



# Preface

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This preface describes the purpose, audience, organization, and conventions of this guide, and provides information on how to obtain related documentation.

The preface covers these topics:

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## Purpose

The *Troubleshooting Guide for Cisco CallManager Release 4.0(1)* provides troubleshooting procedures for the Cisco CallManager. This document does not cover every possible trouble event that might occur on a Cisco CallManager system but instead focuses on those events frequently seen by the Cisco Technical Assistance Center (TAC) or frequently asked questions from newsgroups.

# Audience

The *Troubleshooting Guide for Cisco CallManager Release 4.0(1)* provides guidance for network administrators responsible for managing the Cisco CallManager system, for enterprise managers, and for employees. This guide requires knowledge of telephony and IP networking technology.

# Organization

Table 1 shows how this guide is organized.

**Table 1**     *How This Document Is Organized*

Chapter and Title	Description
<a href="#">Chapter 1, “Troubleshooting Overview”</a>	Provides an overview of the tools and resources that are available for troubleshooting the Cisco CallManager.
<a href="#">Chapter 2, “Troubleshooting Tools”</a>	Addresses the tools and utilities that you use configure, monitor, and troubleshoot Cisco CallManager 4.0 and provides general guidelines for collecting information to avoid repetitive testing and recollection of identical data.
<a href="#">Chapter 3, “Installation, Backup, and Restore Issues”</a>	Describes solutions for the most common issues related to a Cisco CallManager installation, backup, or restore.
<a href="#">Chapter 4, “Cisco CallManager System Issues”</a>	Describes solutions for the most common issues related to a Cisco CallManager system.

**Table 1**     *How This Document Is Organized (continued)*

Chapter and Title	Description
Chapter 5, “Directory Issues”	Describes solutions for the most common issues related to a Cisco CallManager DC Directory (DCD), the Lightweight Directory Access Protocol (LDAP) directory, or the Microsoft Active Directory (AD).
Chapter 6, “Device Issues”	Describes solutions for the most common issues related to IP phones and gateways.
Chapter 7, “Dial Plans and Routing Issues”	Describes solutions for the most common issues related to dial plans, route partitions, and calling search spaces.
Chapter 8, “Cisco CallManager Services Issues”	Describes solutions for the most common issues related to services, such as conference bridges and media termination points.
Chapter 9, “Voice Messaging Issues”	Describes solutions for the most common voice messaging issues.
Chapter 10, “Cisco CallManager Attendant Console Issues”	Describes solutions for the most common Cisco CallManager Attendant Console issues.
Appendix A, “Opening a Case With TAC”	Describes what information is needed to open a case for TAC.
Appendix B, “Case Study: Troubleshooting Intracluster Phone Calls”	Describes in detail the call flow between two Cisco IP Phones within a cluster.

**Table 1**     *How This Document Is Organized (continued)*

Chapter and Title	Description
<a href="#">Appendix C, “Case Study: Troubleshooting Cisco IP Phone-to-Cisco IOS Gateway Calls”</a>	Describes a Cisco IP Phone calling through a Cisco IOS Gateway to a phone connected through a local PBX or on the Public Switched Telephone Network (PSTN).
<a href="#">Appendix D, “Case Study: Troubleshooting Intercluster Phone Calls”</a>	Describes a Cisco IP Phone calling another Cisco IP Phone located in a different cluster.

## Related Documentation

Refer to the following documents for further information about related Cisco IP Telephony applications and products:

- *Cisco CallManager Administration Guide*
- *Cisco CallManager System Guide*
- *Cisco CallManager Serviceability Administration Guide*
- *Cisco CallManager Features & Services Guide*
- *Cisco CallManager Quick Start Guide*
- *Cisco CallManager Installation Instructions*
- *Cisco CallManager Backup and Restore Procedure*
- *Cisco CallManager Attendant Console User Guide*
- *Cisco CallManager Multilevel Administration Access Guide*
- *Cisco CallManager Directory Services Guide*
- *Release Notes for Cisco CallManager Release 4.0(1)*
- *Cisco CallManager Documentation Guide for Release 4.0(1)*
- *Hardware Configuration Guide for the Cisco Voice Gateway 200*
- *Software Configuration Guide for the Cisco Voice Gateway 200*
- *Cisco IP Phone Administration Guide for Cisco CallManager*

- *Bulk Administration Tool Guide for Cisco CallManager*
- *Cisco Technical Solution Series: IP Telephony Solution Guide*
- *Guide to Cisco Systems VOIP Infrastructure Solution for SIP*

## Conventions

This document uses the following conventions:

Convention	Description
<b>boldface font</b>	Commands and keywords are in <b>boldface</b> .
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
[ ]	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.
<b>boldface screen font</b>	Information you must enter is in <b>boldface screen font</b> .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
< >	Nonprinting characters, such as passwords, are in angle brackets.

Notes use the following conventions:



**Note**

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

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Timesavers use the following conventions:



**Timesaver**

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Means *the described action saves time*. You can save time by performing the action described in the paragraph.

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Tips use the following conventions:



**Tips**

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Means *the information contains useful tips*.

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Cautions use the following conventions:



**Caution**

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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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Warnings use the following conventions:



**Warning**

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**This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.**

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## Obtaining Documentation

Cisco provides several ways to obtain documentation, 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](http://www.cisco.com/public/countries_languages.shtml)

## Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

[http://www.cisco.com/en/US/partner/ordering/ordering\\_place\\_order\\_ordering\\_tool\\_launch.html](http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html)

All users can order annual or quarterly subscriptions through the online Subscription Store:

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

Click Subscriptions & Promotional Materials in the left navigation bar.

## 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 Networking Products MarketPlace:

<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](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, 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.

- 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://www.cisco.com/en/US/products/products\\_catalog\\_links\\_launch.html](http://www.cisco.com/en/US/products/products_catalog_links_launch.html)

- 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/en/US/about/ac123/ac147/about\\_cisco\\_the\\_internet\\_protocol\\_journal.html](http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html)

- 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>

