



## Preface

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### Audience

This guide is for the networking professional managing the Catalyst 3550 switch, hereafter referred to as *the switch* or *the multilayer switch*. Before using this guide, you should have experience working with the Cisco IOS and be familiar with the concepts and terminology of Ethernet and local area networking.

### Purpose

This guide provides the information you need to configure Layer 2 and Layer 3 software features on your switch. The Catalyst 3550 switch is supported by either the standard multilayer software image (SMI), which provides Layer 2+ features and basic Layer 3 routing, or the enhanced multilayer software image (EMI), which provides Layer 2+ features, full Layer 3 routing, and advanced services. All Catalyst 3550 Gigabit Ethernet switches are shipped with the EMI pre-installed. Catalyst 3550 Fast Ethernet switches are shipped with either the SMI or the EMI pre-installed. After initial deployment, you can order the Enhanced Multilayer Software Image Upgrade kit to upgrade Catalyst 3550 Fast Ethernet switches from the SMI to the EMI.

Use this guide with other documents for information about these topics:

- **Requirements**—This guide assumes that you have met the hardware and software requirements and cluster compatibility requirements described in the release notes.
- **Start-up information**—This guide assumes that you have assigned switch IP information and passwords by using the browser setup program described in the switch hardware installation guide.
- **Embedded device manager and Network Assistant graphical user interfaces (GUIs)**—This guide does not provide detailed information on the GUIs. However, the concepts in this guide are applicable to the GUI user. For information about the device manager, see the switch online help. For information about Network Assistant, see the *Getting Started with Cisco Network Assistant*, available on Cisco.com.
- **Cluster configuration**—For information about planning for, creating, and maintaining switch clusters, see the *Getting Started with Cisco Network Assistant*, available on Cisco.com. For information about the clustering-related command-line interface (CLI) commands, see the command reference for this release.
- **CLI command information**—This guide provides an overview for using the CLI. For complete syntax and usage information about the commands that have been specifically created or changed for the switches, see the command reference for this release.

This guide provides procedures for using the commands that have been created or changed for use with the switch. It does not provide detailed information about these commands. For detailed information about these commands, see the command reference for this release.

This guide does not repeat the concepts and CLI procedures provided in the standard Cisco IOS Release 12.2 documentation. For information about the standard Cisco IOS Release 12.2 commands, see the Cisco IOS documentation set available from the Cisco.com home page at **Service and Support > Technical Documents**. On the Cisco Product Documentation home page, select Release 12.2 from the Cisco IOS Software drop-down list.

This guide does not describe system messages you might encounter or how to install your switch. For this information, see the system message guide for this release and to the hardware installation guide.

## Conventions

This publication uses these conventions to convey instructions and information:

Command descriptions use these conventions:

- Commands and keywords are in **boldface** text.
- Arguments for which you supply values are in *italic*.
- Square brackets ([ ]) mean optional elements.
- Braces ( { } ) group required choices, and vertical bars ( | ) separate the alternative elements.
- Braces and vertical bars within square brackets ( [ { | } ] ) mean a required choice within an optional element.

Interactive examples use these conventions:

- Terminal sessions and system displays are in `screen` font.
- Information you enter is in **boldface screen** font.
- Nonprinting characters, such as passwords or tabs, are in angle brackets (<>).

Notes, cautions, and timesavers use these conventions and symbols:



### Note

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Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.

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### Caution

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Means *reader be careful*. In this situation, you might do something that could result equipment damage or loss of data.

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### Timesaver

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Means the following *will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information.

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## Related Publications

These documents provide complete information about the switch and are available from this Cisco.com site:

<http://www.cisco.com/univercd/cc/td/doc/product/lan/c3550/index.htm>

You can order printed copies of documents with a DOC-xxxxxx= number from the Cisco.com sites and from the telephone numbers listed in the “[Obtaining Documentation](#)” section on page [Boilerplate 1](#).

- *Release Notes for the Catalyst 3550 Multilayer Switch* (not orderable but available on Cisco.com)



### Note

Switch requirements and procedures for initial configurations and software upgrades tend to change and therefore appear only in the release notes. Before installing, configuring, or upgrading the switch, see the release notes on Cisco.com for the latest information.

For information about the switch, see these documents:

- *Catalyst 3550 Multilayer Switch Software Configuration Guide* (order number DOC-7816610=)
- *Catalyst 3550 Multilayer Switch Command Reference* (order number DOC-7816611=)
- *Catalyst 3550 Multilayer Switch System Message Guide* (order number DOC-7816681=)
- Device manager online help (available on the switch)
- *Catalyst 3550 Multilayer Switch Hardware Installation Guide* (not orderable but available on Cisco.com)
- *Catalyst 3550 Switch Getting Started Guide* (order number DOC-7816575=)
- *Regulatory Compliance and Safety Information for the Catalyst 3550 Switch* (order number DOC-7816655=)

For information about related products, see these documents:

- *Getting Started with Cisco Network Assistant* (not orderable but available on Cisco.com)
- *Release Notes for Cisco Network Assistant* (not orderable but available on Cisco.com)
- *Catalyst GigaStack Gigabit Interface Converter Hardware Installation Guide* (order number DOC-786460=)
- *CWDM Passive Optical System Installation Note* (not orderable but is available on Cisco.com)
- *1000BASE-T Gigabit Interface Converter Installation Notes* (not orderable but is available on Cisco.com)
- *Cisco Small Form-Factor Pluggable Modules Installation Notes* (order number DOC-7815160=)
- *Cisco CWDM GBIC and CWDM SFP Installation Note* (not orderable but available on Cisco.com)

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

## Cisco.com

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

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

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](http://www.cisco.com/public/countries_languages.shtml)

## Documentation DVD

Cisco documentation and additional literature are available in a Documentation DVD package, which may have shipped with your product. The Documentation DVD is updated regularly and may be more current than printed documentation. The Documentation DVD package is available as a single unit.

Registered Cisco.com users (Cisco direct customers) can order a Cisco Documentation DVD (product number DOC-DOCDVD=) from the Ordering tool or Cisco Marketplace.

Cisco Ordering tool:

<http://www.cisco.com/en/US/partner/ordering/>

Cisco Marketplace:

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

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:  
<http://www.cisco.com/en/US/partner/ordering/>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 1 800 553-NETS (6387).

## Documentation Feedback

You can send comments about technical documentation to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## 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](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

From this site, you can perform these tasks:

- 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 and notices for Cisco products is available at this URL:

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

If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

[http://www.cisco.com/en/US/products/products\\_psirt\\_rss\\_feed.html](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 might have identified a vulnerability in a Cisco product, contact PSIRT:

- Emergencies—[security-alert@cisco.com](mailto:security-alert@cisco.com)
- Nonemergencies—[psirt@cisco.com](mailto:psirt@cisco.com)



**Tip**

We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.x through 8.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one that has the most recent creation date in this public key server list:

<http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on>

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

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

# Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

## Cisco Technical Support Website

The Cisco Technical Support 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, 365 days a year, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support 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 (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support Website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI 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.

## 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 TAC 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 TAC 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)—Your 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 operation 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 your network is impaired, but 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.

## Obtaining Additional Publications and Information

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

- Cisco Marketplace provides a variety of Cisco books, reference guides, 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>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *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>

- 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>