



Management Software Troubleshooting

This chapter answers some of the most frequently asked questions about Cisco Fabric Manager and Device Manager. This chapter contains the following topics:

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Installation Issues

When installing Fabric Manager from windows, clicking the install button fails.

Make sure that Java Web Start is installed properly. To check, follow these steps:

-
- Step 1** Go to the Programs menu and see if Java Web Start is there.
 - Step 2** Start the **Java Web Start** program to make sure there is no problem with the Java Runtime installation.
 - Step 3** Click the **Preferences** tab, and make sure the proxies settings are fine for Web Start.
 - Step 4** Check that your browser is set up to handle jnlp settings properly (see the [“How can I manually configure my browser for Java Web Start?”](#) section on page 36-6).
-

If you had older versions of the application and you see an error pop-up window saying cannot open the JNLP file (in the error details), this could be because the Java Web Start cache is messed up. To work around this, clear the cache and retry. To clear the cache, see the [“How do I clear the Java Web Start cache?”](#) section on page 36-7.

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How do I install Java Web Start on a UNIX machine?

If you are using UNIX (Linux, Solaris) the Sun JRE 1.4.0 and 1.4.1 does not automatically install Java Web Start. However, the Web Start zip file is bundled with the JRE.

To install Java Web Start, follow these steps:

Step 1 In the directory where you have installed the JRE, there is a Java Web Start zip file (it is named something like `javaws-1_2_linux-i586-i.zip`).

Step 2 Unzip this file and run the `install.sh` script.
You are prompted to enter the path to the java installation.

Step 3 Update the mime-type settings for users. This can be done for all users.

```
# /etc/mime.types should contain the line
    type=application/x-java-jnlp-file desc="Java Web Start" exts="jnlp"

# /etc/mailcap should contain the line
    application/x-java-jnlp-file; /javaws %s
```

To install for individual users add the lines to `$HOME/.mime.types` and `$HOME/mailcap`.

Why can't I launch Fabric Manager on Solaris?

If you are using Solaris 2.8 and are logged in as root and are using Netscape Navigator 6, you will not be able to register the mime-type. Regular users can register the mime-type with Netscape Navigator 6 by manually adding it. Netscape 4.x works fine for all users.

Why is my browser prompting to save JNLP files?

Your browser may not be set up to launch Java Web Start for JNLP mime types. Java Web Start is probably not installed or configured properly (see the [“How can I manually configure my browser for Java Web Start?”](#) section on page 36-6).

Why do I get a “Java Web Start not detected” error?

If you installed Java Web Start but still see an error message (in red) saying "Java Web Start not detected..." on the switch home page, it could be a simple JavaScript error. We try to detect a Java Web Start installation by running some JavaScript code tested for Internet Explorer and Mozilla (newer versions). On some browsers (for example, Netscape 6.0, Opera) this code does not work properly although the links still work.

- First, try clicking on the install links.
- If that does not work, check to see if the browser helper applications settings are correct (for example, for Netscape 6.0 **Edit > Preferences > Navigator > Helper Applications**). See the [“How can I manually configure my browser for Java Web Start?”](#) section on page 36-6.

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Why can't I see my desktop shortcuts?

For Windows 2000 and Windows NT, we create Program Menu entries (under a new Cisco MDS 9000 program menu) and desktop shortcuts for Fabric Manager and Device Manager. The desktop shortcuts and start menu entries for Fabric Manager and Device Manager are called FabricManager and DeviceManager respectively. In other versions of Windows, including XP, we just create batch files on the desktop called FabricManager.bat and DeviceManager.bat. For UNIX, we create shell scripts called FabricManager.sh and DeviceManager.sh under the \$HOME/.cisco_mds9000/bin directory. Note that on Windows, installations run under Mozilla variants of browsers, and the desktop shortcuts do not get created. The workaround is to manually create desktop shortcuts.

How do I upgrade to a newer version?

To upgrade to a newer version of Fabric Manager or Device Manager, follow these steps:

-
- Step 1** Be sure all running instances of Fabric Manager or Device Manager are closed.
 - Step 2** Point your browser at the switch running the new version and click on the appropriate install link. Fabric Manager or Device Manager prompts you to upgrade if the switch is running a newer version.
- The installer checks your local copies and updates any newer versions of the software.
-

How do I downgrade Fabric Manager or Device Manager?

Cisco MDS SAN-OS Release 2.x or later supports downgrades using the installer. For earlier releases, downgrades are not supported through the installer. To downgrade Fabric Manager or Device Manager for an earlier release, you need to manually uninstall them and then install the previous version of Fabric Manager or Device Manager. See the [“Downgrading the Management Software”](#) section on page 1-9.

What do I do if my upgrade is not working?

If you are trying to upgrade because Fabric Manager or Device Manager prompted you saying that the switch version is higher, and the upgrade failed, it might be because your default browser settings are incorrect. Some error must have occurred during your last browser upgrade/install. To work around this, launch the browser independently and click on install.

On rare occasions, we have seen the upgrade happen but the version does not change. This is because of HTTP caching in the network. During the upgrade, HTTP requests for files on the switch get cached in the local machine. Even though the switch is in a higher version, the management software installed is at the old version. The workaround for this is to uninstall the Fabric/Device Manager, clear the Java Web Start cache, and then do a clean install.

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Java Web Start hangs on download dialog. What do I do?

To make sure Java Web Start is set up to access the switch in the same way your browser is set up, follow these steps:

-
- Step 1** Start up Java Web Start (javaws.exe/javaws). You see the Java Web Start Application Manager.
 - Step 2** Choose **File > Preferences > General** and make sure your proxy settings are correct. For example, if you are using an HTTP proxy, set it up here.
 - Step 3** Check **Use Browser**.
-

How can I manually configure my browser for Java Web Start?

For browsers like Opera, certain versions of Mozilla, or Konqueror, you must manually register Java Web Start as the helper application for the JNLP files. To do this, the data you need is:

- Description=Java Web Start
- File Extension=.jnlp
- Mime Type=application/x-java-jnlp-file
- Application=path-to-javaws (e.g. /usr/local/javaws/javaws)

After setting this up, you may need to restart the browser. If you see "Java Web Start not detected" warnings, you can ignore them. These warnings are based on JavaScript, and not all browsers behave well with JavaScript. Click on the install links to install Fabric Manager or Device Manager.



Note

For Windows Users: To set up Java Web Start on *.jnlp files, select **Windows Explorer > Tools > Folder Options > File Types**. Either change the existing setting for JNLP or add one so that *.jnlp files are opened by javaws.exe. This executable is under Program Files\Java Web Start

Can I run Java Web Start from the command line?

If you cannot get your browser to run Java Web Start, you can still run Java Web Start from the command line (javaws.exe or javaws) giving it the URL of the Fabric Manager or Device Manager on the switch as an argument. For example, if your switch IP address is 10.0.0.1, you would use these commands to start Fabric Manager and Device Manager:

```
javaws http://10.0.0.1/cgi-bin/fabric-manager.jnlp
javaws http://10.0.0.1/cgi-bin/element-manager.jnlp
```

Windows 2000 crashes (blue screen). What do I do?

Be sure you have Service Pack 3 installed if you are using JRE 1.4.1. (You should actually have been prompted to install Service Pack 3 during the JRE 1.4.1 installation.) If you do not have it installed, Windows 2000 may crash. If you do not want to upgrade to Service Pack 3, you can install JRE 1.4.0.

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How do I clear the Java Web Start cache?

To clear the Java Web Start cache, follow these steps:

-
- Step 1** Start the Java Web Start Application Manager (javaws.exe, javaws).
- Step 2** Go to **File > Preferences > Advanced** and clear the applications folder/cache. You can manually delete the .javaws/cache directory. On Windows this is under Documents and Settings, and on UNIX this is under \$HOME.
-

Why doesn't my login work in Fabric Manager and Device Manager?

Make sure you have done the Initial Setup Routine on the switch. Refer to the *Cisco MDS 9000 Family Configuration Guide*. Quick checks:

- Make sure that the management interface on the switch is up (**show interface mgmt0**).
- Check whether you can connect to the management interface (**ping**).
- Verify the username is valid (**show snmp user**). You can also add/edit the users through the CLI.
- If you have multiple network interfaces, see the “[Why is Fabric Manager or Device Manager using the wrong network interface?](#)” section on page 36-9

Why can't I install Fabric Manager or Device Manager when pcAnywhere is running?

You can either stop the pcAnywhere service and install Fabric Manager or Device Manager, or install/update DirectX. For more information, refer to the website at <http://forum.java.sun.com>.

The Fabric Manager or the Performance Manager service shows up as “disabled” in the Services menu.

This could happen if:

- The service menu for Fabric Manager or Performance Manager was open during an uninstall/upgrade.
- The Fabric Manager client or Device Manager was running while doing an uninstall/upgrade.

This error happens when Windows is unable to delete a service completely. A reboot of the host should fix the problem.

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Why can't I install Fabric Manager or Device Manager when McAfee Internet Suite 6.0 Professional is running?

The McAfee internet suite comes with a virus scanner, firewall, antispam, and privacy management. The privacy management can interfere with the Fabric Manager server-client interactions. To work around this you must shut down the privacy service.

I get an error ".sm/logon." when I downgrade from MDS SAN-OS Release 2.x (or newer) to 1.3(x).

The installer does not support a downgrade from Cisco MDS SAN-OS Release 2.x (or newer) to Cisco MDS SAN-OS Release 1.3(x) or earlier. Fabric Manager and Device Manager are backwardly compatible so we suggest running the newer versions. If you still want to downgrade to the lower version, see the [“Downgrading the Management Software”](#) section on page 1-9.

General

Why do I get errors while monitoring Area chart graphing?

When doing the area chart graphing from the monitor window, if you move the mouse over the Area chart before the first data comes back, you see a `java.lang.ArrayIndexOutOfBoundsException` error on the message log from JChart `getX()`. This is because JChart tries to locate a value that does not exist yet. This might be fixed in a future version of JChart.

Why do I get “gen error” messages?

Usually a “gen error” means that the SNMP agent on the switch had an unexpected error in the process of serving an SNMP request. However, when you are accessing the switch through a VPN connection or any sort of NAT scheme, all errors are reported as gen error. This is a known problem and will be fixed in a future release. You can verify whether this was the reason behind your gen error by trying to reproduce this error in an environment where there is no network address translation (where you are on the same network as the switch).

Why are disk images in the Device Manager Summary View not showing up?

On some occasions the Summary View table in the Device Manager does not show the icons for disks attached to a Fx port. This is because the FC4 features are empty for this port. A LUN discovery must be issued to discover information about these hosts/disks that do not register their FC4 types. You can do this in the Device Manager by clicking **FC > Advanced > LUNs**.

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Why can't I set both the D_S_TOV and E_D_TOV timers in the Device Manager?

If you modify both E_D_TOV and D_S_TOV at the same time, and the new D_S_TOV value is larger than the old E_D_TOV value, you will get a WrongValue error. To work around this, you must change the values separately.

Why are the columns in the Device Manager tables too small?

If Device Manager is trying to display a large table and your switch is running slowly, the table will come up with the tabs being hidden. To work around this, you must resize the window to see the data.

Why are my fabric changes not propagated onto the map (for example, links don't disappear)?

Fabric Manager shows that a device or port is down by displaying a red cross on that port or device. However, Fabric Manager does not remove any information that's already discovered. You must rediscover to correctly update the map.

Why does the PortChannel creation dialog become too small after several uses?

After several uses, the MemberList TextBox (in the PortChannel Create Window) does not display as it should. It changes from a long TextBox with a ComboBox for choosing ports, to a small square TextBox that is too small to choose ports. This is a known problem and will be fixed in a future release. To work around this problem, stop and restart Fabric Manager or Device Manager.

Why do I see errors when I have configured IPFC?

When IPFC and out of band management are configured, the Device Manager might not work using SNMPv3 if you use the IPFC address. The workaround is either to use the management interface (mgmt0) address, or to use SNMPv1/v2c over IPFC.

Why is Fabric Manager or Device Manager using the wrong network interface?

The problem happens because the underlying Java library picks a local interface arbitrarily. To work around this, you can supply a command line argument before starting the Fabric/Device Manager. In the desktop shortcut or shell script or batch file, add the following parameter "-Device Managerds.nmsAddress="

For example, in Windows the line looks like ".javaw.exe -Device Managerds.nmsAddress=X.X.X.X -cp .".

In desktop shortcuts, this length could exceed the maximum characters allowed. If this happens, delete the "-Dsun.java2d.ddoffscreen=false" portion to make more space. Newer versions of Fabric Manager (Release 1.2 and later) allow you to pick a preferred network interface.

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Why am I seeing display anomalies?

If you see Fabric Manager or Device Manager submenus detached from menus, the mouse pointer in Fabric Manager Map is slow to react to mouse movement, or a wrong tooltip is displayed, these are display anomalies, not problems with Fabric Manager or Device Manager.

Some older video cards exhibit these display anomalies. To fix this, first try updating the video drivers. If this doesn't solve the problem, replace the video card.

How do I connect the Fabric Manager client to the server across VPN?

In Fabric Manager Release 2.x or later, Fabric Manager client detects the VPN connection automatically. In prior releases, you must set up a Java command line option

```
-Djava.rmi.server.hostname=<client VPN IP address>..
```

Why is the active zone set in edit zone always shown in bold (even after successful activation)?

A member of this VSAN must be participating in IVR zoning. Because the IVR zones get added to active zones, the active zone set configuration is always different from the local zone set configuration with the same name. The zone set name is always bold.

Can I create a zone with prefix IVRZ and a zone set with name nozonset?

Do not use these special names. These names are used by the system for identifying IVR zones.

One-click license install fails, cannot connect to Cisco website.

The one-click license install tries to open an HTTP connection to the Cisco website. If you do your browsing using an HTTP proxy then the following command-line variables need to be added to your Fabric Manager client scripts:

```
-Dhttps.proxyHost and -Dhttps.proxyPort.
```

In case your one-click install URL starts with "http://" (and not "https://"), the variables are:

```
-Dhttp.proxyHost and -Dhttp.proxyPort.
```

For example, in Windows, edit the MDS 9000\bin\FabricManager.bat file and add to the JVMARGS "-Dhttps.proxyHost=HOSTADDRESS -Dhttps.proxyPort=HOSTPORT".

Fabric Manager client and Device Manager cannot connect to the switch

Fabric Manager or Device Manager using SNMPv3 at Cisco MDS SAN-OS Release 1.3(3) or earlier can't manage a switch running Release 1.3(4) or later. This might affect a software upgrade using Fabric Manager from Release 1.3(3) to Release 1.3(4).

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License Wizard fails to fetch license keys, saying connect failed

Java versions 1.4.2_01 and older don't seem to have the right set of CA (certifying authority) certificates to validate the SSL certificates on the EMC server (https). The license wizard is unable to make an https connection to the EMC servers. The workaround is to install the latest 1.4(x) version of Java, preferably 1.4.2_04 or later.

How do I increase log window size in Fabric Manager Client?

To limit the memory usage by FM Client, the log window is limited to 500 lines by default. If you want to increase this, edit `sm.properties` in `<install directory>/db/<user>` directory and change `LogBufferSize`.

Windows Issues

Text fields showing up too small, cannot enter any data

When Reflection X is running, certain text fields in the Fabric Manager and Device Manager are not rendered to the full width of the field. Resize the dialog box to see the text fields properly.

Why does CiscoWorks fail to start in the browser?

CiscoWorks fails to come up in the browser. This could be because CiscoWorks does not support Java JVM 1.4.0. To turn off Java JVM 1.4.0 in Internet Explorer, select the **Tools/Internet Options** menu item, click on the **Advanced** tab, and uncheck the **Use Java 2 1.4.0** option.

Help contents are unreadable because of highlighting

With the Windows look and feel, the highlight background color is dark blue and so the black text is unreadable. This is a known problem with Java Help. For more details refer to:
<http://developer.java.sun.com/developer/bugParade/bugs/4727419.html>.

Printing causes an application crash

On Windows NT there is a known Sun JVM bug - the printservice crashes the VM. The solution suggested by Sun is to update NT with SP 6. For more details refer to:
<http://developer.java.sun.com/developer/bugParade/bugs/4530428.html>.

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Windows XP hangs (or blue screen). What do I do?

Windows XP with the ATI Radeon AGP graphics cards has known to freeze (hang) when a Java application exits. The newer drivers from ATI seem to have fixed this problem. The other workaround is to run the application with "-Dsun.java2d.noddraw=true". We do this today in the shortcut and shell scripts we create. For more details refer to:

<http://developer.java.sun.com/developer/bugParade/bugs/4713003.html>.

Why do the Device Manager icons disappear sometimes?

On certain versions of Windows, certain images disappear. This is a Java bug. We have a workaround that is already in place (disable DirectDraw acceleration) - but there are still cases where this problem might arise. For more details refer to:

<http://developer.java.sun.com/developer/bugParade/bugs/4664818.html>.

Why does Fabric Manager hang when I drag an existing zone member to a zone?

When dragging a zone member to a zone (where that member is already present) you get an error message saying the zone member is already present and the application freezes. This is a Sun Java bug, and the problem is seen with JRE versions earlier than 1.4.2. For more details refer to

<http://developer.java.sun.com/developer/bugParade/bugs/4633417.html>. Use a Sun JRE with version 1.4.2 or later where this problem does not occur.

Device Manager or Fabric Manager window content disappears in Windows XP

Device Manager or Fabric Manager main window content disappears in Windows XP due to a Java bug. Refer to the following website:

http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=4919780.

Minimize or maximize the window and restore to the normal size to restore the window content. Disabling Direct Draw may also prevent this from happening by adding "-Dsun.java2d.noddraw=true" to JVMARGS in `<FM-install-dir>/bin/FabricManager.bat` and `DeviceManager.bat`

Why does SCP/SFTP fail when I try to copy a file from my local machine to the switch?

If there are embedded spaces in the file path, then windows scp/sftp might fail. You will get a copyDeviceBusy error from the switch. In tools such as the License Wizard either make sure tftp copy can be done or pick filenames with no spaces.

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UNIX Issues

Why do the parent menus disappear?

Displaying a submenu may occasionally cause the parent menu to disappear. For more details on this bug, refer to: <http://developer.java.sun.com/developer/bugParade/bugs/4470374.html>.

Why do I keep getting a "too many open files" error?

If you are running the JVM (Java Virtual Machine) on Linux and the drive where Java is installed or your home directory is NFS mounted, there is an open bug against the Sun JDK about errors acquiring file locks. The symptoms for the Fabric Manager are that launching a Device Manager or saving/opening files will fail, giving a "too many open files" I/O or socket exception. The JVM keeps trying to open a file on the NFS mounted drives, fails, and keeps trying to do it until it hits the 1024 file descriptors limit. Workarounds (assuming /tmp is a local disk - replace it with your tmp area):

- System Preferences

Make sure the system level preferences are stored on a local disk. The system preferences are stored in \$JAVA_HOME/.systemPrefs where JAVA_HOME is where you have installed the JDK. If this directory is NFS mounted, then just do the following:

```
$ rm -rf $JAVA_HOME/.systemPrefs<
$ mkdir /tmp/.systemPrefs
$ ln -s /tmp/.systemPrefs $JAVA_HOME/.systemPrefs
```

The problem with this workaround is that you have to make sure /tmp/.systemPrefs exists on every box where you are using \$JAVA_HOME. We recommend installing the JVM as root and on a local disk.

- User Preferences

If your home directory is NFS mounted and you are getting this problem. Do the following:

```
$ rm -rf $HOME/.java
$ mkdir /tmp/.java.$USER
$ ln -s /tmp/.java.$USER $HOME/.java
```

For further details, see the following URLs:

<http://developer.java.sun.com/developer/bugParade/bugs/4673298.html>

<http://developer.java.sun.com/developer/bugParade/bugs/4635353.html>

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Other

How can I set the map layout so it stays after I restart Fabric Manager?

If you have arranged the map to your liking and would like to “freeze” the map so that the objects stay as they are even after you stop Fabric Manager and restart it again, follow these steps:

-
- Step 1** Right-click on a blank space in the map. A menu is displayed.
- Step 2** Select **Layout > Fix All Nodes** from the menu.
-

Two switches show on my map, but I only have one switch

If two switches show on your map, but you only have one switch, it may be that you have two switches in a non-contiguous VSAN that have the same Domain ID. Fabric Manager uses <vsanId><domainId> to look up a switch, and this can cause the fabric discovery to assign links incorrectly between these errant switches.

The workaround is to verify that all switches use unique domain IDs within the same VSAN in a physically connected fabric. (The fabric configuration checker will do this task.)

There is a red/orange/dotted line through the switch. What’s wrong?

If a red line shows through your switch, this means Fabric Manger sees something wrong with the switch. Choose **Switches** in the Physical Attributes pane to see a status report in the information pane. A module, fan, or power supply has failed or is offline and plugged in.

If a dotted orange line shows through your switch, this indicates a minor status warning for that switch. Usually it means an issue with one of the modules. The tooltip should say exactly what is wrong. Hold the mouse over the switch to see the tooltip.

Below are tables of color settings and tooltip definitions for Fabric Manager and Device Manager.

Table 36-1 Fabric Manager and Device Manager Color Definitions

Fabric Manager Color	Definition
Red Slash	Cannot communicate with a switch via SNMP.
Red X	Cannot communicate with or see a switch in the Domain Manager/Fabric Configuration Server list of fabric switches.
Device Manager Color	Definition
Green Square with Mode (e.g., F, T, TE, U/I for FICON)	Port up.
Orange Square with Mode	Trunk incomplete.
Orange Cross	Ols or Nos received.
Brown Square	Port is administratively down.

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Table 36-1 Fabric Manager and Device Manager Color Definitions (continued)

Fabric Manager Color	Definition
Light Gray Square	Port is not manageable.
Red Cross	HardwareFailure/LoopbackDiagFailure/LinkFailure
Red Square	Any other kind of configuration failure.
No Square or Black Square	Port not yet configured.

Table 36-2 Device Manager Tooltip Definitions

Tooltip	Definition
adminDown	The port is administratively down.
bitErrRTThresExceeded	Bit error rate too high.
bundleMisCfg	Misconfiguration in PortChannel membership detected.
channelAdminDown	This port is a member of a PortChannel and that PortChannel is administratively down.
channelConfigurationInProgress	This port is undergoing a PortChannel configuration.
channelOperSuspended	This port is a member of a PortChannel and its operational parameters are incompatible with the PortChannel parameters.
deniedDueToPortBinding	Suspended due to port binding.
domainAddrAssignFailureIsolation	The elected principal switch is not capable of performing domain address manager functions so no Nx_port traffic can be forwarded across switches, hence all Interconnect_Ports in the switch are isolated.
domainInvalidRCFReceived	Invalid RCF received.
domainManagerDisabled	Domain manager is disabled.
domainMaxReTxFailure	Domain manager failure after maximum retries.
domainOtherSideEportIsolation	The peer E port is isolated.
domainOverlapIsolation	There is a overlap in domains while attempting to connect two existing fabrics.
elpFailureClassFParamErr	Isolated for ELP failure due to class F parameter error.
elpFailureClassNParamErr	Isolated for ELP failure due to class N parameter error.
elpFailureInvalidFlowCTLParam	Isolated for ELP failure due to invalid flow control parameter.
elpFailureInvalidPayloadSize	Isolated for ELP failure due to invalid payload size.
elpFailureInvalidPortName	Isolated for ELP failure due to invalid port name.

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Table 36-2 Device Manager Tooltip Definitions (continued)

Tooltip	Definition
elpFailureInvalidSwitchName	Isolated for ELP failure due to invalid switch name.
elpFailureInvalidTxBBCredit	Isolated for ELP failure due to invalid transmit B2B credit.
elpFailureIsolation	During a port initialization the prospective Interconnect_Ports find incompatible link parameters.
elpFailureLoopbackDetected	Isolated for ELP failure due to loopback detected.
elpFailureRatovEdtovMismatch	Isolated for ELP failure due to R_A_TOV or E_D_TOV mismatch.
elpFailureRevMismatch	Isolated for ELP failure due to revision mismatch.
elpFailureUnknownFlowCTLCode	Isolated for ELP failure due to invalid flow control code.
ePortProhibited	Port down because FICON prohibit mask in place for E/TE port.
eppFailure	Trunk negotiation protocol failure after maximum retries.
errorDisabled	The port is not operational due to some error conditions that require administrative attention.
escFailureIsolation	During a port initialization the prospective Interconnect_Ports are unable to proceed with initialization as a result of Exchange Switch Capabilities (ESC).
fabricBindingDBMismatch	fabric binding active database mismatch with peer.
fabricBindingDomainInvalid	Peer domain ID is invalid in fabric binding active database.
fabricBindingNoRspFromPeer	Fabric binding no response from peer.
fabricBindingSwwnNotFound	Peer switch WWN not found in fabric binding active database.
fcipPortAdminCfgChange	FCIP port went down due to configuration change.
fcipPortKeepAliveTimerExpire	FCIP port went down due to TCP keep alive timer expired.
fcipPortMaxReTx	FCIP port went down due to max TCP retransmissions reached the configured limit.
fcipPortPersistTimerExpire	FCIP port went down due to TCP persist timer expired.
fcipPortSrcAdminDown	FCIP port went down because the source ethernet link was administratively shutdown.
fcipPortSrcLinkDown	FCIP port went down due to ethernet link down.

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Table 36-2 Device Manager Tooltip Definitions (continued)

Tooltip	Definition
fcipSrcModuleNotOnline	FCIP port went down due to source module not online.
fcipSrcPortRemoved	FCIP port went down due to source port removal.
fcotChksumErr	FSP SPROM checksum error.
fcotNotPresent	SFP (GBIC) not present.
fcotVendorNotSupported	FSP (GBIC) vendor is not supported.
fcspAuthenfailure	Fibre Channel security protocol authorization failed.
ficonBeingEnabled	FICON is being enabled.
ficonNoPortnumber	No FICON port number.
ficonNotEnabled	FICON not enabled.
ficonVsanDown	FICON VSAN is down.
firstPortNotUp	In a over subscribed line card, first port cannot be brought up in E mode when the other ports in the group are up.
firstPortUpAsEport	In a over subscribed line card, when the first port in a group is up in E mode, other ports in that group cannot be brought up.
hwFailure	Hardware failure.
incomAdminRxBBCreditPerBuf	Disabled due to incompatible admin port rxbbcredit, performance buffers.
incompatibleAdminMode	Port admin mode is incompatible with port capabilities.
incompatibleAdminRxBBCredit	Receive BB credit is incompatible.
incompatibleAdminRxBufferSize	Receive buffer size is incompatible.
incompatibleadminSpeed	Port speed is incompatible with port capabilities.
initializing	The port is being initialized.
interfaceRemoved	Interface is being removed.
invalidAttachment	Invalid attachment.
invalidConfig	This port has a misconfiguration with respect to port channels.
invalidFabricBindExh	Invalid fabric binding exchange.
linkFailCreditLoss	Link failure due to excessive credit loss indications.
linkFailCreditLossB2B	Link failure when link reset (LR) operation fails due to queue not empty.
linkFailDebounceTimeout	Link failure due to re-negotiation failed.
linkFailLineCardPortShutdown	Link failure due to port shutdown.
linkFailLinkReset	Link failure due to link reset.

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Table 36-2 Device Manager Tooltip Definitions (continued)

Tooltip	Definition
linkFailLIPF8Rcvd	Link failure due to F8 LIP received.
linkFailLIPRcvdB2B	Link failure when loop initialization (LIP) operation fails due to non empty receive queue.
linkFailLossOfSignal	Link failure due to loss of signal.
linkFailLossOfSync	Link failure due to loss of sync.
linkFailLRRcvdB2B	Link failure when link reset (LR) operation fails due to non-empty receive queue.
linkFailNOSRcvd	Link failure due to non-operational sequences received.
linkFailOLSRcvd	Link failure due to offline sequences received.
linkFailOPNyRETB2B	Link failure due to open primitive signal returned while receive queue not empty.
linkFailOPNyTMOB2B	Link failure due to open primitive signal timeout while receive queue not empty.
linkFailPortInitFail	Link failure due to port initialization failure.
linkFailPortUnusable	Link failure due to port unusable.
linkFailRxQOverflow	Link failure due to receive queue overflow.
linkFailTooManyINTR	Link failure due to excessive port interrupts.
linkFailure	Physical link failure.
loopbackDiagFailure	Loopback diagnostics failure.
loopbackIsolation	Port is connected to another port in the same switch.
noCommonVsanIsolation	Trunk is isolated because there are no common vsans with peer.
none	No failure.
nonParticipating	During loop initialization, the port is not allowed to participate in loop operations
offline	Physical link is in offline state as defined in the FC-FS standards.
ohmsExtLBTst	Link suspended due to external loopback diagnostics failure.
other	Undefined reason.
parentDown	The physical port to which this interface is bound is down.
peerFCIPPortClosedConnection	Port went down because peer FCIP port closed TCP connection.
peerFCIPPortResetConnection	Port went down because the TCP connection was reset by the peer FCIP port.
portBindFailure	Port got isolated due to port bind failure.
portBlocked	Port blocked due to FICON.

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Table 36-2 Device Manager Tooltip Definitions (continued)

Tooltip	Definition
portChannelMembersDown	No operational members.
portFabricBindFailure	Port isolated due to fabric bind failure.
portGracefulShutdown	Port shutdown gracefully.
portVsanMismatchIsolation	An attempt is made to connect two switches using non-trunking ports having different port VSANs.
rcfInProgress	An isolated xE_port is transmitting a reconfigure fabric, requesting a disruptive reconfiguration in an attempt to build a single, non-isolated fabric. Only the Interconnect_Ports can become isolated.
srcPortNotBound	No source port is specified for this interface.
suspendedByMode	Port that belongs to a port channel is suspended due to incompatible operational mode.
suspendedBySpeed	Port that belongs to a port channel is suspended due to incompatible operational speed.
suspendedByWWN	Port that belongs to a port channel is suspended due to incompatible remote switch WWN.
swFailure	Software failure.
tooManyInvalidFLOGIs	Suspended due to too many invalid FLOGIs.
tovMismatch	Link isolation due to TOV mismatch
trunkNotFullyActive	Some of the VSANs which are common with the peer are not up.
upgradeInProgress	Line card upgrade in progress.
vsanInactive	Port VSAN is inactive. The port becomes operational again when the port VSAN is active.
vsanMismatchIsolation	This VSAN is not configured on both sides of a trunk port.
zoneMergeFailureIsolation	The two Interconnect_Ports cannot merge zoning configuration after having exchanged merging request for zoning.
zoneRemoteNoRespIsolation	Isolation due to remote zone server not responding.

Can I upgrade without losing my map settings?

When you upgrade from one version of Fabric Manager to another, there is a way to prevent the loss of map settings (enclosure names, placement on the map, etc.)

The MDS 9000/db directory contains subfolders for each user (and one for fmserver). In these subfolders are files for all discovered fabrics (*.dat) and maps (*.map). These are upgradable between versions. If you need to clear the fabric cache, you should first export the enclosures to a file to avoid losing them. Everything else aside from enclosures and map coordinates are stored on the switch. The preferences, last opened, and site_ouis.txt format doesn't change from release to release.

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How can I preserve historical data when moving Fabric Manager server to a new host?

To preserve your data when moving Fabric Manager Server to a new host, follow these steps:

-
- Step 1** Copy the `cisco_mds9500/pm` directory from the old host to the new host. Place it in the MDS 9000 directory (on a Windows PC, the default installation location for this directory is `C:\Program Files\Cisco Systems\MDS 9000`).
 - Step 2** On the new host, run **PMUpgrade.bat** from the `MDS 9000\bin` folder. This creates some new files and a new directory structure. There is a directory for each switch for which you have collected data.
 - Step 3** To continue data collection on a specific switch, copy the **db** subfolder from that switch's folder to the **pm** folder.
 - Step 4** On the new host, restart the Performance Manager Service (Windows) or Daemon (Unix). You can use the **bin/PM.bat** file to do this, or you can choose **Performance > Collector > Restart** from the Fabric manager menu.
 - Step 5** Export the enclosures to a file.
 - Step 6** Reimport the enclosures on the new host.
 - Step 7** Be sure to turn off the original service on the old host.
-

Are there any restrictions when using fabric manager across FCIP?

Fabric Manager will work with no restriction across an FCIP tunnel, as long as the tunnel is up. However, Fabric Manager cannot automatically discover a Cisco SN5428 mgmt IP address in the fabric. For that switch, it will display a red slash through an FCIP device because of a timeout error. It will still see all targets, initiators, and ISLs attached to a Cisco SN5428 (or any other switch) as long as they appear in the name server or FSPF.

To work around this, you can manually enter the IP address in the Switches table, and click Apply. If the community string is correct, the red slash will go away. Even if the community string is incorrect, double-clicking on the Cisco SN5428 will launch the web tool.

I see "Please insure that FM server is running on localhost."

You may see this error message if you cannot connect to the fabric and your PC has multiple network interface cards. The problem may be that Fabric Manager is trying to communicate through the wrong interface (you can verify this by checking the `FMServer.log` file).

Generally it is best to let Fabric Manager choose the interface on startup. If you are getting the above error, something may have gone wrong.

To reset Fabric Manager so that it chooses the interface next time it starts, do the following:

-
- Step 1** Open the `server.properties` file in the Fabric Manager installation directory. On a Windows platform, this file is in `C:\Program Files\Cisco Systems\MDS 9000` by default.
 - Step 2** Comment out the `snmp.localaddress` line.

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- Step 3** Save and exit the file.
- Step 4** Restart Fabric Manager.
-

**Note**

There are some cases where you would not want to do this, and should manually select the interface that Fabric Manager uses. For more information, see the [“How can I run Cisco Fabric Manager if I have multiple interfaces?”](#) section on page 36-21.

How can I run Cisco Fabric Manager if I have multiple interfaces?

If your PC has multiple interfaces (NICs), the four Cisco Fabric Manager applications detect these interfaces automatically (ignoring loopback interfaces). Fabric Manager Client and Device Manager detect all interfaces on your PC each time you launch them, and allow you to select one. Fabric Manager Server and Performance Manager detect on initial install, and allows you to select one. You are not prompted again to choose an interface with these two applications.

There may be circumstances where you will want to change the interface you are using. For example:

- If you add an interface after you have installed Fabric Manager Server and/or Performance Manager
- If you decide to use a different interface than the one you initially selected
- If for any reason one of the Cisco Fabric Manager applications did not detect multiple interfaces

Refer to the following sections, depending on which application you want to recognize the interface.

- [Manually specifying an interface for Fabric Manager Server, page 36-21](#)
- [Manually specifying an interface for Fabric Manager Client or Device Manager, page 36-22](#)

Manually specifying an interface for Fabric Manager Server

To specify an interface for Fabric Manager Server (including Performance Manager and Fabric Manager Web Services), follow these steps:

-
- Step 1** Go to the MDS 9000 folder. On a Windows platform, this folder is at C:\Program Files\Cisco Systems\MDS 9000 by default.
- Step 2** Edit the server.properties file with a text editor.
- Step 3** Scroll until you find the line snmp.localaddress
- Step 4** If the line is commented, remove the comment character.
- Step 5** Set this value to the IP address or interface name of the NIC you want to use.
- Step 6** Save the file.
- Step 7** Stop and restart Fabric Manager Server.
-

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Manually specifying an interface for Fabric Manager Client or Device Manager

To specify an interface for the Fabric Manager Client or Device Manager, follow these steps:

-
- Step 1** Go to the MDS 9000/bin folder. On a Windows platform, this folder is at C:\Program Files\Cisco Systems\MDS 9000 by default.
 - Step 2** Edit the DeviceManager.bat file or the FabricManager.bat file.
 - Step 3** Scroll to the line that begins with set JVMARGS=
 - Step 4** Add the parameter -Device Managerds.nmsaddress=ADDRESS, where ADDRESS is the IP address or interface name of the NIC you want to use.
 - Step 5** Save the file and relaunch Fabric Manager Client or Device Manager.
-

How can I configure an HTTP proxy server?

If your network uses a proxy server for HTTP requests, make sure the Java Web Start Application Manager is properly configured with the IP address of your proxy server.

To configure a proxy server in the Java Web Start Application Manager, follow these steps:

-
- Step 1** Launch the Java Web Start application.
 - Step 2** Select **File > Preferences** from the Java WebStart Application Manager.
 - Step 3** Click the **Manual** radio button and enter the IP address of the proxy server in the **HTTP Proxy** field.
 - Step 4** Enter the HTTP port number used by your proxy service in the **HTTP Port** field.
 - Step 5** Click **OK**.
-

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How can I clear the topology map?

If you have a switch that you have removed from the fabric, there will be a red X through the switch's icon. You can clear this information from the Fabric Manager client, or from the Fabric Manager server (which will clear the information for all clients) without having to reboot the switch.

To clear information from topology maps, follow these steps:

Step 1 In the Fabric pane, click on the **Refresh Map** icon.

This clears the information from the client.

Step 2 From the Server menu, click **Purge**.

This clears the information from the server.



Caution

Any devices not currently accessible (may be offline) will be purged.

Can I use Fabric Manager in a mixed software environment?

You can use Fabric Manager version 2.0(x) to manage a mixed fabric of Cisco MDS 9000 switches. Certain 2.0 feature tabs will be empty for any switches running a software version that does not support those features.

I get an error when launching Fabric Manager

If you get the following error:

```
An error occurred while launching the application Fabric Manager.
```

```
download error:corrupted jar file at <ipaddress>\Device Managerboot.jar
```

(Where <ipaddress> is that of the switch)

The error message you are getting indicates that the Java Web Start cache is corrupted. You can try clearing your Java Web Start cache first. To clear the Cache either run Java Web Start (from the Programs menu) and under the **preferences** select **clear cache**. Or do it manually by first making sure all Fabric Manager or Device Manager instances are closed and then deleting .javaws/cache. In the newer JREs this directory is created under Documents and Settings\USERNAME and in the older ones it used to be under Program Files\Java Web Start.

You can also browse beneath the cache folder and delete the offending IPAddress folder (e.g. cache/http/D10.0.0.1).

Also, check to make sure that the host is not running a virus checker / java blocker?

Also you can run the un-install program, then deleting .cisco_mds directory. Then re-install Fabric Manager.

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Can I search for devices in a fabric?

In Fabric Manager, it is possible to search for one or more devices by different attributes, including pWWN.

To perform a search, follow these steps:

-
- Step 1** Right click on the map and select the **Find Elements** menu item from the popup menu.
You see the Find Elements dialog box.
 - Step 2** Select **End Device** in the first combo-box.
 - Step 3** Select **Port WWN** in the second combo-box.
You can enter part of the WWN and use a wildcard (*) character (e.g., `**fb*f8`).
 - Step 4** Click on **Find in map**.
You see the devices highlighted in the Fabric pane. You can right click on any device to see the attributes for that devices. You can also select the links leading to those devices to see the attributes for those links.
-

Do I need a license of Fabric Manager Server for each switch in the fabric?

No.

You must install a Cisco MDS 9000 Family Cisco Fabric Manager Server package on at least one switch in each fabric where you intend to manage switches, if you intend to use the enhanced management capabilities the license package provides. You must also license all switches you plan to monitor with the Performance Manager (historical performance monitoring) feature. Failure to license all switches can prevent effective use of the Flow performance monitoring, so it is recommended to license all switches in each fabric managed by Cisco Fabric Manager Server.

You are free to try Cisco Fabric Manager Server capabilities prior to installing a license, but the those extended functions will stop working after the 120-day grace period expires. Standard Cisco Fabric Manager configuration and management capabilities will continue to be accessible without any licensed switches after the grace period expires.

How can I manage multiple fabrics?

To monitor and manage multiple fabrics, you must persist one or more fabrics. Do this by checking the **Persist** checkbox on the **Server>Admin** dialog Fabric tab. You must also use switches running SAN-OS Release 1.3.x or greater in both fabrics, and you must use the same user/password on both fabrics. Both fabrics must not be physically connected.

License expiration causes orange X through switch

If you are using a licensed feature and that license is allowed to expire, Fabric Manager shows a license violation, and an orange X is placed through the switch on the Fabric Manager map.

To clear the license violation message and the orange X, stop the Cisco Fabric Manager service on the host, and restart it again.