



About this Manual



Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This section explains the objectives, intended audience, and organization of this publication and describes the conventions that convey instructions and other information.

This section provides the following information:

- [Document Objectives](#)
- [Audience](#)
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Revision History

Date	Notes
03/30/2007	Revision History Table added for the first time.
08/29/2007	Updated About this Manual chapter.

Document Objectives

This manual provides reference information for the Cisco ONS 15454 SDH.

Audience

To use this publication, you should be familiar with Cisco or equivalent optical transmission hardware and cabling, telecommunications hardware and cabling, electronic circuitry and wiring practices, and preferably have experience as a telecommunications technician.

This manual provides reference information for the Cisco ONS 15454 SDH.

Document Organization

Table 1 Cisco ONS 15454 SDH Reference Manual Chapters

Title	Summary
Chapter 1, “Shelf and FMEC Hardware”	Includes descriptions of the rack, ferrites, power and ground, fan-tray assembly, air filter, card slots, cable, cable connectors, and cable routing
Chapter 2, “Common Control Cards”	Includes descriptions of the TCC2, XC10G, and XCVXL cards
Chapter 3, “Electrical Cards”	Includes descriptions of E1-N-14, E1-42, E3-12, DS3i-N-12, STM1E-12, FMEC cards, MIC cards, card temperature ranges, and compatibility
Chapter 4, “Optical Cards”	Includes descriptions of the STM1-4, STM1-8, STM-4, STM4-4, STM-16, and STM-64 cards, as well as card temperature ranges and card compatibility
Chapter 5, “Ethernet Cards”	Includes descriptions of the G1000-4, E100T-12, E100T-G, E1000-2, and E1000-2-G cards and gigabit interface converters
Chapter 6, “DWDM Cards”	Includes descriptions of the optical service channel cards, optical amplifier cards, multiplexer and demultiplexer cards, and optical add/drop multiplexer (OADM) cards.
Chapter 7, “Card Protection”	Includes electrical and optical card protection methods
Chapter 8, “Cisco Transport Controller Operation”	Includes information about CTC installation, the CTC window, computer requirements, software versions, and database reset and revert
Chapter 9, “Security and Timing”	Includes user set up and security, and node/network timing
Chapter 10, “Circuits and Tunnels”	Includes VC4, VC3, and VC12, bidirectional or unidirectional, revertive or non-revertive, electrical or optical, multiple and path trace circuit information

Table 1 Cisco ONS 15454 SDH Reference Manual Chapters (continued)

Title	Summary
Chapter 11, “SDH Topologies”	Includes the SDH configurations used by the ONS 15454 SDH; including MS-SPRs, SNCs, linear ADMs, subtending rings, and optical bus configurations, as well as information about upgrading optical speeds within any configuration
Chapter 12, “DWDM Topologies”	Includes the DWDM configurations used by the ONS 15454 SDH; including hubbed rings, multihubbed rings, single span links, meshed rings, and linear configurations, as well as information about DWDM node types, automatic power control, automatic node setup, and DWDM network topology discovery.
Chapter 13, “IP Networking”	Includes IP addressing scenarios and information about IP networking with the ONS 15454 SDH
Chapter 15, “Performance Monitoring”	Includes performance monitoring statistics for all cards
Chapter 16, “Ethernet Operation”	Includes Ethernet applications for the G series and E series Ethernet cards
Chapter 17, “SNMP”	Explains Simple Network Management Protocol (SNMP) as implemented by the Cisco ONS 15454 SDH.

Related Documentation

To install, turn up, provision, and maintain a Cisco ONS 15454 SDH node and network, refer to the *Cisco ONS 15454 SDH Procedure Guide*.

For alarm clearing, general troubleshooting, and hardware replacement procedures, refer to the *Cisco ONS 15454 SDH Troubleshooting Guide*.

Document Conventions

This publication uses the following conventions:

Convention	Application
boldface	Commands and keywords in body text.
<i>italic</i>	Command input that is supplied by the user.
[]	Keywords or arguments that appear within square brackets are optional.
{ x x x }	A choice of keywords (represented by x) appears in braces separated by vertical bars. The user must select one.

Convention	Application
Ctrl	The control key. For example, where Ctrl + D is written, hold down the Control key while pressing the D key.
screen font	Examples of information displayed on the screen.
boldface screen font	Examples of information that the user must enter.
< >	Command parameters that must be replaced by module-specific codes.



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.



Caution

Means *reader be careful*. In this situation, the user might do something that could result in equipment damage or loss of data.



Warning

IMPORTANT SAFETY INSTRUCTIONS

This warning symbol 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 be familiar with standard practices for preventing accidents. To see translations of the warnings that appear in this publication, refer to the translated safety warnings that accompanied this device.

Note: SAVE THESE INSTRUCTIONS

Note: This documentation is to be used in conjunction with the specific product installation guide that shipped with the product. Please refer to the Installation Guide, Configuration Guide, or other enclosed additional documentation for further details.

Obtaining Optical Networking Information

This section contains information that is specific to optical networking products. For information that pertains to all of Cisco, refer to the [Obtaining Documentation, Obtaining Support, and Security Guidelines](#) section.

Where to Find Safety and Warning Information

For safety and warning information, refer to the *Cisco Optical Transport Products Safety and Compliance Information* document that accompanied the product. This publication describes the international agency compliance and safety information for the Cisco ONS 15454 system. It also includes translations of the safety warnings that appear in the ONS 15454 system documentation.

Cisco Optical Networking Product Documentation CD-ROM

Optical networking-related documentation, including Cisco ONS 15xxx product documentation, is available in a CD-ROM package that ships with your product. The Optical Networking Product Documentation CD-ROM is updated periodically and may be more current than printed documentation.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, 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>

