Preface

This preface describes who should read this document, how it is organized, and its conventions. The book also tells you how to obtain Cisco documents as well as how to obtain technical assistance.

Audience

This guide is for experienced network administrators who are responsible for configuring and maintaining Catalyst 4500 series switches.

Organization

This guide is organized into the following chapters:

Chapter	Title	Description
Chapter 1	Product Overview	Presents an overview of the Cisco IOS software for the Catalyst 4500 series switches
Chapter 2	Command-Line Interfaces	Describes how to use the CLI
Chapter 3	Configuring the Switch for the First Time	Describes how to perform a baseline configuration of the switch
Chapter 4	Configuring Interfaces	Describes how to configure non-layer-specific features on Fast Ethernet and Gigabit Ethernet interfaces
Chapter 5	Checking Port Status and Connectivity	Describes how to check module and interface status
Chapter 6	Configuring Supervisor Engine Redundancy on the Catalyst 4507R and 4510R Switches	Describes how to configure RPR on the Catalyst 4507R and Catalyst 4510R switches.
Chapter 7	Understanding and Configuring VLANs	Describes how to set up and modify VLANs
Chapter 8	Configuring Dynamic VLAN Membership	Describes how to configure dynamic VLAN membership

Chapter	Title	Description
Chapter 9	Configuring Layer 2 Ethernet Interfaces	Describes how to configure interfaces to support Layer 2 features, including VLAN trunks
Chapter 10	Configuring SmartPort Macros	Describes how to configure SmartPort macros
Chapter 11	Understanding and Configuring STP	Describes how to configure the Spanning Tree Protocol (STP) and explains how spanning tree works
Chapter 12	Configuring STP Features	Describes how to configure the spanning-tree PortFast, UplinkFast, BackboneFast, and other STP features
Chapter 13	Understanding and Configuring Multiple Spanning Trees	Describes how to configure the Multiple Spanning Tree (MST) protocol and explains how it works
Chapter 14	Understanding and Configuring EtherChannel	Describes how to configure Layer 2 and Layer 3 EtherChannel port bundles
Chapter 15	Configuring IGMP Snooping and Filtering	Describes how to configure Internet Group Management Protocol (IGMP) snooping
Chapter 16	Configuring 802.1Q and Layer 2 Protocol Tunneling	Describes how to configure 802.1Q and Layer 2 protocol Tunneling
Chapter 17	Understanding and Configuring CDP	Describes how to configure the Cisco Discovery Protocol (CDP)
Chapter 18	Configuring UDLD	Describes how to configure the UniDirectional Link Detection (UDLD) protocol
Chapter 19	Configuring Unidirectional Ethernet	Describes how to configure unidirectional Ethernet
Chapter 20	Configuring Layer 3 Interfaces	Describes how to configure interfaces to support Layer 3 features
Chapter 21	Configuring Cisco Express Forwarding	Describes how to configure Cisco Express Forwarding (CEF) for IP unicast traffic
Chapter 22	Understanding and Configuring IP Multicast	Describes how to configure IP Multicast Multilayer Switching (MMLS)
Chapter 23	Configuring Policy-Based Routing	Describes how to configure policy-based routing
Chapter 24	Understanding and Configuring VTP	Describes how to configure the VLAN Trunking Protocol
Chapter 25	Configuring VRF-lite	Describes how to configure multiple VPN routing/forwarding (multi-VRF) instances in customer edge (CE) devices
Chapter 26	Configuring QoS	Describes how to configure quality of service (QoS)
Chapter 27	Configuring Voice Interfaces	Describes how to configure multi-VLAN access ports for use with Cisco IP phones
Chapter 28	Understanding and Configuring 802.1X Port-Based Authentication	Describes how to configure 802.1x port-based authentication
Chapter 29	Configuring Port Security	Describes how to configure the port security feature

Chapter	Title	Description
Chapter 30	Configuring DHCP Snooping and IP Source Guard	Describes how to configure DHCP snooping and display DHCP snooping information
Chapter 31	Understanding and Configuring Dynamic ARP Inspection	Describes how to configure Dynamic ARP Inspection
Chapter 32	Configuring Network Security with ACLs	Describes how to configure ACLS, VACLs, and MACLs
Chapter 33	Configuring Private VLANs	Describes how to set up and modify private VLANs
Chapter 34	Port Unicast and Multicast Flood Blocking	Describes how to configure unicast flood blocking on the Catalyst 4000 family switches
Chapter 35	Configuring Port-Based Traffic Control	Describes how to configure storm control suppression on the Catalyst 4500 series switches
Chapter 36	Environmental Monitoring and Power Management	Describes how to configure environmental monitoring, power redundancy, and inline power features
Chapter 37	Configuring SPAN and RSPAN	Describes how to configure the Switched Port Analyzer (SPAN)
Chapter 38	Configuring NetFlow Statistics Collection	Describes how to configure NetFlow statistics gathering
Appendix A	Acronyms	Defines acronyms used in this book

Related Documentation

The following publications are available for the Catalyst 4000 family and Catalyst 4500 series switches:

- *Catalyst 4000 Series Switch Cisco IOS Installation Guide*
- *Catalyst 4500 Series Switch Cisco IOS Installation Guide*
- *Catalyst 4500 Series Switch Cisco IOS Module Installation Guide*
- *Catalyst 4500 Series Switch Cisco IOS Command Reference*
- *Catalyst 4500 Series Switch Cisco IOS System Message Guide*
- Release Notes for the Catalyst 4500 Series
- Cisco IOS configuration guides and command references—Use these publications to help you configure Cisco IOS software features not described in the preceding publications:
  - *Configuration Fundamentals Configuration Guide*
  - *Configuration Fundamentals Command Reference*
  - *Interface Configuration Guide*
  - *Interface Command Reference*
  - *Network Protocols Configuration Guide*, Part 1, 2, and 3
  - *Network Protocols Command Reference*, Part 1, 2, and 3
  - *Security Configuration Guide*
  - *Security Command Reference*

- *Switching Services Configuration Guide*

- *Switching Services Command Reference*

- *Voice, Video, and Fax Applications Configuration Guide*

- *Voice, Video, and Fax Applications Command Reference*

- *Cisco IOS IP Configuration Guide*

- *Cisco IOS IP Command Reference*

Conventions

This document uses the following typographical conventions:

Convention	Description
boldface font	Commands, command options, and keywords are in **boldface**.
italic font	Command arguments for which you supply values are in *italics*.
[ ]	Command elements in square brackets are optional.
{ x | y | z }	Alternative keywords in command lines 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 because the string will include the quotation marks.
`screen` font	System displays are in `screen` font.
`boldface screen` font	Information you must enter verbatim is in `boldface screen` font.
`italic screen` font	Arguments for which you supply values are in *`italic screen`* font.
⟶	This pointer highlights an important line of text in an example.
^	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.

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.

Commands in Task Tables

Commands listed in task tables show only the relevant information for completing the task and not all available options for the command. For a complete description of a command, refer to the command in the *Catalyst 4500 Series Switch Cisco IOS Command Reference*.

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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