



## Preface

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This preface explains the purpose, intended audience, organization, and conventions for the *Cisco ONS 15540 ESPx TL1 Command Reference*, and it provides information on how to obtain related documentation.

## Purpose

This publication explains the use of TL1 (Transaction Language 1) for the Cisco ONS 15540 ESPx. Use this guide in conjunction with the appropriate publications listed in the “[Related Documentation](#)” section.

## 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.

## Organization

This Cisco ONS 15540 ESPx TL1 Command Reference is organized into the following chapters:

| Chapter   | Title                                  | Description  |
|-----------|--|--|
| Chapter 1 | <a href="#">Getting Started</a>        | Explains how to gain access to a TL1 session, command syntax, and autonomous messages.             |
| Chapter 2 | <a href="#">TL1 Command Components</a> | Describes the components of TL1 commands, including AIDs (access identifiers) and parameter types. |
| Chapter 3 | <a href="#">TL1 Commands</a>           | Lists and describes the Cisco ONS 15540 ESPx TL1 commands.   |

## Related Documentation

Use this Cisco ONS 15540 ESPx TL1 Command Reference in conjunction with the following publications:

- [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 Optical Transport Turn-Up and Test 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](#)
- [Cisco ONS 15540 ESPx Troubleshooting Guide](#)
- [Network Management for the Cisco ONS 15540 ESPx](#)
- [MIB Quick Reference for the Cisco ONS 15500](#)
- [Cisco ONS 15540 ESPx Software Upgrade Guide](#)

## Document Conventions

This publication uses the following conventions:

| Convention                  | Application   |
|-----------------------------|---|
| <b>boldface</b>             | 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. |
| 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.  |
| <b>boldface screen font</b> | 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

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 *Regulatory Compliance and Safety Information* document that accompanied this device.

## Safety and Warning Information

For safety and warning information, refer to the *Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series* document that accompanied the product. This document describes the international agency compliance and safety information for the Cisco ONS 15500 series. It also includes translations of the safety warnings that appear in the Cisco ONS 15500 series documentation.

## 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 at this URL:

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

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](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](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 send comments about technical documentation to [bug-doc@cisco.com](mailto: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, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

## Cisco Technical Support Website

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

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

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

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

## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool automatically provides recommended solutions. If your issue is not resolved using the recommended resources, your service request will be assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request 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 list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

**Severity 1 (S1)**—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.

**Severity 2 (S2)**—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.

**Severity 3 (S3)**—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.

**Severity 4 (S4)**—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. Visit Cisco Marketplace, the company store, at this URL:

<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 at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

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

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. 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>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>