Catalyst 3560 Switch Getting Started Guide

INCLUDING LICENSE AND WARRANTY

1 About this Guide

This guide provides instructions on how to use Express Setup to configure your Catalyst switch. Also covered are switch management options, basic rack-mounting procedures, port and module connections, power connection procedures, and troubleshooting help.

For additional installation and configuration information for Catalyst 3560 switches, see the Catalyst 3560 documentation on Cisco.com. For system requirements, important notes, limitations, open and resolved bugs, and last-minute documentation updates, see the release notes, also on Cisco.com.

When using the online publications, refer to the documents that match the Cisco IOS software version running on the switch. The software version is on the Cisco IOS label on the switch rear panel.

You can order printed copies of the manuals from the Cisco.com sites and from the telephone numbers listed in the "Obtaining Documentation" section on page 26.

For translations of the warnings that appear in this publication, see the *Regulatory Compliance and Safety Information for the Catalyst 3560 Switch* that accompanies this guide.

2 Taking Out What You Need

Follow these steps:

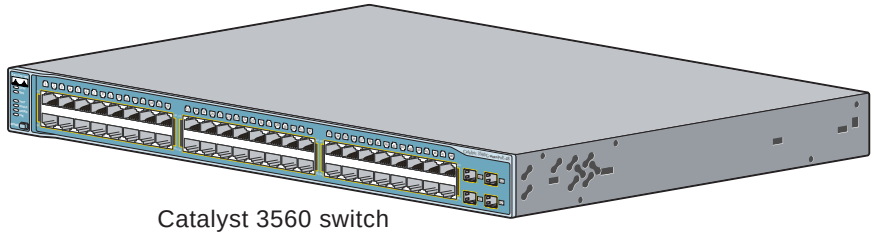
1. Unpack and remove the switch and the accessory kit from the shipping box.
2. Return the packing material to the shipping container, and save it for future use.
3. Verify that you have received the items shown on page 3. If any item is missing or damaged, contact your Cisco representative or reseller for instructions. Some switch models might include additional items that are not shown on page 3.

Equipment That You Supply to Run Express Setup

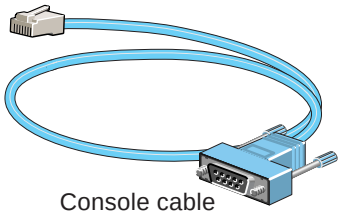
You need to supply this equipment to run Express Setup:

- PC
- Ethernet (Category 5) straight-through cable (as shown)

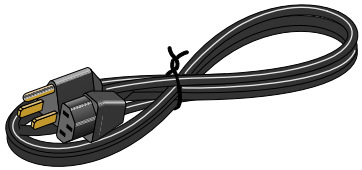
Shipping Box Contents (All Catalyst 3560 Switches Except the Catalyst 3560-8PC Switch)



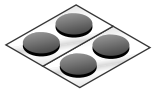
Catalyst 3560 switch



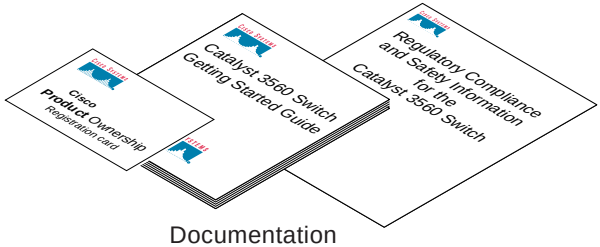
Console cable



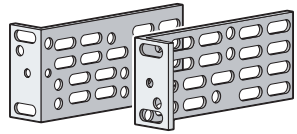
AC power cord



Four rubber mounting feet



Documentation



Two 19-inch mounting brackets

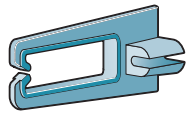
Four number-12 Phillips machine screws

Four number-8 Phillips truss-head screws

Six number-8 Phillips flat-head screws

Connector cover for redundant power system (RPS)

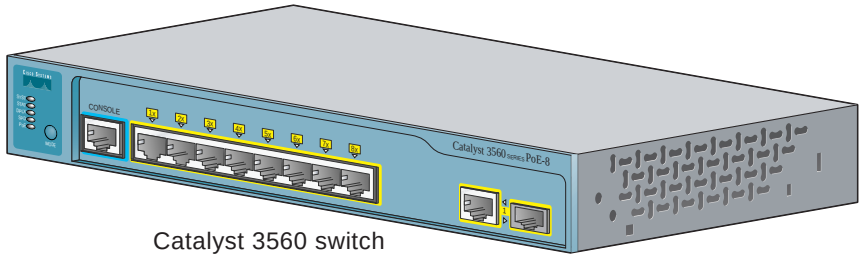
Two number-4 pan-head screws



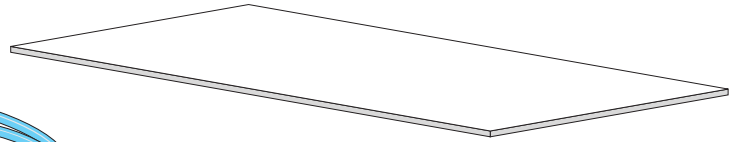
Cable guide

One black Phillips machine screw

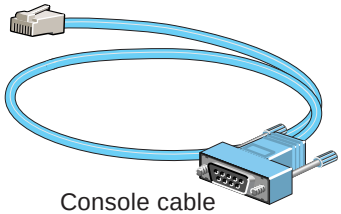
Shipping Box Contents (only the Catalyst 3560-8PC Switch)



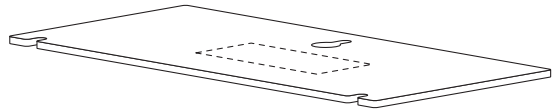
Catalyst 3560 switch



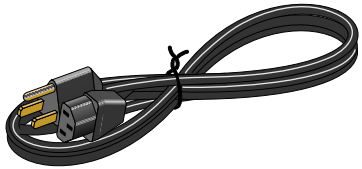
Mounting magnet



Console cable

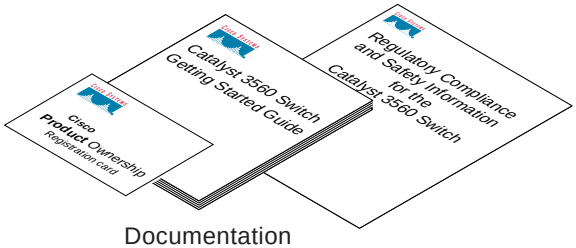


Screw template

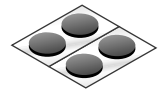


AC power cord
(AC-powered switches only)

Three number-8
Phillips pan-head screws



Documentation



Four rubber mounting feet

3 Running Express Setup

When you first set up the switch, you should use Express Setup to enter the initial IP information. This enables the switch to connect to local routers and the Internet. You can then access the switch through the IP address for further configuration.

To run Express Setup:

Step 1 Make sure that nothing is connected to the switch.

During Express Setup, the switch acts as a DHCP server. If your PC has a static IP address, change your PC settings before you begin to temporarily use DHCP.

Step 2 Power the switch by connecting the supplied AC power cord to the switch power connector and to a grounded AC outlet.

Step 3 When the switch powers on, it begins the power-on self-test (POST). During POST, the LEDs blink while tests verify that the switch functions properly.

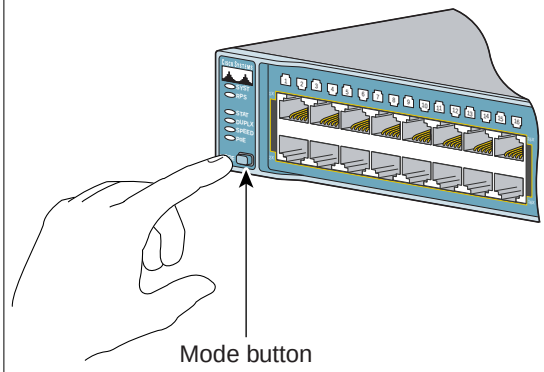
Wait for the switch to complete POST, which can take several minutes.

Step 4 Verify that POST has completed by confirming that the SYST LED remains green. If the switch fails POST, the SYST LED turns amber.

POST errors are usually fatal. Contact your Cisco technical support representative if your switch fails POST.

Step 5 Press and hold the Mode button for 3 seconds. When all of the LEDs left of the Mode button turn green, release the Mode button.

If the LEDs left of the Mode button begin to blink after you press the button, release it. Blinking LEDs mean that the switch has already been configured and cannot go into Express Setup mode. For more information, see the "Resetting the Switch" section on page 24.

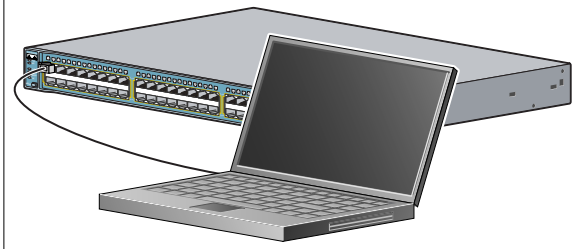


Step 6 Verify that the switch is in Express Setup mode by confirming that all LEDs left of the Mode button are green. (On some models, the RPS and PoE LEDs remain off.)

Step 7

Connect a Category 5 Ethernet cable to any 10/100 or 10/100/1000 Ethernet port on the switch front panel.

Connect the other end of the cable to the Ethernet port on your PC.



DHCP-enabled PC

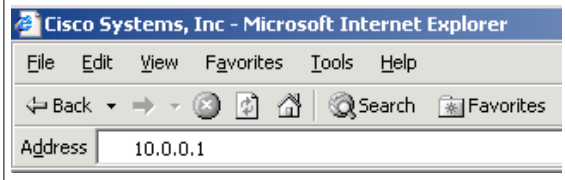
Step 8

Verify that the LEDs on both Ethernet ports are green.

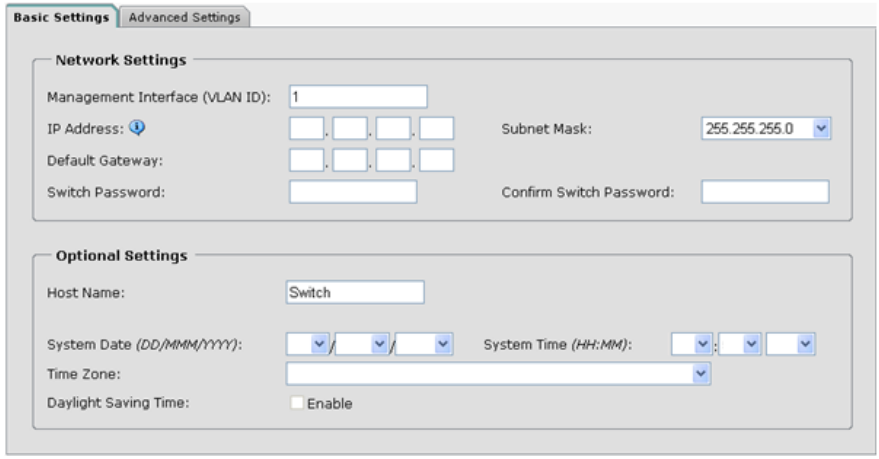
Wait 30 seconds.

Step 9

Start a web browser on your PC. Enter the IP address 10.0.0.1 in the web browser, and press Enter.



The Express Setup page appears. If it does not appear, see the “In Case of Difficulty” section on page 23 for help.



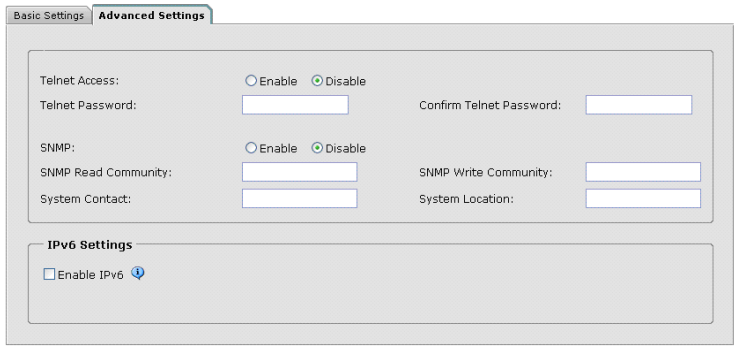
Step 10 Enter this information in the Network Settings fields:

- In the Management Interface (VLAN ID) field, the default is 1. Enter a new VLAN ID only if you want to change the management interface through which you manage the switch. The VLAN ID range is 1 to 1001.
- In the IP Address field, enter the IP address of the switch. In the IP Subnet Mask field, click the drop-down arrow, and select an IP Subnet Mask.
- In the Default Gateway field, enter the IP address for the default gateway (router).
- Enter your password in the Switch Password field. The password can be from 1 to 25 alphanumeric characters, can start with a number, is case sensitive, allows embedded spaces, but does not allow spaces at the beginning or end. In the Confirm Switch Password field, enter your password again.

Step 11 (Optional) You can enter the Optional Settings information now or enter it later by using the device manager interface:

- In the Host Name field, enter a name for the switch. The host name is limited to 31 characters. Embedded spaces are not allowed.
- Enter the date, time, and time zone information in the System Date, System Time, and Time Zone fields. Click Enable to enable daylight saving time.

Step 12 (Optional) Click the Advanced Settings tab on the Express Setup window, and enter the advanced settings now or enter them later by using the device manager interface.



Step 13 (Optional) Enter this information in the Advanced Setting fields:

- In the Telnet Access field, click Enable if you are going to use Telnet to manage the switch by using the command-line interface (CLI). If you enable Telnet access, you must enter a Telnet password.
- In the Telnet Password field, enter a password. The Telnet password can be from 1 to 25 alphanumeric characters, is case sensitive, allows embedded spaces, but does not allow spaces at the beginning or end. In the Confirm Telnet Password field, re-enter the Telnet password.
- In the SNMP field, click Enable to enable Simple Network Management Protocol (SNMP). Enable SNMP only if you plan to manage switches by using CiscoWorks 2000 or another SNMP-based network-management system.
- If you enable SNMP, you must enter a community string in the SNMP Read Community field, the SNMP Write Community field, or both. SNMP community strings authenticate access to MIB objects. Embedded spaces are not allowed in SNMP community strings. When you set the SNMP read community, you can access SNMP information, but you cannot modify it. When you set the SNMP write community, you can both access and modify SNMP information.
- In the System Contact and System Location fields, enter a contact name and the wiring closet, floor, or building where the switch is located.

Step 14 (Optional) You can enable Internet Protocol version 6 (IPv6) on the switch. From the Advanced Settings tab, check the Enable IPv6 check box.

Note Enabling IPv6 restarts the switch when you complete Express Setup.

Step 15 To complete Express Setup, click Submit from the Basic Settings or the Advanced Settings tab to save your settings, or click Cancel to clear your settings.

When you click Submit, the switch is configured and exits Express Setup mode. The PC displays a warning message and tries to connect with the new switch IP address. If you configured the switch with an IP address that is in a different subnet from the PC, connectivity between the PC and the switch is lost.

Step 16 Disconnect the switch from the PC, and install the switch in your production network. See the “Managing the Switch” section on page 9 for information about configuring and managing the switch.

If you need to rerun Express Setup, see the “Resetting the Switch” section on page 24.

Refreshing the PC IP Address

After you complete Express Setup, you should refresh the PC IP address.

For a dynamically assigned IP address, disconnect the PC from the switch, and reconnect it to the network. The network DHCP server assigns a new IP address to the PC.

For a statically assigned IP address, change it to the previously configured IP address.

4 Managing the Switch

After completing Express Setup and installing the switch in your network, use the device manager or other management options described in this section for further configuration.

Using the Device Manager

You can manage the switch by using the device manager that is in the switch memory. This is a web interface that offers quick configuration and monitoring. You can access the device manager from anywhere in your network through a web browser.

Follow these steps:

1. Start a web browser on your PC or workstation.
2. Enter the switch IP address in the web browser, and press Enter. The device manager page appears.
3. Use the device manager to perform basic switch configuration and monitoring. Refer to the device manager online help for more information.
4. For more advanced configuration, install Cisco Network Assistant as described in the next section.

Downloading Cisco Network Assistant

Cisco Network Assistant is a free software program that you download from Cisco.com and run on your PC. Network Assistant offers advanced options for configuring and monitoring multiple devices, including switches, switch clusters, switch stacks, routers, and access points. Network Assistant is free—there is no charge to download, install, or use it.

Follow these steps:

1. Go to this Web address: http://www.cisco.com/go/NetworkAssistant

   You must be a registered Cisco.com user, but you need no other access privileges.
2. Find the Network Assistant installer.

3. Download the Network Assistant installer, and run it. (You can run it directly from the Web if your browser offers this choice.)
4. When you run the installer, follow the displayed instructions. In the final panel, click Finish to complete the Network Assistant installation.

   Refer to the Network Assistant online help and the getting started guide for more information.

Command-Line Interface

You can enter Cisco IOS commands and parameters through the CLI. Access the CLI either by connecting your PC directly to the switch console port or through a Telnet session from a remote PC or workstation.

Follow these steps:

1. Connect the supplied RJ-45-to DB-9 adapter cable to the standard 9-pin serial port on the PC. Connect the other end of the cable to the console port on the switch.
2. Start a terminal-emulation program on the PC.
3. Configure the PC terminal emulation software for 9600 baud, 8 data bits, no parity, 1 stop bit, and no flow control.
4. Use the CLI to enter commands to configure the switch. See the software configuration guide and the command reference for more information.

Other Management Options

You can use SNMP management applications such as CiscoWorks Small Network Management Solution (SNMS) and HP OpenView to configure and manage the switch. You also can manage it from an SNMP-compatible workstation that is running platforms such as HP OpenView or SunNet Manager.

The Cisco IE2100 Series Configuration Registrar is a network management device that works with embedded CNS agents in the switch software. You can use IE2100 to automate initial configurations and configuration updates on the switch.

See the “Accessing Help Online” section on page 24 for a list of supporting documentation.

5 Installing the Switch

Depending on the switch model, you can install the switch in a rack, on a wall, on or under a desk or shelf, and with a magnet or rack-mount brackets. This section covers rack-, desk-, shelf-, and magnet-mounting a switch. Depending on the switch, For alternate mounting procedures, see the *Catalyst 3560 Switch Hardware Installation Guide* on Cisco.com.

Equipment That You Supply

You need this equipment to install the switch:

- Number-2 Phillips screwdriver
- Drill with a #27 drill bit (0.144-inch [3.7 mm])

Note A drill is required if you are securing the Catalyst 3560-8PC switch to a desk or a wall.

Before You Begin

When determining where to install the switch, verify that these guidelines are met:

- Airflow around the switch and through the vents is unrestricted.

Note We strongly recommend that you allow at least 3 inches (7.6 cm) of clearance around the ventilation openings.

- Temperature around the switch does not exceed 113˚F (45˚C).
- Humidity around the switch does not exceed 85 percent.
- Altitude at the installation site is not greater than 10,000 feet.
- Do not place any items on the top of the Catalyst 3560-8PC switch.
- The heatsinks and the bottom of the Catalyst 3560-8PC switch might be hot to the touch if the switch is operating at its maximum temperature 113˚F (45˚C) and is in an environment that exceeds normal room temperature (such as in a closet, in a cabinet, or in a closed or multirack assembly).
- Allow at least 1.75 inches (4 cm) of clearance above each Catalyst 3560-8PC switch in the rack.

- When placing the Catalyst 3560-8PC switch on a flat horizontal surface without the magnet, we strongly recommend that you attach the rubber feet to the switch. Doing so helps prevent airflow restriction and overheating.
- Do not stack switches or place Catalyst 3560-8PC switches side-by-side, unless they are separated all around by at least 3 inches (7.6 cm) of clearance from each other.
- Do not wall-mount the Catalyst 3560-8PC switch with its front panel facing up or to the side. We recommend wall-mounting the switch with its front panel facing down to prevent airflow restriction and to provide easier access to the cables.
- Clearance to the switch front and rear panels meets these conditions:
  - Front-panel LEDs can be easily read.
  - Access to ports is sufficient for unrestricted cabling.
  - AC power cord can reach from the AC power outlet to the connector on the switch rear panel.
- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures.
- For 10/100 ports and 10/100/1000 ports, the cable length from a switch to an attached device cannot exceed 328 feet (100 meters).
- For cable lengths for small form-factor pluggable (SFP) modules, see the documentation that shipped with the module.

Installation Warning Statements

This section includes the basic installation warning statements. Translations of these warning statements appear in the *Regulatory Compliance and Safety Information for the Catalyst 3560 Switch* document that shipped with the switch.

Warning **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 148

Warning **To prevent the switch from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 113˚F (45˚C). To prevent airflow restriction, allow at least 3 inches (7.6 cm) of clearance around the ventilation openings.** Statement 17B

Warning **Installation of the equipment must comply with local and national electrical codes.** Statement 1074

Warning **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:**

- **This unit should be mounted at the bottom of the rack if it is the only unit in the rack.**
- **When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.**
- **If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.** Statement 1006

Warning **This equipment is intended to be grounded. Ensure that the host is connected to earth ground during normal use.** Statement 39

Warning **If a redundant power system (RPS) is not connected to the switch, install an RPS connector cover on the back of the switch.** Statement 265

Warning **Class 1 laser product.** Statement 1008

Warning **For connections outside the building where the equipment is installed, the following ports must be connected through an approved network termination unit with integral circuit protection: 10/100/1000 Ethernet.** Statement 1044

Warning **Voltages that present a shock hazard may exist on Power over Ethernet (PoE) circuits if interconnections are made using uninsulated exposed metal contacts, conductors, or terminals. Avoid using such interconnection methods, unless the exposed metal parts are located within a restricted access location and users and service people who are authorized within the restricted access location are made aware of the hazard. A restricted access area can be accessed only through the use of a special tool, lock and key or other means of security.** Statement 1072

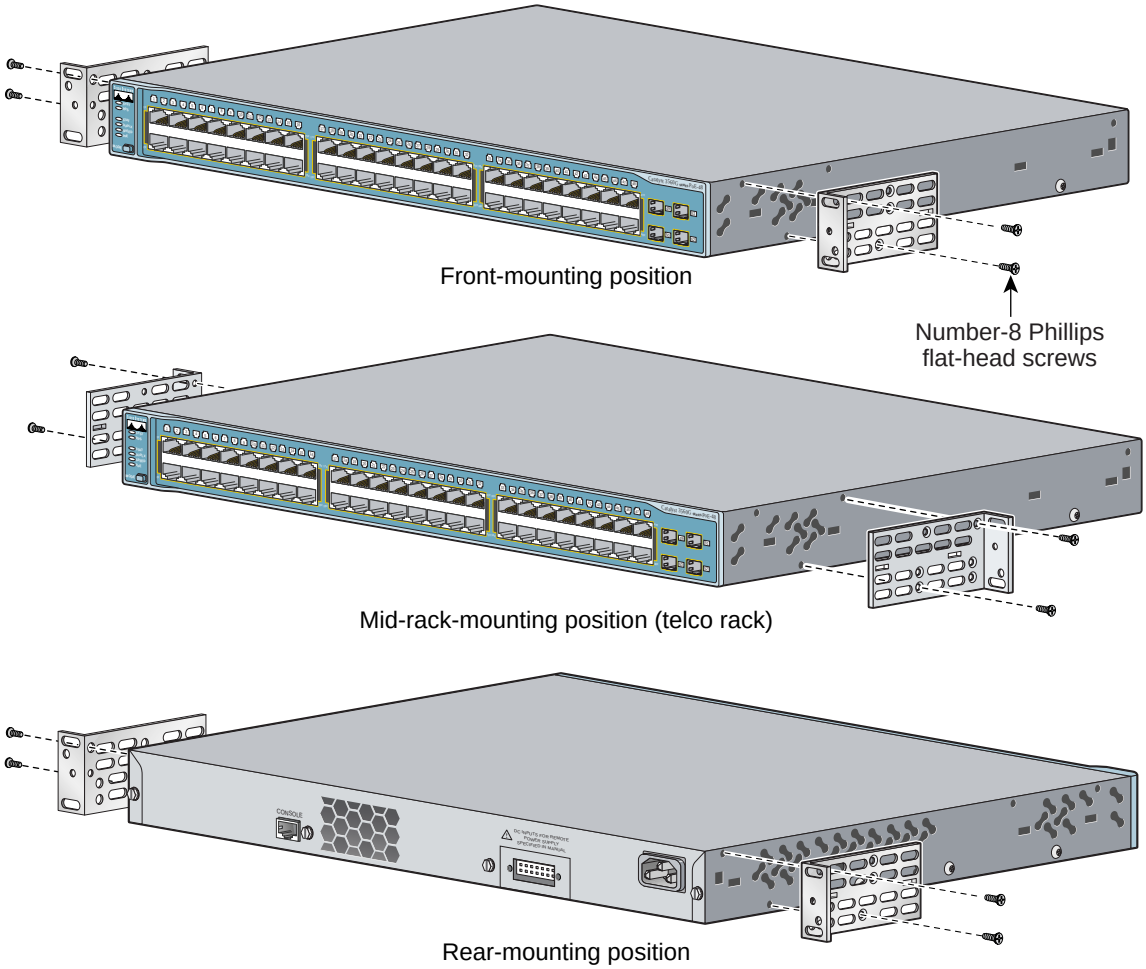
Rack-Mounting the Switch (All Catalyst 3560 Switches Except the Catalyst 3560-8PC Switch)

Note This section applies to all Catalyst 3560 switches except the Catalyst 3560-8PC switch. For installation information for the Catalyst 3560-8PC switch, see "Securing the Switch on a Desk or Shelf (only the Catalyst 3560-8PC Switch)" section on page 17 and "Mounting the Switch with a Magnet Panel (only the Catalyst 3560-8PC Switch)" section on page 19.

This section covers basic 19-inch rack-mounting. As an example, all the illustrations show the Catalyst 3560G-48PS switch. You can install and connect other Catalyst 3560 switches except the Catalyst 3560-8PC switch as shown in these illustrations.

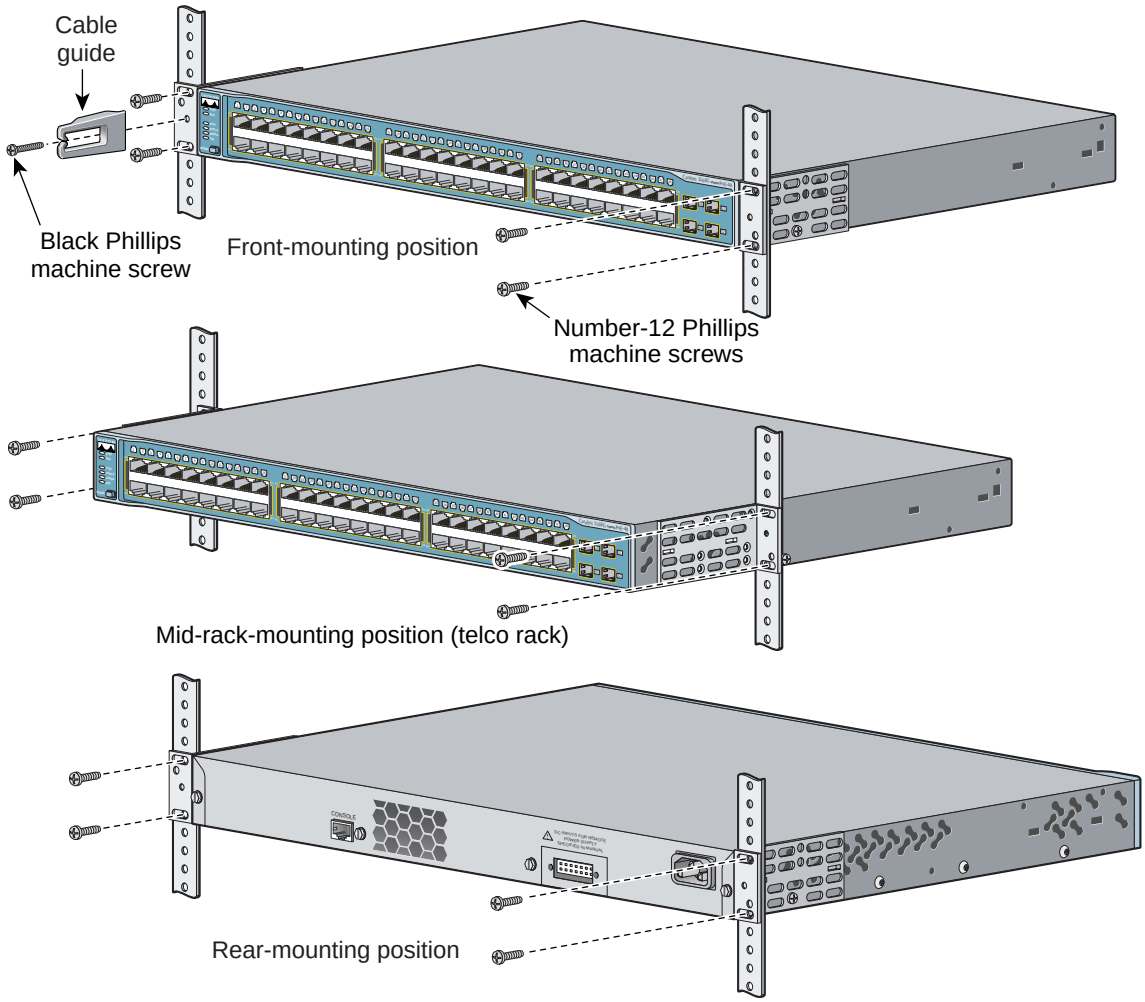
Attaching the Brackets

Use four Phillips flat-head screws to attach the long side of the brackets to Catalyst 3560 switches in one of three mounting positions.



Mounting the Switch in a Rack

Use the black Phillips machine screw to attach the cable guide to the left or right bracket. Use the four number-12 Phillips machine screws to attach the brackets to the rack.



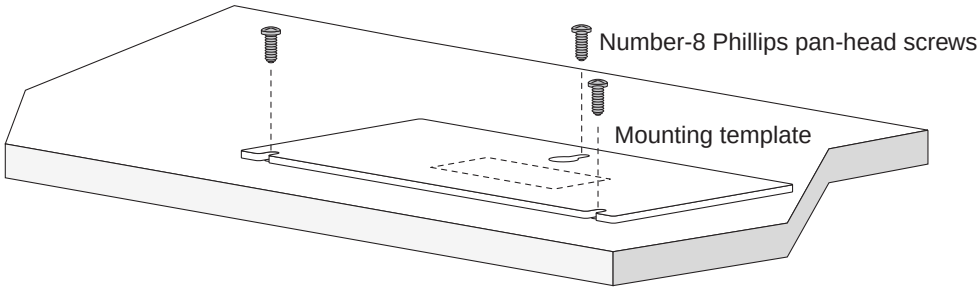
Securing the Switch on a Desk or Shelf (only the Catalyst 3560-8PC Switch)

Note This section is specific to the Catalyst 3560-8PC switch. For installation information for other Catalyst 3560 switches, see "Rack-Mounting the Switch (All Catalyst 3560 Switches Except the Catalyst 3560-8PC Switch)" section on page 14.

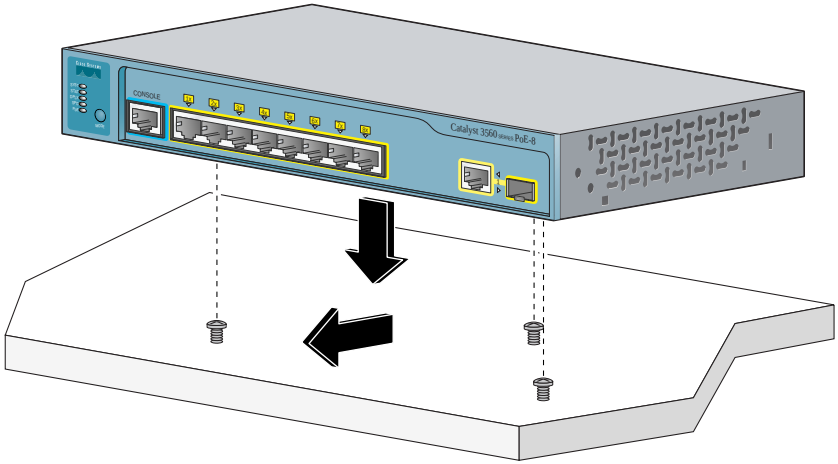
To place the switch on a desk without using the mounting screws, simply attach the four rubber feet on the bottom panel of the switch.

To secure the switch on top of or under a desk or a shelf, or on a wall, use the mounting template and three mounting screws. Follow these steps:

1. Position the screw template on the mounting surface with the two side-by-side slots forward. Peel the adhesive strip off the bottom, and attach the template.
2. Use a 0.144-inch (3.7 mm) or a #27 drill bit to drill a 1/2-inch (12.7 mm) hole in the three template screw slot positions.
3. Insert the screws in the slots on the template, and tighten until they touch the template. Remove the template from the mounting surface.



4. Place the switch onto the mounting screws, and slide it forward until it locks in place.

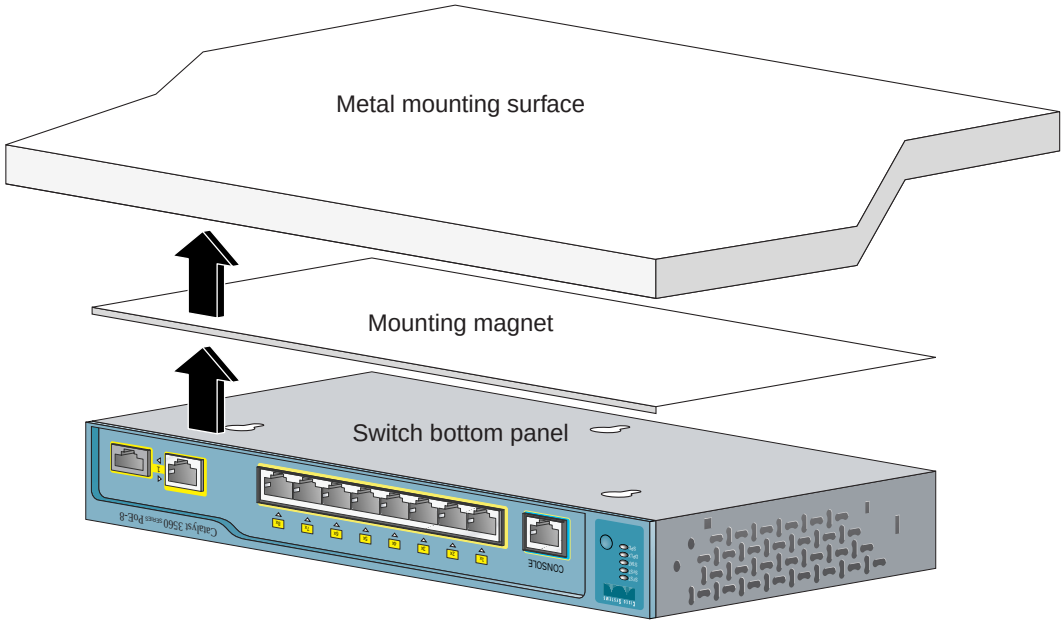


Mounting the Switch with a Magnet Panel (only the Catalyst 3560-8PC Switch)

Note This section only applies to the Catalyst 3560-8PC switch. For installation information for all other Catalyst 3560 switches, see "Rack-Mounting the Switch (All Catalyst 3560 Switches Except the Catalyst 3560-8PC Switch)" section on page 14.

Follow these steps:

1. Position the mounting magnet on the mounting surface.
2. Place the bottom of the switch on the mounting magnet.



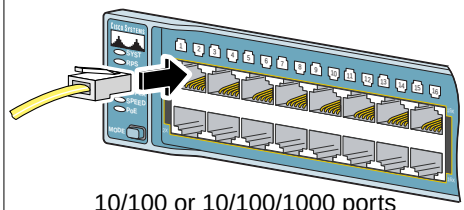
6 Connecting to the Switch Ports

This section describes how to connect to the switch ports, the SFP module ports, and to the dual-purpose ports. It also describes how to verify your connections. For additional cabling information, see the *Catalyst 3560 Switch Hardware Installation Guide* on Cisco.com.

Connecting to 10/100 and 10/100/1000 Ports

Follow these steps:

Step 1 When you connect to servers, workstations, IP phones, wireless access points, and routers, insert a straight-through, twisted four-pair, Category 5 cable in a switch 10/100 or 10/100/1000 port. Use a crossover, twisted four-pair, Category 5 cable when you connect to other switches, hubs, or repeaters.



10/100 or 10/100/1000 ports

Step 2 Insert the other cable end into an RJ-45 connector on the other device.

The fixed ports on the Catalyst 3560 Power over Ethernet (PoE) switches provide PoE support for devices compliant with IEEE 802.3af and also provide Cisco pre-standard PoE support for Cisco IP Phones and Cisco Aironet Access Points.

Each of the Catalyst 3560-24PS switch 10/100 ports or the Catalyst 3560G-24PS switch 10/100/1000 ports can deliver up to 15.4 W of PoE. On the Catalyst 3560-48PS or 3560G-48PS switches, any 24 of the 48 10/100 or 10/100/1000 ports can deliver 15.4 W of PoE, or any combination of the ports can deliver an average of 7.7 W of PoE at the same time, up to a maximum switch power output of 370 W.

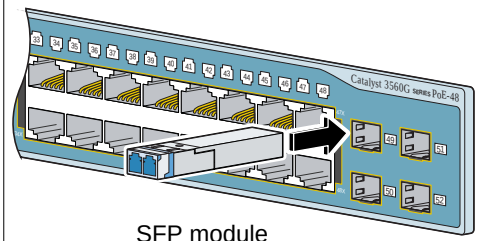
By default, a Catalyst 3560 switch PoE port automatically provides power when a valid powered device is connected to it. For information about configuring and monitoring PoE ports, see the switch software configuration guide. For information about troubleshooting PoE problems, see the *Catalyst 3560 Switch Hardware Installation Guide* on Cisco.com.

Note For simplified cabling, the automatic medium-dependent interface crossover (auto-MDIX) feature is enabled by default on the switch. With auto-MDIX enabled, the switch detects the required cable type for copper Ethernet connections and configures the interfaces accordingly. Therefore, you can use either a crossover or a straight-through cable for connections to a switch 10/100 or 10/100/1000 Ethernet port, regardless of the type of device on the other end of the connection.

Installing an SFP Module and Connecting to a Module Port

Follow these steps:

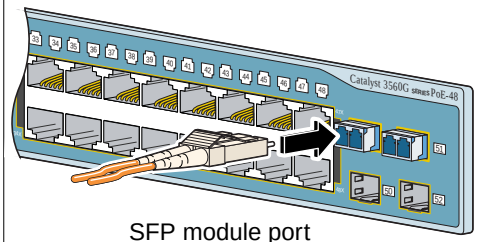
Step 1 Grasp the module on the sides, and insert it into the switch slot until you feel the connector snap into place.



SFP module

Step 2 Insert an appropriate cable into the module port.

Note If your switch has a dual-purpose port, see the "Connecting to a Dual-Purpose Port" section on page 22 for additional considerations.



SFP module port

Step 3 Insert the other cable end into the other device.

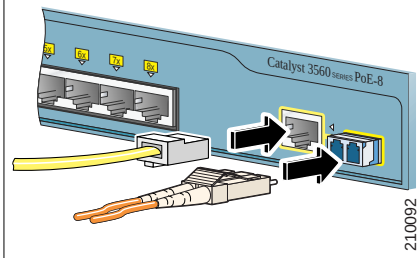
For a list of supported modules, see the release notes on Cisco.com. For detailed instructions on installing, removing, and connecting to SFP modules, see the documentation that came with the SFP module.

Caution Removing and installing an SFP module can shorten its useful life. Do not remove and insert SFP modules more often than is absolutely necessary.

Connecting to a Dual-Purpose Port

For information about using the SFP module port, see the “Installing an SFP Module and Connecting to a Module Port” section on page 21.

Follow these steps:

Step 1	Insert either an RJ-45 connector to the 10/100/1000 port, or install an SFP module into the SFP module slot, and connect a cable to the SFP module port. Only one port can be active at a time. If both ports are connected, the SFP module port has priority. The priority setting is not configurable.	
Step 2	Insert the other cable end into the other device.	

Verifying Port Connectivity

After you connect to the switch port, the port LED turns amber while the switch establishes a link. This process takes about 30 seconds, and then the LED turns green when the switch and the target device have an established link. If the LED is off, the target device might not be turned on, there might be a cable problem, or there might be a problem with the adapter installed in the target device. See the “In Case of Difficulty” section on page 23 for information about online assistance.

7 In Case of Difficulty

If you experience difficulty, help is available here and on Cisco.com. This section includes Express Setup troubleshooting, how to reset the switch, how to access help online, and where to find more information.

Troubleshooting Express Setup

If Express Setup does not run, or if the Express Setup page does not appear in your browser:

• Did you verify that POST successfully ran before starting Express Setup?	If not, make sure that only the SYST and STAT LEDs are green before pressing the Mode button to enter the Express Setup mode.
• Did you press the Mode button while the switch was still running POST?	If yes, wait until POST completes. Power cycle the switch. Wait until POST completes. Confirm that the SYST and STAT LEDs are green. Press the Mode button to enter Express Setup mode.
• Did you try to continue without confirming that the switch was in Express Setup mode?	Verify that all LEDs left of the Mode button are green. (On some models, the RPS LED is off.) If necessary, press the Mode button to enter Express Setup mode.
• Does your PC have a static IP address?	If yes, change your PC settings to temporarily use DHCP before connecting to the switch.
• Did you connect a crossover cable instead of a straight-through Ethernet cable between a switch port and the Ethernet port of the PC?	If yes, connect a straight-through cable to an Ethernet port on the switch and the PC. Wait 30 seconds before entering 10.0.0.1 in the browser.
• Did you connect the Ethernet cable to the console port instead of to a 10/100 or 10/100/1000 Ethernet port on the switch?	If yes, disconnect from the console port. Connect to an Ethernet port on the switch and the PC. Wait 30 seconds before entering 10.0.0.1 in the browser.

• Did you wait 30 seconds after connecting the switch and the PC before entering the IP address in your browser?	If not, wait 30 seconds, re-enter 10.0.0.1 in the browser, and press Enter.
• Did you enter the wrong address in the browser, or is there an error message?	If yes, re-enter 10.0.0.1 in the browser, and press Enter.

Resetting the Switch

This section describes how to reset the switch by rerunning Express Setup. These are reasons why you might want to reset the switch:

- You installed the switch in your network and cannot connect to it because you assigned the wrong IP address.
- You want to clear all configuration from the switch and assign a new IP address.
- You are trying to enter Express Setup mode, and the switch LEDs start blinking when you press the Mode button, which means that the switch is already configured with IP information.

Caution Resetting the switch deletes the configuration and reboots the switch.

To reset the switch, press and hold the Mode button. The switch LEDs begin blinking after about 3 seconds. Continue holding down the Mode button. The LEDs stop blinking after 7 more seconds, and then the switch reboots.

The switch now behaves like an unconfigured switch. You can enter the switch IP information by using Express Setup as described in the “Running Express Setup” section on page 5.

Accessing Help Online

First look for a solution to your problem in the troubleshooting section of the *Catalyst 3560 Hardware Installation Guide* or the *Catalyst 3560 Software Configuration Guide* on Cisco.com. You can also access the Cisco Technical Support and Documentation website for a list of known hardware problems and extensive troubleshooting documentation, including:

- Factory defaults and password recovery
- Recovery from corrupted or missing software
- Switch port problems
- Network interface cards

- Troubleshooting tools
- Field notices and security advisories

Follow these steps:

1. Open your browser, and go to http://www.cisco.com/.
2. Click Technical Support.
3. Click Product Support > Switches > LAN and ATM Switches > Catalyst 3560 Series Switches > Troubleshooting.
4. Click the subject that addresses the problem that you are experiencing.

For More Information

For more information about the switch, see these documents on Cisco.com:

- *Release Notes for the Catalyst 3750, 3560, 2970, and 2960 Switches* (not orderable but available on Cisco.com). Before installing, configuring, or upgrading the switch, refer to the release notes on Cisco.com for the latest information.
- *Catalyst 3560 Switch Hardware Installation Guide* (not orderable, but available on Cisco.com). This guide provides complete hardware descriptions and detailed installation procedures.
- *Regulatory Compliance and Safety Information for the Catalyst 3560 Switch* (order number DOC-7816665=). This guide contains agency approvals, compliance information, and translated warning statements.
- *Catalyst 3560 Switch Software Configuration Guide* (order number DOC-7816156=). This guide provides a product overview and detailed descriptions and procedures of the switch software features.
- *Catalyst 3560 Switch Command Reference* (order number DOC-7816155=). This reference provides detailed descriptions of the Cisco IOS commands specifically created or modified for the switch.
- *Catalyst 3750, 3560, 3550, 2970, and 2960 Switch System Message Guide* (order number DOC-7816154=). This guide provides descriptions of the system messages specifically created or modified for the switch.
- Device manager online help (available on the switch)

8 Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. This section explains the product documentation resources that Cisco offers.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/techsupport

You can access the Cisco website at this URL:

http://www.cisco.com

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a library of technical product documentation on a portable medium. The DVD enables you to access installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the HTML documentation and some of the PDF files found on the Cisco website at this URL:

http://www.cisco.com/univercd/home/home.htm

The Product Documentation DVD is created and released regularly. DVDs are available singly or by subscription. Registered Cisco.com users can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at the Product Documentation Store at this URL:

http://www.cisco.com/go/marketplace/docstore

Ordering Documentation

You must be a registered Cisco.com user to access Cisco Marketplace. Registered users may order Cisco documentation at the Product Documentation Store at this URL:

http://www.cisco.com/go/marketplace/docstore

If you do not have a user ID or password, you can register at this URL:

http://tools.cisco.com/RPF/register/register.do

9 Documentation Feedback

You can provide feedback about Cisco technical documentation on the Cisco Technical Support & Documentation site area by entering your comments in the feedback form available in every online document.

10 Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to do the following:

- Report security vulnerabilities in Cisco products
- Obtain assistance with security incidents that involve Cisco products
- Register to receive security information from Cisco

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For emergencies only—security-alert@cisco.com

  An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.
- For nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.*x* through 9.*x*.

Never use a revoked encryption key or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT to find other means of encrypting the data before sending any sensitive material.

11 Product Alerts and Field Notices

Modifications to or updates about Cisco products are announced in Cisco Product Alerts and Cisco Field Notices. You can receive Cisco Product Alerts and Cisco Field Notices by using the Product Alert Tool on Cisco.com. This tool enables you to create a profile and choose those products for which you want to receive information.

To access the Product Alert Tool, you must be a registered Cisco.com user. (To register as a Cisco.com user, go to this URL: http://tools.cisco.com/RPF/register/register.do) Registered users can access the tool at this URL: http://tools.cisco.com/Support/PAT/do/ViewMyProfiles.do?local=en

12 Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day at this URL:

http://www.cisco.com/techsupport

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

http://tools.cisco.com/RPF/register/register.do

Note Use the Cisco Product Identification Tool to locate your product serial number before submitting a request for service online or by phone. You can access this tool from the Cisco Technical Support & Documentation website by clicking the Tools & Resources link, clicking the All Tools (A-Z) tab, and then choosing Cisco Product Identification Tool from the alphabetical list. This tool offers three search options: by product ID or model name; by tree view; or, for certain products, by copying and pasting show command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Tip Displaying and Searching on Cisco.com

If you suspect that the browser is not refreshing a web page, force the browser to update the web page by holding down the Ctrl key while pressing F5.

To find technical information, narrow your search to look in technical documentation, not the entire Cisco.com website. On the Cisco.com home page, click the Advanced Search link under the Search box and then click the Technical Support & Documentation radio button.

To provide feedback about the Cisco.com website or a particular technical document, click Contacts & Feedback at the top of any Cisco.com web page.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

http://www.cisco.com/techsupport/servicerequest

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411
Australia: 1 800 805 227
EMEA: +32 2 704 55 55
USA: 1 800 553 2447

For a complete list of Cisco TAC contacts, go to this URL:

http://www.cisco.com/techsupport/contacts

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

13 Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The Cisco Online Subscription Center is the website where you can sign up for a variety of Cisco e-mail newsletters and other communications. Create a profile and then select the subscriptions that you would like to receive. To visit the Cisco Online Subscription Center, go to this URL:

  http://www.cisco.com/offer/subscribe

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco channel product offerings. To order and find out more about the *Cisco Product Quick Reference Guide*, go to this URL:

  http://www.cisco.com/go/guide

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

  http://www.cisco.com/go/marketplace/

- Cisco Press publishes a wide range of general networking, training, and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

  http://www.ciscopress.com

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:

  http://www.cisco.com/ipj

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

  http://www.cisco.com/en/US/products/index.html

- Networking Professionals Connection is an interactive website where networking professionals share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

  http://www.cisco.com/discuss/networking

- "What's New in Cisco Documentation" is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category to direct you quickly to the documentation for your products. You can view the latest release of "What's New in Cisco Documentation" at this URL:

  http://www.cisco.com/univercd/cc/td/doc/abtunicd/136957.htm

- World-class networking training is available from Cisco. You can view current offerings at this URL:

  http://www.cisco.com/en/US/learning/index.html

14 Cisco Limited Lifetime Hardware Warranty Terms

There are special terms applicable to your hardware warranty and various services that you can use during the warranty period. Your formal Warranty Statement, including the warranties and license agreements applicable to Cisco software, is available on Cisco.com. Follow these steps to access and download the *Cisco Information Packet* and your warranty and license agreements from Cisco.com.

1. Start your browser, and go to this URL:

   http://www.cisco.com/univercd/cc/td/doc/es_inpck/cetrans.htm

   The Warranties and License Agreements page appears.

2. To read the *Cisco Information Packet*, follow these steps:

   a. Click the **Information Packet Number** field, and make sure that the part number 78-5235-03B0 is highlighted.

   b. Select the language in which you would like to read the document.

   c. Click **Go**.

      The Cisco Limited Warranty and Software License page from the Information Packet appears.

   d. Read the document online, or click the **PDF** icon to download and print the document in Adobe Portable Document Format (PDF).

      Note You must have Adobe Acrobat Reader to view and print PDF files. You can download the reader from Adobe's website: http://www.adobe.com

3. To read translated and localized warranty information about your product, follow these steps:

   a. Enter this part number in the Warranty Document Number field:

      78-6310-02C0

   b. Select the language in which you would like to view the document.

c. Click **Go**.

   The Cisco warranty page appears.

d. Read the document online, or click the **PDF** icon to download and print the document in Adobe Portable Document Format (PDF).

You can also contact the Cisco service and support website for assistance:

http://www.cisco.com/public/Support_root.shtml.

Duration of Hardware Warranty

A Cisco product hardware warranty is supported for as long as the original end user continues to own or use the product, provided that the fan and power supply warranty is limited to five (5) years. In the event of a discontinuance of product manufacture, the Cisco warranty support is limited to five (5) years from the announcement of the discontinuance.

Replacement, Repair, or Refund Policy for Hardware

Cisco or its service center will use commercially reasonable efforts to ship a replacement part within ten (10) working days after receipt of the Return Materials Authorization (RMA) request. Actual delivery times can vary, depending on the customer location.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

To Receive a Return Materials Authorization (RMA) Number

Contact the company from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

Complete the information below, and keep it for reference.

Company product purchased from	
Company telephone number	
Product model number	
Product serial number	
Maintenance contract number	

Corporate Headquarters
Cisco Systems, Inc.
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Tel: 408 526-4000
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www-europe.cisco.com
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Fax: 31 0 20 357 1100

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www.cisco.com
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Cisco Systems has more than 200 offices in the following countries. Addresses, phone numbers, and fax numbers are listed on the

Cisco Website at www.cisco.com/go/offices

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Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico
The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore
Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

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