CHAPTER 4

Fabric Extender Commands

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

attach fex

To access the CLI of a connected Fabric Extender to run diagnostic commands, use the **attach fex** command.

attach 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

EXEC mode

Command History

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

Usage Guidelines

Use the **attach fex** command to access the CLI on a connected Fabric Extender and performing diagnostic commands. We recommend that you use this command only following direction from Cisco technical support personnel.

Examples

This example shows how to access the CLI of a connected Fabric Extender to run diagnostic commands:

```
switch# attach fex 101
```

Related Commands

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

beacon

To turn on the locator beacon LED of a Fabric Extender, use the **beacon** command. To turn off the locator beacon LED, use the **no** form of this command.

beacon

no beacon

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Fabric Extender configuration mode

Command History

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

Usage Guidelines

Use the **beacon** command to toggle the locator beacon LED of a Fabric Extender, allowing you to easily identify the machine in a busy data center.

Examples

This example shows how to turn on the locator beacon LED for a specific Fabric Extender chassis:

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

This example shows how to turn off the locator beacon LED for a specific Fabric Extender chassis:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# no beacon
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.
show fex	Displays all configured Fabric Extender chassis connected to the switch.

description (fex)

To specify a description for a Fabric Extender, use the **description** command. To revert to the default description, use the **no** form of this command.

description *description*

no description

Syntax Description

description	Description of a Fabric Extender. The default is the string FEX*xxxx* where *xxxx* is the chassis ID. For example, if the chassis ID is 123, the default description is FEX0123. The maximum length is 20 characters.

Command Default

None

Command Modes

Fabric Extender configuration mode

Command History

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

Examples

This example shows how to specify a description for a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# description Rack16_FEX101
```

This example shows how to revert to the default description for a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# no description
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.
show fex	Displays all configured Fabric Extender chassis connected to 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

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
```

This example shows how to delete the Fabric Extender configuration:

```
switch# configure terminal
switch(config)# no fex 101
```

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

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.

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
```

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 *interface* **fex-intf**	Displays the Fabric Extender ports pinned to a specific switch interface.

logging fex

To set the logging alert level for Fabric Extender events, use the **logging fex** command. To reset the logging level, use the **no** form of this command.

logging fex [*severity-level*]

no logging fex [*severity-level*]

Syntax Description

severity-level	(Optional) Number of the desired severity level at which messages should be logged. Messages at or numerically lower than the specified level are logged. Severity levels are as follows: • 0—emergency: System unusable • 1—alert: Immediate action needed • 2—critical: Critical condition—default level • 3—error: Error condition • 4—warning: Warning condition • 5—notification: Normal but significant condition • 6—informational: Informational message only • 7—debugging: Appears during debugging only

Command Default

None

Command Modes

Configuration mode

Command History

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

Examples

This example shows how to set the logging alert level for Fabric Extender events:

```
switch(config)# logging fex 4
```

This example shows how to reset the logging level:

```
switch(config)# no logging fex
```

Related Commands

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

pinning max-links

To specify the number of statically pinned uplinks, use the **pinning max-links** command. To reset to the default, use the **no** form of this command.

pinning max-links *uplinks*

no pinning max-links

Syntax Description

uplinks	Number of uplinks. The range is 1 to 4. The default is 1. This command is applicable only if the Fabric Extender is connected to its parent switch using one or more statically pinned fabric interfaces.

Command Default

The maximum uplinks is 1.

Command Modes

Fabric Extender configuration mode

Command History

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

Usage Guidelines

Use the **pinning max-links** command when you create a number of pinned fabric interface connections to enable the parent switch to determine a distribution of host interfaces. The host interfaces are divided by the number of *uplinks* and distributed accordingly.

Caution Changing the value of *uplinks* is disruptive; all the host interfaces on the Fabric Extender are brought down and back up as the parent switch reassigns its static pinning.

Examples

This example shows how to specify the number of statically pinned uplinks for a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# pinning max-links 4
```

This example shows how to revert to the uplink count to the default for a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# no pinning max-links
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.
fex pinning redistribute	Redistributes the host interfaces on a Fabric Extender.
show fex	Displays all configured Fabric Extender chassis connected to the switch.

serial

To assign a serial number to a Fabric Extender, use the **serial** command. To remove the serial number, use the **no** form of this command.

serial *serial_string*

no serial

Syntax Description

serial_string	Serial number string for the Fabric Extender. The string is alphanumeric, case sensitive, and has a maximum length of 20 characters.

Command Default

None

Command Modes

Fabric Extender configuration mode

Command History

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

Usage Guidelines

The serial number string you define with the **serial** command must match the serial number of the Fabric Extender. If you configure a serial number and then you use the **fex associate** command to associate the corresponding chassis ID to the switch, the association will succeed only if the Fabric Extender reports a matching serial number string.

Caution Configuring a serial number other than that of the given Fabric Extender will force the Fabric Extender offline.

Examples

This example shows how to specify a serial number for a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# serial Rack16_FEX101
```

This example shows how to remove a serial number from a Fabric Extender:

```
switch# configure terminal
switch(config)# fex 101
switch(config-fex)# no serial
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.
fex associate	Associates a Fabric Extender to an Ethernet or EtherChannel interface.
show fex	Displays all configured Fabric Extender chassis connected to the switch.

show diagnostic result fex

To display the results from the diagnostic tests for a Fabric Extender chassis, use the **show diagnostic result fex** command.

show diagnostic result 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

EXEC mode

Command History

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

Examples

This example shows how to display the results from the diagnostic tests for a Fabric Extender:

```
switch# show diagnostic result fex 101
```

Related Commands

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

show environment fex

To display the environmental sensor status, use the **show environment fex** command.

show environment fex {**all** | *chassis_ID*} [**temperature** | **power** | **fan**]

Syntax Description

all	Show information for all Fabric Extender chassis.
chassis_ID	Fabric Extender chassis ID. The chassis ID range is from 100 to 199.
temperature	(Optional) Displays temperature sensor information.
power	(Optional) Displays power capacity and power distribution information.
fan	(Optional) Displays fan information.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the environmental sensor status for a Fabric Extender:

```
switch# show environment fex 101
```

Related Commands

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

show fex

To display information about a specific Fabric Extender or all attached chassis, use the **show fex** command.

show fex [*chassis_ID* [**detail**]]

Syntax Description

chassis_ID	(Optional) Fabric Extender chassis ID. The chassis ID range is from 100 to 199.
detail	(Optional) Displays a detailed listing.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display information about all attached Fabric Extender chassis:

```
switch# show fex
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.

show fex transceiver

To display information about the transceiver connecting a Fabric Extender to the Cisco Nexus 5000 Series switch, use the **show fex transceiver** command.

show fex *chassis_ID* **transceiver** [**calibration** | **detail**]

Syntax Description

chassis_ID	Fabric Extender chassis ID. The chassis ID range is from 100 to 199.
calibration	(Optional) Displays detailed calibration information about the transceiver.
detail	(Optional) Displays detailed diagnostic information about the transceiver.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display information about the transceiver connecting a Fabric Extender to the Cisco Nexus 5000 Series switch:

```
switch# show fex transceiver
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.

show fex version

To display the version information about a Fabric Extender, use the **show fex version** command.

show fex *chassis_ID* **version**

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.

Examples

This example shows how to display the version information about a Fabric Extender:

```
switch# show fex version
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters Fabric Extender configuration mode.

show interface fex-fabric

To display all Fabric Extender fabric interfaces, use the **show interface fex-fabric** command.

show interface fex-fabric

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display all Fabric Extender fabric interfaces:

```
switch# show interface fex-fabric
```

Related Commands

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

show interface fex-intf

To display the host interfaces pinned to a fabric interface, use the **show interface fex-intf** command.

show interface *interface* **fex-intf**

Syntax Description

interface	Ethernet or EtherChannel interface.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the host interfaces pinned to an Ethernet fabric interface on the parent switch:

```
switch# show interface ethernet 1/1 fex-intf
```

This example shows how to display the host interfaces pinned to an EtherChannel fabric interface on the parent switch:

```
switch# show interface port-channel 1 fex-intf
```

Related Commands

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

show interface transceiver fex-fabric

To display information about all transceivers connected to fabric interfaces, use the **show interface transceiver fex-fabric** command.

show interface transceiver fex-fabric [**calibration** | **detail**]

Syntax Description

calibration	(Optional) Displays detailed calibration information about the transceiver.
detail	(Optional) Displays detailed diagnostic information about the transceiver.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display information about all transceivers that connect to fabric interfaces:

```
switch# show interface transceiver fex-fabric
```

Related Commands

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

switchport mode fex-fabric

To set the interface type to be an uplink port for a Fabric Extender, use the **switchport mode fex-fabric** command.

switchport mode fex-fabric

no switchport mode fex-fabric

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Interface configuration mode

Command History

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

Examples

This example shows how to set an Ethernet interface to be an uplink port for a Fabric Extender:

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

This example shows how to set an EtherChannel interface to be an uplink port for a Fabric Extender:

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

Related Commands

Command	Description
fex associate	Associates a Fabric Extender to an Ethernet or EtherChannel interface.
show fex	Displays all configured Fabric Extender chassis connected to the switch.