclusive de Xerox sur l'interface utilisateur graphique Xerox, cette licence couvrant également les licenciés de Sun implémentant les interfaces utilisateur graphiques OPEN LOOK et se conforment en outre aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DÉCLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES DANS LA LIMITE DE LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON.



# Cisco MDS 9000 Family 8-Gbps Fibre Channel Switching Modules Hardware Release Notes

---

Read this document so that you are aware of the requirements and issues that can affect the installation and operation of the Cisco MDS 9000 Family 8-Gbps Fibre Channel switching modules in a Sun storage area network (SAN).

---

**Note** – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

---

This document contains the following sections:

- [“Features” on page 2](#)
- [“Port Configurations” on page 2](#)
- [“Firmware Requirements” on page 4](#)
- [“Downloading and Installing Patches” on page 5](#)
- [“Related Documentation” on page 6](#)
- [“Service Contact Information” on page 6](#)

---

## Features

The Cisco MDS 9000 Family 8-Gbps Fibre Channel switching modules deliver up to 528, 8-Gbps ports and twice the bandwidth of previous generation Cisco MDS Fibre Channel switching modules. All module configurations have the following features:

- Auto-sensing 1- 2- 4- and 8-Gbps capability (1-Gbps port speed is not available with 8-Gbps small form-factor pluggable (SFP) transceivers)
- High-performance inter-switch link (ISL) capability
- Support for virtual storage area networks (VSANs), access control lists (ACLs), and quality of service (QoS)
- Advanced Fiber Connectivity (FICON) services

---

**Note** – Cisco MDS 9000 Family 8-Gbps Fibre Channel switching modules are not usable as stand-alone switches.

---

---

## Port Configurations

Cisco MDS 9000 Family 8-Gbps Fibre Channel switching modules are available in three port configurations. They are installed into an existing Cisco MDS 9500 Series Multilayer Director or Cisco MDS 9222i Multiservice Modular Switch chassis, depending on the chosen module configuration.

The following sections describe each available configuration:

- [“Cisco MDS 9000 Family 24-Port 8-Gbps Fibre Channel Switching Module” on page 3](#)
- [“Cisco MDS 9000 Family 48-Port 8-Gbps Fibre Channel Switching Module” on page 3](#)
- [“Cisco MDS 9000 Family 4/44-Port 8-Gbps Host-Optimized Fibre Channel Switching Module” on page 4](#)

## Cisco MDS 9000 Family 24-Port 8-Gbps Fibre Channel Switching Module

The 24-port module has the following specifications:

- 24 8-Gbps ports supporting 4-Gbps SFPs and 8-Gbps SFPs
- 192 Gbps of full-duplex bandwidth
- Installable only in a Cisco MDS 9500 Series Multilayer Director

---

**Note** – The Cisco MDS 9513 Multilayer Director requires the MDS 9513 Fabric 2 Modules to support the Cisco MDS 9000 Family 24-Port 8-Gbps Fibre Channel Switching Module. The MDS 9513 Fabric 2 Modules allow the Cisco MDS 9000 Family 24-Port 8-Gbps Fibre Channel Switching Module to achieve maximum bandwidth.

---

## Cisco MDS 9000 Family 48-Port 8-Gbps Fibre Channel Switching Module

The 48-port module has the following specifications:

- 48 8-Gbps ports supporting 4-Gbps SFPs and 8-Gbps SFPs
- 192 Gbps of full-duplex bandwidth
- Installable only in a Cisco MDS 9500 Series Multilayer Director

---

**Note** – The Cisco MDS 9513 Multilayer Director requires the MDS 9513 Fabric 2 Modules to support the Cisco MDS 9000 Family 48-Port 8-Gbps Fibre Channel Switching Module. The MDS 9513 Fabric 2 Modules allow the Cisco MDS 9000 Family 48-Port 8-Gbps Fibre Channel Switching Module to achieve maximum bandwidth.

---

# Cisco MDS 9000 Family 4/44-Port 8-Gbps Host-Optimized Fibre Channel Switching Module

The 4/44-port module has the following specifications:

- Four 8-Gbps ports and 44 4-Gbps ports
- 96 Gbps of full-duplex bandwidth
- Installable in both a Cisco MDS 9500 Series Multilayer Director or Cisco MDS 9222i Multiservice Modular Switch

---

**Note** – The Cisco MDS 9513 Multilayer Director does NOT require the MDS 9513 Fabric 2 Modules to support the Cisco MDS 9000 Family 4/44-Port 8-Gbps Host-Optimized Fibre Channel Switching Module.

---

---

## Firmware Requirements

The Cisco MDS 9000 Family 8-Gbps Fibre Channel switching modules require Cisco MDS 9000 NX-OS Software revision 4.1(1b) (minimum) be installed on the Cisco MDS 9000 Family director or switch into which the module is installed. Use [TABLE 1](#) to determine the correct patch ID for your equipment. The -xx suffix indicates the latest patch revision number.

**TABLE 1** Patch IDs for Cisco MDS 9000 NX-OS Software

	Cisco MDS 9000 NX-OS Software Revision	Sun Patch ID
Cisco MDS 9222i Multiservice Modular Switch	4.1(1b)	140044-xx
Cisco MDS 9500 Series Multilayer Director	4.1(1b)	140045-xx

For further information, see [“Downloading and Installing Patches”](#) on page 5.

---

**Note** – The switch or director into which these modules are installed might have specific firmware, hardware, or software requirements. Be sure to check the available documentation for your equipment for important compatibility information.

---

---

# Downloading and Installing Patches

The following task provides instructions for downloading and installing patches for a Cisco MDS 9000 Family director or switch. See “[Firmware Requirements](#)” on [page 4](#) for the required or recommended firmware versions and associated patch IDs.

1. **Access the SunSolve<sup>SM</sup> web site at:**

`http://sunsolve.sun.com`

2. **Read and accept the terms and conditions of the License Agreement.**

3. **From the Support category, select Patches and Updates.**

4. **Under PatchFinder, type the patch ID and click Find Patch.**

Do not type the -xx revision number. PatchFinder automatically finds the latest patch.

5. **Verify you have retrieved the correct patch.**

6. **Print the page.**

Printing this page also prints the patch README file, which contains installation instructions, special instructions, special guidelines, and notes.

7. **Download the patch by clicking on either HTTP or FTP as shown in the following line:**

Download Patch (*nn,nnn,nnn* bytes) HTTP FTP.

8. **Click PatchFinder and repeat the process from Step 4 for each patch.**

9. **Install the patches.**

When you have finished downloading all patches, install the patches by following the instructions in each patch README file.

---

## Related Documentation

Cisco documentation is equipment-specific and can be obtained directly from Cisco's web site.

- For documentation related to Cisco Storage Networking Modules:

[http://cisco.com/en/US/products/ps5991/tsd\\_products\\_support\\_series\\_home.html](http://cisco.com/en/US/products/ps5991/tsd_products_support_series_home.html)

- For documentation related to Cisco MDS 9200 Series Multilayer Switches:

[http://cisco.com/en/US/products/ps5988/tsd\\_products\\_support\\_series\\_home.html](http://cisco.com/en/US/products/ps5988/tsd_products_support_series_home.html)

- For documentation related to Cisco MDS 9500 Series Multilayer Directors:

[http://cisco.com/en/US/products/ps5990/tsd\\_products\\_support\\_series\\_home.html](http://cisco.com/en/US/products/ps5990/tsd_products_support_series_home.html)

---

## Service Contact Information

If you need help installing or using this product in the United States, call 1-800-USA-4SUN, or go to:

<http://www.sun.com/service/contacting/index.xml>



## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>