



CHAPTER 7

Configuring FCoE

This chapter describes how to configure Fibre Channel over Ethernet (FCoE) on a Cisco Nexus 5000 Series switch.

This chapter includes the following sections:

- [About Fibre Channel over Ethernet, page 7-1](#)
- [Guidelines and Limitations, page 7-1](#)
- [Configuring FCoE, page 7-1](#)

About Fibre Channel over Ethernet

Cisco Nexus 5000 Series switches support Fibre Channel over Ethernet (FCoE), which allows Fibre Channel and Ethernet traffic to be carried on the same physical Ethernet connection between the switch and the servers. FCoE requires the underlying Ethernet to be full duplex and to provide lossless behavior for Fibre Channel traffic.

FIP Initialization Protocol

The FCoE Initialization Protocol (FIP) allows the switch to discover and initialize FCoE-capable entities that are connected to an Ethernet LAN.

Guidelines and Limitations

When configuring FCoE, note the following guidelines and limitations:

- FCoE is supported on 10-Gigabit Ethernet interfaces.
- FCoE is not supported on private VLANs.

Configuring FCoE

This section describes how to configure FCoE on a switch and includes the following topics:

- [Enabling FCoE, page 7-2](#)
- [Configuring FCoE Using Fabric Manager, page 7-3](#)

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- [Configuring FCoE Using Device Manager, page 7-4](#)

Enabling FCoE

Fibre Channel over Ethernet (FCoE) provides a method of transporting Fibre Channel traffic over a physical Ethernet connection. By default, each Ethernet interface attempts to enable FCoE by advertising that it has FCoE to the adapter. If the FCoE negotiation fails, you can configure the Cisco Nexus 5000 Series switch to disable FCoE for this interface.



Note

In Cisco Nexus 5000 Series switches, FCoE is supported on all 10-Gigabit Ethernet interfaces.

To enable, or disable, FCoE features on a switch using Device Manager, follow these steps:

Step 1 Launch Device Manager from the Cisco Nexus 5000 Series switch.

Step 2 Choose **Admin > Feature Control**.

You see the Feature Control dialog box shown in [Figure 7-1](#).

Figure 7-1 Feature Control Dialog Box

Name	Status	Action	LastCommand	Result
fcsp	disabled	noSelection	noSelection	none
tacacs	disabled	noSelection	noSelection	none
qos-manager	disabled	noSelection	noSelection	none
port-security	disabled	noSelection	noSelection	none
fabric-binding	disabled	noSelection	noSelection	none
port_track	disabled	noSelection	noSelection	none
scheduler	disabled	noSelection	noSelection	none
npiv	disabled	noSelection	noSelection	none
lacp	disabled	noSelection	noSelection	none
npv	disabled	noSelection	noSelection	none
interface-vlan	disabled	noSelection	noSelection	none
private-vlan	disabled	noSelection	noSelection	none
port-security	disabled	noSelection	noSelection	none
udld	disabled	noSelection	noSelection	none
vpc	disabled	noSelection	noSelection	none
enm	disabled	noSelection	noSelection	none
cimserver	disabled	noSelection	noSelection	none
drap	disabled	noSelection	noSelection	none
fcoe_mgr	enabled	noSelection	enable	success
fport-channel-trunk	disabled	noSelection	noSelection	none
vtp	disabled	noSelection	noSelection	none
sfm	disabled	noSelection	noSelection	none

22 row(s)

Step 3 In the dialog box, in the table, click the **fcoe_mgr** row, and then click the **Action** cell in the **fcoe_mgr** row. From the drop-down list, choose **enable** to enable the FCoE feature in the switch.

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Note You can also disable the FCoE feature in the switch. To do so, from the drop-down list in the Action column, choose **disable**.

Step 4 Click **Apply**.



Note If the Cisco Nexus 5000 Series switch is running a Cisco NX-OS release prior to Release 4.2(1), you must do the following after you enable or disable FCoE on the switch:

- In the confirmation dialog box that appears, click **Yes** to enable the FCoE feature in the switch.
 - Reboot the switch before you use the FCoE feature.
-

Configuring FCoE Using Fabric Manager

To configure FCoE on a switch using Fabric Manager, follow these steps:

Step 1 In the Physical Attributes pane, choose **Switches > FCoE**.

You see the FCoE information pane shown in [Figure 7-2](#).

The Config tab displays the FCoE parameters for each Cisco Nexus 5000 Series switch that runs Cisco NX-OS Release 4.1(3) or later releases. [Table 7-1](#) lists the FCoE parameters for a switch.

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Figure 7-2 FCoE Information Pane

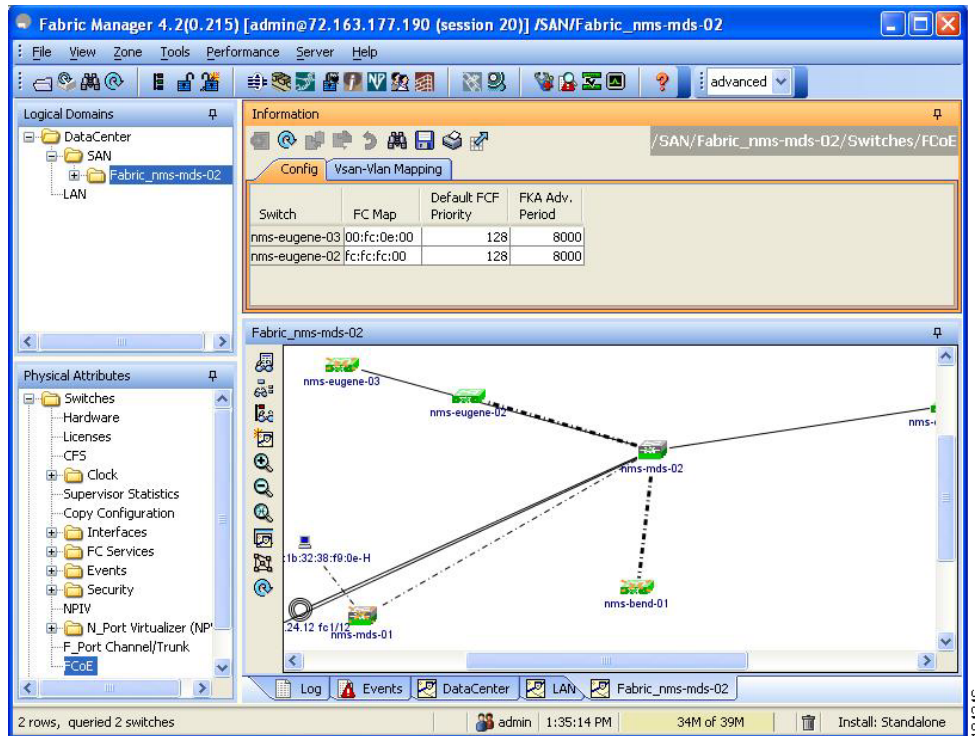


Table 7-1 FCoE Parameters

Parameter	Description
FC Map	The FCoE Mac Address Prefix used to associate the FCoE Node (ENode). Default value is 0e:fc:00.
Default FCF Priority	The FCoE Initialization Protocol (FIP) priority value advertised by the FCF to ENodes by default. Default priority value is 128 seconds.
FKA Advertisement Period	The time interval at which FIP Keep Alive (FKA) messages are transmitted to the MAC address of the ENode. Default advertisement period is 8 seconds.

- Step 2** Double-click the relevant FCoE parameter for a switch, and modify the value of the parameter.
- Step 3** In the Information pane toolbar, click the **Apply Changes** icon to save the changes.

Configuring FCoE Using Device Manager

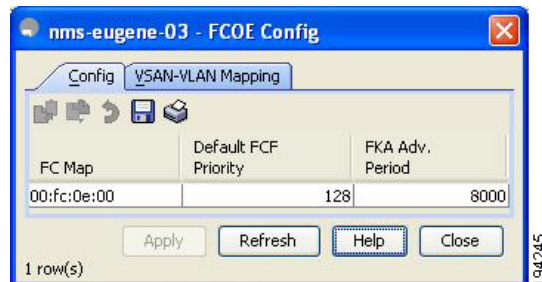
To configure FCoE on a switch using Device Manager, follow these steps:

- Step 1** Launch Device Manager from the Cisco Nexus 5000 Series switch.
- Step 2** Choose **FCoE > Config**.
You see the FCoE Config dialog box shown in [Figure 7-3](#).

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The Config tab displays the FCoE parameters, such as FC Map, default FCF priority value, and FKA advertisement period, for each Cisco Nexus 5000 Series switch that runs Cisco NX-OS Release 4.1(3) or later releases. Table 7-1 lists the FCoE parameters for a switch.

Figure 7-3 FCoE Config Dialog Box



- Step 3** Double-click the relevant FCoE parameter for a switch, and modify the value of the parameter.
- Step 4** Click **Apply** to save the changes.

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