Configuring Internal Power Supplies

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Restrictions for Internal Power Supplies

- Power Supply configuration is not supported on C9500-32C, C9500-32QC, C9500-48Y4C, and C9500-24Y4C models of the Cisco Catalyst 9500 Series Switches. Use the **show environment status** command to check the power supply status.
- For C9500-32C, the power supply with serial number starting with POG has two fans and the power supply with serial number starting with QCS has a single fan. See Configuration Examples for Internal Power Supplies, on page 3.

Information About Internal Power Supplies

See the device installation guide for information about the power supplies.

How to Configure Internal Power Supplies

Configuring Internal Power Supply

Note Power Supply configuration is not supported on C9500-32C, C9500-32QC, C9500-48Y4C, and C9500-24Y4C models of the Cisco Catalyst 9500 Series Switches.

Use the **show environment status** command to check the power supply status.

You can use the **power supply** EXEC command to configure and manage the internal power supply on the device. The device does not support the **no power supply** EXEC command.

Follow these steps beginning in user EXEC mode:

Procedure

	Command or Action	Purpose
Step 1	**power supply** *switch_number* **slot**{**A** | **B**} { **off** | **on** } **Example:** `Device# power supply 1 slot A on`	Sets the specified power supply to **off** or **on** by using one of these keywords: • **A** —Selects the power supply in slot A. • **B** —Selects power supply in slot B. **Note** Power supply slot B is the closest to the outer edge of the device. • **off** —Set the power supply off. • **on** —Set the power supply on. By default, the device power supply is **on**.
Step 2	**show environment power** **Example:** `Device# show environment power`	Verifies your settings.

Monitoring Internal Power Supplies

Table 1: Show Commands for Power Supplies

Command	Purpose
show environment power [**all** | **switch** *switch_number*]	(Optional) Displays the status of the internal power supplies for the specified device. . The device keywords are available only on stacking-capable devices. **Note** This command is not applicable to the C9500-32C, C9500-32QC, C9500-48Y4C, and C9500-24Y4C models of the Cisco Catalyst 9500 Series Switches.

Configuration Examples for Internal Power Supplies

This example shows the sample output of **show environment status** command when a power supply with serial number starting with QCS is installed into C9500-32C switch. In this example, the second fan displays the state as `N/A` because the power supply with serial number starting with QCS has a single fan.

```
Device# show inventory

NAME: "Chassis", DESCR: "Cisco Catalyst 9500 Series Chassis"
PID: C9500-32C         , VID: V00  , SN: CAT2202L2M5

NAME: "Power Supply Module 1", DESCR: "Cisco Catalyst 9500 Series 1600W
AC  Power Supply"
PID: C9K-PWR-1600WAC-R , VID: V01  , SN: QCS2230500J

Device# show environment status

Power                                    Fan States
Supply  Model No              Type  Capacity  Status     0     1
------  --------------------  ----  --------  ---------  ----------
PS1     C9K-PWR-1600WAC-R     AC    1600 W    ok         good  N/A
```

This example shows the sample output of **show environment status** command when a power supply with serial number starting with POG is installed into C9500-32C switch. In this example, the second fan displays the state as `good` because the power supply with serial number starting with POG has a two fans.

```
Device# show inventory

NAME: "Chassis", DESCR: "Cisco Catalyst 9500 Series Chassis"
PID: C9500-32C         , VID: V01  , SN: CAT2344L1N8

NAME: "Power Supply Module 0", DESCR: "Cisco Catalyst 9500 Series 1600W
AC  Power Supply"
PID: C9K-PWR-1600WAC-R , VID: V01  , SN: POG2319D04K
```

```
Device# show environment status

Power                                      Fan States
Supply  Model No              Type  Capacity  Status     0     1
------  --------------------  ----  --------  ---------  ----------
PS0     C9K-PWR-1600WAC-R     AC    1600 W    ok         good  good
```

This example shows how to set the power supply in slot A to off:

```
Device# power supply 1 slot A off
Disabling Power supply A may result in a power loss to PoE devices and/or switches ...
Continue? (yes/[no]): yes
Device#
Jun 10 04:52:54.389: %PLATFORM_ENV-6-FRU_PS_OIR: FRU Power Supply 1 powered off
Jun 10 04:52:56.717: %PLATFORM_ENV-1-FAN_NOT_PRESENT: Fan is not present
Device#
```

This example shows how to set the power supply in slot A to on:

```
Device# power supply 1 slot A on
Jun 10 04:54:39.600: %PLATFORM_ENV-6-FRU_PS_OIR: FRU Power Supply 1 powered on
```

This example shows the output of the **show env power** command:

Table 2: show env power Status Descriptions

Field	Description
OK	The power supply is present and power is good.
Not Present	No power supply is installed.
No Input Power	The power supply is present but there is no input power.
Disabled	The power supply and input power are present, but power supply is switched off by CLI.
Not Responding	The power supply is not recognizable or is faulty.
Failure-Fan	The power supply fan is faulty.

Additional References for Internal Power Supplies

Related Documentation

Related Topic	Document Title
For complete syntax and usage information for the commands used in this chapter.	*Command Reference (Catalyst 9500 Series Switches)*
For information about the power supplies.	*Cisco Catalyst 9500 Series Switches Hardware Installation Guide*

Feature History for Internal Power Supplies

This table provides release and related information for features explained in this module.

These features are available on all releases subsequent to the one they were introduced in, unless noted otherwise.

Release	Feature	Feature Information
Cisco IOS XE Everest 16.5.1a	Internal Power Supplies	The switch operates with power supply modules which could be AC, DC or both. Refer the *Hardware Installation Guide* for more details on power supply units. Support for power supply configuration was introduced only on the C9500-12Q, C9500-24Q, C9500-16X and C9500-40X models of the Cisco Catalyst 9500 Series Switches.

Use Cisco Feature Navigator to find information about platform and software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn.