



About This Guide

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Document Objectives

The purpose of this guide is to help you configure the Firewall Services Module (FWSM) for the most common scenarios using the command line interface. It does not cover every feature, but describes those tasks most commonly required for configuration.

Audience

This guide is for network managers who perform any of the following tasks:

- Managing network security
- Installing and configuring firewalls
- Managing default and static routes, and TCP and UDP services

Related Documentation

For more information, refer to the following documentation set for the FWSM:

- *Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module Command Reference*
- *Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module System Messages Guide*
- *Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module Installation Note*
- *Release Notes for the Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module*

Document Organization

This guide includes the following chapters and appendixes:

- [“Quick Start Steps”](#) provides pointers to the minimum configuration required for routed or transparent mode.
- [Chapter 1, “Introduction to the Firewall Services Module,”](#) describes the system requirements and features.
- [Chapter 2, “Configuring the Switch for the Firewall Services Module,”](#) tells how to configure the switch for use with the FWSM.
- [Chapter 3, “Connecting to the Firewall Services Module and Managing the Configuration,”](#) tells how to access the FWSM command line interface (CLI) and manage the configuration.
- [Chapter 4, “Configuring the Firewall Mode,”](#) tells how to set the firewall mode.
- [Chapter 5, “Managing Security Contexts,”](#) tells how to configure multiple security contexts.
- [Chapter 6, “Configuring Basic Settings,”](#) tells how to configure basic settings that are either essential or useful to the operation of your FWSM.
- [Chapter 7, “Configuring Bridging Parameters and ARP Inspection,”](#) tells how to customize the operation of the transparent firewall.
- [Chapter 8, “Configuring IP Addresses, Routing, and DHCP,”](#) tells how to configure IP addresses, static routes, dynamic routing, and DHCP.
- [Chapter 9, “Configuring Network Address Translation,”](#) tells how to configure Network Address Translation (NAT).
- [Chapter 10, “Controlling Network Access with Access Control Lists,”](#) tells how to control network access through the FWSM using access control lists (ACLs).
- [Chapter 11, “Allowing Remote Management,”](#) tells how to allow remote management access to the FWSM.
- [Chapter 12, “Configuring AAA,”](#) tells how to configure AAA, which includes command authorization, CLI access authentication, and AAA for traffic through the FWSM.
- [Chapter 13, “Configuring Application Protocol Inspection,”](#) tells how to configure inspection engines.
- [Chapter 14, “Filtering HTTP, HTTPS, or FTP Requests Using an External Server,”](#) tells how to configure filtering.

- [Chapter 15, “Using Failover,”](#) tells how to configure a primary and secondary FWSM for redundancy.
- [Chapter 16, “Managing Software and Configuration Files,”](#) tells how to upgrade or reinstall FWSM software.
- [Chapter 17, “Monitoring and Troubleshooting the Firewall Services Module,”](#) tells how to monitor and troubleshoot the FWSM. See the *Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module System Messages Guide* for detailed information about system logging.
- [Appendix A, “Specifications,”](#) lists the specifications for the FWSM.
- [Appendix B, “Sample Configurations,”](#) shows some common scenarios and the configurations that support them.
- [Appendix C, “Understanding the Command-Line Interface,”](#) describes the CLI.
- [Appendix D, “Addresses, Protocols, and Ports Reference,”](#) provides reference information, including lists of TCP, UDP, and ICMP port types, and common subnet masks.
- [Appendix E, “Acronyms and Abbreviations,”](#) lists acronyms and abbreviations used in this guide.
- [“Index”](#) provides easy access to topics within the guide.

Document Conventions

This guide uses the following conventions:

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Syntax formatting is described in the [“Syntax Formatting” section on page C-2](#).

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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

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/index.shtml>

- 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 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical documentation to 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.

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>

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 automatically provides recommended solutions. If your issue is not resolved using the recommended resources, your service request will be 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/>

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:
<http://cisco.com/univercd/cc/td/doc/pcat/>
- *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>