



Preface

This preface describes the purpose, intended audience, organization, and conventions for the *Cisco ONS 15540 ESPx Optical Transport Turn-Up and Test Guide*.

Purpose

The *Cisco ONS 15540 ESPx Optical Transport Turn-Up and Test Guide* describes acceptance testing procedures for nodes and networks. These procedures allow an installer to verify the installation of a network of Cisco ONS 15540 ESPx nodes.

These procedures are performed following hardware installation and initial software configuration, as described in this guide.

For more hardware installation information, refer to the [Cisco ONS 15540 ESPx Hardware Installation Guide](#). For more detailed software configuration information, refer to the [Cisco ONS 15540 ESPx Configuration Guide](#). For more detailed command information, refer to the [Cisco ONS 15540 ESPx Command Reference](#) publication.

Audience

This guide helps installers verify the installation of a network of Cisco ONS 15540 ESPx nodes.

Organization

The chapters of this guide are as follows:

Chapter	Title	Description
Chapter 1	Safety Information and Preinstallation Tasks	Describes safety considerations for operating the Cisco ONS 15540 ESPx. Describes procedures that should be performed prior to installation of hardware.
Chapter 2	Hardware Installation Procedures	Describes procedures for installing essential hardware components.
Chapter 3	Software Setup Procedures	Describes basic software configuration procedures.

Chapter	Title	Description
Chapter 4	Basic Node Verification Procedures	Describes procedures for verification of each node in the network.
Chapter 5	Basic Network Verification Procedures	Describes procedures for network-level verification. Perform these procedures after completing the node verification procedures.
Chapter 6	Network Turn Up of Amplified Topologies with Per-Channel Equalization	Describes procedures for the initial turn up of an amplified topology that has per-channel equalization.
Appendix A	Node Data Record	Provides tables for keeping track of essential data for each node.
Appendix B	Test Results Tables	Provides tables for recording test results and verifying that tests are completed successfully.

Related Documentation

This guide is part of a documentation set that supports the Cisco ONS 15540 ESPx. The other documents in the set are as follows:

- [Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15540 ESPx Planning Guide](#)
- [Cisco ONS 15540 ESPx Hardware Installation Guide](#)
- [Cisco ONS 15540 ESPx Cleaning Procedures for Fiber Optic Connections](#)
- [Cisco ONS 15540 ESPx Configuration Guide](#)
- [Cisco ONS 15540 ESPx Command Reference](#)
- [Cisco ONS 15540 ESPx System Alarms and Error Messages](#)
- [Network Management for the Cisco ONS 15540 ESPx](#)
- [Cisco ONS 15540 ESPx TL1 Command Reference](#)
- [MIB Quick Reference for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15540 ESPx Software Upgrade Guide](#)

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

<http://www.cisco.com/tac>

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

<http://www.cisco.com/tac/caseopen>

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

<http://www.cisco.com/go/marketplace/>

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:
<http://cisco.com/univercd/cc/td/doc/pcat/>
- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/packet>
- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
<http://www.cisco.com/ipj>
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>

