Configuring Module Pre-Provisioning

This chapter contains the following sections:

Information About Module Pre-Provisioning

The pre-provisioning feature allows you to preconfigure interfaces before inserting or attaching a module. If a module goes offline, you can also use pre-provisioning to make changes to the interface configurations for the offline module. When a pre-provisioned module comes online, the pre-provisioning configurations are applied. If any configurations were not applied, a syslog is generated. The syslog lists the configurations that were not accepted.

In some Virtual Port Channel (vPC) topologies, pre-provisioning is required for the configuration synchronization feature. Pre-provisioning allows you to synchronize the configuration for an interface that is online with one peer but offline with another peer.

Note For a list of supported hardware, see the Table 2 Hardware Supported by Cisco NX-OS Release 7.x Software in the Cisco Nexus 5600 Series Release Notes.

Guidelines and Limitations

Pre-provisioning has the following configuration guidelines and limitations:

- When a module comes online, commands that are not applied are listed in the syslog.
- If a slot is pre-provisioned for module A and if you insert module B into the slot, module B does not come online.
- There is no MIB support for pre-provisioned interfaces.

- Cisco DCNM is not supported.

Enabling Module Pre-Provisioning

You can enable pre-provisioning on a module that is offline. Enter the **provision model** *model* command in module pre-provision mode.

Note After enabling pre-provisioning, you can configure the interfaces as though they are online.

Procedure

	Command or Action	Purpose

Step 1	**configuration terminal**
	Example:
	`switch# config t`
	`switch(config)#`
		Enters global configuration mode.

Step 2	**slot** *slot*
	Example:
	`switch(config)# slot 101`
	`switch(config-slot)#`
		Selects the slot to pre-provision and enters slot configuration mode.

Step 3	**provision model** *model*
	Example:
	`switch(config-slot)# provision model N2K-C2248T`
	`switch(config-slot)#`
		Selects the module that you want to pre-provision.

Step 4	**exit**
	Example:
	`switch(config-slot)# exit`
	`switch#`
		Exits slot configuration mode.

Step 5	(Optional) **copy running-config startup-config** **Example:** `switch# copy running-config startup-config`	Copies the running configuration to the startup configuration.

Example

This example shows how to select slot 101 and the N2K-C2232P module to pre-provision.

```
switch# configure terminal
switch(config)# slot 101
```

```
switch(config-slot)# provision model N2K-C2232P
switch(config-slot)# exit
```

Removing Module Pre-Provisioning

You can remove a module that has been pre-provisioned.

Procedure

	Command or Action	Purpose

Step 1	**configuration terminal**
	Example:
	`switch# config t`
	`switch(config)#`
		Enters global configuration mode.

Step 2	**slot** *slot*
	Example:
	`switch(config)# slot 101`
	`switch(config-slot)#`
		Selects the slot to pre-provision and enters slot configuration mode.

Step 3	**no provision model** *model*
	Example:
	`switch(config-slot)# no provision model N2K-C2248T`
	`switch(config-slot)#`
		Removes pre-provisioning from the module.

Step 4	**exit**
	Example:
	`switch(config-slot)# exit`
	`switch#`
		Exits slot configuration mode.

Step 5	(Optional) **copy running-config startup-config** **Example:** `switch# copy running-config startup-config`	Copies the running configuration to the startup configuration.

Example

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)#
```

Verifying the Pre-Provisioned Configuration

To display the pre-provisioned configuration, perform one of the following tasks:

Command	Purpose
show module	Displays module information.
show switch-profile	Displays switch profile information.
show running-config exclude-provision	Displays the running configuration without the pre-provisioned interfaces or modules that are offline.
show provision failed-config	Displays the pre-provisioned commands that were not applied to the configuration when the interface or module came online. This command also displays a history of failed commands.
show running-config	Displays the running configuration including the pre-provisioned configuration.
show startup-config	Displays the startup configuration including the pre-provisioned configuration.

Configuration Examples for Pre-Provisioning

The following example shows how to enable pre-provisioning on slot 110 on the Cisco Nexus 2232P Fabric Extender and how to pre-provision interface configuration commands on the Ethernet 110/1/1 interface.

```
switch# configure terminal
switch(config)# slot 110
switch(config-slot)# provision model N2K-C2232P
switch(config-slot)# exit

switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# interface Ethernet110/1/1
switch(config-if)# description module is preprovisioned
switch(config-if)# show running-config interface Ethernet110/1/1
Time: Wed Aug 25 21:29:44 2010

version 5.0(2)N1(1)

interface Ethernet110/1/1
  description module is preprovisioned
```

The following example shows the list of pre-provisioned commands that were not applied when the module came online.

```
switch(config-if-range)# show provision failed-config 101
The following config was not applied for slot 33
================================================

interface Ethernet101/1/1
  service-policy input test
```

```
interface Ethernet101/1/2
  service-policy input test


interface Ethernet101/1/3
  service-policy input test
```

This example shows how to remove all pre-provisioned modules from a slot:

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