About This Guide

This section discusses the objectives, audience, organization, and conventions of the *Cisco 4000 Series Installation Guide* publication. Use this publication to install and maintain the Cisco 4000-M, Cisco 4500-M, and the Cisco 4700-M.

Cisco documentation and additional literature are available on a CD-ROM called Cisco Connection Documentation, Enterprise Series. The CD is updated and shipped monthly, so it might be more current than printed documentation. To order the Cisco Connection Documentation, Enterprise Series CD, contact your local sales representative or call Customer Service. The CD is available both as a single CD and as an annual subscription. You can also access Cisco technical documentation on the World Wide Web URL http://www.cisco.com.

Documentation for older modules in the Cisco 4000 series can also be found on the Cisco Documentation CD.

Document Objectives

This publication contains the initial site preparation, installation, troubleshooting, and selected upgrade and maintenance procedures.

Audience

This publication is for the router installer, who should be familiar with electronic circuitry and wiring practices and have experience as an electronic or electromechanical technician.

For software configuration information, refer to the appropriate software publication. (See the section "If You Need More Information" in the chapter "Configuring Cisco 4000 Series Software.")

Document Organization

The major sections of this user guide are as follows:

- Chapter 1, "Overview of the Cisco 4000 Series Routers," contains an overview of the Cisco 4000 series features and physical specifications.

- Chapter 2, "Preparing to Install Cisco 4000 Series Routers," includes safety recommendations, site requirements, the Installation Checklist and Site Log, tools and equipment, and instructions for inspecting the new system.

- Chapter 3, "Configuring the Cisco 4000 Series Chassis," describes how to access the internal components of the router, replace network processor modules, and install the component tray.

- Chapter 4, "Making External Connections to Cisco 4000 Series Routers," describes slot numbering and unit numbering, console and auxiliary port connections, and each kind of network connection: Ethernet, Token Ring, serial, G.703/G.704, Fiber Distributed Data Interface (FDDI), Basic Rate Interface (BRI), channelized T1/Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI), channelized E1/ISDN PRI, and Asynchronous Transfer Mode (ATM).

- Chapter 5, "Configuring Cisco 4000 Series Software," includes instructions for booting the router for the first time, using the enable secret and enable password, configuring the router, configuring interfaces, checking the router configuration, and saving the router configuration.

- Appendix A, "Troubleshooting the Initial Hardware Configuration," discusses recovering a lost enable password, troubleshooting, environmental reporting features, and problem solving using the LEDs.

- Appendix B, "Cabling Specifications for Cisco 4000 Series Routers," provides cable illustrations and pinouts for the console and auxiliary ports, and synchronous serial, Ethernet, Token Ring, BRI, channelized T1 and channelized E1 cables.

- Appendix C, "Replacing Memory in Cisco 4000 Series Routers," provides instructions for replacing single in-line memory modules (SIMMs) and boot ROM chips.

- Appendix D, "Cisco 4000 Series Virtual Configuration Register," describes the Cisco 4000-M virtual configuration register and procedures for changing the factory-default settings.

- Appendix E, "Cisco 4000-M ROM Monitor," describes the Cisco 4000-M ROM monitor and to run the ROM monitor diagnostics.

- Appendix F, "Cisco 4500-M and Cisco 4700-M ROM Monitor," describes how to enable the ROM monitor program and its commands and conventions.

- Appendix G, "Translated Safety Warnings," contains translations of the safety warnings that appear in this user guide.

Document Conventions

This manual uses the following conventions to convey instructions and information:

Command descriptions use these conventions:

- Commands and keywords are in **boldface** font.

- Variables for which you supply values are in *italic font*.

- Elements in square brackets ([ ]) are optional.

- Alternative but required keywords are grouped in braces ({ }) and are separated by a vertical bar (|).

Samples use these conventions:

- Terminal sessions are printed in `screen` font.

- Information you enter is in `**boldface screen**` font.

- Nonprinting characters are shown in angle brackets (< >).

- Information the system displays is in `screen` font, with default responses in square brackets ([ ]).

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

Timesaver   Means *the described actions saves time*. You can save time by performing the action described in the paragraph.

Caution   *Means reader be careful*. You are capable of doing something that might result in equipment damage or loss of data.

Warning   *Means danger.* You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and standard practices for preventing accidents. (To see translated versions of this warning, refer to the appendix "Translated Safety Warnings.")