Preface

This software configuration guide provides instructions for using the Cisco command-line interface (CLI) to configure features of the following Cisco 800 series routers:

- Cisco 850 Series Routers
  - Cisco 851 Ethernet Access Router
  - Cisco 857 DSL Access Router
- Cisco 870 Series Routers
  - Cisco 871 Ethernet Access Router
  - Cisco 876, Cisco 877, and Cisco 878 DSL Access Routers

This preface describes the intended audience, the organization of this guide, and the text and command conventions used throughout the guide. The preface includes the following topics:

- Audience
- Organization
- Conventions
- Related Documents
- Obtaining Documentation and Submitting a Service Request

Audience

This guide is intended for network administrators whose backgrounds vary from having no or little experience in configuring routers to having a high level of experience. You can use this guide in the following situations:

- You have configured the software by using the Cisco Router Web Setup tool, and you want to configure additional advanced software features by using the command-line interface (CLI).
- You want to configure the software using only the CLI.

Note We strongly recommend that network administrators with minimal familiarity with Cisco routers use the Cisco Router and Security Device Manager (SDM)—a web-based configuration tool that allows you to configure LAN and WAN interfaces, routing, Network Address Translation (NAT), firewalls, VPNs, and other features on your router. To obtain the SDM release notes and other SDM documentation, go to http://www.cisco.com/go/sdm and click the **Technical Documentation** link.

See the "Organization" section of this preface to help you decide which chapters contain the information you need to configure your router.

Organization

This guide contains the following information:

Part 1: Getting Started

- Chapter 1, "Basic Router Configuration"—Describes how to configure basic router features and interfaces.

Part 2: Configuring Your Router for Ethernet and DSL Access

- Chapter 2, "Sample Network Deployments"—Provides a road map for Part 2.
- Chapter 3, "Configuring PPP over Ethernet with NAT"—Provides instructions on how to configure PPPoE with Network Address Translation (NAT) on your Cisco router.
- Chapter 4, "Configuring PPP over ATM with NAT"—Provides instructions on how to configure PPPoA with Network Address Translation (NAT) on your Cisco router.
- Chapter 5, "Configuring a LAN with DHCP and VLANs"—Provides instructions on how to configure your Cisco router with multiple VLANs and to have it act as a DHCP server.
- Chapter 6, "Configuring a VPN Using Easy VPN and an IPSec Tunnel"—Provides instructions on how to configure a virtual private network (VPN) with a secure IP tunnel using the Cisco Easy VPN.
- Chapter 7, "Configuring VPNs Using an IPSec Tunnel and Generic Routing Encapsulation"—Provides instructions on how to configure a VPN with a secure IP tunnel and generic routing encapsulation (GRE).
- Chapter 8, "Configuring a Simple Firewall"—Provides instructions on how to configure a basic firewall on your Cisco router.
- Chapter 9, "Configuring a Wireless LAN Connection"—Provides instructions on how to configure a wireless LAN connection on your Cisco router.
- Chapter 10, "Sample Configuration"—Presents a summary configuration example showing features configured in the preceding chapters of this part of the guide.

Part 3: Configuring Additional Features and Troubleshooting

- Chapter 11, "Additional Configuration Options"—Provides a road map for Part 3.
- Chapter 12, "Configuring Security Features"—Explains basic configuration of Cisco IOS security features, including firewall and VPN configuration.
- Chapter 13, "Configuring Dial Backup and Remote Management"—Provides instructions on how to configure your Cisco router for dial backup and remote management.
- Chapter 14, "Troubleshooting"—Provides information on identifying and solving problems with the ADSL line and the telephone interface. Also explains how to recover a lost software password.

Part 4: Reference Information

- Appendix A, "Cisco IOS Software Basic Skills"—Explains what you need to know about Cisco IOS software before you begin to configure it.
- Appendix B, "Concepts"—Provides general concept explanations of features.
- Appendix C, "ROM Monitor"—Describes the use of the ROM Monitor (ROMMON) utility.

- Appendix D, "Common Port Assignments"—Describes the currently assigned Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) port numbers.
- Index

Conventions

This guide uses the conventions described in the following sections for instructions and information.

Notes, Cautions, and Timesavers

Notes, cautions and time-saving tips use the following conventions and symbols:

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

Caution This caution symbol means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Timesaver This symbol means *the described action saves time*.

Command Conventions

Table 1 describes the command syntax used in this guide.

Table 1 Command Syntax Conventions

Convention	Description
boldface	Commands and keywords.
italic	Command input that is supplied by you.
[ ]	Optional keywords and default responses to system prompts appear within square brackets.
{**x** | **x** | **x**}	A choice of keywords (represented by **x**) appears in braces separated by vertical bars. You must select one.
^ or Ctrl	Represents the key labeled *Control*. For example, when you read ^*D* or *Ctrl-D*, you should hold down the Control key while you press the D key.
`screen font`	Examples of information displayed on the screen.
`boldface screen font`	Examples of information that you must enter.

Related Documents

The following publications provide related information on these routers:

- *Cisco 850 Series and Cisco 870 Series Access Routers Cabling and Setup Quick Start Guide*
- *Cisco 850 Series and Cisco 870 Series Access Routers Hardware Installation Guide*
- *Cisco Router and Security Device Manager (SDM) Quick Start Guide*
- *Cisco Access Router Wireless Configuration Guide*
- *Upgrading Memory in Cisco 800 Series Routers*
- *Regulatory Compliance and Safety Information for Cisco 800 Series and SOHO Series Routers*
- *Declarations of Conformity and Regulatory Information for Cisco Access Products with 802.11a/b/g and 802.11b/g Radios*

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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