



# Configuring Power over Ethernet

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## Finding Feature Information

Your software release may not support all of the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

## Information About Configuring Power over Ethernet

When an access point that has been converted to lightweight mode (such as an AP1262) access point is powered by a power injector that is connected to a Cisco pre-Intelligent Power Management (pre-IPM) switch, you must configure Power over Ethernet (PoE), which is also known as *inline power*.

## How to Configure Power over Ethernet

### Configuring Power over Ethernet (CLI)

#### SUMMARY STEPS

1. `ap name Cisco_AP power injector installed`
2. `ap name Cisco_AP power injector override`
3. `ap name Cisco_AP power injector switch-mac-address switch_mac_address`
4. `show ap name Cisco_AP config general`

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	<p><b>ap name</b> <i>Cisco_AP</i> <b>power injector installed</b></p> <p><b>Example:</b></p> <pre>Switch# ap name AP02 power injector installed</pre>	<p>Enables the PoE power injector state. The access point remembers that a power injector is connected to this particular switch port. If you relocate the access point, you must reenter this command after the presence of a new power injector is verified.</p> <p><b>Note</b> Enter this command if your network contains any older Cisco 6-W switches that could be accidentally overloaded if connected directly to a 12-W access point. Make sure that the Cisco Discovery Protocol (CDP) is enabled before entering this command. Otherwise, this command will fail.</p>
<b>Step 2</b>	<p><b>ap name</b> <i>Cisco_AP</i> <b>power injector override</b></p> <p><b>Example:</b></p> <pre>Switch# ap name AP02 power injector override</pre>	<p>Removes the safety checks and allows the access point to be connected to any switch port. You can use this command if your network does not contain any older Cisco 6-W switches that could be overloaded if connected directly to a 12-W access point. The access point assumes that a power injector is always connected. If you relocate the access point, it continues to assume that a power injector is present.</p>
<b>Step 3</b>	<p><b>ap name</b> <i>Cisco_AP</i> <b>power injector switch-mac-address</b> <i>switch_mac_address</i></p> <p><b>Example:</b></p> <pre>Switch# ap name AP02 power injector switch-mac-address 10a.2d.5c.3d</pre>	<p>Sets the MAC address of the switch port that has a power injector.</p> <p><b>Note</b> Enter this command if you know the MAC address of the connected switch port and do not want to automatically detect it using the installed option.</p>
<b>Step 4</b>	<p><b>show ap name</b> <i>Cisco_AP</i> <b>config general</b></p> <p><b>Example:</b></p> <pre>Switch# show ap name AP02 config general</pre>	<p>Displays common information that includes the PoE settings for a specific access point.</p> <p><b>Note</b> The Power Type/Mode text box shows “degraded mode” if the access point is not operating at full power.</p>

## Configuring Power over Ethernet (GUI)

- Step 1** Choose **Configuration > Wireless > Access Points > All APs**.  
The **All APs** page appears with a list of access points that are associated with the switch.
- Step 2** Click the name of the access point.  
The **AP > Edit** page appears.
- Step 3** Click the **Advanced** tab.

**Step 4** In the **Power Over Ethernet Settings** area, select the **Pre-Standard 802.3af Switches** check box.

Select this check box if the access point is being powered by a high-power 802.3af Cisco switch. This switch provides more than the traditional 6 Watts of power but does not support the intelligent power management (IPM) feature.

**Note** Unselect the **Pre-standard 802.3af Switches** check box if power is being provided by a power injector. This is the default value.

**Step 5** Select the **Power Injector State** check box.

Select this check box if the attached switch does not support IPM and a power injector is being used. If the attached switch supports IPM, you do not need to select this check box.

The **Power Injector Selection** drop-down list is displayed that contains parameters that enable you to protect your switch port from an accidental overload if the power injector is inadvertently bypassed.

**Step 6** From the **Power Injector Selection** drop-down list, choose an option to specify the desired level of protection.

You can choose any one of the following three options:

- **Installed**—Examines and remembers the MAC address of the currently connected switch port and assumes that a power injector is connected. Choose this option if your network contains older Cisco 6-Watt switches and you want to avoid possible overloads by forcing a double-check of any relocated access points.

If you want to configure the switch MAC address, enter the MAC address in the **Injector Switch MAC Address** text box. If you want the access point to find the switch MAC address, leave the **Injector Switch MAC Address** text box blank.

**Note** Each time that an access point is relocated, the MAC address of the new switch port fails to match the remembered MAC address, and the access point remains in low-power mode. You must then physically verify the existence of a power injector and reselect this option to cause the new MAC address to be remembered.

- **Override**—Allows the access point to operate in high-power mode without first verifying a matching MAC address. You can use this option if your network does not contain any older Cisco 6-W switches that could be overloaded if connected directly to a 12-W access point. The advantage of this option is that if you relocate the access point, it continues to operate in high-power mode without any further configuration. The disadvantage of this option is that if the access point is connected directly to a 6-W switch, an overload occurs.

**Step 7** Click **Apply**.

**Step 8** Click **Save Configuration**.

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### What to do next

Manually reset the access point in order for the change to take effect.

# Configuration Examples for Configuring Power over Ethernet

## Displaying Power over Ethernet Information: Example

This example shows how to display common information that includes the PoE settings for a specific access point:

```
Switch# show ap name AP01 config general

Cisco AP Identifier..... 1
Cisco AP Name..... AP1
...
PoE Pre-Standard Switch..... Enabled
PoE Power Injector MAC Addr..... Disabled
Power Type/Mode..... PoE/Low Power (degraded mode)
...
```