



Installing the Virtual Private Network Module

This chapter describes how to install the Virtual Private Network (VPN) module in your Cisco 1760 router.

Before You Begin

This section describes important safety information and the tools required to install the VPN module. Read this section before installing the VPN module in a Cisco 1760 router.

VPN Module Parts

These parts are needed for installation and are included with the VPN module:

- Two metal standoffs
- Four screws

Safety Warnings



Warning

Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.



Warning

Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.



Warning

Do not work on the system or connect or disconnect cables during periods of lightning activity.



Warning

Do not touch the power supply when the power cord is connected. For systems with a power switch, line voltages are present within the power supply even when the power switch is off and the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected.



Warning

Read the installation instructions before you connect the system to its power source.



Warning

Ultimate disposal of this product should be handled according to all national laws and regulations.



Warning

Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.

**Warning**

Only trained and qualified personnel should be allowed to install or replace this equipment.

**Warning**

Hazardous network voltages are present in WAN ports regardless of whether power to the router is OFF or ON. To avoid electric shock, use caution when working near WAN ports. When detaching cables, detach the end away from the router first.

Preventing Electrostatic Discharge Damage

Before installing a VPN module, read the electrostatic discharge (ESD) instructions in this section. ESD is a discharge of stored static electricity that can damage equipment and impair electrical circuitry. It occurs when electronic components are improperly handled and can result in complete or intermittent failures.

The following are guidelines for preventing ESD damage:

- Before opening the chassis, turn the router power switch to off (O).
- Disconnect the power cable to the router.
- Always use an ESD-preventive wrist or ankle strap, and ensure that it makes good skin contact.
- Avoid contact between equipment and clothing. The wrist or ankle strap protects the equipment only from ESD voltages on the body; ESD voltages on clothing can still cause damage.
- Handle printed circuit cards by the edges only. Avoid touching the components, traces, or any connector pins.
- Place a removed card component on an antistatic surface or in a static shielding bag.
- Do not remove the wrist or ankle strap until after you complete the installation.

**Caution**

To avoid damaging the equipment, periodically check the resistance value of the antistatic strap. The measurement should be between 1 and 10 megohms (Mohms).

**Warning**

During this procedure, wear grounding wrist straps to avoid ESD damage to the router. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.

Installing the VPN Module in a Cisco 1760 Router

This section describes how to install the VPN module in a Cisco 1760 router. It contains these sections:

- [Opening the Cisco 1760 Chassis](#)
- [Installing the VPN Module](#)
- [Closing the Cisco 1760 Chassis](#)

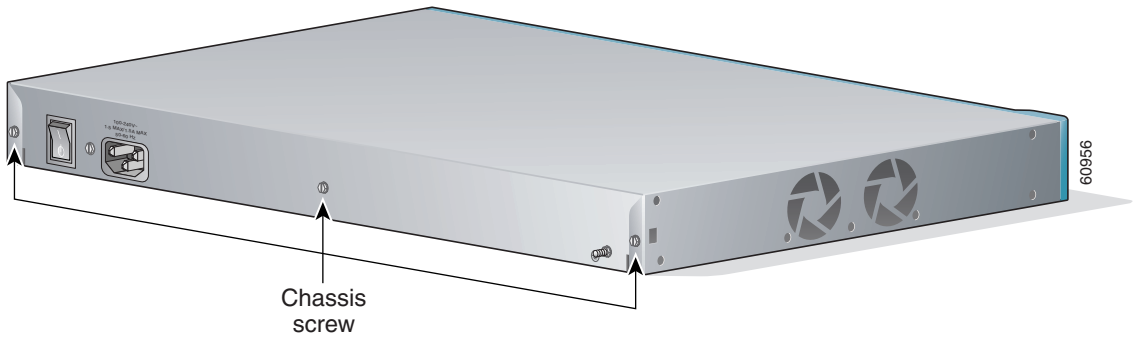
Opening the Cisco 1760 Chassis

Follow these steps to open the chassis:

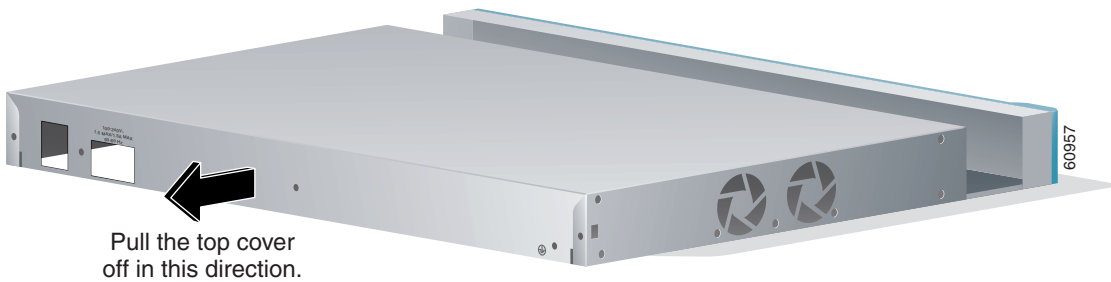
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- Step 1** Make sure that the router is turned off and is disconnected from the power supply.
- Step 2** Use a flat-head screwdriver to remove the screws that hold the top and bottom of the chassis together, as shown in [Figure D-1](#).

**Note**

Some Cisco 1760 routers have five chassis screws in the rear assembly, but most models have three screws in the rear assembly.

Figure D-1 Removing the Cisco 1760 Chassis Screws

Step 3 Gently slide the top cover of the router toward you, as shown in [Figure D-2](#).

Figure D-2 Removing the Top Cover of the Router

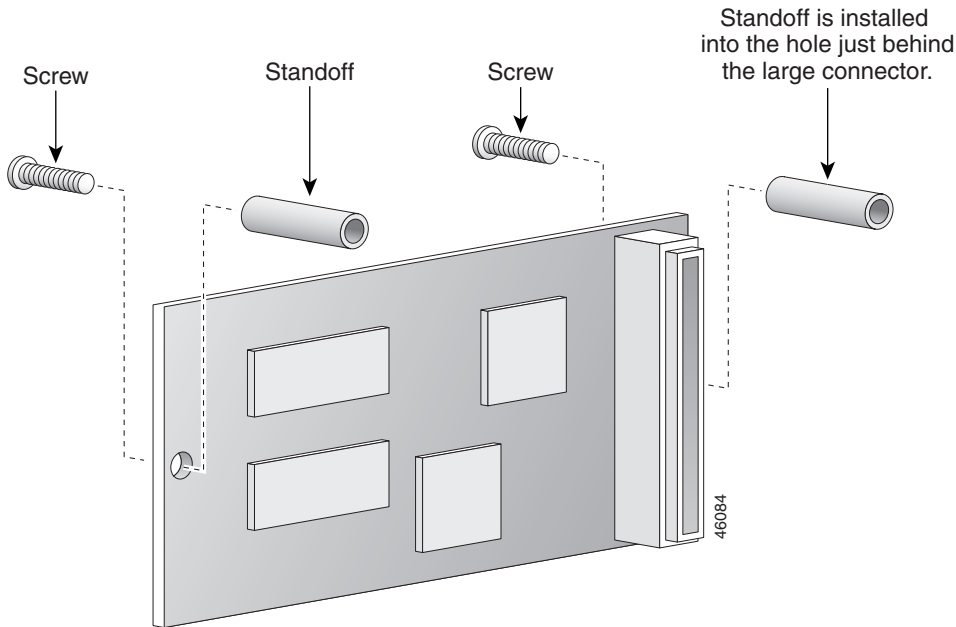
Step 4 Place the router bottom on an antistatic mat, and begin installing the VPN module.

Installing the VPN Module

Follow the steps in this section to install the VPN module.

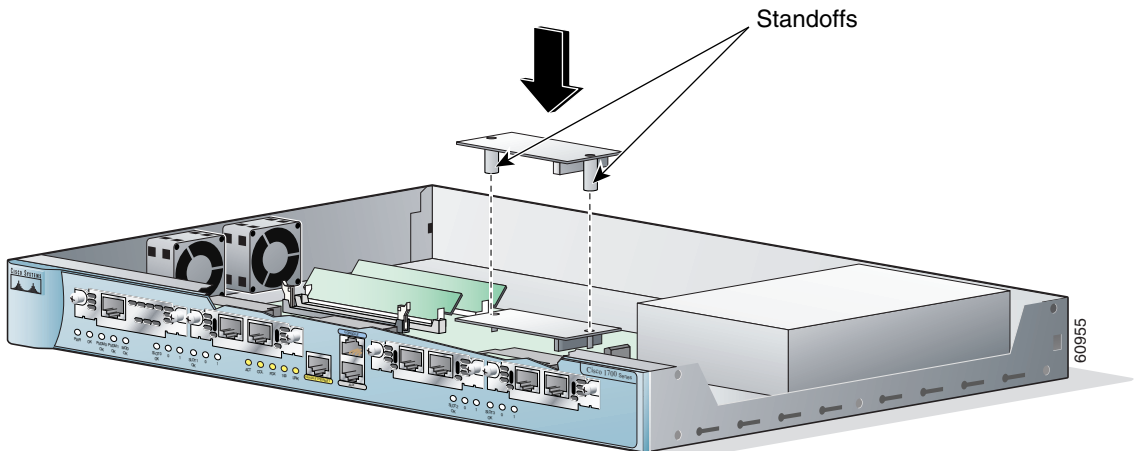
- Step 1** Install the two standoffs on the module, as shown in [Figure D-3](#).

Figure D-3 Installing the Standoffs on the VPN Module



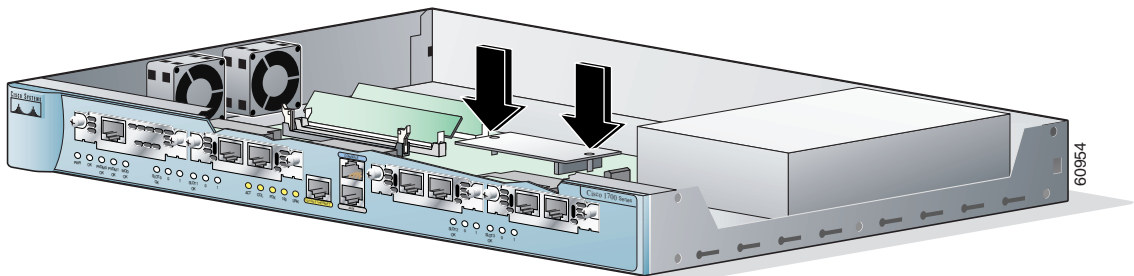
- Step 2** Locate the VPN module socket, and insert the VPN module, as shown in [Figure D-4](#).

Figure D-4 VPN Module Location



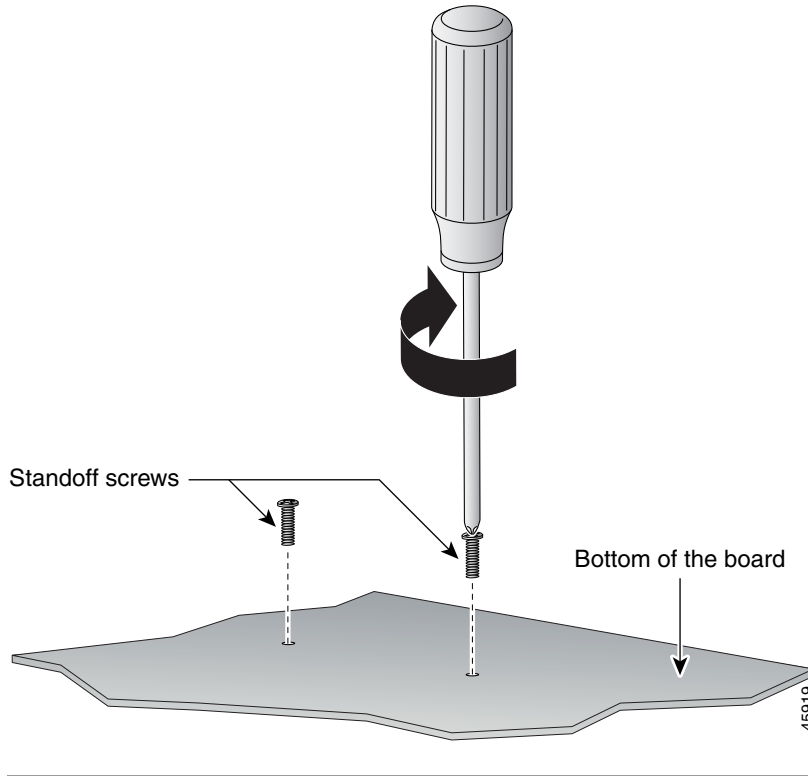
- Step 3** Pushing down as indicated in [Figure D-5](#), plug the VPN module into the socket.

Figure D-5 Seating the VPN Module



- Step 4** Turn the chassis over, and attach the standoffs to it by using the screws provided, as shown in [Figure D-6](#).

Figure D-6 *Securing the Standoff to the Router Motherboard*



Closing the Cisco 1760 Chassis

After installing the VPN module on the motherboard, close the chassis by following these steps:

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- Step 1** Slide the top cover of the router back on the bottom of the chassis by pushing it in the opposite direction from that shown in [Figure D-2](#), “[Removing the Top Cover of the Router](#),” on page D-5.
- Step 2** Replace the screws that you removed when you opened the chassis. (See [Figure D-1](#), “[Removing the Cisco 1760 Chassis Screws](#),” on page D-5.)
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