



## **Quick Start Guide for Cisco MDS 9100 Series Multilayer Fabric Switch in a Standalone Environment**

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# Overview

This guide provides instructions on how to set up and configure the Cisco MDS 9100 Series Multilayer Fabric Switch in a standalone environment. This guide does not describe Host Bus Adapter (HBA) and storage array configuration. For information on how to configure HBA and storage, see the respective vendor documentation.

This section contains the following:

## Prerequisites

This sections details the prerequisites that you must perform before you set up and configure the Cisco MDS 9100 Series Multilayer Fabric Switch.

The following tasks should be completed before you attempt set up the switch:

- The switch is rack mounted (or installed in a cabinet), with the Small Form-factor Pluggable (SFPs) securely installed.
- The computer is set up with the console cable and network connection.
- The Ethernet management port is connected to the management network.
- The cabling and connections between the switch, hosts, and storage are secured.

Besides these tasks, ensure the following:

- Access to a web browser and terminal emulator software, for example, Putty or HyperTerminal.
- Information about the Switch Name, IPv4 Address , Subnet Mask, and Default Gateway.

**Figure 1: Cisco MDS 9100 Series Multilayer Fabric Switch**



## Setting Up Switch Management

### Procedure

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- Step 1** Connect the serial port of the setup computer to the switch console port.
  - Step 2** Launch the terminal emulator with the following settings: 9600 bits per second, 8 data bits, 1 stop bit, no parity, no flow control.
  - Step 3** Power on the switch (ensure that the switch is connected to the console prior to powering on the switch so that no prompts are missed).

**Step 4** Enter **y** to abort auto provisioning and continue with normal setup.  
Abort Auto Provisioning and continue with normal setup ?(yes/no) [n]: Y

**Step 5** Continue with the default options until prompted for the switch name.

**Step 6** Set the admin password for the switch (at least 8 characters with numbers and upper and lowercase letters).

**Step 7** Set the switch name.

**Step 8** Set the switch IPv4 address, subnet mask, and default gateway.

**Example:**

```
Enter the switch name : cisco-mds-fabric
Continue with Out-of-band (mgmt0) management configuration? (yes/no) [y]: y
  Mgmt0 IPv4 address : 192.168.1.0
  Mgmt0 IPv4 netmask : 255.255.255.0
Configure the default gateway? (yes/no) [y]: y
  IPv4 address of the default gateway : 10.1.1.1
```

**Note** If you prefer to zone the switch (recommended), continue with the default options till prompted for default switchport port mode F.

**Step 9** Continue with the default options until prompted for the default switchport port mode F.

**Step 10** Set default switchport port mode F to **y**. This setting prevents interconnect between other switches.

```
Configure default switchport port mode F (yes/no) [n]: y
```

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## Installing Device Manager

### Procedure

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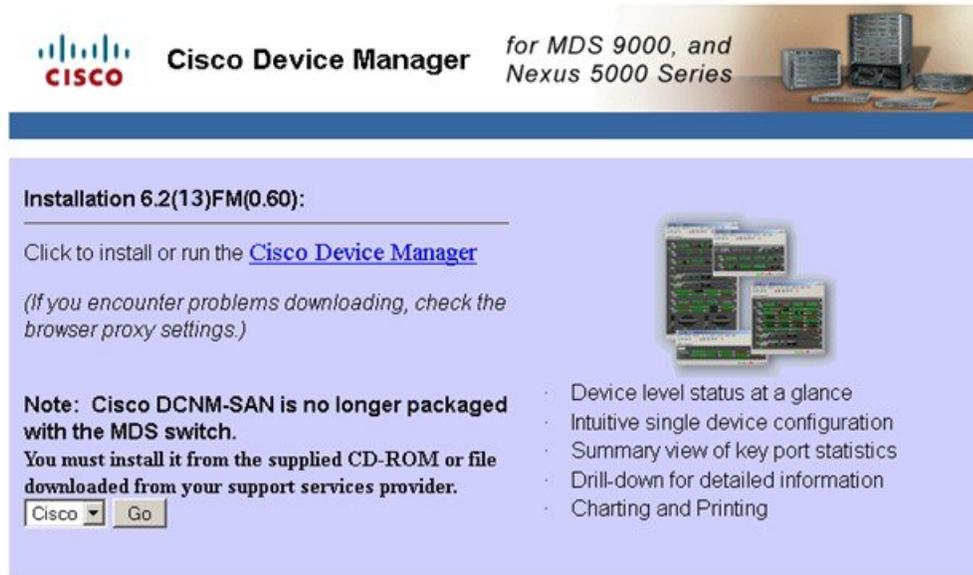
**Step 1** From your setup computer, open a web browser.

**Step 2** Access the switch using the IP address that you set in [Setting Up Switch Management](#), Step 7.

**Step 3** Click **Cisco Device Manager** to download installer and click **Run** when prompted by Java.

**Step 4** Follow the installation wizard in **Cisco Device Manager Installer** to complete installation.

Figure 2: Cisco Device Manager



**CISCO** Cisco Device Manager for MDS 9000, and Nexus 5000 Series

**Installation 6.2(13)FM(0.60):**

Click to install or run the [Cisco Device Manager](#)

*(If you encounter problems downloading, check the browser proxy settings.)*

**Note: Cisco DCNM-SAN is no longer packaged with the MDS switch. You must install it from the supplied CD-ROM or file downloaded from your support services provider.**

Cisco

- Device level status at a glance
- Intuitive single device configuration
- Summary view of key port statistics
- Drill-down for detailed information
- Charting and Printing

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## Confirming Port Status in Device Manager

### Procedure

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**Step 1** Launch the **Device Manager** from the Java Web Start Launcher file that you downloaded.

**Step 2** Enter the username and the password.

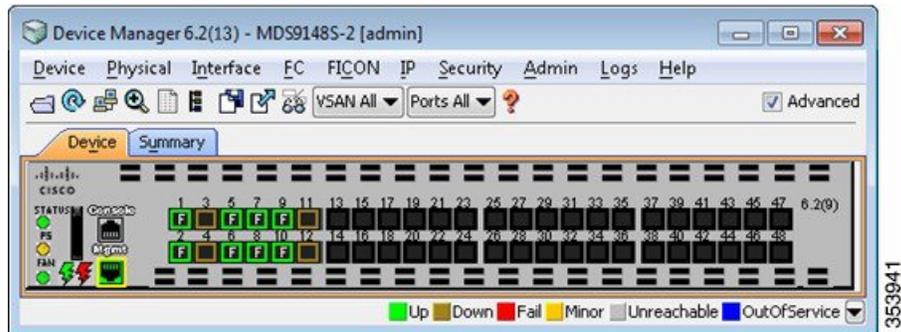
**Example:**

Figure 3: Device Manager



**Step 3** After you log in, Device Manager appears. Ensure that the desired active ports show a green status. If active ports do not show green status, confirm that the SFPs and cables to hosts and storage are properly installed

Figure 4: Device Manager



## Running Quick Configuration for Zoning

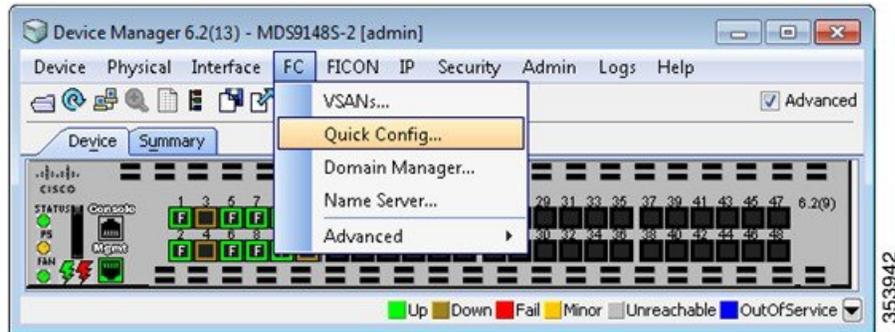


**Note** You need not perform the steps for Quick Configuration for Zoning, if the switch is not zoned.

### Procedure

**Step 1** In the Device Manager window, click **FC** and select **Quick Config**.

Figure 5: Device Manager

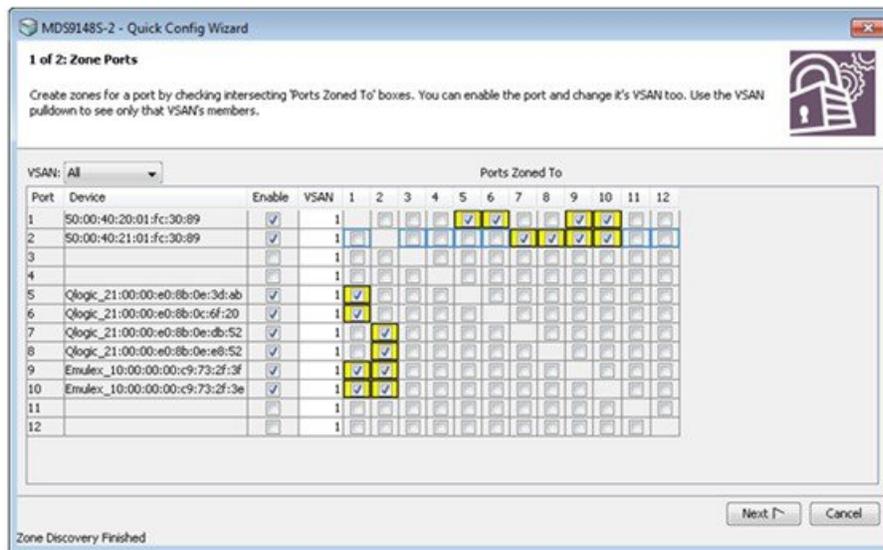


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**Step 2** In the **Enable** column, select all of the storage array and host ports that require configuration. All ports will be placed in VSAN 1 by default.

**Step 3** For each storage array port, select the check boxes in the **Ports Zoned To** column which correspond to the host ports that require a path. The corresponding check box in the row for the storage array connection is automatically selected. Both ports are now members of the same zone.

Figure 6: Quick Config Wizard



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**Example:**

Storage port 1 is zoned to host ports 5, 6, 9.

**Example:**

Storage port 2 is zoned to host ports 7 to 10.

**Step 4** Click **Next** to see a summary of the changes.

**Step 5** Review the configuration and click **Finish**.

## Open Zoning Configuration

If you prefer not to zone the switch, set the following parameters:

### Procedure

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- Step 1** Set the **default switchport interface state** to noshut.
  - Step 2** Set the **default switchport trunk mode** to on.
  - Step 3** Set the **default switchport port mode F** to y.
  - Step 4** Set the **default zone policy** to permit.
- 

### Example

Example: Configuring Open Zoning

```
Configure default switchport interface state (shut/noshut) [shut]: noshut
Configure default switchport trunk mode (on/off/auto) [on]: on
Configure default switchport port mode F (yes/no) [n]: y
Configure default zone policy (permit/deny) [deny]: permit
```

## Verifying Connectivity

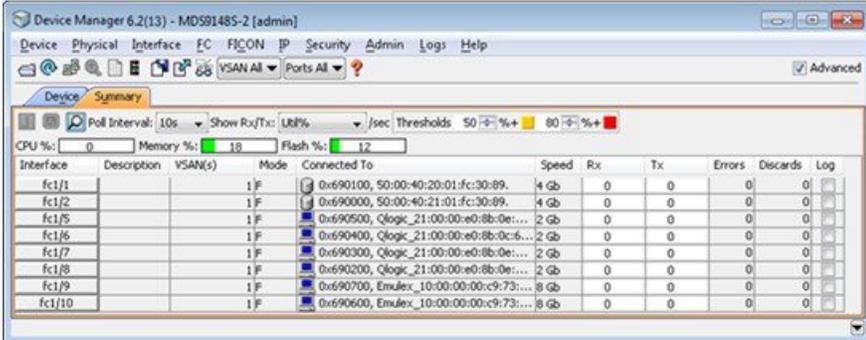
### Procedure

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- Step 1** From the host, verify (follow the vendor instructions) that each HBA is operational.
  - Step 2** From the storage array, verify (follow the vendor instructions ) active zone and WWN assignment.
  - Step 3** From the **Device Manager** window, choose the Summary tab.
  - Step 4** Verify that the host and storage ports are displayed.
  - Step 5** Verify the zoning configuration using the **show zoneset active** command in the terminal emulator.
-

## Example

Figure 7: Device Manager



The screenshot shows the Device Manager 6.2(13) interface for MDS9148S-2. The 'Summary' tab is active, displaying device statistics: CPU % at 0, Memory % at 18, and Flash % at 12. Below the statistics is a table of interfaces with columns for Interface, Description, VSAN(s), Mode, Connected To, Speed, Rx, Tx, Errors, Discards, and Log.

Interface	Description	VSAN(s)	Mode	Connected To	Speed	Rx	Tx	Errors	Discards	Log
fc1/1			1 F	0x690100, 50:00:40:20:01:fc:30:89.	4 Gb	0	0	0	0	
fc1/2			1 F	0x690000, 50:00:40:21:01:fc:30:89.	4 Gb	0	0	0	0	
fc1/5			1 F	0x690500, Qlogic_21:00:00:e0:8b:0e:...	2 Gb	0	0	0	0	
fc1/6			1 F	0x690400, Qlogic_21:00:00:e0:8b:0c:6...	2 Gb	0	0	0	0	
fc1/7			1 F	0x690300, Qlogic_21:00:00:e0:8b:0e:...	2 Gb	0	0	0	0	
fc1/8			1 F	0x690200, Qlogic_21:00:00:e0:8b:0e:...	2 Gb	0	0	0	0	
fc1/9			1 F	0x690700, Emulex_10:00:00:00:c9:73:...	8 Gb	0	0	0	0	
fc1/10			1 F	0x690600, Emulex_10:00:00:00:c9:73:...	8 Gb	0	0	0	0	

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