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 command-line interface (CLI) of a connected Fabric Extender to run diagnostic commands, use the `attach fex` command.

```
attach fex chassis_ID
```

**Syntax Description**

<table>
<thead>
<tr>
<th>Syntax Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>chassis_ID</code></td>
<td>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</td>
</tr>
</tbody>
</table>

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>show fex</code></td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
<tr>
<td>4.1(3)N1(1)</td>
<td>This command was deprecated, and the <code>locator-led</code> command was introduced.</td>
</tr>
</tbody>
</table>

**Usage Guidelines**
Use the `beacon` command to toggle the locator beacon LED of a Fabric Extender, which allows 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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters Fabric Extender configuration mode.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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 FEXxxxx where `xxxx` is the chassis ID. For example, if the chassis ID is 123, the default description is FEX0123. The maximum length is 20 alphanumeric characters.

**Command Default**

None

**Command Modes**

Fabric extender configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters Fabric Extender configuration mode.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>beacon</td>
<td>Turns on the locator beacon LED of a Fabric Extender.</td>
</tr>
<tr>
<td>description (fex)</td>
<td>Specifies a description for a Fabric Extender.</td>
</tr>
<tr>
<td>fex associate</td>
<td>Associates a Fabric Extender to an Ethernet or EtherChannel interface.</td>
</tr>
<tr>
<td>pinning max-links</td>
<td>Specifies the number of statically pinned uplinks connected to a Fabric Extender.</td>
</tr>
<tr>
<td>serial</td>
<td>Assigns a serial number to a Fabric Extender.</td>
</tr>
</tbody>
</table>
### Command Description

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td>type</td>
<td>Specifies the Fabric Extender card.</td>
</tr>
</tbody>
</table>
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**: 4.0(1a)N2(1)
  - **Modification**: 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

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td>switchport mode</td>
<td>Sets the interface to be an uplink port.</td>
</tr>
<tr>
<td>fex-fabric</td>
<td></td>
</tr>
</tbody>
</table>
To redistribute the host interfaces on a Fabric Extender, use the `fex pinning redistribute` command.

```
fex pinning redistribute chassis_ID
```

**Syntax Description**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>chassis_ID</code></td>
<td>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</td>
</tr>
</tbody>
</table>

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>pinning max-links</code></td>
<td>Defines the number of uplinks on a Fabric Extender.</td>
</tr>
<tr>
<td><code>show fex</code></td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td><code>show interface</code></td>
<td>Displays the Fabric Extender ports pinned to a specific switch interface.</td>
</tr>
<tr>
<td><code>interface fex-intf</code></td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
hardware buffer-threshold

To limit the amount of input hardware buffer usage for each Fabric Extender, use the `hardware buffer-threshold` command. To revert to the default and allow a Fabric Extender to use all available hardware buffer space, use the `no` form of this command.

```
  hardware fex_card_type buffer-threshold buffer-limit

  no hardware fex_card_type buffer-threshold
```

**Syntax Description**

- **fex_card_type**: Fabric Extender card type. The following Fabric Extender card types are supported:
  - **N2148T**: Fabric Extender 48x1G 4x10G SFP+ Module
  - **N2224TP**: Fabric Extender 24x1G 2x10G SFP+ Module
  - **N2232P**: Fabric Extender 32x10G SFP+ 8x10G SFP+ Module
  - **N2248T**: Fabric Extender 48x1G 4x10G SFP+ Module

- **buffer-limit**: Buffer threshold limit in bytes. The range is from 81920 to 316160.

**Command Default**

None

**Command Modes**

Fabric extender configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Usage Guidelines**

The `buffer-threshold` keyword sets the consumption level of input buffers before an indication is sent to the egress queue to start observing the tail drop threshold. If the buffer usage is lower than the configured buffer threshold, the tail drop threshold is ignored.

**Supported Cisco Nexus 2000 Series Fabric Extender**

The following Cisco Nexus 2000 Series Fabric Extenders are supported on a Cisco Nexus 5000 Series switch that runs a Cisco NX-OS release 4.2(1)N2(1):

- **Cisco Nexus 2148T Fabric Extender**: It has four 10-Gigabit Ethernet fabric interfaces for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.
- **Cisco Nexus N2224TP Fabric Extender**: It has two 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 24 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts. It does not support Fibre Channel over Ethernet (FCoE).
Cisco Nexus 2232P Fabric Extender—It has eight 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 32 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its downlink connection to servers or hosts.

Cisco Nexus 2248T Fabric Extender—It has four 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.

Note: This command is available only on a Cisco Nexus 2148T Fabric Extender.

Examples

This example shows how to configure the hardware buffer threshold limit on a Cisco Nexus 2148T Fabric Extender:

```
switch(config)# fex 110
switch(config-fex)# hardware N2148T buffer-threshold 163840
switch(config-fex)#
```

This example shows how to remove the hardware buffer threshold configured on a Cisco Nexus 2148T Fabric Extender:

```
switch(config)# fex 110
switch(config-fex)# no hardware N2148T buffer-threshold
switch(config-fex)#
```

Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td>show queuing</td>
<td>Displays information about interface queuing parameters, including buffer</td>
</tr>
<tr>
<td>interface</td>
<td>threshold and queue limits.</td>
</tr>
<tr>
<td>show running-config fex</td>
<td>Displays the running configuration for Fabric Extenders.</td>
</tr>
</tbody>
</table>
To control the egress queue tail drop threshold level on a Fabric Extender, use the `hardware queue-limit` command. To disable the drop threshold and allow a Fabric Extender to use all available hardware buffer space, use the `no` form of this command.

```
hardware fex_card_typ queue-limit [queue-limit]
no hardware fex_card_typ queue-limit
```

**Syntax Description**

- `fex_card_type` Fabric Extender card type. The following Fabric Extender card types are supported:
  - `N2148T`—Fabric Extender 48x1G 4x10G SFP+ Module
  - `N2224TP`—Fabric Extender 24x1G 2x10G SFP+ Module
  - `N2232P`—Fabric Extender 32x10G SFP+ 8x10G SFP+ Module
  - `N2248T`—Fabric Extender 48x1G 4x10G SFP+ Module

- `queue-limit` (Optional) Queue limit in bytes. The range is from 81920 to 652800 for a Cisco Nexus 2148T Fabric Extender and from 2560 to 652800 for all other supported Fabric Extenders.

**Command Default**

None

**Command Modes**

Fabric extender configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Usage Guidelines**

You can use a lower queue limit value on the Fabric Extender to prevent one blocked receiver from affecting traffic being sent to other noncongested receivers ("head-of-line blocking"); however, this will increase burst absorption on the ingress traffic. A higher queue limit value provides better burst absorption and less head-of-line blocking protection.

**Supported Cisco Nexus 2000 Series Fabric Extender**

The following Cisco Nexus 2000 Series Fabric Extenders are supported on a Cisco Nexus 5000 Series switch that runs a Cisco NX-OS release 4.2(1)N2(1):

- Cisco Nexus 2148T Fabric Extender—It has four 10-Gigabit Ethernet fabric interfaces for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.
Cisco Nexus N2224TP Fabric Extender—It has two 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 24 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts. It does not support Fibre Channel over Ethernet (FCoE).

Cisco Nexus 2232P Fabric Extender—It has eight 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 32 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its downlink connection to servers or hosts.

Cisco Nexus 2248T Fabric Extender—It has four 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.

Examples

This example shows how to configure the hardware buffer queue limit on a Cisco Nexus 2248T Fabric Extender:

```
switch(config)# fex 110
switch(config-fex)# hardware N2248T queue-limit 327680
switch(config-fex)#
```

This example shows how to remove the hardware buffer queue limit configured on a Cisco Nexus 2248T Fabric Extender:

```
switch(config)# fex 110
switch(config-fex)# no hardware N2248T queue-limit
switch(config-fex)#
```

Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td>show queuing interface</td>
<td>Displays information about interface queuing parameters, including buffer threshold and queue limits.</td>
</tr>
<tr>
<td>show running-config fex</td>
<td>Displays the running configuration for Fabric Extenders.</td>
</tr>
</tbody>
</table>
Send comments to nx5000-docfeedback@cisco.com

## locator-led fex

To turn on the locator LED of a Fabric Extender, use the `locator-led` command. To turn off the locator LED, use the `no` form of this command.

```
locator-led fex chassis_ID

no locator-led fex chassis_ID
```

### Syntax Description

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

### Command Default

None

### Command Modes

EXEC mode

### Command History

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1(3)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Note**

On a Cisco Nexus 5000 Series switch that runs a Cisco NX-OS release prior to 4.1(3)N1(1), the locator beacon LED was toggled with the `beacon` command.

### Usage Guidelines

Use the `locator-led` command to toggle the locator LED of a Fabric Extender, which allows you to easily identify the machine in a busy data center.

### Examples

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

```
switch# locator-led fex 100
switch#
```

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

```
switch# no locator-led fex 100
switch#
```

### Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>show fex</code></td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
<tr>
<td><code>show locator-led</code></td>
<td>Displays the status of the locator LED in Fabric Extender modules.</td>
</tr>
</tbody>
</table>
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**

Global configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>uplinks</code></td>
<td>Number of uplinks. The range is from 1 to 8. 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.</td>
</tr>
</tbody>
</table>

**Command Default**
The maximum uplinks is 1.

**Command Modes**
Fabric extender configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
<tr>
<td>4.2(1)N1(1)</td>
<td>The number of uplinks is extended to 8.</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td>fex pinning</td>
<td>Redistributes the host interfaces on a Fabric Extender.</td>
</tr>
<tr>
<td>redistribute</td>
<td></td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>serial_string</th>
<th>Serial number string for the Fabric Extender. The string is alphanumeric, case sensitive, and has a maximum length of 20 characters.</th>
</tr>
</thead>
</table>

**Command Default**

None

**Command Modes**

Fabric extender configuration mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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
```
<table>
<thead>
<tr>
<th>Related Commands</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td></td>
<td>fex associate</td>
<td>Associates a Fabric Extender to an Ethernet or EtherChannel interface.</td>
</tr>
<tr>
<td></td>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

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

```
switch# show diagnostic result fex 100
FEX-100: 48x1GE/Supervisor SerialNo   : JAF1237ABSE
Overall Diagnostic Result for FEX-100 : OK

Test results: (. = Pass, F = Fail, U = Untested)
TestPlatform:
0)              SPROM: ---------------> .
1)          MV88E6095: ---------------> .
2)                Fan: ---------------> .
3)       Power Supply: ---------------> .
4) Temperature Sensor: ---------------> .

TestForwardingPorts:
Eth    1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Port ------------------------------------------------------------------------
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Eth   25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
Port ------------------------------------------------------------------------
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

TestFabricPorts:
Fabric 1  2  3  4
Port ---------
. . .
switch#
```
### show diagnostic result fex

**Related Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**: Displays 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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

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

```
switch# show environment fex 100

Temperature Fex 100:

<table>
<thead>
<tr>
<th>Module</th>
<th>Sensor</th>
<th>MajorThresh (Celsius)</th>
<th>MinorThres (Celsius)</th>
<th>CurTemp (Celsius)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Outlet-1</td>
<td>85</td>
<td>75</td>
<td>50</td>
<td>ok</td>
</tr>
<tr>
<td>1</td>
<td>Inlet-1</td>
<td>100</td>
<td>90</td>
<td>37</td>
<td>ok</td>
</tr>
</tbody>
</table>

Fan Fex: 100:

<table>
<thead>
<tr>
<th>Fan</th>
<th>Model</th>
<th>Hw</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis</td>
<td>N2K-C2148-FAN</td>
<td>--</td>
<td>ok</td>
</tr>
<tr>
<td>PS-1</td>
<td>N5K-PAC-200W</td>
<td>--</td>
<td>ok</td>
</tr>
<tr>
<td>PS-2</td>
<td>--</td>
<td>--</td>
<td>absent</td>
</tr>
</tbody>
</table>

Power Supply Fex 100:

<table>
<thead>
<tr>
<th>PS</th>
<th>Model</th>
<th>Power (Watts)</th>
<th>Power (Amp)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N5K-PAC-200W</td>
<td>0.00</td>
<td>0.00</td>
<td>ok</td>
</tr>
</tbody>
</table>
```
show environment fex

Mod Model       Power Requested (Watts)       Power Requested (Amp)       Power Allocated (Watts)       Power Allocated (Amp)       Status
--- ---------------  -----------  -----------------  -----------  -----------------  -----------  -------------
1  N5K-C5110T-BF-1GE  24.00        2.00        24.00        2.00        powered-up

Power Usage Summary:
---------------------
Power Supply redundancy mode:        redundant
Total Power Capacity                      0.00 W
Power reserved for Supervisor(s)                       24.00 W
Power currently used by Modules                   0.00 W

Total Power Available                         -24.00 W

Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

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

```
switch# show fex
CHASSIS    FEX     FEX  FEX              FEX
Number     Description State Model Serial
---------- ---------- ------- --------------- ------------
100        FEX0100    Online N5K-C5110T-BF-1GE JAF1237ABSE
101        FEX0101    Online N2K-C2248TP-1GE JAF1122333
102        FEX0102    Online N5K-C5110T-BF-1GE JAF1241BLHQ
105        FEX0105    Online N2K-C2232P-10GE JAF1331AKBM
switch#
```

This example shows how to display information about a specific Fabric Extender chassis:

```
switch# show fex 101
FEX: 101 Description: FEX0101 state: Online
    FEX version: 4.2(1)N1(1) [Switch version: 4.2(1)N1(1)]
    Extender Model: N2K-C2248TP-1GE, Extender Serial: JAF1122333
    Part No: 73-12748-01
    pinning-mode: static Max-links: 1
    Fabric port for control traffic: Eth3/5
    Fabric interface state:
        Po5 - Interface Up. State: Active
        Eth3/5 - Interface Up. State: Active
        Eth3/6 - Interface Up. State: Active
switch#
```

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

```
switch# show fex detail
FEX: 100 Description: FEX0100 state: Online
    FEX version: 4.2(1)N1(1) [Switch version: 4.2(1)N1(1)]
```

Send comments to nx5000-docfeedback@cisco.com
FEX Interim version: 4.2(1)N1(0.309)
Switch Interim version: 4.2(1)N1(0.309)
Extender Model: N5K-C5110T-BF-1GE, Extender Serial: JAF1237ABSE
Part No: 73-12009-02
Card Id: 70, Mac Addr: 00:0d:ec:b1:13:02, Num Macs: 64
Module Sw Gen: 12594 [Switch Sw Gen: 21]
post level: complete
pinning-mode: static Max-links: 1
Fabric port for control traffic: Eth3/3
Fabric interface state:
  Po12 - Interface Up. State: Active
  Eth3/3 - Interface Up. State: Active
  Eth3/4 - Interface Up. State: Active
Fex Port State Fabric Port Primary Fabric
Eth100/1/1 Up Po12 Po12
Eth100/1/2 Up Po12 Po12
Eth100/1/3 Up Po12 Po12
Eth100/1/4 Up Po12 Po12
Eth100/1/5 Up Po12 Po12
Eth100/1/6 Up Po12 Po12
Eth100/1/7 Up Po12 Po12
Eth100/1/8 Up Po12 Po12
Eth100/1/9 Up Po12 Po12
Eth100/1/10 Up Po12 Po12
Eth100/1/11 Up Po12 Po12
Eth100/1/12 Up Po12 Po12
Eth100/1/13 Up Po12 Po12
Eth100/1/14 Up Po12 Po12
Eth100/1/15 Up Po12 Po12
Eth100/1/16 Up Po12 Po12
Eth100/1/17 Up Po12 Po12
Eth100/1/18 Up Po12 Po12
Eth100/1/19 Up Po12 Po12
Eth100/1/20 Up Po12 Po12
Eth100/1/21 Up Po12 Po12
Eth100/1/22 Up Po12 Po12
Eth100/1/23 Up Po12 Po12

## Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
</tbody>
</table>
show fex detail

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

```
switch# show fex detail
FEX: 100  Description: FEX0100   state: Online
  FEX version: 4.2(1)N1(1)  [Switch version: 4.2(1)N1(1)]
  FEX Interim version: 4.2(1)N1(0.326)
  Switch Interim version: 4.2(1)N1(0.326)
  Extender Model: N5K-C5110T-BF-1GE,  Extender Serial: JAF1237ABSE
  Part No: 73-12009-02
  Card Id: 70, Mac Addr: 00:0d:ec:b1:13:02, Num Macs: 64
  Module Sw Gen: 12594  [Switch Sw Gen: 21]
  post level: complete
  pinning-mode: static  Max-links: 1
  Fabric port for control traffic: Eth3/4
  Fabric interface state:
    Po12 - Interface Up. State: Active
    Eth3/3 - Interface Up. State: Active
    Eth3/4 - Interface Up. State: Active

  Fex Port  State  Fabric Port  Primary Fabric
    Eth100/1/1  Up     Po12      Po12
    Eth100/1/2  Up     Po12      Po12
    Eth100/1/3  Up     Po12      Po12
    Eth100/1/4  Up     Po12      Po12
    Eth100/1/5  Up     Po12      Po12
    Eth100/1/6  Up     Po12      Po12
    Eth100/1/7  Up     Po12      Po12
    Eth100/1/8  Up     Po12      Po12
    Eth100/1/9  Up     Po12      Po12
    Eth100/1/10 Up     Po12      Po12
    Eth100/1/11 Up     Po12      Po12
    Eth100/1/12 Up     Po12      Po12
    Eth100/1/13 Up     Po12      Po12
    Eth100/1/14 Up     Po12      Po12
    Eth100/1/15 Up     Po12      Po12
    Eth100/1/16 Up     Po12      Po12
```

**Syntax Description**

This command has no arguments or keywords.

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

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

```
switch# show fex detail
```
show fex detail

Eth100/1/17    Up          Po12        Po12
Eth100/1/18    Up          Po12        Po12
Eth100/1/19    Up          Po12        Po12
Eth100/1/20    Up          Po12        Po12
Eth100/1/21    Up          Po12        Po12
Eth100/1/22    Up          Po12        Po12
Eth100/1/23    Up          Po12        Po12
Eth100/1/24    Up          Po12        Po12
Eth100/1/25    Up          Po12        Po12
Eth100/1/26    Up          Po12        Po12
Eth100/1/27    Up          Po12        Po12
Eth100/1/28    Up          Po12        Po12
Eth100/1/29    Up          Po12        Po12
Eth100/1/30    Up          Po12        Po12
Eth100/1/31    Up          Po12        Po12
Eth100/1/32    Up          Po12        Po12
Eth100/1/33    Down        Po12        Po12
Eth100/1/34    Down        Po12        Po12
Eth100/1/35    Down        Po12        Po12
Eth100/1/36    Down        Po12        Po12
Eth100/1/37    Down        Po12        Po12
Eth100/1/38    Down        Po12        Po12
Eth100/1/39    Down        Po12        Po12
Eth100/1/40    Up          Po12        Po12
Eth100/1/41    Up          Po12        Po12
Eth100/1/42    Up          Po12        Po12
Eth100/1/43    Up          Po12        Po12
Eth100/1/44    Up          Po12        Po12
Eth100/1/45    Up          Po12        Po12
Eth100/1/46    Up          Po12        Po12
Eth100/1/47    Up          Po12        Po12
Eth100/1/48    Up          Po12        Po12

Logs:
04/16/2010 05:05:23.441707: Module register received
04/16/2010 05:05:23.442886: Registration response sent
04/16/2010 05:05:23.551846: Module Online Sequence
04/16/2010 05:05:23.5652856: Module Online
04/16/2010 05:29:38.532603: Deleting route to FEX
04/16/2010 05:29:38.536055: Module disconnected
04/16/2010 05:29:38.537686: Offlining Module
04/16/2010 05:29:38.538260: Module Offline Sequence
04/16/2010 05:29:38.539429: Module Offline
04/16/2010 05:31:13.784346: Module register received
04/16/2010 05:31:13.785410: Registration response sent
04/16/2010 05:31:15.676906: Module Online Sequence
04/16/2010 05:31:15.676906: Module Online
04/16/2010 05:31:50.483417: Module Offline Sequence
04/16/2010 05:31:50.483417: Module Offline
04/16/2010 05:32:18.396879: Module register received
04/16/2010 05:32:18.396879: Registration response sent
04/16/2010 05:32:18.396879: Module Online Sequence
04/16/2010 05:32:18.396879: Module Online
04/16/2010 05:32:30.692101: Module register received
04/16/2010 05:32:30.692101: Registration response sent
04/16/2010 05:32:30.692101: Module Online Sequence

---output truncated---
switch#
## Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>fex</code></td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td><code>show fex</code></td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>chassis_ID</code></td>
<td>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</td>
</tr>
<tr>
<td><code>calibration</code></td>
<td>(Optional) Displays detailed calibration information about the transceiver.</td>
</tr>
<tr>
<td><code>detail</code></td>
<td>(Optional) Displays detailed diagnostic information about the transceiver.</td>
</tr>
</tbody>
</table>

**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 that connects a Fabric Extender to the Cisco Nexus 5000 Series switch:

```
switch# show fex 101 transceiver

Fex Uplink: 1
Fabric Port: Ethernet3/5
  sfp is present
  name is CISCO-AVAGO
  part number is SFBR-7700SDZ
  revision is B4
  serial number is AGD113921ZR
  nominal bitrate is 10300 MBits/sec
  Link length supported for 50/125mm fiber is 82 m(s)
  Link length supported for 62.5/125mm fiber is 26 m(s)
  cisco id is --
  cisco extended id number is 4

Fex Uplink: 2
Fabric Port: Ethernet3/6
  sfp is present
  name is CISCO-AVAGO
  part number is SFBR-7700SDZ
  revision is B4
  serial number is AGD113422LS
  nominal bitrate is 10300 MBits/sec
  Link length supported for 50/125mm fiber is 82 m(s)
  Link length supported for 62.5/125mm fiber is 26 m(s)
  cisco id is --
  cisco extended id number is 4
```
Fex Uplink: 3
Fabric Port: --
  sfp is present
  name is CISCO-AVAGO
  part number is SFBR-7700SDZ
  revision is B4
  serial number is AGD11392258
  nominal bitrate is 10300 MBits/sec
  Link length supported for 50/125mm fiber is 82 m(s)
  Link length supported for 62.5/125mm fiber is 26 m(s)
--More--
switch#

<table>
<thead>
<tr>
<th>Related Commands</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>chassis_ID</th>
<th>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</th>
</tr>
</thead>
</table>

Command Default

None

Command Modes

EXEC mode

Command History

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

Examples

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

```
switch# show fex 101 version
Software
  Bootloader version:           0.2
  System boot mode:             primary
  System image version:         4.2(1)N1(1) [build 4.2(1)N1(0.309)]

Hardware
  Module:                       Fabric Extender 48x1GE + 4x10G Module
  CPU:                          Motorola, e300c4
  Serial number:                JAP11223333
  Bootflash:                    locked

Kernel uptime is 0 day(s), 3 hour(s), 53 minutes(s), 43 second(s)
Last reset at Wed Mar 31 06:28:41 2010
  Reason: Kernel Reboot
  Service: Reload new image
switch#
```

Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

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

```
switch# show interface fex-fabric
         Fabric  Fex       Fabric     Port  Port State  Uplink       Model                Serial
         Fex  Port       Port State  Uplink       Model                Serial
---------------------------------------------------------------
   105    Eth1/5     Active     5    N2K-C2232P-10GE  JAF1331AKBM
   105    Eth1/6     Active     6    N2K-C2232P-10GE  JAF1331AKBM
   105    Eth1/7     Active     8    N2K-C2232P-10GE  JAF1331AKBM
   105    Eth1/8     Active     7    N2K-C2232P-10GE  JAF1331AKBM
   102    Eth1/17    Configured 0
   102    Eth1/18    Configured 0    N5K-C5110T-BF-1GE  JAF1241BLHQ
   102    Eth1/19    Active     3    N5K-C5110T-BF-1GE  JAF1241BLHQ
   102    Eth1/20    Active     4    N5K-C5110T-BF-1GE  JAF1241BLHQ
   100    Eth3/3     Active     1    N5K-C5110T-BF-1GE  JAF1237ABSE
   100    Eth3/4     Active     2    N5K-C5110T-BF-1GE  JAF1237ABSE
   101    Eth3/5     Active     1    N2K-C2248TP-1GE  JAF11223333
   101    Eth3/6     Active     2    N2K-C2248TP-1GE  JAF11223333
switch#
```

**Related Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>interface</code></td>
<td>Ethernet or EtherChannel interface.</td>
</tr>
</tbody>
</table>

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>show fex</code></td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>calibration</code></td>
<td>(Optional) Displays detailed calibration information about the transceiver.</td>
</tr>
<tr>
<td><code>detail</code></td>
<td>(Optional) Displays detailed diagnostic information about the transceiver.</td>
</tr>
</tbody>
</table>

### Command Default

None

### Command Modes

EXEC mode

### Command History

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

### Examples

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

```
switch# show interface transceiver fex-fabric

Ethernet1/5
  sfp is present
  name is CISCO-MOLEX INC
  part number is 74752-9025
  revision is A
  serial number is MOC12302468
  nominal bitrate is 12000 MBits/sec
  Link length supported for 50/125mm fiber is 0 m(s)
  Link length supported for 62.5/125mm fiber is 0 m(s)
  cisco id is --
  cisco extended id number is 4

Ethernet1/6
  sfp is present
  name is CISCO-MOLEX INC
  part number is 74752-9025
  revision is A
  serial number is MOC12260214
  nominal bitrate is 12000 MBits/sec
  Link length supported for 50/125mm fiber is 0 m(s)
  Link length supported for 62.5/125mm fiber is 0 m(s)
  cisco id is --
  cisco extended id number is 4

Ethernet1/7
  sfp is present
  name is CISCO-MOLEX INC
  part number is 74752-9025
  revision is A
  serial number is MOC12301888
```
show interface transceiver fex-fabric

nominal bitrate is 12000 MBits/sec
Link length supported for 50/125mm fiber is 0 m(s)
Link length supported for 62.5/125mm fiber is 0 m(s)
cisco id is --
cisco extended id number is 4

Ethernet1/8
  sfp is present
  name is CISCO-MOLEX INC
--More--
switch#

<table>
<thead>
<tr>
<th>Related Commands</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
**show inventory fex**

To display the physical inventory of a Fabric Extender, such as the name, description, and volume ID, use the `show inventory fex` command.

```
show inventory fex chassis_ID
```

**Syntax Description**

<table>
<thead>
<tr>
<th><code>chassis_ID</code></th>
<th>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</th>
</tr>
</thead>
</table>

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

This example shows how to display the physical inventory of a specific Fabric Extender chassis:

```
switch# show inventory fex 100
NAME: "FEX 100 CHASSIS", DESCR: "N5K-C5110T-BF-1GE CHASSIS"
PID: N5K-C5110T-BF-1GE , VID: V01 , SN: JAF1237ABSE

NAME: "FEX 100 Module 1", DESCR: "Fabric Extender Module: 48x1GE, 4X10GE Supervisor"
PID: N5K-C5110T-BF-1GE , VID: V00 , SN: JAF1237ABSE

NAME: "FEX 100 Fan 1", DESCR: "Fabric Extender Fan module"
PID: N2K-C2148-FAN , VID: N/A , SN: N/A

NAME: "FEX 100 Power Supply 1", DESCR: "Fabric Extender AC power supply"
PID: N5K-PAC-200W , VID: 00V0, SN: PAC12473L17

switch#
```

**Related Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
show locator-led

To display the status of the locator LED in a Fabric Extender, use the `show locator-led` command.

```
show locator-led status
```

<table>
<thead>
<tr>
<th>Syntax Description</th>
<th>status</th>
<th>Displays the status of the locator LED in a Fabric Extender module.</th>
</tr>
</thead>
</table>

Command Default: None

Command Modes: EXEC mode

Command History:

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

Usage Guidelines: Use the `locator-led` command to toggle the locator LED of a Fabric Extender.

Examples:

This example shows how to display the modules that have the locator LED set to off or on:

```
switch# show locator-led status
Component       Locator LED Status
---------------------------------------------------
FEX 100          off
FEX 101          off
FEX 102          off
FEX 103          off
FEX 105          off
switch#
```

Related Commands:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>locator-led</td>
<td>Turns on the locator LED of a Fabric Extender chassis.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
Chapter 4    Fabric Extender Commands

show module fex

To display the module information for a Fabric Extender, use the **show module fex** command.

```
show module fex [all | chassis_ID]
```

**Syntax Description**

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

- **all**
  
  Displays information about all Fabric Extender modules.

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

- **Release**
  
  4.2(1)N1(1)

- **Modification**
  
  This command was introduced.

**Examples**

This example shows how to display the module information of Fabric Extenders:

```
switch# show module fex all
FEX Mod Ports Card Type                          Model              Status.
--- --- ----- ---------------------------------- ------------------ -----------
100 1   48    Fabric Extender 48x1GE Module      N5K-C5110T-BF-1GE  present
101 1   48    Fabric Extender 48x1GE + 4x10G Mod N2K-C2248TP-1GE    present
102 1   48    Fabric Extender 48x1GE Module      N5K-C5110T-BF-1GE  present
105 1   32    Fabric Extender 32x10GE + 8x10G Mo N2K-C2232P-10GE    present

FEX Mod Sw              Hw      World-Wide-Name(s) (WWN)
--- --- --------------  ------  -----------------------------------------------
100 1   4.2(1)N1(1)     0.0     --
101 1   4.2(1)N1(1)     0.103   --
102 1   4.2(1)N1(1)     0.2     --
105 1   4.2(1)N1(1)     1.0     --

FEX Mod  MAC-Address(es)                         Serial-Num
--- ---  --------------------------------------  ----------
100 1    000d.ecb1.1300 to 000d.ecb1.132f        JAF1237ABSE
101 1    0022.bdd1.3cc0 to 0022.bdd1.3cef        JAF11223333
102 1    000d.ecb1.25c0 to 000d.ecb1.25ef        JAF1241BLHQ
105 1    000d.ecca.6f40 to 000d.ecca.6f5f        JAF1331AKBM
```

This commands shows how to display the module information for a specific Fabric Extender:

```
switch# show module fex 100
FEX Mod Ports Card Type                          Model              Status.
--- --- ----- ---------------------------------- ------------------ -----------
100 1   48    Fabric Extender 48x1GE Module      N5K-C5110T-BF-1GE  present

FEX Mod Sw              Hw      World-Wide-Name(s) (WWN)
--- --- --------------  ------  -----------------------------------------------
show module fex

```
100 1  4.2(1)NL(1)  0.0  --
        FEX Mod  MAC-Address(es)                         Serial-Num
              --- ---  --------------------------------------  ----------
                100 1  000d.ecb1.1300 to 000d.ecb1.132f  JAF1237ABSE
switch#
```

### Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
To display the queuing information of interfaces, use the `show queuing interface` command.

```
show queuing interface [ethernet slot-chassis-no|port-slot-no|port-no]
```

**Syntax Description**

- `ethernet` (Optional) Specifies that queuing information be displayed for an Ethernet interface or a Fabric Extender.
- `slot-chassis-no` Slot number of the Ethernet interface or chassis ID of the Fabric Extender. The range is from 1 to 255.
- `port-slot-no` Port number of the Ethernet interface or the remote slot ID of the Fabric Extender. The range is from 1 to 128.
- `port-no` Port number of the Fabric Extender. The range is from 1 to 48.

**Command Default**
Displays the queuing information for all interfaces.

**Command Modes**
EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1(3)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

This example shows how to display the queuing information, including the buffer threshold and queue limit values, of a specified interface on a switch that runs Cisco NX-OS 4.2(1)N2(1):

```
switch# show queuing interface eth101/1/1
Ethernet101/1/1 queuing information:
  Input buffer allocation:
  Qos-group: 0 3 4 (shared)
  frh: 3
  drop-type: drop
  cos: 0 2 3 4 6 7
  xon       xoff      buffer-size
  ---------+---------+-----------
  11520    21760    44800

  Qos-group: 2
  frh: 2
  drop-type: no-drop
  cos: 1 5
  xon       xoff      buffer-size
  ---------+---------+-----------
  12800    23040    46080

  Queueing:
  queue  qos-group  cos  priority  bandwidth  mtu
  --------+----------+-----+---------+-----------+----
  3       0 3 4   0 2 3 4 6  WRR  99  9280
  2       2       1 5   WRR  1    9280
```
Buffer threshold: 163840 bytes
Queue limit: 327680 bytes

Queue Statistics:
queue rx
---
3 38557
2 0

Port Statistics:
tx queue drop
---
26374

Priority-flow-control enabled: no
Flow-control status:
cos qos-group rx pause tx pause masked rx pause
---
0 0 xon xon xon
1 2 xon xon xon
2 3 xon xon xon
3 0 xon xon xon
4 3 xon xon xon
5 2 xon xon xon
6 0 xon xon xon
7 n/a xon xon xon

Table 4-1 describes the significant fields shown in the display.

### Table 4-1  show queuing interface Field Descriptions

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>Ethernet interface information.</td>
</tr>
<tr>
<td>qoS-group</td>
<td>Information about QoS groups configured on the switch.</td>
</tr>
<tr>
<td>sched-type</td>
<td>Type of schedule.</td>
</tr>
<tr>
<td>WRR</td>
<td>Weighted round robin (WRR). Queue eight for scheduling.</td>
</tr>
<tr>
<td>Priority</td>
<td>Priority of the queue.</td>
</tr>
<tr>
<td>q-size</td>
<td>Queue size.</td>
</tr>
<tr>
<td>drop-type</td>
<td>Queue drop type can be either drop or no-drop.</td>
</tr>
<tr>
<td>MTU</td>
<td>Maximum transmit unit (MTU) for the queue.</td>
</tr>
<tr>
<td>Xon</td>
<td>Transmission on at this threshold.</td>
</tr>
<tr>
<td>Xoff</td>
<td>Transmission off at this threshold.</td>
</tr>
<tr>
<td>Buffer threshold</td>
<td>Buffer threshold value for an interface.</td>
</tr>
<tr>
<td>Queue limit</td>
<td>Queue limit value for an interface.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related Commands</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>hardware</td>
<td>buffer-threshold</td>
<td>Configures the hardware buffer threshold.</td>
</tr>
</tbody>
</table>
### Command Description

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>hardware queue-limit</td>
<td>Configures the hardware queue limit.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
show running-config fex

To display the running configuration for Fabric Extenders (FEXs), use the `show running-config fex` command.

```
show running-config fex [all]
```

**Syntax Description**

| Syntax Description | all | (Optional) Displays FEX information including default settings.
|--------------------|-----|-----------------------------------------------------

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

This example shows how to display information on the running FEX configuration, including the buffer threshold value and queue limit:

```
switch# show running-config fex

!Command: show running-config fex
!Time: Mon Jul 19 07:56:21 2010

version 4.2(1)N2(1)
feature fex

fex 100
  pinning max-links 1
  description "RedwoodFex100"

fex 101
  pinning max-links 1
  description "FEX0101"

fex 150
  pinning max-links 1
  description "PortolaFex150"

fex 151
  pinning max-links 1
  description "PortolaFex151"

fex 160
  pinning max-links 1
  description "FEX0160"

fex 198
  hardware N2232P queue-limit 50000
  pinning max-links 1
  description "WoodsideFex198"

fex 199
  hardware N2232P queue-limit 20000
  no hardware N2248T queue-limit
  hardware N2148T buffer-threshold 163840
```
Send comments to nx5000-docfeedback@cisco.com

```
  pinning max-links 1
  description "WoodsideFex199"

interface port-channel100
  fex associate 100

interface port-channel150
  --More--
  switch#
```

### Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>hardware buffer-threshold</td>
<td>Configures the hardware buffer threshold.</td>
</tr>
<tr>
<td>hardware queue-limit</td>
<td>Configures the hardware queue limit.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
show sprom fex

To display information about the SPROM, use the `show sprom fex` command.

```
show sprom fex {all | chassis_ID {all | backplane | powersupply} module_no}
```

**Syntax Description**

<table>
<thead>
<tr>
<th>Syntax Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>chassis_ID</code></td>
<td>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</td>
</tr>
<tr>
<td><code>all</code></td>
<td>Displays all SPROM content for a specific Fabric Extender.</td>
</tr>
<tr>
<td><code>backplane</code></td>
<td>Displays the backplane SPROM content for a specific Fabric Extender.</td>
</tr>
<tr>
<td><code>powersupply</code></td>
<td>Displays the power supply SPROM content for a specific Fabric Extender.</td>
</tr>
<tr>
<td><code>module_no</code></td>
<td>Power supply module number for a specific Fabric Extender. The range is from 1 to 2.</td>
</tr>
</tbody>
</table>

**Command Default**

None

**Command Modes**

EXEC mode

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

This example shows how to display all SPROM content for a specific Fabric Extender:

```
switch# show sprom fex 100 all
DISPLAY FEX 100 SUP sprom contents
Common block:
  Block Signature : 0xabab
  Block Version : 3
  Block Length : 160
  Block Checksum : 0x18c9
  EEPROM Size : 65535
  Block Count : 3
  FRU Major Type : 0x6003
  FRU Minor Type : 0x0
  OEM String : Cisco Systems, Inc.
  Product Number : N5K-C5110T-BF-1GE
  Serial Number : JAF1237ABSE
  Part Number : 73-12009-02
  Part Revision : 00
  Mfg Deviation : 0
  H/W Version : 0.0
  Mfg Bits : 0
  Engineer Use : 0
  snmpOID : 9.12.3.1.9.72.5.0
  Power Consump : -200
  RMA Code : 0-0-0-0
  CLEI Code : 00000000000
  VID : V00
  Supervisor Module specific block:
```
show sprom fex

Block Signature : 0x6002
Block Version : 2
Block Length : 103
Block Checksum : 0x2648
Feature Bits : 0x0
HW Changes Bits : 0x2
Card Index : 11011
MAC Addresses : 00-00-00-00-00-00
Number of MACs : 0
Number of EPLD : 0
Port Type-Num : 2-52
Sensor #1 : 85,75
Sensor #2 : 100,90
Sensor #3 : 100,90
Sensor #4 : 100,90
Sensor #5 : 100,90
Sensor #6 : 100,90
Sensor #7 : 100,90
Sensor #8 : 100,90
Max Connector Power: 1000
Cooling Requirement: 300
Ambient Temperature: 40

DISPLAY FEX 100 backplane sprom contents:
Common block:
Block Signature : 0xabab
Block Version : 3
Block Length : 160
Block Checksum : 0x195d
EEPROM Size : 65535
Block Count : 5
FRU Major Type : 0x6001
FRU Minor Type : 0x0
OEM String : Cisco Systems, Inc.
Product Number : N5K-C5110T-BF-1GE
Serial Number : JAP1237ABSE
Part Number : 73-12009-02
Part Revision : 00
Mfg Deviation : 0
H/W Version : 0.0
Mfg Bits : 0
Engineer Use : 0
snmpOID : 9.12.3.1.3.719.0.0
Power Consump : -800
RMA Code : 0-0-0-0
CLEI Code : 00000000
VID : V01
Chassis specific block:
Block Signature : 0x6000
Block Version : 3
Block Length : 39
Block Checksum : 0x28a
Feature Bits : 0x0
HW Changes Bits : 0x2
Stackmib OID : 0
MAC Addresses : 00-0d-ec-b1-13-00
Number of MACs : 64
OEM Enterprise : 0
OEM MIB Offset : 0
MAX Connector Power : 0
WNN software-module specific block:
Block Signature : 0x6005
Block Version : 1
Block Length : 0
show sprom fex

Block Checksum : 0x66

wwn usage bits:
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
00 00

License software-module specific block:
Block Signature : 0x6006
Block Version : 1
Block Length : 16
Block Checksum : 0x77
lic usage bits:
00 00 00 00 00 00 00 00

DISPLAY FEX 100 power-supply 1 sprom contents:
Common block:
Block Signature : 0xabab
Block Version : 3
Block Length : 124
Block Checksum : 0x15fc
EEPROM Size : 124
Block Count : 1
FRU Major Type : 0xab01
FRU Minor Type : 0x1
OEM String : Cisco Systems, Inc.
Product Number : N5K-PAC-200W
Serial Number : PAC12473L17
Part Number : 341-0335-01
Part Revision : 01
CLEI Code : C0UPADSBAA
VID : 00V0
snmpOID : 0.0.0.0.0.0.0.0
H/W Version : 0.1
Current : 1667
RMA Code : 0-0-0-0
switch#
This command shows how to display the power supply SPROM contents for a specific Fabric Extender:

```
switch# show sprom fex 100 powersupply 1
DISPLAY FEX 100 power-supply 1 sprom contents:
Common block:
  Block Signature : 0xabab
  Block Version   : 3
  Block Length    : 124
  Block Checksum  : 0x15fc
  EEPROM Size     : 124
  Block Count     : 1
  FRU Major Type  : 0xab01
  FRU Minor Type  : 0x1
  OEM String      : Cisco Systems, Inc.
  Product Number  : N5K-PAC-200W
  Serial Number   : PAC12473L17
  Part Number     : 341-0335-01
  Part Revision   : 01
  CLEI Code       : COUPADSBAA
  VID             : 00V0
  snmpOID         : 0.0.0.0.0.0.0.0
  H/W Version     : 0.1
  Current         : 1667
  RMA Code        : 0-0-0-0
switch#
```

<table>
<thead>
<tr>
<th>Related Commands</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
show system reset-reason fex

To display the reason for the last reset of the Fabric Extender, use the `show system reset-reason fex` command.

```
show system reset-reason 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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**Examples**

This example shows how to display the last reset reason for a specific Fabric Extender:

```
switch# show system reset-reason fex 100
----- reset reason for FEX 100 ---

1) At 430815 usecs after Fri Apr 16 04:27:04 2010
   Reset Reason: Reset Requested by CLI command reload (9)
   Service (Additional Info): Reload requested by supervisor
   Image Version: 4.2(1)N1(1)

2) At 505550 usecs after Fri Apr 16 03:39:50 2010
   Reset Reason: Reset due to upgrade (88)
   Service (Additional Info): Reset due to upgrade
   Image Version: 4.2(1u)N1(1u)

3) At 607267 usecs after Fri Apr 16 02:50:10 2010
   Reset Reason: Reset due to upgrade (88)
   Service (Additional Info): Reset due to upgrade
   Image Version: 4.2(1)N1(1)

4) At 857790 usecs after Fri Apr 16 02:00:22 2010
   Reset Reason: Reset due to upgrade (88)
   Service (Additional Info): Reset due to upgrade
   Image Version: 4.2(1u)N1(1u)
```

**Related Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
show version fex

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

show version fex chassis_ID

Syntax Description

<table>
<thead>
<tr>
<th>Syntax Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>chassis_ID</td>
<td>Fabric Extender chassis ID. The chassis ID range is from 100 to 199.</td>
</tr>
</tbody>
</table>

Command Default

None

Command Modes

EXEC mode

Command History

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

Examples

This example shows how to display the software version of a Fabric Extender:

```
switch# show version fex 100
Software
  Bootloader version: 1.12
  System boot mode: primary
  System image version: 4.2(1)N2(1) [build 4.2(1)N2(1)]

Hardware
  Module: Fabric Extender 48x1GE Module
  CPU: Motorola, e300c1
  Serial number: JAF1302ABDP
  Bootflash: locked

Kernel uptime is 0 day(s), 9 hour(s), 9 minutes(s), 16 second(s)

Last reset at Fri Jul 02 04:27:04 2010
  Reason: Reset Requested by CLI command reload
  Service: Reload requested by supervisor
```

Related Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0(1a)N2(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex associate</td>
<td>Associates a Fabric Extender to an Ethernet or EtherChannel interface.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>
To set the Fabric Extender card type to a specific card, use the `type` command. To revert to the default FEX card, use the `no` form of this command.

```
type fex_card_type

no type
```

### Syntax Description

- **`fex_card_type`**: Fabric Extender card type. The following Fabric Extender card types are supported:
  - N2148T—Fabric Extender 48x1G 4x10G SFP+ Module
  - N2224TP—Fabric Extender 24x1G 2x10G SFP+ Module
  - N2232P—Fabric Extender 32x10G SFP+ 8x10G SFP+ Module
  - N2248T—Fabric Extender 48x1G 4x10G SFP+ Module

### Command Default

None

### Command Modes

Fabric extender configuration mode

### Command History

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2(1)N1(1)</td>
<td>This command was introduced.</td>
</tr>
</tbody>
</table>

### Usage Guidelines

The following Cisco Nexus 2000 Series Fabric Extenders are supported on a Cisco Nexus 5000 Series switch that runs a Cisco NX-OS release 4.2(1)N2(1):

- Cisco Nexus 2148T Fabric Extender—It has four 10-Gigabit Ethernet fabric interfaces for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.

- Cisco Nexus N2224TP Fabric Extender—It has two 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 24 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts. It does not support Fibre Channel over Ethernet (FCoE).

- Cisco Nexus 2232P Fabric Extender—It has eight 10-Gigabit Ethernet fabric interfaces with small form-factor pluggable (SFP+) interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 32 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its downlink connection to servers or hosts.

- Cisco Nexus 2248T Fabric Extender—It has four 10-Gigabit Ethernet fabric interfaces with SFP+ interface adapters for its uplink connection to the parent Cisco Nexus 5000 Series switch and 48 1000BASE-T (1-Gigabit) Ethernet host interfaces for its downlink connection to servers or hosts.
Examples

This example shows how to configure the Fabric Extender card:

```
switch(config)# fex 100
switch(config-fex)# type N2148T
switch(config-fex)#
```

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fex</td>
<td>Creates a Fabric Extender and enters fabric extender configuration mode.</td>
</tr>
<tr>
<td>show fex</td>
<td>Displays all configured Fabric Extender chassis connected to the switch.</td>
</tr>
</tbody>
</table>