



Preface

Introduction

The Cisco IP Interoperability and Collaboration System (hereafter referred to as *Cisco IPICS*) and the Push-to-Talk Management Center (hereafter referred to as *PMC*) application enable integrated communications among disparate Land Mobile Radio (LMR) systems.

By using an IP standards-based solution, Cisco IPICS solves interoperability issues by extending LMR reachability to the IP network through the connection of radio networks to IP networks and devices. Cisco IPICS also provides the following benefits:

- Investment protection in legacy radio networks and applications
- Graceful migration to robust IP applications and devices
- Incident management framework for operations and command and control

This document provides you with the information that you need to install, configure, manage, and operate the PMC application.

This section describes the intended audience and organization of this *Cisco IPICS PMC Installation and User Guide* and includes the following topics:

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Audience

The *Cisco IPICS PMC Installation and User Guide* targets the end-user who needs to know how to install, operate, configure, and maintain the PMC application.

Organization

This guide is organized in the following manner:

Chapter 1, “Introducing Cisco IPICS and the PMC Application”	This chapter introduces Cisco IPICS and the PMC application. It includes a product overview as well as guidelines for systems requirements and expected interaction behavior.
Chapter 2, “Installing and Upgrading the PMC Application”	This chapter describes the actions that you must take to download and install the PMC application. It also provides instructions about upgrading, patching, and reverting the PMC application to an earlier version.
Chapter 3, “Understanding PMC Interactions and Supported Features”	This chapter contains information about the scenarios where you might use the PMC, information about the server and PMC interactions, PMC supported features, and specific terminology that the Cisco IPICS solution uses.
Chapter 4, “Using the PMC Application”	This chapter provides information about using the PMC application.
Chapter 5, “Configuring the PMC Application”	This chapter provides information about configuring the PMC end-user interface.

Chapter 6, “Recovering the PMC Application”	This chapter provides information about the actions that you can take to recover the PMC application under specific circumstances.
Chapter 7, “Using the PMC Application Logs”	This chapter describes how to use the PMC application logs. It includes information about turning on/off the log facility and setting up individual logs.
Chapter 8, “Troubleshooting Tips for the PMC Application”	This chapter provides information about basic troubleshooting tips and error messages that you may encounter when you use the PMC application.

Related Documentation

For more information about Cisco IPICS and the PMC application, refer to the following documentation:

- *Cisco IPICS PMC Quick Start Reference Card, Release 2.1(1)*—This document provides tips and quick references for the most frequently used procedures that a user can perform on the Cisco IPICS PMC.
- *Cisco IPICS PMC Debug Reference Quick Start Card, Release 2.1(1)*—This document provides a quick reference for troubleshooting and debugging the Cisco IPICS PMC.
- *Cisco IPICS PMC Command Line Interface, Release 2.1(1)*—This document describes the commands that you can use from the command line interface (CLI) to obtain information or to change settings for the Cisco IPICS PMC.
- *Cisco IPICS Server Administration Guide, Release 2.1(1)*—This document contains information about the key configuration, operation, and management tasks for the Cisco IPICS server.
- *Cisco IPICS Server Quick Start Guide, Release 2.1(1)*—This document is a condensed version of the *Cisco IPICS Server Administration Guide* to help the administrator to quickly get started with Cisco IPICS.
- *Cisco IPICS Server Quick Start Reference Card, Release 2.1(1)*—This document provides tips, quick references, and usage guidelines for the Cisco IPICS server.

- *Using Cisco IPICS on Your IP Phone Quick Start Reference Card, Release 2.1(1)*—This document contains information about accessing Cisco IPICS from your IP phone and tips and guidelines for using this service.
- *Using the Cisco IPICS TUI Quick Start Reference Card, Release 2.1(1)*—This document describes the steps that you follow to dial in to, or receive a call from, the policy engine telephony user interface (TUI) and guidelines for using the system.
- *Cisco IPICS Radio and Tone Descriptor File Examples Reference Card, Release 2.1(1)*—This document contains examples of valid and invalid radio control and signaling descriptor file entries and guidelines for creating these entries.
- *Cisco IPICS Server Installation and Upgrade Guide, Release 2.1(1)*—This document describes how to install, configure, and upgrade the Cisco IPICS server software and Cisco IPICS operating system.
- *Cisco IPICS Server Quick Start Installation Reference Card, Release 2.1(1)*—This document provides tips and quick references for installing and upgrading the Cisco IPICS server.
- *Cisco IPICS Troubleshooting Guide, Release 2.1(1)*—This document contains reference material about how to maintain and troubleshoot the Cisco IPICS system.
- *Release Notes for Cisco IPICS Release 2.1(1)*—This document contains a description of the new and changed features, important notes, caveats, and documentation updates for this release of Cisco IPICS.
- *Cisco IPICS 2.1(1) Resources Card (Documentation Locator)*—This document provides a summary of the documentation that is available for this release of Cisco IPICS.
- *Solution Reference Network Design (SRND) for Cisco IPICS Release 2.1(1)*— This document provides information about design considerations and guidelines for deploying the Cisco IPICS solution.
- *Cisco IPICS Compatibility Matrix*—This document contains information about compatible hardware and software that is supported for use with Cisco IPICS.

To access the documentation suite for Cisco IPICS, refer to the following URL:

http://www.cisco.com/en/US/products/ ps7026/ tsd_products_support_series_home.html

Cisco Unified Communications Manager (CallManager) Documentation

For information about Cisco Unified Communications Manager (CallManager), refer to the documentation at this URL:

http://cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html

Cisco Unified Communications Manager Express Documentation

For information about Cisco Unified Communications Manager Express, refer to the documentation at this URL:

http://cisco.com/en/US/products/sw/voicesw/ps4625/tsd_products_support_series_home.html

Cisco 7800 Series Media Convergence Servers Documentation

For information about Cisco 7800 Series Media Convergence Servers, refer to the MCS data sheets at this URL:

http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html

Cisco Unified IP Phones 7900 Series Documentation

For information about Cisco Unified IP Phones, refer to the documentation at this URL:

http://cisco.com/en/US/products/hw/phones/ps379/tsd_products_support_series_home.html

Session Initiation Protocol Documentation

The dial engine, which controls the dial-in and dial-out functionality of the policy engine, uses the Session Initiation Protocol (SIP). For information about SIP, refer to the documentation at this URL:

[http://cisco.com/en/US/tech/tk652/tk701/tk587/
tsd_technology_support_sub-protocol_home.html](http://cisco.com/en/US/tech/tk652/tk701/tk587/tsd_technology_support_sub-protocol_home.html)

Cisco Land Mobile Radio over IP Solution Reference Network Design

For information about Cisco Land Mobile Radio (LMR) over IP, refer to the documentation at the following URLs:

- [http://www.cisco.com/en/US/products/ps6441/
products_feature_guide09186a00801f092c.html](http://www.cisco.com/en/US/products/ps6441/products_feature_guide09186a00801f092c.html)
- [http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/
products_implementation_design_guide_book09186a0080347c1b.html](http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/products_implementation_design_guide_book09186a0080347c1b.html)

Cisco Security Agent

For information about Cisco Security Agent, refer to the documentation at this URL:

[http://www.cisco.com/en/US/products/sw/secursw/ps5057/
tsd_products_support_series_home.html](http://www.cisco.com/en/US/products/sw/secursw/ps5057/tsd_products_support_series_home.html)

Cisco IOS Documentation

The Cisco IOS software documentation set describes the tasks and commands necessary to configure certain system components and other Cisco products, such as access servers, routers, and switches. Each configuration guide can be used in conjunction with its corresponding command reference.

For information about Cisco IOS software configuration, refer to the documentation at this URL:

http://www.cisco.com/en/US/products/sw/iosswrel/products_ios_cisco_ios_software_category_home.html

Document Notes and Conventions

This document uses the following conventions for instructions and information:



Note

Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.



Caution

This caution symbol means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Table 1 **Conventions**

Convention	Description
boldface font	Commands and keywords appear in boldface .
<i>italic font</i>	Command input for which you supply the values appear in <i>italics</i> .
[]	Optional keywords and default responses to system prompts appear within square brackets.
{ x x x }	A choice of keywords (represented by x) appears in braces separated by vertical bars. You must select one.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
^ or Ctrl	Represent the key labeled <i>Control</i> . For example, when you read <i>^D</i> or <i>Ctrl-D</i> , you should hold down the Control key while you press the D key.
screen font	Examples of information displayed on the screen.

Table 1 **Conventions (continued)**

Convention	Description
boldface screen font	Information that you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .

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>