



Preface

This preface describes who should read this document, how the document is organized, and what the typographical conventions mean.

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more up to date than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at <http://www.cisco.com>, <http://www-china.cisco.com>, or <http://www-europe.cisco.com>.

Audience

This publication is for experienced network administrators who are responsible for configuring and maintaining Catalyst 4000 family, *Catalyst 2948G*, and *Catalyst 2980G* switches.

Organization

This guide is organized as follows:

Chapter	Title	Description
Chapter 1	Command-Line Interface	Describes the CLI types found on Catalyst 4000 family, <i>Catalyst 2948G</i> , and <i>Catalyst 2980G</i> switches and contains quick reference guides for all switch and ROM monitor commands.
Chapter 2	Catalyst 4000 Family, <i>Catalyst 2948G</i> , and <i>Catalyst 2980G</i> Switch and ROM Monitor Commands	Provides an alphabetical listing of all switch and ROM monitor commands and gives detailed information about each command.
Appendix A	Acronyms	Defines the acronyms used in this publication.

Related Documentation

Other documents in the Catalyst 4000 family, 2948G, and 2980G switch documentation set include:

- *Catalyst 4000 Family Installation Guide*
- *Catalyst 4912G Installation Guide*
- *Catalyst 4500 Series Installation Guide*
- *Quick Software Configuration Guide—Catalyst 5000 Family, 4000 Family, 2926G Series, 2948G, and 2980G Switches*
- *Software Configuration Guide—Catalyst 4000 Family, Catalyst 2948G, and Catalyst 2980G*
- *ATM Software Configuration Guide—Catalyst 5000 Family, Catalyst 4000 Family, Catalyst 2926G Series, Catalyst 2948G, and Catalyst 2980G Switches*
- *System Message Guide—Catalyst 6000 Family, Catalyst 5000 Family, Catalyst 4000 Family, Catalyst 2926G Series, Catalyst 2948G, and Catalyst 2980G Switches*
- *Catalyst 4000 Family Release Notes*
- *Enterprise MIB User Quick Reference* (online only)

Other useful publications:

- Cisco IOS Configuration Guides and Command References—Use these publications to help you configure the Cisco IOS software that runs on the RSM, ATM modules, LightStream 1010 ASP, and Catalyst 8500 series CSR SRP.
- <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat4000/>—This URL has an up-to-date list of online documentation for the Catalyst 4000 series switches.
- *Configuration Fundamentals Command Reference* publication—Use this publication to locate additional information on Cisco IOS commands.

Conventions

Throughout this publication, the conventions listed here used when referring to switch platforms:

Catalyst enterprise LAN switches—Refers to the Catalyst 4000 family, Catalyst 2948G, and Catalyst 2980G switches. Catalyst 4000 family switches—Refers to the Catalyst 4000 Series and Catalyst 4500 Series switches. The Catalyst 4000 Series includes the Catalyst 4003, Catalyst 4006, and Catalyst 4912G switches. The Catalyst 4500 Series includes the Catalyst 4503 and Catalyst 4506 switches.

Command descriptions use the following typeface and character conventions:

Convention	Description
boldface font	Commands, command options, and keywords are in boldface .
<i>italic</i> font	Arguments for which you supply values are in <i>italics</i> .
[]	Optional elements are enclosed in square brackets.
{ x y z }	Alternative keywords are grouped in braces and are separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and are separated by vertical bars.

Convention	Description
string	Nonquoted set of characters. Do not use quotation marks around the string; if you do, the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in screen font.
boldface screen font	Information you enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are shown in <i>italic screen font</i> .
Ctrl	Ctrl represents the Control key on your keyboard. For example, the key combination Ctrl-D in a screen display means that you should hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.

Notes use the following conventions:



Note

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

Cautions use the following conventions:



Caution

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

Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

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

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped 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 through an annual subscription.

Ordering Documentation

You can order Cisco documentation in these ways:

- Registered Cisco.com users (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 Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. In the Cisco Documentation home page, click the **Fax** or **Email** option in the “Leave Feedback” section at the bottom of the page.

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

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

Cisco Systems
Attn: 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 online documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com is a highly integrated Internet application and a powerful, easy-to-use tool that provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages

- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

If you want to obtain customized information and service, you can self-register on Cisco.com. To access Cisco.com, go to this URL:

<http://www.cisco.com>

Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

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

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

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

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

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

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.