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## Release Notes for Cisco Fabric Manager Release 5.0(4b)

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**Release Date:** January 13, 2011

**Part Number:** OL-21797-04 D0

This document describes the caveats and limitations for Cisco Fabric Manager Release 5.0(4). Use this document in conjunction with the documents listed in the [“Related Documentation for Fabric Manager”](#) section on page 17.



**Note**

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As of Cisco Fabric Manager Release 4.2(1), Fabric Manager information will no longer appear in the Cisco MDS 9000 Family Release Notes for NX-OS releases. Cisco Fabric Manager Release Notes will include information that is exclusive to Fabric Manager as a management tool for Cisco MDS 9000 Family switches, Cisco Nexus 5000 Series switches, and Unified Computing System devices.

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Release notes are sometimes updated with new information on restrictions and caveats. Refer to the following website for the most recent version of the *Cisco Fabric Manager Release Notes*:  
[http://www.cisco.com/en/US/products/ps10495/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/ps10495/prod_release_notes_list.html)

[Table 1](#) shows the on-line change history for this document.

**Table 1**      **Online History Change**

Revision	Date	Description
A0	01/13/2011	Created release notes.
B0	02/24/2011	Corrected <a href="#">Table 2</a> to show Cisco Nexus 5000 Series NX-OS Release 5.0(2)N1(1) as the supported version.
C0	06/21/2011	Added a note to the <a href="#">“Resource Requirements”</a> section about installing Cisco Fabric Manager in a virtual machine.
D0	07/01/2011	Corrected the Windows Server information in <a href="#">Table 4</a> and updated the VM information in <a href="#">Table 6</a> .



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## Introduction

Cisco Fabric Manager is the management tool for storage networking across all Cisco SAN and unified fabrics.

Cisco Fabric Manager provides comprehensive visibility for improved management and control of Cisco storage networks (2-, 4-, and 8-Gbps Fibre Channel and Fibre Channel over Ethernet [FCoE]), and it helps reduce overall total cost of ownership (TCO) and complexity through unified discovery of all Cisco Data Center 3.0 devices and through task automation and detailed reporting.

Cisco Fabric Manager provides centralized storage network management services, performance monitoring, federated reporting, troubleshooting tools, discovery, and configuration automation for the data center.

Cisco Fabric Manager includes these management applications:

- Fabric Manager (client and server)
- Fabric Manager standalone (FMSA)
- Device Manager
- Performance Manager
- Fabric Manager Web Services

For detailed information on using Cisco Fabric Manager to configure a Cisco MDS 9000 Family switch or a Cisco Nexus 5000 Series switch, refer to the feature-specific Cisco Fabric Manager Configuration Guides available at the following website:

[http://www.cisco.com/en/US/products/ps10495/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps10495/tsd_products_support_series_home.html)

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## Version Compatibility

As the features and capabilities of Cisco Fabric Manager continue to evolve, it is important to be aware of the software version compatibility information described in the following sections.

### Compatibility with Cisco MDS 9000 Family Switches

- Cisco Fabric Manager Release 5.0(4b) can manage MDS 9000 switches that are running any NX-OS 4.2(x) release or any SAN-OS 3.3(x) release.
- Any Fabric Manager 3.x release cannot fully manage switches that are running any MDS 9000 NX-OS 4.x release because Fabric Manager Release 3.x cannot manage features that are specific to the MDS 9000 NX-OS 4.x release series. Fabric Manager Release 3.3(x) can manage all legacy features in any SAN-OS 3.x, 2.x, and 1.x release.
- In terms of testing and support, future releases of Cisco Fabric Manager 4.x will be backwards compatible with the two previous releases of MDS NX-OS 4.x and with the two highest releases in the SAN-OS 3.x release series.

### Compatibility with Cisco Nexus 5000 Series Switches

Cisco Fabric Manager Release 5.0(4b) has limited support for Cisco Nexus 5000 Series switches running versions earlier than Release 4.0(1a)N1, because it does not support FCoE features on Cisco Nexus 5000 Series switches running versions earlier than Release 4.0(1a)N1.

[Table 2](#) lists Cisco Fabric Manager versions and the software products they support.

**Table 2**      **Version Compatibility Matrix**

Current Software Version	Tested With and Supports
Cisco Fabric Manager Release 5.0(4b)	Cisco MDS NX-OS Release 5.0(4b), 5.0(4), 4.2(7a), and 4.1(1b)
	Cisco SAN-OS Release 3.3(5) and 3.3(1c)
	Cisco Nexus 5000 Series NX-OS Release 5.0(2)N1(1), up to and including this release
	Cisco Unified Computing System Release 1.0(1) up to and including 1.1(1)
Cisco Fabric Manager Release 4.2(3)	Cisco MDS NX-OS Release 4.2(3), 4.2(1b), 4.2(1a), 4.1(3a), and 4.1(1c)
	Cisco SAN-OS Release 3.3(4), 3.3(3) and 3.3(2)
	Cisco Nexus 5000 Series releases later than NX-OS Release 4.0(1a)N1 and up to and including NX-OS Release 4.1(3)N2(1A)
	Cisco Unified Computing System Release 1.0(1) and 1.0(2)
Cisco Fabric Manager Release 4.1(3)	Cisco Nexus 5000 Series NX-OS Release 4.0(1a)N1
Cisco Fabric Manager Release 3.41(a)	Cisco Nexus 5000 Series NX-OS Release 4.0(0)N1

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## Compatibility with Unified Computing System Software

Cisco Fabric Manager Release 5.0(4b) has limited support for Cisco Unified Computing System (UCS) software. Fabric Manager can identify a UCS 6100 Fabric Interconnect with a special icon.

## Software Download Site

To download the latest Cisco Fabric Manager software, access the Software Center at this URL:

<http://www.cisco.com/public/sw-center>



### Note

If you would like to request a copy of the source code under the terms of either GPL or LGPL, send an e-mail to [mds-software-disclosure@cisco.com](mailto:mds-software-disclosure@cisco.com).

## Upgrading Cisco Fabric Manager

This section lists the guidelines recommended for upgrading Cisco Fabric Manager and includes the following topics:

- [Installation Changes for Cisco Fabric Manager in This Release, page 4](#)
- [Upgrading Your Version of Cisco Fabric Manager, page 4](#)
- [Supported Software, page 5](#)
- [Resource Requirements, page 7](#)

## Installation Changes for Cisco Fabric Manager in This Release

If you plan to make use of the new Fabric Manager Server federation feature, then you need to follow a slightly different installation procedure for Cisco Fabric Manager. See the “Installation of Cisco MDS NX-OS and Fabric Manager” section in the *Cisco Fabric Manager Fundamentals Configuration Guide* for details.

If you do not plan to install a federation of servers, then the installation procedure is unchanged from Cisco Fabric Manager Release 4.1(3b).

## Upgrading Your Version of Cisco Fabric Manager

Cisco Fabric Manager is included on the CD-ROM that ships with the switch. You can install Fabric Manager from the CD-ROM or from files that you download.

Installing Cisco Fabric Manager is a multistep process that involves installing a database, as well as Fabric Manager. The complete installation instructions are provided in the “Installation of Cisco MDS NX-OS and Fabric Manager” section in the *Cisco Fabric Manager Fundamentals Configuration Guide*, and are available on-screen once you launch the Fabric Manager installer from the CD-ROM.

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**Note**

When upgrading Fabric Manager, refer to the supported upgrade path shown in [Table 3](#). For example, when upgrading from SAN-OS Release 3.1(x) to NX-OS Release 4.2(x), you will need to upgrade from Release 3.1(x) to Release 3.2(x) to Release 3.3(x) and then upgrade to NX-OS Release 4.2(x).

**Table 3 Supported Fabric Manager Upgrade Paths**

Current	Upgrade Path
3.0.x	3.1.x
3.1.x (HSQL)	3.2.x (Oracle)
3.1.x (HSQL)	3.2.x PostgreSQL
3.1.x (Oracle)	3.2.x (Oracle)
3.2.x (Oracle)	3.3.x (Oracle)
3.2.x (PostgreSQL)	3.3.x (PostgreSQL)
3.3.x(Oracle)	4.1.x(Oracle) or 4.2.x(Oracle)
3.3.x (PostgreSQL)	4.1.x (PostgreSQL)
4.1.x (Oracle)	4.2.x (Oracle)
4.1.x (PostgreSQL)	4.2.x (PostgreSQL)
4.2.x (Oracle)	5.0.x (Oracle)
4.2.x (PostgreSQL)	5.0.x (PostgreSQL)

Fabric Manager Server cannot be installed on an Active Directory Server when using PostgreSQL. Fabric Manager servers are domain controllers and cannot create local PostgreSQL user accounts.

## Supported Software

[Table 4](#) lists the operating systems that Cisco Fabric Manager Release NX-OS 5.0(4b) supports.

**Table 4 Operating Systems Supported by Cisco Fabric Manager Release 5.0(4b)**

Operating System Version	Java Version	Browser Version
Windows 2003 and SP2	1.5 or 1.6 <sup>1</sup>	Internet Explorer 6
Windows 2003 and SP2	1.5 or 1.6 <sup>1</sup>	Internet Explorer 7
Windows 2003 and SP2	1.5 or 1.6 <sup>1</sup>	Firefox 3.0
Windows XP SP2 and SP3	1.5 or 1.6 <sup>1</sup>	Internet Explorer 6
Windows XP SP2 and SP3	1.5 or 1.6 <sup>1</sup>	Internet Explorer 7
Windows XP SP2 and SP3	1.5 or 1.6 <sup>1</sup>	Firefox 3.0
Windows Vista SP1 without UAC	1.5 or 1.6 <sup>1</sup>	Internet Explorer 7
Windows Server 2008 (SP2, 32-bit and 64-bit)	1.6 <sup>1</sup>	

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**Table 4 Operating Systems Supported by Cisco Fabric Manager Release 5.0(4b) (continued)**

Operating System Version	Java Version	Browser Version
Windows Server 2008 R2	1.6 <sup>1</sup>	
Red Hat Enterprise Linux AS Release 5 <sup>2</sup>	1.5 or 1.6 <sup>1</sup>	Firefox 3.0
Solaris 9	1.5 or 1.6 <sup>1</sup>	Packaged with default Solaris 9
Solaris 10	1.5 or 1.6 <sup>1</sup>	Firefox 3.0

1. Do not use Java update 1.6.13, 1.6.14, and 1.6.32 or later.
2. Tested only up to RHEL 5.

Table 5 lists the databases that Cisco Fabric Manager Release NX-OS 5.0(4b) supports.

**Table 5 Databases Supported by Cisco Fabric Manager Release 5.0(4b)**

Database
Oracle 11g Enterprise Edition
OracleExpress 10g
Oracle 10g Enterprise Edition
PostgreSQL 8.2 (Windows)
PostgreSQL 8.2 (Linux)
PostgreSQL 8.1 (Solaris)

Table 6 lists other software supported by Cisco Fabric Manager Release 5.0(4b).

**Table 6 Other Software Supported by Cisco Fabric Manager Release 5.0(4b)**

Other Supported Software
<b>Security:</b>
ACS Versions, 3.1, 4.0, and 4.1
Firewall/Fabric Manager Server Proxy: PIX Firewall, IP Tables
Telnet Disabled: SSH version 1, SSH version 2, Global Enforce SNMP Privacy Encryption
Web Client and Fabric Manager Server Encryption: HTTPS
<b>VMs:</b>
VMs that run any qualified or supported operating system version can run Cisco Fabric Manager
<b>Solaris Containers (Base OS – Solaris 10):</b>
Virtual Operating System: Solaris 10 Zones

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**Table 6 Other Software Supported by Cisco Fabric Manager Release 5.0(4b) (continued)**

Other Supported Software
Events:
EMC Callhome
Event Forwarding via Traps and E-mail
Fabric Change Events

## Resource Requirements

Table 7 lists the minimum amount of resources (disk, memory, and CPU) required for both the server and client for Fabric Manager to operate satisfactorily.

**Table 7 Resource Requirements**

Size	Port Count		
Small	< 2000		
Medium	< 5000		
Large	<15000		
	Small	Medium	Large
Disk Space (includes Performance Manager RRD files)			
Client	100 MB	100 MB	100 MB
Server (+ PostgreSQL)	1 GB	10 GB	20 GB
Server (+ Oracle Express Edition)	3 GB	15 GB	30 GB
Memory			
Client	500 MB	1 GB	2 GB
Server (+ PostgreSQL)	2 GB	4 GB	8 GB
Server (+ Oracle)	2 GB	4 GB	8 GB
CPU - Client			
Windows	2.0-GHz processor	2.0-GHz processor	2.0-GHz processor
Linux	2.0-GHz processor	2.0-GHz processor	2.0-GHz processor
Solaris	Ultra 45 1.6 GHZ	Ultra 45 1.6 GHZ	Ultra 45 1.6 GHZ
CPU - Server			
Windows	2.0-GHz processor	Dual Processor 2.0-GHz processor	Dual Processor 2.0-GHz processor
Linux	2.0-GHz processor	Dual Processor 2.0-GHz processor	Dual Processor 2.0-GHz processor
Solaris	SunFire v240 2x 1.6 GHZ	SunFire v440 4x 1.6 GHZ	SunFire v440 4x 1.6 GHZ

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**Note**

If you install Cisco Fabric Manager in a virtual machine, we recommend that you reserve resources equal to the server resource requirements to ensure a baseline with physical machines. See for [Table 7](#) for Cisco Fabric Manager resource requirements.

## Fabric Manager Installation Process Overview

The following section presents the flow of the installation process at a high level. Review these steps before you begin the installation process:

1. Verify supported software. Cisco Fabric Manager and Device Manager have been tested with the software listed in [Table 4](#), [Table 5](#), and [Table 6](#).
2. Ensure data migration when upgrading Cisco Fabric Manager from Cisco SAN-OS Releases 3.1(2b) and later.

If you are upgrading Cisco Fabric Manager in Cisco SAN-OS Releases 3.1(2b) and later, be aware that data is migrated from the Hypersonic HSQL database to either the PostgreSQL database or Oracle Database 10g Express during the installation. Data is also migrated from Oracle Database 10g Express to Oracle Database 10g Express. If you migrate the database from Oracle to Oracle, the schema is updated. Refer to [Table 3](#) for information on the supported upgrade path.

3. Ensure data migration when upgrading Cisco Fabric Manager from releases prior to Cisco NX-OS Releases 3.1(2).

If you are upgrading Fabric Manager in a Cisco SAN-OS Release prior to 3.1(2b), be aware that data is migrated from the Hypersonic HSQL database to either the PostgreSQL database or the Oracle Database 10g Express during the installation. The Fabric Manager Installer installs the PostgreSQL database on Windows. If you want to install the PostgreSQL database on Solaris or Linux, or if you want to install the Oracle Database 10g Express database, follow the instructions in the “Installing Fabric Manager” section in the *Cisco Fabric Manager Fundamentals Configuration Guide*.

4. If you are upgrading a previous installation of Fabric Manager, make sure the previous installation is installed and running. Do not uninstall the previous version. If the previous version is uninstalled, the database will not be migrated and your server settings will not be preserved.
5. Select the database.

If you want to use the Oracle Database 10g Express, you must install the database and create a user name and password before continuing with the Fabric Manager installation.

We recommend the Oracle 11g Enterprise Edition for all users who are running Fabric Manager Server in a large environment.

If you want to install the PostgreSQL database, you must disable any security software you are running as PostgreSQL may not install certain folders or users. You must also log in as a Superuser before you start the installation.

6. Install Fabric Manager from the CD-ROM or from files that you download from [cisco.com](http://cisco.com/cgi-bin/tablebuild.pl/mds-fm) at the following website: <http://cisco.com/cgi-bin/tablebuild.pl/mds-fm>.

## Installing Fabric Manager on Solaris

This section describes how to install Fabric Manager on Solaris.

To install Fabric Manager on Solaris, follow these steps:



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- 
- Step 1** Set Java 1.5 or 1.6 to the path that is to be used for installing Fabric Manager.
  - Step 2** Install the database that is to be used with Fabric Manager.
  - Step 3** Copy the Fabric Manager jar file **m9000-fm-5.0.4b.jar** from the CD-ROM to a folder on the Solaris workstation.
  - Step 4** Launch the installer using the following command:  

```
java -Xms512m -Xmx512m -jar m9000-fm-5.0.4b.jar
```
  - Step 5** Follow the onscreen instructions provided in the Fabric Manager management software setup wizard.
- 



### Note

If you have multiple Java Runtime Environments (JREs) installed, you must use the Java and Java Web Start of JRE version 1.6.0\_21. To ensure that you use this version, do not accept the default javaws when your browser downloads fabricmanager.jnlp. Instead, choose the browse option and select javaws from the 1.6.0\_21 Java installation.

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## Installing Fabric Manager on Windows

This section describes how to install Fabric Manager on Windows.



### Note

Fabric Manager Server cannot be installed on an Active Directory Server when using PostgreSQL. Fabric Manager servers are domain controllers and cannot create local PostgreSQL user accounts.

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### Note

If you are running Fabric Manager Server on Windows and using the PostgreSQL database, you should examine your Windows Active Directory environment for organizational units (OUs) and make the change recommended below to ensure that Fabric Manager Server does not periodically stop working.

On a Windows system, the Microsoft Active Directory applies a Group Policy Object (GPO) to the Fabric Manager Server. The GPO does not recognize the local user PostgreSQL because it is not in the GPO allow list. As a result, the GPO removes it, and the PostgreSQL database stops working.

To avoid this situation, you should move the Fabric Manager Server to its own OU and apply the same feature settings as the original OU, but remove the local user account to log in as a service.

---

If your server is running Terminal Services in Application mode, or if you are running Citrix Metaframe or any other variation, you need to enter the following command at the DOS prompt before installing Fabric Manager Server:

- 
- Step 1** Open a command-line prompt by selecting **Start > Run**, and then type **cmd** and press **Return**.
  - Step 2** At the command prompt, type **user /install**.



### Note

Do not close the command line window. This must remain open for the entire duration of the install.

---

The following is an example of the output of this command:

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```
C:\Documents and Settings\user.domain>USER /INSTALL
User session is ready to install applications.
```

**Step 3** Follow all steps needed to install Fabric Manager, Fabric Manager Server, and Device Manager. See the instructions later in this section.

**Step 4** When the installation is complete, at the command prompt, type **user /execute** and press **Return**. Then type **exit** and press **Return**.

The following is an example of the output of this command:

```
C:\Documents and Settings\user.domain>USER /execute
User session is ready to execute applications.
```

---

To install Fabric Manager on Windows, follow these steps:

- 
- Step 1** Click the **Install Management Software** link.
  - Step 2** Choose **Management Software > Cisco Fabric Manager**.
  - Step 3** Click the **Installing Fabric Manager** link.
  - Step 4** Select the drive for your CD-ROM.
  - Step 5** Click the **FM Installer** link.
  - Step 6** Follow the onscreen instructions provided in the Fabric Manager Installer 5.0(4b).
- 



### Note

If you have any folders open or Windows Explorer task windows open during the installation, you might see the following error message:

```
C:\Program Files\Cisco Systems\dcm\fm\help\shared\images\Thumbs.db (Access is denied)
```

To resolve this issue, close all open folders and open Windows Explorer task windows and restart the FM Installer.

---



### Caution

Windows 2000 is incompatible with Fabric Manager Release 5.0(4b). If you install Fabric Manager in a Windows 2000 environment, you are at risk of having an unstable Fabric Manager. We recommend that you exit the installation and update your environment. See [Table 4](#), [Table 5](#), and [Table 6](#) for the list of supported software that has been tested with Cisco Fabric Manager. See [Table 3](#) for the supported upgrade paths for Fabric Manager.

---

To install Device Manager on your workstation, follow these steps:

- 
- Step 1** Enter the IP address of the switch in the Address field of your browser.
  - Step 2** Click the **Cisco Device Manager** link in the Device Manager installation window.
  - Step 3** Click **Next** to begin the installation.

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**Step 4** Follow the onscreen instructions to complete the installation of Device Manager.

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**Note**

If you use a Java JDK instead of a JRE on Solaris, you might encounter a problem trying to install the Device Manager from a web browser. This can happen because the installer heap limit of 256 MB is not sufficient. If you have this problem, save the jnlp link as file, increase the heap limit to 512 MB, and run `javaws element-manager.jnlp` at the shell prompt.

---

## Configuring a Cisco UCS 6100 Series Fabric Interconnect for Discovery by Cisco Fabric Manager

Cisco Fabric Manager cannot discover a Cisco UCS 6100 Series Fabric Interconnect until it has been properly configured. To configure a Cisco UCS 6100 Series before you use Cisco Fabric Manager to discover it, follow these steps:

**Step 1** Enable SNMP on the Cisco UCS 6100 Series. SNMP is disabled by default.

**Step 2** Identify whether Cisco Fabric Manager discovery is using SNMP version 2 or version 3.

- a. If version 2 is in use, define the same community string on the Cisco UCS 6100 Series as is being used on the seed switch for Cisco Fabric Manager discovery.
- b. If version 3 is in use, define the same SNMP user or credentials on the Cisco UCS 6100 Series as is being used on the seed switch for Cisco Fabric Manager discovery.

**Step 3** Use Cisco Fabric Manager to discover or rediscover the fabric.

---

**Note**

A Cisco UCS 6100 Series Fabric Interconnect is an NPV device and cannot be used as a seed switch in Cisco Fabric Manager. You should use a Cisco MDS 9000 Family switch or Cisco Nexus 5000 Series switch that is connected to UCS Manager as the seed switch.

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For additional information, see the [Cisco UCS Manager GUI Configuration Guide, 1.0\(2\)](#).

## New Features in Cisco Fabric Manager Release 5.0(4b)

Cisco Fabric Manager Release 5.0(4b) is a hot fix release. It does include new features.

## Licensed Cisco Fabric Manager Software Packages

This section describes software licenses for Cisco Fabric Manager and applications that are integrated into Cisco Fabric Manager. For information about licenses for Cisco MDS 9000 Family software features, see the [Cisco MDS 9000 Family Release Notes for MDS NX-OS Release 5.0\(1a\)](#).

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## Fabric Manager Server Package

The standard Cisco Fabric Manager and Device Manager applications bundled at no charge with the Cisco MDS 9000 Family switches and the Cisco Nexus 5000 Series switches provide basic configuration and troubleshooting capabilities. The Fabric Manager Server package extends Cisco Fabric Manager by providing historical performance monitoring for network traffic hot spot analysis, centralized management services, and advanced application integration for greater management efficiency. Refer to the Cisco Fabric Manager Server package fact sheet for more information.

## Storage Media Encryption Package

The Cisco MDS 9000 Storage Media Encryption package enables encryption of data at rest on heterogeneous tape devices and virtual tape libraries as a transparent fabric service. Cisco SME is completely integrated with Cisco MDS 9000 Family switches and the Cisco Fabric Manager application, enabling highly available encryption services to be deployed without rewiring or reconfiguring SANs, and allowing them to be managed easily without installing additional management software. Refer to the Cisco MDS 9000 Storage Media Encryption package fact sheet for more information. The Storage Media Encryption package is for use only with Cisco MDS 9000 Family switches.

## Data Mobility Manager Package

The Cisco MDS 9000 Data Mobility Manager package enables data migration between heterogeneous disk arrays without introducing a virtualization layer or rewiring or reconfiguring SANs. Cisco DMM allows concurrent migration between multiple LUNs of unequal size. Rate-adjusted migration, data verification, dual Fibre Channel fabric support, and management using Cisco Fabric Manager provide a complete solution that greatly simplifies and eliminates most downtime associated with data migration. Refer to the Cisco MDS 9000 Data Mobility Manager package fact sheet for more information. The Data Mobility Manager package is for use only with Cisco MDS 9000 Family switches.

## Storage Services Enabler Package

The Cisco MDS 9000 SSE package allows network-based storage applications and services to run on the Cisco MDS 9000 family SSMs, Cisco MDS 9000 18/4-Port Multiservice Module (MSM-18/4), and Cisco MDS 9222i. Intelligent fabric applications simplify complex IT storage environments and help organizations gain control of capital and operating costs by providing consistent and automated storage management. Refer to the Cisco MDS 9000 SSE package fact sheet for more information.

## I/O Accelerator Package

The Cisco I/O Accelerator (IOA) package activates IOA on the Cisco MDS 9222i fabric switch, the Cisco MDS 9000 18/4 Multiservice Module (MSM-18/4), and on the SSN-16 module. The IOA package is licensed per service engine and is tied to the chassis. The number of licenses required is equal to the number of service engines on which the intelligent fabric application is used. The SSN-16 requires a separate license for each engine on which you want to run IOA. Each SSN-16 engine that you configure for IOA checks out a license from the pool managed at the chassis level. SSN-16 IOA licenses are available as single licenses.

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## XRC Acceleration License

The Cisco Extended Remote Copy (XRC) acceleration license activates FICON XRC acceleration on the Cisco MDS 9222i switch and on the MSM-18/4 in the Cisco MDS 9500 Series directors. One license per chassis is required. You must install the Mainframe Package and the SAN Extension over FCIP Package before you install the XRC acceleration license. The Mainframe Package enables the underlying FICON support, and the FCIP license or licenses enable the underlying FCIP support. XRC acceleration is not supported on the SSN-16.

## Limitations and Restrictions

This section lists the limitations and restrictions for this release. The limitations and restrictions are divided into the following categories:

- [General Limitations, page 13](#)
- [Limitations for the Cisco MDS 9000 Family Switches, page 14](#)
- [Limitations for the Cisco Nexus 5000 Series Switches, page 15](#)
- [Limitations for the Cisco UCS 6100 Series Fabric Interconnect, page 16](#)

## General Limitations

This section describes general limitations related to Cisco Fabric Manager.

## Solaris Windows Manager

Solaris Windows Manager does not resize windows correctly which affects some Device Manager screens. To resolve this, download and install the 119538-1 patch from Sun Microsystems. The patch (119538-17 GNOME 2.6.0: Windows Manager Patch, Generic, 2008/08/08) can be obtained from [sunsolve.sun.com](http://sunsolve.sun.com).

## Upgrading to Recover Loss of Performance Manager Data



### Caution

You must upgrade to Fabric Manager Release 3.1(x) and then upgrade to a later release of Fabric Manager to avoid losing Performance Manager data. If data has been lost, follow the steps below to recover the data.

To recover lost data, follow these steps:

- Step 1** Disable Performance Manager interpolation using Fabric Manager Web Client. Uncheck **Interpolate missing statistics**, then click **Apply**.
- Step 2** Stop the Fabric Manager Server.
- Step 3** Save the data file in the `$INSTALL_DIR` directory.
- Step 4** Move the old RRD file into the `$INSTALL_DIR/pm/db` directory.
- Step 5** Run `$INSTALL_DIR/bin/pm.bat s`.

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**Step 6** Restart Fabric Manager Server.

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## Java Web Start

When using Java Web Start, it is recommended that you do not use an HTML cache or proxy server. You can use the Java Web Start Preferences panel to view or edit the proxy configuration. To do this, launch the Application Manager, either by clicking the desktop icon (Microsoft Windows), or type `./javaws` in the Java Web Start installation directory (Solaris Operating Environment and Linux), and then select **Edit> Preferences**.

If you fail to change these settings, you may encounter installation issues regarding a version mismatch. If this occurs, you should clear your Java cache and retry.

## Shortcuts Remain on Desktop After Uninstall

If you install Fabric Manager or Device Manager on Windows Vista, you may see the application shortcuts on your desktop, even after you uninstall the application. To remove the shortcuts, refresh the desktop.

## Limitations for the Cisco MDS 9000 Family Switches

This section lists the limitations related to Cisco Fabric Manager managing Cisco MDS 9000 Family switches.

## Cisco Storage Media Encryption

The following limitations are described for Cisco SME:

- [Cisco SME Configuration Limits, page 14](#)
- [Deleting Cisco SME Interfaces, page 15](#)
- [Emulex Driver Version, page 15](#)

## Cisco SME Configuration Limits

Table 8 lists the Cisco SME configuration limits for this release.

**Table 8** Cisco SME Limits

Configuration	Limit
Number of switches in the fabric	10
Number of clusters per switch	1
Switches in a cluster	4
Fabrics in a cluster	2
Modules in a switch	11
Cisco MSM-18/4 modules in a cluster	32
Initiator-Target-LUNs (ITLs)	1024

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**Table 8** Cisco SME Limits (continued)

Configuration	Limit
LUNs behind a target	32
Host and target ports in a cluster	128
Number of hosts per target	128
Tape backup groups per cluster	2
Volume groups in a tape backup group	4
Cisco Key Management Center (# of keys)	32K
Targets per switch that can be FC-redirected	32

## Deleting Cisco SME Interfaces

A Cisco SME interface can be deleted from the cluster only after the interface is administratively shut down and all related tasks associated with the interface shutdown are complete.

## Emulex Driver Version

In some instances, the Emulex driver version 8.1.10.9 may set the task attribute to HEAD\_OF\_QUEUE instead of SIMPLE\_QUEUE. Certain tape drives do not accept this attribute and may reject these commands. The Emulex driver version 8.1.10.12 does not have this issue.

## Compatibility of Fabric Manager and Data Mobility Manager

Cisco Fabric Manager in any MDS NX-OS 4.x release does not support Data Mobility Manager (DMM) in any SAN-OS 3.3(x) release or in any 3.2(x) release. To use the Cisco Fabric Manager GUI for DMM, both Fabric Manager and DMM must be running NX-OS or SAN-OS software from the same release series.

## Using Fabric Manager for an In-Service Software Upgrade (ISSU)

If you are using Fabric Manager to perform an ISSU to NX-OS Release 5.0(1a) from any release prior to NX-OS Release 4.1(1a), the upgrade might fail. To work around this issue, perform the upgrade from the command-line interface using the **install all** command. DOTS CSCta94252, which is a duplicate of CSCsu68898, captures the details of this issue.

ISSU downgrades are not impacted.

## Limitations for the Cisco Nexus 5000 Series Switches

This section lists the limitations related to Cisco Fabric Manager managing Cisco Nexus 5000 Series switches.

### Ethernet Configuration

You cannot configure physical Ethernet interfaces using Fabric Manager or Device Manager. You must configure physical Ethernet interfaces using CLI commands.

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## SPAN

You cannot use Device Manager to configure Ethernet or virtual Ethernet interfaces as SPAN source ports or to configure Ethernet interfaces as destination ports. The workaround is to configure SPAN using CLI commands.

## Zoning

In the Edit Local Full Zone Database tool, virtual Fibre Channel interfaces must be specified using the Switch Port WWN method of adding members to a zone. In the Add Members to Zone dialog box, the Switch & Port method and the Domain & Port method are not supported for virtual Fibre Channel interfaces.

## FCoE

The chassis view in Device Manager shows only the VFC interfaces that are bound to the physical Ethernet interface. To see all the VFC interfaces, including VFC interfaces on an Ethernet port channel, select **Interface > Virtual Interfaces > Fibre Channel**.

## Limitations for the Cisco UCS 6100 Series Fabric Interconnect

This section lists the limitations related to Cisco Fabric Manager managing a Cisco UCS 6100 Series Fabric Interconnect.

Before Cisco Fabric Manager can discover a Cisco UCS 6100 Series Fabric Interconnect, you must configure the Cisco UCS 6100 Series. For more information, see the [“Configuring a Cisco UCS 6100 Series Fabric Interconnect for Discovery by Cisco Fabric Manager”](#) section.

Once the Cisco UCS 6100 Series Fabric Interconnect is configured and Cisco Fabric Manager discovers it, the following limitations apply:

- Cisco Fabric Manager supports read-only access for a Cisco UCS 6100 Series Fabric Interconnect.
- Cisco Fabric Manager or Device Manager cannot automatically register itself as a trap or event destination for a Cisco UCS 6100 Series Fabric Interconnect.

To work around the second of these two limitations, you must manually configure the IP address or port of Cisco Fabric Manager or Device Manager as event destinations on the Cisco UCS 6100 Series Fabric Interconnect.



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**Note** These limitations are due to the fact that the Cisco UCS 6100 Series allows only read-only operations via SNMP which is the mechanism that Cisco Fabric Manager uses to discover, manage, and configure switches.

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## Caveats

This section lists the resolved and open caveats for this release.



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## Resolved Caveats

The following caveats are resolved in Cisco Fabric Manager Release 5.0(4b):

- CSCti72549  
**Symptom:** When you create recurring backup jobs, the Oracle database displays an error message.  
**Workaround:** This issue is resolved.
- CSCti82522  
**Symptom:** In Cisco Fabric Manager, when you click **Performance > Ethernet**, and then click the icon to take you to the last page, the sort order for the displayed information changes.  
**Workaround:** This issue is resolved.
- CSCtj19501  
**Symptom:** When you copy the username and password from the Cisco Fabric Manager control panel and then paste them into Windows Notepad, the username and password are shown in clear text.  
**Workaround:** This issue is resolved.
- CSCtj69380  
**Symptom:** In Fabric Manager Server for Cisco Fabric Manager Release 5.0(4), the interval for report generation is set to 24 hours.  
**Workaround:** This enhancement request is resolved.
- CSCtk58587  
**Symptom:** The switch interface is not shown for IVR zone members in the fabric.  
**Workaround:** This issue is resolved.

## Open Caveats

There are no open caveats in Cisco Fabric Manager Release 5.0(4b).

## Related Documentation for Fabric Manager

The documentation set for the Cisco Fabric Manager includes the following documents. To find a Fabric Manager document online, access the following website:

[http://www.cisco.com/en/US/products/ps10495/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps10495/tsd_products_support_series_home.html)

## Release Notes

- *Release Notes for Cisco MDS 9000 Family Fabric Manager*

## Configuration

- *Cisco Fabric Manager Fundamentals Configuration Guide*
- *Cisco Fabric Manager System Management Configuration Guide*

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- *Cisco Fabric Manager Interfaces Configuration Guide*
- *Cisco Fabric Manager Fabric Configuration Guide*
- *Cisco Fabric Manager Quality of Service Configuration Guide*
- *Cisco Fabric Manager Security Configuration Guide*
- *Cisco Fabric Manager IP Services Configuration Guide*
- *Cisco Fabric Manager Intelligent Storage Services Configuration Guide*
- *Cisco Fabric Manager High Availability and Redundancy Configuration Guide*
- *Cisco Fabric Manager Inter-VSAN Routing Configuration Guide*
- *Cisco Fabric Manager Online Help*
- *Cisco Fabric Manager Web Services Online Help*

## Related Documentation for MDS 9000 Family Switches

The documentation set for NX-OS for the Cisco MDS 9000 Family switches includes the following documents. To find an NX-OS document online for the Cisco MDS 9000 Family switches, access the following website:

[http://www.cisco.com/en/US/products/ps5989/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps5989/tsd_products_support_series_home.html)

## Release Notes

- *Cisco MDS 9000 Family Release Notes for Cisco MDS NX-OS Releases*
- *Cisco MDS 9000 Family Release Notes for MDS SAN-OS Releases*
- *Cisco MDS 9000 Family Release Notes for Storage Services Interface Images*
- *Cisco MDS 9000 Family Release Notes for Cisco MDS 9000 EPLD Images*

## Regulatory Compliance and Safety Information

- *Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family*

## Compatibility Information

- *Cisco Data Center Interoperability Support Matrix*
- *Cisco MDS 9000 NX-OS Hardware and Software Compatibility Information and Feature Lists*
- *Cisco MDS NX-OS Release Compatibility Matrix for Storage Service Interface Images*
- *Cisco MDS 9000 Family Switch-to-Switch Interoperability Configuration Guide*
- *Cisco MDS NX-OS Release Compatibility Matrix for IBM SAN Volume Controller Software for Cisco MDS 9000*
- *Cisco MDS SAN-OS Release Compatibility Matrix for VERITAS Storage Foundation for Networks Software*

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## Hardware Installation

- *Cisco MDS 9500 Series Hardware Installation Guide*
- *Cisco MDS 9500 Series Supervisor-2A Module Tech Note*
- *Cisco MDS 9200 Series Hardware Installation Guide*
- *Cisco MDS 9100 Series Hardware Installation Guide*
- *Cisco MDS 9124 and Cisco MDS 9134 Multilayer Fabric Switch Quick Start Guide*

## Software Installation and Upgrade

- *Cisco MDS 9000 NX-OS Release 4.1(x) and SAN-OS 3(x) Software Upgrade and Downgrade Guide*
- *Cisco MDS 9000 Family Storage Services Interface Image Install and Upgrade Guide*
- *Cisco MDS 9000 Family Storage Services Module Software Installation and Upgrade Guide*

## Cisco NX-OS Configuration

- *Cisco MDS 9000 Family NX-OS Licensing Guide*
- *Cisco MDS 9000 Family NX-OS Fundamentals Configuration Guide*
- *Cisco MDS 9000 Family NX-OS System Management Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Interfaces Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Fabric Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Quality of Service Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Security Configuration Guide*
- *Cisco MDS 9000 Family NX-OS IP Services Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Intelligent Storage Services Configuration Guide*
- *Cisco MDS 9000 Family NX-OS High Availability and Redundancy Configuration Guide*
- *Cisco MDS 9000 Family NX-OS Inter-VSAN Routing Configuration Guide*

## Command-Line Interface

- *Cisco MDS 9000 Family Command Reference*

## Intelligent Storage Networking Services Configuration Guides

- *Cisco MDS 9000 I/O Acceleration Configuration Guide*
- *Cisco MDS 9000 Family SANTap Deployment Guide*
- *Cisco MDS 9000 Family Data Mobility Manager Configuration Guide*
- *Cisco MDS 9000 Family Storage Media Encryption Configuration Guide*
- *Cisco MDS 9000 Family Secure Erase Configuration Guide*

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- *Cisco MDS 9000 Family Cookbook for Cisco MDS SAN-OS*

## Troubleshooting and Reference

- *Cisco NX-OS System Messages Reference*
- *Cisco MDS 9000 Family NX-OS Troubleshooting Guide*
- *Cisco MDS 9000 Family NX-OS MIB Quick Reference*
- *Cisco MDS 9000 Family NX-OS SMI-S Programming Reference*
- *Cisco MDS 9000 Family Fabric Manager Server Database Schema*

## Related Documentation for Nexus 5000 Series Switches

The documentation set for NX-OS for the Cisco Nexus 5000 Series switches includes the following documents. To find an NX-OS document online for the Cisco Nexus 5000 Series switches, access the following website:

[http://www.cisco.com/en/US/products/ps9670/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html)

## Release Notes

- *Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Release Notes*

## Configuration

- *Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release*
- *Cisco Nexus 5000 Series NX-OS Fibre Channel over Ethernet Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS Fundamentals Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS Layer 2 Switching Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS Quality of Service Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS SAN Switching Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS Security Configuration Guide*
- *Cisco Nexus 5000 Series NX-OS System Management Configuration Guide*
- *Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide*

## Hardware Installation

- *Cisco Nexus 5000 Series Hardware Installation Guide*
- *Cisco Nexus 2000 Series Fabric Extender Hardware Installation Guide*

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## Command-Line Interface

- *Cisco Nexus 5000 Series Command Reference*

## Reference

- *Cisco NX-OS System Messages Reference*

# 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/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

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This document is to be used in conjunction with the documents listed in the “[Related Documentation for Fabric Manager](#)” section.

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