



Introduction

The book consists of the following chapters:

- Using Debug Commands—Explains how you use **debug** commands to diagnose and resolve internetworking problems.
- Conditionally Triggered Debugging—Describes how to obtain debugging messages for packets entering or leaving a router on a specified interface.
- Debug Commands—Provides detailed descriptions of the **debug** commands and how to use them.
- X.25 Cause and Diagnostic Codes—Describes the X.25 causes and diagnostic codes that appear in certain debug command output.
- ISDN Switch Types, Codes, and Values—Contains a list of the supported switch types, the ISDN cause codes, cause values, bearer capability values, and progress description field values that are valid within the debug commands for ISDN.

Output formats vary with each **debug** command. Some commands generate a single line of output per packet, whereas others generate multiple lines of output per packet. Some generate large amounts of output; others generate only occasional output. Some generate lines of text, and others generate information in field format. Therefore, the way **debug** command output is documented also varies. For example, the output for **debug** commands that generate lines of text is usually described line by line, and the output for **debug** commands that generate information in field format is usually described in tables.

By default, the network server sends the output from the **debug** commands to the console. Sending output to a terminal (virtual console) produces less overhead than sending it to the console. Use the **terminal monitor** privileged EXEC command to send output to a terminal. For more information about redirecting output, see the “Using Debug Commands” chapter.

