



## P Commands

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This chapter describes the Cisco NX-OS commands that begin with P that are used to manage a Cisco Nexus 2000 Series Fabric Extender from a Cisco Nexus 5500 switch.

# pace fex

To introduce delay between 2 Fabric Extenders (FEXs) while coming online, use the **pace fex** command in the global configuration mode. To unconfigure the FEX pacing time, use the **no** form of the command.

**pace fex 0-3600**

**no pace fex**

| Syntax Description | Command       | Description  |
|--------------------|---------------|--|
|                    | <b>fex</b>    | FEX configuration.   |
|                    | <i>0-3600</i> | Specifies the pacing time, in seconds, between the 2 FEXs while coming online. |

**Command Default** None.

**Command Modes** Global configuration mode.

| Command History | Release      | Modification                 |
|-----------------|--------------|------------------------------|
|                 | 7.1(4) N1(1) | This command was introduced. |

**Usage Guidelines** The default FEX pacing time for Cisco Nexus 5500 series is 30 seconds. If **no pace fex** command is configured on a switch, the pacing time will be displayed as 0.

**Examples** This example shows how to configure FEX pacing time of 40 seconds for a Fabric Extender:

```
switch(config)# pace fex 40
switch(config)#
```

| Related Commands | Command                        | Description  |
|------------------|--------------------------------|--|
|                  | <b>show system internal</b>    | Displays the pacing FEX time configured on the switch. |
|                  | <b>fex info global verbose</b> |  |

# 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**

|                           |                |   |
|---------------------------|----------------|---|
| <b>Syntax Description</b> | <i>uplinks</i> | Number of uplinks. The range is from 1 to 8. The default is 1.<br><br>This command is applicable only if the Fabric Extender is connected to its parent switch using one or more statically pinned fabric interfaces. |
|---------------------------|----------------|---|

|                        |                                     |
|------------------------|-------------------------------------|
| <b>Command Default</b> | The default number of uplinks is 1. |
|------------------------|-------------------------------------|

|                      |                                    |
|----------------------|------------------------------------|
| <b>Command Modes</b> | Fabric extender configuration mode |
|----------------------|------------------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|------------------------|----------------|------------------------------|
|                        | 5.0(2)N1(1)    | This command was introduced. |

|                         |   |
|-------------------------|---|
| <b>Usage Guidelines</b> | Use the <b>pinning max-links</b> 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 <i>uplinks</i> 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.

|                 |  |
|-----------------|--|
| <b>Examples</b> | 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  |
|------------------|---------------------------------|--|
|                  | <b>fex</b>                      | Creates a Fabric Extender and enters fabric extender configuration mode. |
|                  | <b>fex pinning redistribute</b> | Redistributes the host interfaces on a Fabric Extender.                  |
|                  | <b>show fex</b>                 | Displays all configured Fabric Extender chassis connected to the switch. |

# provision

To preprovision a module in a chassis slot, use the **provision** command. To remove a preprovisioned module from a slot, use the **no** form of this command.

**provision model** *model-name*

**no provision model** [*model-name*]

| Syntax            | Description  |
|-------------------|--|
| <b>model</b>      | Specifies the type of module to be provisioned.  |
| <i>model-name</i> | Module name. The supported modules are as follows: <ul style="list-style-type: none"> <li>• <b>N2K-C2148T</b>—Cisco Nexus 2000 Series Fabric Extender 48x1G 4x10G Module</li> <li>• <b>N2K-C2232P</b>—Cisco Nexus 2000 Series Fabric Extender 32x10G Module</li> <li>• <b>N2K-C2232TM</b>—Cisco Nexus 2000 Series Fabric Extender 32x10G Module</li> <li>• <b>N2K-C2248T</b>—Cisco Nexus 2000 Series Fabric Extender 48x1G 4x10G Module</li> <li>• <b>N2K-N2224TP</b>—Cisco Nexus 2000 Series Fabric Extender 24x1G 2x10G SFP+ Module</li> <li>• <b>N2248PQ</b>—Cisco Nexus 2000 Series Fabric Extender 48x10G SFP+ 16x10G SFP+ Module</li> <li>• <b>N55-M16FP</b>—Cisco 16 port Port Fiber Channel Expansion Module 16 x SFP</li> <li>• <b>N55-M16P</b>—Cisco 16x10-Gigabit Ethernet Expansion Module</li> <li>• <b>N55-M16UP</b>—Cisco 16x10-Gigabit Flexible Ethernet Expansion Module</li> <li>• <b>N55-M8P8FP</b>—Cisco 8 Port 1/2/4/8-Gigabit Fibre Channel + 8 Port 10-Gigabit Ethernet Expansion Module</li> <li>• <b>N5K-M1008</b>—Cisco 8 Port Fiber Channel Expansion Module 8 x SFP</li> <li>• <b>N5K-M1060</b>—Cisco 6 Port Fiber Channel Expansion Module 6 x SFP</li> <li>• <b>N5K-M1404</b>—Expansion Module 4 x 10GBase-T LAN, 4 x Fiber Channel</li> <li>• <b>N5K-M1600</b>—Cisco 6-port 10 Gigabit Ethernet SFP Module 6 x SFP</li> </ul> |

**Command Default** None

**Command Modes** Slot configuration mode  
Switch profile configuration mode

**Command History**

| Release     | Modification                 |
|-------------|------------------------------|
| 5.0(2)N1(1) | This command was introduced. |

**Usage Guidelines**

Use this command to define the modules (line card or Cisco Nexus 2000 Series Fabric Extender) to preprovision. If the card type does not match the card in the slot or the module is not compatible with the chassis, you see the following messages:

```
ERROR: The card type does not match the card in slot
```

or

```
ERROR: This module cannot be configured for this chassis
```

You can configure features or interfaces (Ethernet, Fibre Channel) on the modules before the modules are inserted in the switch chassis. You can also use this command to manage the configuration of these features or interfaces when the module is offline due to a failure or scheduled downtime. These configurations are applied when the module comes online.

When you preprovision a module by specifying the type of module, platform manager will allow only modules of matching type to come online. If you configure the interfaces for the module without specifying the module type, the configuration is applied when the module comes online, regardless of the module type.

You can preprovision modules and interfaces in a switch profile. The modules and interfaces are preprovisioned when you apply (commit) the switch profile. Once the module is inserted and interfaces are created, the preprovisioning module passes on the configuration to the respective applications before the interfaces come up.

Mutual exclusion is a mechanism where configuration outside the switch profile is not allowed in the switch profile and vice-versa. This requirement is to ensure that configuration in the switch profile is exactly the same on both switches. Preprovisioned configuration is the same as a configuration when the module is online, so mutual exclusion checks would continue to apply normally.

When you downgrade from Cisco NX-OS release 5.0(2)N1(1), which supports preprovisioning, to an earlier release of Cisco NX-OS that does not support module preprovisioning, you will be prompted to remove preprovisioning configuration that you configured on the switch.

**Examples**

This example shows how to preprovision a module in slot 2 of the chassis:

*Need new command output*

```
switch(config)# slot 2
switch(config-slot)# provision model N5K-M1404
switch(config-slot)#
```

This example shows how to remove a preprovisioned module from a chassis slot:

```
switch(config)# slot 2
switch(config-slot)# no provision model N5K-M1404
switch(config-slot)#
```

This example shows how to remove all preprovisioned modules or line cards from a chassis slot:

```
switch(config)# slot 2
switch(config-slot)# no provision model
switch(config-slot)#
```

**Related Commands**

| <b>Command</b>                                   | <b>Description</b>  |
|--|---|
| <b>show module</b>                               | Displays module information.  |
| <b>show provision</b>                            | Displays provisioned modules.   |
| <b>show switch-profile</b>                       | Displays switch profile information.                                      |
| <b>show running-config<br/>exclude-provision</b> | Displays the running configuration excluding the preprovisioned features. |
| <b>slot</b>                                      | Enables a slot for preprovisioning a module.                              |
| <b>switch-profile</b>                            | Configures a switch profile.  |

