



Preface

Audience

The *Catalyst 2900 Series XL and Catalyst 3500 Series XL Software Configuration Guide* is for the network manager responsible for configuring the Catalyst 2900 series XL and Catalyst 3500 series XL switches, hereafter referred to as the switches. Before using this guide, you should be familiar with the concepts and terminology of Ethernet and local area networking.

Purpose



Note

This switch software release is based on Cisco IOS Release 12.0. It has been enhanced to support a set of features for the Catalyst 2900 XL and Catalyst 3500 XL switches. This guide does not repeat the concepts and CLI procedures already documented in the Cisco IOS Release 12.0 documentation on Cisco.com.



Note

This guide describes the features for the Catalyst 2900 XL and Catalyst 3500 XL switches that are *not* Long-Reach Ethernet (LRE) switches. The Cisco IOS Release 12.0(5)WC3 software is for non-LRE switches only. Do not install this release on the Catalyst 2900 LRE XL switches. For configuring the Catalyst 2900 LRE XL switches, refer to Cisco IOS Release 12.0(5)WC2.

This guide provides information about configuring and troubleshooting a switch or switch clusters. It includes descriptions of the management interface options and the features supported by the switch software.

For the following topics, use this guide with other documents:

- **Requirements**—This guide assumes you have met the hardware and software requirements and cluster compatibility requirements that are described in the release notes.
- **Start up information**—This guide assumes you have initially configured the switch by using the setup program, as described in the release notes.
- **Cluster Management Suite (CMS) information**—This guide provides an overview of the CMS web-based, switch management interface. For information about CMS requirements and the procedures for browser and plug-in configuration and accessing CMS, refer to the release notes. For CMS field-level window descriptions and procedures, refer to the CMS online help.

- Cluster configuration—This guide provides information about planning for, creating, and maintaining switch clusters. Because configuring switch clusters is most easily performed through CMS, this guide does not provide the command-line interface (CLI) procedures. For the cluster commands, refer to the *Catalyst 2900 Series XL and Catalyst 3500 Series XL Command Reference*.
- 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 Catalyst 2900 XL or Catalyst 3500 XL switches, refer to the *Catalyst 2900 Series XL and Catalyst 3500 Series XL Command Reference*.

**Note**

This reference manual provides commands and command descriptions that have been created or changed for the Catalyst 2900 XL and Catalyst 3500 XL switches. It does not repeat the commands and command descriptions already documented in the Cisco IOS Release 12.0 documentation on Cisco.com.

Organization

The organization of this guide is as follows:

[Chapter 1, “Overview,”](#) lists the software features of this release and provides examples of how the switch can be deployed in a network.

[Chapter 2, “Getting Started with CMS,”](#) describes the Cluster Management Suite (CMS) web-based, switch management interface. Refer to the release notes for the procedures for configuring your web browser and accessing CMS. Refer to the online help for field-level descriptions of all CMS windows and procedures for using the CMS windows.

[Chapter 3, “Getting Started with the CLI,”](#) describes the basics for using the Cisco IOS CLI.

[Chapter 4, “General Switch Administration,”](#) includes the switch-configuration default settings and information about software releases, accessing the management interfaces, and using Simple Network Management Protocol (SNMP).

[Chapter 5, “Clustering Switches,”](#) describes switch clusters and the considerations for creating and maintaining them. The online help provides the CMS procedures for configuring switch clusters. Cluster commands are described in the *Catalyst 2900 Series XL and Catalyst 3500 Series XL Command Reference*.

[Chapter 6, “Configuring the System,”](#) provides the considerations and CLI procedures for configuring switch-wide settings. The online help provides the CMS procedures for configuring switch-wide settings.

[Chapter 7, “Configuring the Switch Ports,”](#) provides the considerations and CLI procedures for configuring the switch ports. The online help provides the CMS procedures for configuring the switch ports.

[Chapter 8, “Configuring VLANs,”](#) provides the considerations and CLI procedures for configuring VLANs. The online help provides the CMS procedures for configuring VLANs.

[Chapter 9, “Troubleshooting,”](#) provides information about avoiding and resolving problems that might arise when you configure and maintain the switch.

[Appendix A, “System Messages,”](#) lists the IOS system error messages for the switch.

Conventions

This guide 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 ([]) indicate optional elements.
- Braces ({ }) group required choices, and vertical bars (|) separate the alternative elements.
- Braces and vertical bars within square brackets ([{ | }]) indicate 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 tips use these conventions and symbols:



Note

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



Caution

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



Tip

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.

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/c2900xl/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 “[Ordering Documentation](#)” section on page xvii.

- *Release Notes for the Catalyst 2900 Series XL and Catalyst 3500 Series XL Switches* (not orderable but is 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, refer to the release notes on Cisco.com for the latest information.

- *Catalyst 2900 Series XL and Catalyst 3500 Series XL Software Configuration Guide* (order number DOC-786511=)
- *Catalyst 2900 Series XL and Catalyst 3500 Series XL Command Reference* (order number DOC-7812155=)
- Cluster Management Suite (CMS) online help (available only from the switch CMS software)
- *Catalyst 2900 Series XL Hardware Installation Guide* (order number DOC-786461=)
- *Catalyst 3500 Series XL Hardware Installation Guide* (order number DOC-786456=)
- *Catalyst 2900 Series XL Modules Installation Guide* (order number DOC-CAT2900-IG=)
- *Catalyst 2900 Series XL ATM Modules Installation and Configuration Guide* (order number DOC-785472=)
- *1000BASE-T Gigabit Interface Converter Installation Note* (not orderable but is available on Cisco.com)
- *Catalyst GigaStack Gigabit Interface Converter Hardware Installation Guide* (order number DOC-786460=)

Obtaining Documentation

These 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 these sites:

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

Cisco Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Cisco 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.

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- Printed copies of Cisco product documentation are available from the Networking Products MarketPlace at this URL:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Part numbers for spare documentation are available from your local account representative or by selecting the documentation product family after choosing a Price List at:
http://www.cisco.com/cgi-bin/order/pricing_root.pl?service=ViewByFamily1
- The Documentation CD (product number DOC-CONDOCCD=) is available from the Networking Products MarketPlace at this URL:
http://www.cisco.com/cgi-bin/order/order_root.pl

Non-Registered Cisco.com Users

- If you are not a registered Cisco.com user, you can order printed copies of Cisco product documentation through a local account representative by calling Cisco Worldwide Sales at 800 553-NETS(6387).

Documentation Feedback

If you are reading Cisco product documentation on the World Wide Web, you can send us your comments by completing the online survey. When you display the document listing for this platform, click **Give Us Your Feedback**. If you are using the product-specific CD and you are connected to the Internet, click the pencil-and-paper icon in the toolbar to display the survey. After you display the survey, select the manual that you wish to comment on. Click **Submit** to send your comments to the Cisco documentation group.

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 this 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 this 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 this 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 this 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 this 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.

