



## About This Guide

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This preface describes the objectives and organization of this document and explains how to find additional information on related products and services.

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## 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

## Objectives

This document contains instructions and procedures for configuring the Firewall Services Module (FWSM) 3.1, a single-width services module supported on the Catalyst 6500 switch and the Cisco 7600 router, using the command-line interface. FWSM protects your network from unauthorized use. This guide does not cover every feature, but describes only the most common configuration scenarios.

You can also configure and monitor the FWSM by using ASDM, a web-based GUI application. ASDM includes configuration wizards to guide you through some common configuration scenarios, and online Help for less common scenarios. For more information, see:

<http://www.cisco.com/univercd/cc/td/doc/product/netsec/secmgmt/asdm/index.htm>.

# Organization

This document contains the following chapters:

| Chapter | Title                                                                                     | Description                                                                                                                                                               |
|---------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | <a href="#">Introduction to the Firewall Services Module</a>                              | Provides a high-level overview of the FWSM.                                                                                                                               |
| 2       | <a href="#">Configuring the Switch for the Firewall Services Module</a>                   | Describes how to configure the switch for use with the FWSM.                                                                                                              |
| 3       | <a href="#">Connecting to the Firewall Services Module and Managing the Configuration</a> | Describes how to access the command-line interface and work with the configuration.                                                                                       |
| 4       | <a href="#">Configuring Security Contexts</a>                                             | Describes how to use security contexts and enable multiple context mode.                                                                                                  |
| 5       | <a href="#">Configuring the Firewall Mode</a>                                             | Describes in detail the two operation modes of the FWSM, routed and transparent mode, and how data is handled differently with each mode.                                 |
| 6       | <a href="#">Configuring Interface Parameters</a>                                          | Describes how to configure the interface name, security level, and IP address. It also describes how to configure bridge groups for transparent firewall mode interfaces. |
| 7       | <a href="#">Configuring Basic Settings</a>                                                | Describes how to configure basic settings that are typically required for a functioning configuration.                                                                    |
| 8       | <a href="#">Configuring IP Routing and DHCP Services</a>                                  | Describes how to configure IP routing and DHCP.                                                                                                                           |
| 9       | <a href="#">Configuring IPv6</a>                                                          | Describes how to enable and configure IPv6.                                                                                                                               |
| 10      | <a href="#">Identifying Traffic with Access Lists</a>                                     | Describes how to identify traffic with access lists.                                                                                                                      |
| 11      | <a href="#">Permitting or Denying Network Access</a>                                      | Describes how to control network access through the FWSM using access lists.                                                                                              |
| 12      | <a href="#">Configuring NAT</a>                                                           | Describes how address translation is performed.                                                                                                                           |
| 13      | <a href="#">Configuring Failover</a>                                                      | Describes the failover feature, which lets you configure two FWSMs so that one will take over operation if the other one fails.                                           |
| 14      | <a href="#">Configuring AAA Servers and the Local Database</a>                            | Describes how to configure AAA servers and the local database.                                                                                                            |
| 15      | <a href="#">Applying AAA for Network Access</a>                                           | Describes how to enable AAA for network access.                                                                                                                           |
| 16      | <a href="#">Applying Filtering Services</a>                                               | Describes ways to filter web traffic to reduce security risks or prevent inappropriate use.                                                                               |
| 17      | <a href="#">Configuring ARP Inspection and Bridging Parameters</a>                        | Describes how to enable ARP inspection and how to customize bridging operations.                                                                                          |
| 18      | <a href="#">Using Modular Policy Framework</a>                                            | Describes how to use the Modular Policy Framework to create security policies for TCP, general connection settings, and inspection.                                       |

| Chapter | Title                                                           | Description                                                                                 |
|---------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 19      | <a href="#">Preventing Network Attacks</a>                      | Describes how to configure protection features to intercept and respond to network attacks. |
| 20      | <a href="#">Applying Application Layer Protocol Inspection</a>  | Describes how to use and configure application inspection.                                  |
| 21      | <a href="#">Configuring Management Access</a>                   | Describes how to access the FWSM for system management through Telnet, SSH, HTTPS, and VPN. |
| 22      | <a href="#">Managing Software, Licenses, and Configurations</a> | Describes how to enter license keys and download software and configurations files.         |
| 23      | <a href="#">Monitoring the Firewall Services Module</a>         | Describes how to monitor the FWSM.                                                          |
| 24      | <a href="#">Troubleshooting the Firewall Services Module</a>    | Describes how to troubleshoot the FWSM.                                                     |
| A       | <a href="#">Specifications</a>                                  | Describes the FWSM specifications.                                                          |
| B       | <a href="#">Sample Configurations</a>                           | Describes a number of common ways to implement the FWSM.                                    |
| C       | <a href="#">Using the Command-Line Interface</a>                | Describes how to use the CLI to configure the FWSM.                                         |
| D       | <a href="#">Addresses, Protocols, and Ports</a>                 | Provides a quick reference for IP addresses, protocols, and applications.                   |
| E       | <a href="#">Open Source License Acknowledgements</a>            | Includes open source license acknowledgements.                                              |
|         | <a href="#">Glossary</a>                                        | Provides a glossary for terms used in this guide.                                           |
|         | <a href="#">Index</a>                                           | Provides an index for this guide.                                                           |

## Document Conventions

The FWSM command syntax descriptions use the following conventions:

Command descriptions use these conventions:

- Braces ( { } ) indicate a required choice.
- Square brackets ( [ ] ) indicate optional elements.
- Vertical bars ( | ) separate alternative, mutually exclusive elements.
- **Boldface** indicates commands and keywords that are entered literally as shown.
- *Italics* indicate arguments for which you supply values.

Examples use these conventions:

- Examples depict screen displays and the command line in *screen* font.
- Information you need to enter in examples is shown in **boldface screen** font.
- Variables for which you must supply a value are shown in *italic screen* font.

- Examples might include output from different platforms; for example, you might not recognize an interface type in an example because it is not available on your platform. Differences should be minor.

**Note**

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

For information on modes, prompts, and syntax, see [Appendix C “Using the Command-Line Interface.”](#)

## Related Documentation

For more information, refer to the following documentation:

- *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 Logging Configuration and System Log Messages*
- *Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module Installation Note*
- *Upgrading the Catalyst 6500 Series Switch and Cisco 7600 Series Router Firewall Services Module to Release 3.1*
- Release Notes for the Catalyst 6500 Series and Cisco 7600 Series Firewall Services Module, Software Release 3.1

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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