



Preface

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This preface describes who should read the *Catalyst 6500 Series Switch Software Configuration Guide*, how it is organized, and its document conventions.

Audience

This publication is for experienced network administrators who are responsible for configuring and maintaining Catalyst 6500 series switches.

Organization



Note

This publication includes the information that previously was in the *Catalyst 6000 Family Multilayer Switch Feature Card (12.x) and Policy Feature Card Configuration Guide*.

This publication is organized as follows:

Chapter	Title	Description
Chapter 1	Product Overview	Presents an overview of the Catalyst 6500 series switches.
Chapter 2	Command-Line Interfaces	Describes how to use the command-line interface (CLI).
Chapter 3	Configuring the Switch IP Address and Default Gateway	Describes how to perform a baseline configuration of the switch.
Chapter 4	Configuring Ethernet, Fast Ethernet, Gigabit Ethernet, and 10-Gigabit Ethernet Switching	Describes how to configure Ethernet, Fast Ethernet, and Gigabit Ethernet switching.
Chapter 5	Configuring Ethernet VLAN Trunks	Describes how to configure Inter-Switch Link (ISL) and IEEE 802.1Q VLAN trunks on Fast Ethernet and Gigabit Ethernet ports.
Chapter 6	Configuring EtherChannel	Describes how to configure Fast EtherChannel and Gigabit EtherChannel port bundles.

Chapter	Title	Description
Chapter 8	Configuring IEEE 802.1Q Tunneling and Layer 2 Protocol Tunneling	Describes how to configure 802.1Q tunneling.
Chapter 7	Configuring Spanning Tree	Describes how to configure the Spanning Tree Protocol and explains how spanning tree works.
Chapter 9	Configuring Spanning-Tree PortFast, UplinkFast, BackboneFast, and Loop Guard	Describes how to configure the spanning tree PortFast, UplinkFast, and BackboneFast features.
Chapter 10	Configuring VTP	Describes how to configure VLAN Trunking Protocol (VTP) on the switch.
Chapter 11	Configuring VLANs	Describes how to configure VLANs on the switch.
Chapter 12	Configuring InterVLAN Routing	Describes how to configure interVLAN routing on the MSFC.
Chapter 13	Configuring CEF for PFC2 and PFC3A	Describes how to configure Cisco Express Forwarding for Policy Feature Card 2 (CEF for PFC2).
Chapter 14	Configuring MLS	Describes how to configure Multilayer Switching (MLS).
Chapter 16	Configuring NDE	Describes how to configure NetFlow Data Export (NDE).
Chapter 15	Configuring Access Control	Describes how to configure access control lists (ACLs).
Chapter 17	Configuring GVRP	Describes how to configure GARP VLAN Registration Protocol (GVRP) on the switch.
Chapter 18	Configuring MVRP	Describes how to configure Multiple VLAN Registration Protocol (MVRP) on the switch.
Chapter 19	Configuring Dynamic Port VLAN Membership with VMPS	Describes how to configure dynamic port VLAN membership on the switch using the VLAN Management Policy Server (VMPS).
Chapter 20	Checking Status and Connectivity	Describes how to display information about modules and switch ports and how to check connectivity using ping, Telnet, and IP traceroute.
Chapter 21	Configuring GOLD	Describes how to configure the online diagnostics.
Chapter 22	Administering the Switch	Describes how to set the system name, create a login banner, and perform other administrative tasks on the switch.
Chapter 23	Configuring Redundancy	Describes how to install and configure redundant supervisor engines and MSFCs in the Catalyst 6500 series switches.
Chapter 24	Configuring NSF with SSO MSFC Redundancy	Describes how to configure MSFC redundancy using Cisco nonstop forwarding (NSF) with stateful switchover (SSO).
Chapter 25	Modifying the Switch Boot Configuration	Describes how to modify the switch boot configuration, including the BOOT environment variable and the configuration register.
Chapter 26	Working With the Flash File System	Describes how to work with the Flash file system.
Chapter 27	Working with System Software Images	Describes how to download and upload system software images.
Chapter 28	Working with Configuration Files	Describes how to create, download, and upload switch configuration files.
Chapter 29	Configuring System Message Logging	Describes how to configure system message logging (syslog).
Chapter 30	Configuring DNS	Describes how to configure Domain Name System (DNS).
Chapter 31	Configuring CDP	Describes how to configure Cisco Discovery Protocol (CDP).

Chapter	Title	Description
Chapter 32	Configuring UDLD	Describes how to configure the UniDirectional Link Detection (UDLD) protocol.
Chapter 33	Configuring DHCP Snooping and IP Source Guard	Describes how to configure DHCP snooping and IP source guard.
Chapter 34	Configuring NTP	Describes how to configure Network Time Protocol (NTP).
Chapter 35	Configuring Broadcast Suppression	Describes how to configure hardware and software broadcast suppression.
Chapter 36	Configuring Layer 3 Protocol Filtering	Describes how to configure protocol filtering on Ethernet, Fast Ethernet, and Gigabit Ethernet ports.
Chapter 37	Configuring the IP Permit List	Describes how to configure the IP permit list.
Chapter 38	Configuring Port Security	Describes how to configure secure port filtering.
Chapter 39	Configuring the Switch Access Using AAA	Describes how to configure authentication, authorization, and accounting (AAA) to monitor and control access to the CLI.
Chapter 40	Configuring 802.1X Authentication	Describes how to configure 802.1X authentication.
Chapter 41	Configuring MAC Authentication Bypass	Describes how to configure MAC authentication bypass.
Chapter 42	Configuring Web-Based Proxy Authentication	Describes how to configure web-based proxy authentication.
Chapter 43	Tracking Host Aging	Describes how to configure IP device tracking.
Chapter 44	Configuring Network Admission Control	Describes how to configure Network Admission Control (NAC).
Chapter 45	Configuring Unicast Flood Blocking	Describes how to configure unicast flood blocking.
Chapter 46	Configuring SNMP	Describes how to configure SNMP.
Chapter 47	Configuring RMON	Describes how to configure Remote Monitoring (RMON).
Chapter 48	Configuring SPAN, RSPAN and the Mini Protocol Analyzer	Describes how to configure the Switch Port Analyzer (SPAN) and Remote SPAN (RSPAN).
Chapter 49	Using Switch TopN Reports	Describes how to generate switch TopN reports.
Chapter 50	Configuring Multicast Services	Describes how to configure Internet Group Management Protocol (IGMP) snooping, GARP Multicast Registration Protocol (GMRP), and Router Group Management Protocol (RGMP).
Chapter 51	Configuring QoS	Describes how to configure Quality of Service (QoS).
Chapter 52	Using Automatic QoS	Describes how to use the automatic QoS configuration features.
Chapter 53	Configuring ASLB	Describes how to configure accelerated server load balancing (ASLB).
Chapter 54	Configuring the Switch Fabric Modules	Describes how to configure the Switch Fabric Modules.
Chapter 55	Configuring a VoIP Network	Describes how to configure a Voice-over-IP (VoIP) network.
Appendix A	Acronyms	Lists the acronyms used in this publication.

Related Documentation

The following publications are available for the Catalyst 6500 series switches:

- *Catalyst 6500 Series Switch Module Installation Guide*
- *Catalyst 6500 Series Switch Installation Guide*
- *Catalyst 6500 Series Switch Command Reference*
- *ATM Software Configuration and Command Reference—Catalyst 5000 Family and Catalyst 6000 Family Switches*
- *Catalyst 6500 Series Switch System Message Guide*
- *Release Notes for Catalyst 6500 Series Switch Software Release 7.x*
- Cisco IOS Configuration Guides and Command References—Use these publications to help you configure the Cisco IOS software that runs on the MSFC, MSM, and ATM modules.
- For information about MIBs, refer to this URL:
<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

Conventions



Note

Throughout this publication, except where specifically differentiated, the term *supervisor engine* is used to refer to Supervisor Engine 1, Supervisor Engine 2, and Supervisor Engine 720. The term *MSFC* is used to refer to the MSFC, MSFC2, and MSFC3 except where specifically differentiated.

This publication uses the following conventions:

Convention	Description
boldface font	Commands, command options, 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.

Convention	Description
^	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.

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 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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