F Commands

This chapter describes the Cisco NX-OS commands that begin with F that are used to manage a Cisco Nexus 2000 Series Fabric Extender from a Cisco Nexus 5000 Series switch.

fcoe

To associate a Cisco Nexus 2000 Series Fabric Extender (FEX) to a switch for pinning Fibre Channel over Ethernet (FCoE) Initialization Protocol (FIP) and FCoE traffic, use the **fcoe** command. To remove the association, use the **no** form of this command.

fcoe [**vsan** *vsan-id*]

no fcoe [**vsan**]

Syntax Description		
vsan *vsan-id*	Specifies the VSAN status. The VSAN ID range is from 1 to 4094.	

Command Default None

Command Modes FEX configuration mode
VLAN configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines Before you use this command, make sure that you enable the Fabric Extender (FEX) features on the switch by using the **feature fex** command.

You can use this command only on a Cisco Nexus 2232P Fabric Extender. When you bind an interface to a virtual Fibre Channel interface to enable FCoE traffic, you must use slot number 1. The port number can be from 1 to 32.

Examples This example shows how to configure a FEX as FCoE enabled:

```
switch# configure terminal
switch(config)# feature fex
switch(config)# fex 100
switch(config-fex)# fcoe
switch(config-fex)#
```

This example shows how to configure a pair of FEXs to carry FCoE traffic in a fabric virtual port channel (vPC) topology, with the host uplink ports in the FEXs configured to the same port channel:

```
switch# configure terminal
switch(config)# feature lacp
switch(config)# feature fex
switch(config)# feature fcoe
switch(config)# fex 100
switch(config-fex)# fcoe
switch(config-fex)# exit
switch(config)# interface vfc 1
switch(config-if)# bind interface eth101/1/1
```

```
switch(config)# interface eth101/1/1
switch(config-if)# channel-group 1
switch(config)# fex 102
switch(config-fex)# fcoe
switch(config)# interface vfc 1
switch(config-if)# bind interface eth102/1/1
switch(config)# interface eth102/1/1
switch(config-if)# channel-group 1
switch(config-if)#
```

This example shows how to configure FCoE traffic on a VLAN:

```
switch# configure terminal
switch(config)# vlan 5
switch(config-vlan)# fcoe vsan 1
switch(config-vlan)#
```

This example shows how to disable FCoE traffic on a FEX:

```
switch# configure terminal
switch(config)# fex 100
switch(config-fex)# no fcoe
switch(config-fex)#
```

Related Commands	Command	Description
	feature fcoe	Enables the FCoE feature on the switch.
	feature fex	Enables the FEX feature on the switch.
	feature lacp	Enables the Link Aggregation Control Protocol (LACP).
	show fex	Displays information about a specific FEX.

feature fex

To enable Fabric Extender (FEX) features on the switch, use the **feature fex** command. To disable FEX, use the **no** form of this command.

feature fex

no feature fex

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   Global configuration mode

Command History

Release	Modification
4.0(1a)N2(1)	This command was introduced.

Examples   This example shows how to enable FEX features on the switch:

```
switch(config)# feature fex
switch(config)#
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters fabric extender configuration mode.
show feature	Displays the features enabled or disabled on the switch.

fex

To create a Fabric Extender and enter fabric extender configuration mode, use the **fex** command. To delete the Fabric Extender configuration, use the **no** form of this command.

fex *chassis_ID*

no fex *chassis_ID*

Syntax Description

chassis_ID	Fabric Extender chassis ID. The chassis ID range is from 100 to 199.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
4.0(1a)N2(1)	This command was introduced.

Usage Guidelines

You can create and configure the Fabric Extender before you connect and associate it to an interface on the parent switch. Once you associate the Fabric Extender to the switch, the configuration you created is transferred over to the Fabric Extender and applied.

Examples

This example shows how to enter Fabric Extender configuration mode:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)#
```

This example shows how to delete the Fabric Extender configuration:

```
switch(config-fex)# no fex 101
switch(config)#
```

Related Commands

Command	Description
beacon	Turns on the locator beacon LED of a Fabric Extender.
description (fex)	Specifies a description for a Fabric Extender.
fex associate	Associates a Fabric Extender to an Ethernet or EtherChannel interface.
pinning max-links	Specifies the number of statically pinned uplinks connected to a Fabric Extender.
serial	Assigns a serial number to a Fabric Extender.

Command	Description
show fex	Displays all configured Fabric Extender chassis connected to the switch.
type	Specifies the Fabric Extender card.

fex associate

To associate a Fabric Extender to a fabric interface, use the **fex associate** command. To disassociate the Fabric Extender, use the **no** form of this command.

> **fex associate** *chassis_ID*

> **no fex associate** [*chassis_ID*]

Syntax Description		
chassis_ID	Fabric Extender chassis ID. The chassis ID range is from 100 to 199.	

Command Default   None

Command Modes   Interface configuration mode

Command History

Release	Modification
4.0(1a)N2(1)	This command was introduced.

Usage Guidelines   Before you can associate an interface on the parent switch to the Fabric Extender, you must first make the interface into a fabric interface by entering the **switchport mode fex-fabric** command.

✎

Note   On a Cisco Nexus 5000 Series switch that runs a Cisco NX-OS release 4.2(1)N1(1), the **switchport mode fex-fabric** command is not supported on an Ethernet interface.

Examples   This example shows how to associate the Fabric Extender to an Ethernet interface:

```
switch# configure terminal
switch(config)# interface ethernet 1/40
switch(config-if)# switchport mode fex-fabric
switch(config-if)# fex associate 101
```

This example shows how to associate the Fabric Extender to an EtherChannel interface:

```
switch# configure terminal
switch(config)# interface port-channel 4
switch(config-if)# switchport mode fex-fabric
switch(config-if)# fex associate 101
```

Related Commands

Command	Description
show fex	Displays all configured Fabric Extender chassis connected to the switch.
switchport mode fex-fabric	Sets the interface to be an uplink port.

fex pinning redistribute

To redistribute the host interfaces on a Fabric Extender, use the **fex pinning redistribute** command.

> **fex pinning redistribute** *chassis_ID*

Syntax Description

chassis_ID	Fabric Extender chassis ID. The chassis ID range is from 100 to 199.

Command Default   None

Command Modes   EXEC mode

Command History

Release	Modification
4.0(1a)N2(1)	This command was introduced.

Usage Guidelines

When you provision the Fabric Extender using the statically pinned mode (see the *Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide*), the host interfaces on the Fabric Extender are pinned to the fabric interfaces in the order that they were initially configured. The next time that you reboot the Fabric Extender, the configured fabric interfaces are pinned to the host interfaces in an ascending order by the port number of the fabric interface.

Use the **fex pinning redistribute** command if you want to configure the same fixed distribution of host interfaces without restarting the Fabric Extender after your initial configuration.

⚠
Caution   This command disrupts all the host interface ports of the Fabric Extender. However, the disruption is shorter than would be the case if you reboot the Fabric Extender.

Examples

This example shows how to redistribute the host interfaces on a Fabric Extender:

```
switch# fex pinning redistribute 101
switch#
```

Related Commands

Command	Description
pinning max-links	Defines the number of uplinks on a Fabric Extender.
show fex	Displays all configured Fabric Extender chassis connected to the switch.
show interface fex-intf	Displays the Fabric Extender ports pinned to a specific switch interface.

fex queue-limit

To limit the amount of input buffer space (in bytes) allocated to each Fabric Extender port, use the **fex queue-limit** command. To disable the drop threshold and allow a Fabric Extender port to use all available buffer space, use the **no** form of this command.

fex queue-limit

no fex queue-limit

Syntax Description   This command has no arguments or keywords.

Command Default   Fabric Extender queue limit is available in the default configuration and is set on.

Command Modes   System QoS configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines   By default, the drop threshold applies to each Fabric Extender port to limit the amount of buffer being allocated for each port. To restore the default queue limit of each Fabric Extender port, use the **fex queue-limit** command.

Examples   This example shows how to set the queue limit for the input buffer for each Fabric Extender port:

```
switch(config)# system qos
switch(config-sys-qos)# fex queue-limit
switch(config-sys-qos)#
```

This example shows how to restore the default queue limit for each Fabric Extender port:

```
switch(config)# system qos
switch(config-sys-qos)# no fex queue-limit
switch(config-sys-qos)#
```

Related Commands

Command	Description
show fex	Displays all configured Fabric Extender chassis connected to the switch.