



# Preface

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Use this document with Cisco CallManager 3.3(4) to develop and deploy customized client services for the Cisco IP Phone 7940 and 7960 models, which support Cisco IP Phone services.



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**Note**

Developers using this guide should join the Cisco Developer Support Program because standard Cisco TAC support is limited to the Cisco AVVID installation, configuration, and Cisco-developed applications. This program provides a consistent level of dependable support while leveraging Cisco interfaces in your development projects. For more information about the program and how to join, contact us at [developer-support@cisco.com](mailto:developer-support@cisco.com).

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## Contents

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# Audience

This document provides the information needed for eXtensible Markup Language (XML) and X/Open System Interface (XSI) programmers and system administrators to develop and deploy new services.

# Organization

This document comprises the following sections.

<b>Chapter</b>	<b>Description</b>
<b>Chapter 1, "Overview"</b>	Provides an overview of the Cisco IP Phone services for developers.
<b>Chapter 2, "CiscoIPPhone XML Objects"</b>	Describes the general behavior and usage of each XML object
<b>Chapter 3, "Custom Softkeys"</b>	Describes how Cisco IP Phones can receive custom softkeys with the CiscoIPPhone objects.
<b>Chapter 4, "Cisco IP Services Software Development Kit (SDK)"</b>	Provides a list of the components used in the Cisco IP Services Software Development Kit (SDK) and the sample services requirements.
<b>Chapter 5, "HTTP Client Requests and Header Settings"</b>	Provides a procedure on handling HTTP client requests, definitions for HTTP header elements, identifies the capabilities of the requesting IP phone client, and defines the Accept header.
<b>Chapter 6, "IP Phone Service Administration and Subscription"</b>	Describes how to add and administer Cisco IP Phone services through Cisco CallManager Administration.
<b>Chapter 7, "Troubleshooting Cisco IP Phone Service Applications"</b>	Provides troubleshooting tips, XML parsing errors, and error messages.

Chapter	Description
<a href="#">Chapter 8, “DeviceListX Report”</a>	Describes how the report provides a list of the services-capable devices along with basic information about the device to identify or classify the devices based on specific criteria
<a href="#">Appendix A, “CiscoIPPhone XML Object Quick Reference”</a>	Provides a quick reference of the CiscoIPPhone XML objects and the definitions that are associated with each.
<a href="#">Appendix B, “Cisco IP Phone XML Schema File”</a>	Provides the CiscoIPPhone.xsd file.

## Related Documentation

The following documents provide further information:

- *Cisco CallManager Administration Guide* (also available in the online help). Refer to the chapter on configuring Cisco IP Phone services.
- *Cisco CallManager System Guide* (also available in the online help).
- *Cisco IP Phone 7960/7940 Quick Start Guide*  
Provides instructions for users on subscribing to phone services.
- *Cisco IP Phone Administration Guide for Cisco CallManager*  
Provides administration information for Cisco IP Phones.
- *CiscoURLProxy ActiveX Component*  
Provided with the Cisco IP Services SDK.
- *LDAP Search COM Server Programming Guide*  
Provided with the Cisco IP Services SDK.
- *CipImage Release Notes*  
Provided with the Cisco IP Services SDK.

# 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.

## Developer Support

The Developer Support Program provides formalized support for Cisco Systems interfaces to enable developers, customers, and partners in the Cisco Service Provider solutions Ecosystem and Cisco AVVID Partner programs to accelerate their delivery of compatible solutions.

The Developer Support Engineers are an extension of the product technology engineering teams. They have direct access to the resources necessary to provide expert support in a timely manner.

For additional information on this program, refer to the Developer Support Program Web Site at [www.cisco.com/go/developer support/](http://www.cisco.com/go/developer%20support/).

Developers using the Cisco IP Phones Services Application Development are encouraged to join the Cisco Developer Support Program. This new program provides a consistent level of support while leveraging Cisco interfaces in development projects.

**Note**

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Cisco Technical Assistance Center (TAC) support does not include Cisco IP Phones Services Application Development support and is limited to Cisco AVVID installation/configuration and Cisco-developed applications. For more information about the Developer Support Program, please contact Cisco at [developer-support@cisco.com](mailto:developer-support@cisco.com).

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## 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>

