Preface

This preface describes the audience, organization, and conventions for the *ATM Switch Router Software Configuration Guide*, and provides information on how to obtain related documentation.

Audience

This publication is intended for experienced network administrators who are responsible for configuring and maintaining the ATM switch router.

New and Changed Information

Feature	Description	Chapter or Section
Online Diagnostics	This features provides online and insertion diagnostics that detect and report hardware failures in the Catalyst 8540 MSR during system bootup and operation.	"Configuring Online Diagnostics (Catalyst 8540 MSR)" section on page 3-19

Organization

The major sections of this guide are as follows:

Chapter	Title	Description
Chapter 1	Product Overview	Provides an overview of the ATM switch router features and functions.
Chapter 2	Understanding the User Interface	Describes how to access the commands available in each command mode and explains the primary uses for each command mode.
Chapter 3	Initially Configuring the ATM Switch Router	Describes the initial configuration of the ATM switch router.
Chapter 4	Configuring System Management Functions	Describes the tasks to manage the general system features, such as access control and basic management of the ATM switch router.
Chapter 5	Configuring ATM Network Interfaces	Describes how to configure typical ATM network interfaces after autoconfiguration has established the default network connections.
Chapter 6	Configuring Virtual Connections	Describes how to configure virtual connections after autoconfiguration has determined the default virtual connections.
Chapter 7	Configuring Operation, Administration, and Maintenance	Describes the OAM fault management and performance management functions of the ATM switch router.
Chapter 8	Configuring Resource Management	Describes how to configure the management of switch, interface, and connection resources.
Chapter 9	Configuring ILMI	Describes the Integrated Local Management Interface (ILMI) protocol implementation and configuration.
Chapter 10	Configuring ATM Routing and PNNI	Describes how to configure the Interim Interswitch Signaling Protocol (IISP) and the Private Network-Network Interface (PNNI) protocol.
Chapter 11	Using Access Control	Describes how to configure and maintain access control lists.
Chapter 12	Configuring IP over ATM	Describes how to configure the Ethernet port for IP over ATM connections.
Chapter 13	Configuring LAN Emulation	Describes how to configure LAN emulation on the ATM switch router.
Chapter 14	Configuring ATM Accounting and ATM RMON	Describes the ATM accounting and ATM Remote Monitoring features and their configuration.
Chapter 15	Configuring Tag Switching	Describes how to configure tag switching on the ATM switch router.
Chapter 16	Configuring Signalling Features	Describes how to configure common and specialized signalling features.

Chapter	Title	Description
Chapter 17	Configuring Interfaces	Describes the steps required to configure the individual port adapter and interface module.
Chapter 18	Configuring Circuit Emulation Services	Describes the steps to configure the Circuit Emulation Services port adapter modules.
Chapter 19	Configuring Frame Relay to ATM Interworking Port Adapter Interfaces	Describes the steps to configure the Frame Relay to ATM interworking port adapter modules.
Chapter 20	Configuring IMA Port Adapter Interfaces	Describes the steps to configure inverse multiplexing over ATM port adapter interfaces.
Chapter 21	Configuring ATM Router Module Interfaces	Describes the steps to integrate Layer 3 routing and ATM switching with the ATM router module.
Chapter 22	Managing Configuration Files, System Images, and Functional Images	Includes procedures for updating and maintaining the ATM switch router software and configurations.
Appendix A	PNNI Migration Examples	Provides examples for migrating from a flat PNNI topology to a hierarchical topology.
Appendix B	Acronyms	Lists the acronyms used in this guide.

Related Documentation

This document provides detailed ATM software configuration examples; however, it does not provide complete ATM software command syntax descriptions or extensive background information on ATM features. For detailed ATM software command syntax information, refer to the *ATM Switch Router Command Reference* publication. For detailed background information on ATM features and functionality, refer to the *Guide to ATM Technology*.

You will also find useful information on the command-line interface (CLI) and basic ATM switch router management in the *Configuration Fundamentals Configuration Guide* and *Configuration Fundamentals Command Reference* publications.

The ATM switch router documentation set is primarily ATM-specific. You might be referred to the Cisco IOS documentation set for information about IP and router configuration and other non-ATM related features. For example, when configuring the IP address on the ATM switch processor, only basic configuration steps are provided. If you need additional overview or detailed IP configuration information, refer to the Cisco IOS documentation set.

The ATM switch router documents are separated into two groups:

- Basic documents are provided in the accessory kit with the hardware and are all the documentation you need for initial installation and configuration information.

- Advanced configuration documents are not provided in the accessory kit unless specifically ordered. They are available on Cisco Connection Online and the Documentation CD-ROM and offer configuration information for more advanced applications of the ATM switch router.

The *ATM Switch Router Software Configuration Guide* is one of the advanced configuration documents and should only be used after you have completed the processes described in the basic document set. Refer to the following documents for detailed hardware installation, basic configuration information, and troubleshooting information:

- *Site Preparation and Safety Guide*
- *Quick Reference Catalyst 8540 CSR and MSR Hardware Information* (poster)
- *Quick Reference Catalyst 8510 and LightStream 1010 Hardware Information* (poster)
- *ATM Port Adapter and Interface Module Installation Guide*
- *Catalyst 8540 CSR Route Processor and Interface Module Installation Guide*
- *Catalyst 8510 CSR Route Processor and Interface Module Installation Guide*
- *ATM Switch Router Quick Software Configuration Guide*
- *Layer 3 Switching Software Feature and Configuration Guide*
- *ATM Switch Router Command Reference*
- *Guide to ATM Technology*
- *ATM Switch Router Troubleshooting Guide*

Note The carrier modules are documented in the *ATM Port Adapter and Interface Module Installation Guide*.

Document Conventions

Unless otherwise noted, all information in this document is relevant to the Catalyst 8540 MSR, Catalyst 8510 MSR and LightStream 1010 ATM switch routers. Platform specific sections have the platform name appended to the title in parentheses. For example, the "Configuring Redundancy and Enhanced High System Availability (Catalyst 8540 MSR)" section on page 3-23 is only relevant to the Catalyst 8540 MSR ATM switch router.

This document uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in **boldface**.
italic font	Arguments for which you supply values are in *italics*.
[ ]	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 screen font.

Convention	Description
boldface screen font	Information you must enter 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.`
^	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.

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