



Preface

This preface describes the audience, organization, and conventions of the *Catalyst 4840G Software Feature and Configuration Guide* and provides information on how to obtain related documentation. This preface includes the following topics:

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Audience

This guide has been prepared for users who will configure the Catalyst 4840G Server Load Balancing (SLB) switch. They include:

- System administrators who are responsible for installing and configuring internetworking equipment, are familiar with the fundamentals of router-based internetworking, and are familiar with Cisco software and products
- System administrators who are familiar with the fundamentals of router-based internetworking and who are responsible for installing and configuring internetworking equipment, but who might not be familiar with the specifics of Cisco products or the routing protocols supported by Cisco products
- Customers with technical networking background and experience

Organization

This guide is organized as follows:

Chapter	Title	Description
Chapter 1	Product Overview	Gives an overview of SLB and Layer 3 switching, shows how a Catalyst 4840G SLB switch fits into the network, lists the types of interfaces used in Layer 3 switching, and lists Layer 3 software features.
Chapter 2	Getting Started	Describes Cisco IOS command modes, lists the information you need to have available before you begin configuring your switch, and suggests a process to follow.
Chapter 3	Configuring the Catalyst 4840G Processor	Describes the initial configuration of the switch processor, including passwords, management port, host name, Network Time Protocol (NTP), and redundant CPU operation. This chapter also describes how to use Flash PC cards to accomplish various system administration tasks.
Chapter 4	Configuring Interfaces	Describes configuration for Fast Ethernet and Gigabit Ethernet interfaces. This chapter also describes how to configure VLAN frame encapsulation by using ISL and 802.1Q protocols.
Chapter 5	Server Load Balancing	Describes the SLB feature and its configuration, using virtual servers, real servers, and server farms.
Chapter 6	Firewall Load Balancing	Describes the Firewall Load Balancing (FWLB) feature and its configuration, using firewall farms and multiple firewall farms.
Chapter 7	Configuring SLB Redundancy	Describes how to configure SLB switch redundancy, using Hot Standby Router Protocol (HSRP) and SLB Stateful Backup.
Chapter 8	Configuring Networking Protocols	Describes how to configure networking and routing protocols for Layer 3 switching, using Routing Information Protocol (RIP), Open Shortest Path First (OSPF), Interior Gateway Routing Protocol (IGRP), and Enhanced Interior Gateway Routing Protocol (EIGRP).
Chapter 9	Configuring Bridging	Describes how to configure transparent bridging for Ethernet, and integrated routing and bridging (IRB).
Chapter 10	Configuring EtherChannel	Describes how to create the EtherChannel and assign individual interfaces to it.
Chapter 11	Configuring Network Time Protocol	Describes how to configure the NTP utility to synchronize system clocks over a network.
Appendix A	Command Reference	Lists and describes Cisco IOS commands used for load-balancing configuration and monitoring.

Chapter	Title	Description
Appendix B	Cisco IOS Commands Not Supported in SLB Switching Software	Lists commands not supported in SLB switching.
Appendix C	Using Technical Support	Lists information the Technical Assistance Center (TAC) requires to troubleshoot a problem, and tells you how to contact TAC.

Related Documentation

This software feature and configuration guide explains how to configure the Catalyst 4840G SLB switch. It does not include every feature; instead it describes the tasks most commonly required.

For the latest information about the software, including new features and caveats added since the documentation was printed, refer to the release notes that accompany the software.

For installation information and a description of the Catalyst 4840G SLB switch, refer to the Catalyst 4840G Chassis Installation Guide.

Additional Configuration Documentation

The following guides provide additional information on Cisco IOS software and configuring the Catalyst 4840G SLB switch:

- *Cisco IOS Bridging and IBM Networking Configuration Guide*
- *Cisco IOS Bridging and IBM Networking Command Reference, Volume I and Volume II*
- *Cisco IOS Configuration Fundamentals Command Reference*
- *Cisco IOS Configuration Fundamentals Configuration Guide*
- *Cisco IOS IP and IP Routing Command Reference*
- *Cisco IOS IP and IP Routing Configuration Guide*
- *Cisco Management Information Base (MIB) User Quick Reference*
- *Debug Command Reference*
- *Network Protocols Configuration Guide*
- *Quality of Service Solutions Command Reference*
- *Quality of Service Solutions Configuration Guide*
- *Security Command Reference*
- *Security Configuration Guide*
- *Switching Services Configuration Guide*
- *System Error Messages*
- *Troubleshooting Internetworking Systems*
- *Wide-Area Networking Command Reference*
- *Wide-Area Networking Configuration Guide*

Conventions

This document uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in boldface .
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
[]	Elements in square brackets are optional.
{x y z}	Alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in <code>screen font</code> .
boldface screen font	Information you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
→	This pointer highlights an important line of text in an example.
^	The symbol ^ represents the key labeled Control—for example, the key combination ^D in a screen display means hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

Notes use the following convention:



Note

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

Timesavers use the following convention:



Timesaver

Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Tips use the following convention:



Tips

Means *the following are useful tips*.

Caution notes use the following convention:



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

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered CCO users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

Documentation Feedback

If you are reading Cisco product documentation on the World Wide Web, you can submit technical comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco.

You can e-mail your comments to bug-doc@cisco.com.

To submit your comments by mail, for your convenience many documents contain a response card behind the front cover. Otherwise, you can mail your comments to the following address:

Cisco Systems, Inc.
Document Resource Connection
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

Cisco.com provides a broad range of features and services to help customers and partners streamline business processes and improve productivity. Through Cisco.com, you can find information about Cisco and our networking solutions, services, and programs. In addition, you can resolve technical issues with online technical support, download and test software packages, and order Cisco learning materials and merchandise. Valuable online skill assessment, training, and certification programs are also available.

Customers and partners can self-register on Cisco.com to obtain additional personalized information and services. Registered users can order products, check on the status of an order, access technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following website:

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

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

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

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

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

