Cisco IPICS PMC Command Line Interface

Release 2.0(1)

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Cisco IPICS PMC Command Line Interface

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Preface

Overview

This document contains information about the command line interface (CLI) commands that you can use with the Cisco IP Interoperability and Collaboration System (hereafter referred to as *Cisco IPICS)* Push-to-Talk Management Center (hereafter referred to as *PMC*). It explains how to use the CLI and describes each supported CLI command in detail.

This section describes the intended audience and organization of this *Cisco IPICS Command Line Interface* documentation and includes the following topics:

Audience

This document is intended for system administrators who are responsible for the PMC clients in a Cisco IPICS deployment. It assumes that you are familiar with the PMC features and functions and that you are familiar with Windows batch files and environment variables.

Organization

This document is organized in the following manner:

Chapter 1, "Using the PMC Command Line Interface"	This chapter provides an overview of how to use the CLI commands, including how to issue commands and how to use batch files.
Chapter 2, "Command Line Interface Commands"	This chapter describes each of the PMC CLI commands in detail.

Related Documentation

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

- *Cisco IPICS PMC Installation and User Guide, Release 2.0(1)*—This document describes how to install, configure, manage, and operate the Cisco IPICS PMC application.
- *Cisco IPICS PMC Quick Start Reference Card, Release 2.0(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 Card, Release 2.0(1)*—This document provides a quick reference for troubleshooting and debugging the Cisco IPICS PMC.

- *Cisco IPICS Server Administration Guide, Release 2.0(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 2.0(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 2.0(1)*—This document provides tips, quick references, and usage guidelines for the Cisco IPICS server.
- *Cisco IPICS Server Installation and Upgrade Guide, Release 2.0(1)*—This document describes how to install, configure, and upgrade the Cisco IPICS server software and Linux operating system.
- *Cisco IPICS Server Quick Start Installation Reference Card, Release 2.0(1)*—This document provides tips and quick references for installing and upgrading the Cisco IPICS server.
- *Cisco IPICS Troubleshooting Guide, Release 2.0(1)*—This document contains reference material about how to maintain and troubleshoot the Cisco IPICS system.
- *Release Notes for Cisco IPICS Release 2.0(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 2.0(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 2.0(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/univercd/cc/td/doc/product/cis/c_ipics/index.htm

Cisco Unified CallManager Documentation

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

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm

Cisco Unified CallManager Express Documentation

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

http://www.cisco.com/univercd/cc/td/doc/product/voice/its/index.htm

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 Phone Documentation

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

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_ipphon/index.htm

Cisco Land Mobile Radio over IP

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

http://www.cisco.com/univercd/cc/td/doc/product/software/ios123/123newft/123t/123t_7/lmrip/index.htm

Cisco Security Agent

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

http://www.cisco.com/univercd/cc/td/doc/product/vpn/ciscosec/

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/univercd/cc/td/doc/product/software/

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**.
italic font	Command input for which you supply the values appear in *italics*.
[ ]	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 *Control*. For example, when you read ^*D* or *Ctrl-D*, you should hold down the Control key while you press the D key.
`screen` font	Examples of information displayed on the screen.
`boldface screen` font	Information that you must enter is in **`boldface screen`** font.
italic screen font	Arguments for which you supply values are in *italic screen* font.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. This section explains the product documentation resources that Cisco offers.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/techsupport

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

Product Documentation DVD

The Product Documentation DVD is a library of technical product documentation on a portable medium. The DVD enables you to access installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the HTML documentation and some of the PDF files found on the Cisco website at this URL:

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

The Product Documentation DVD is created and released regularly. DVDs are available singly or by subscription. Registered Cisco.com users can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at the Product Documentation Store at this URL:

http://www.cisco.com/go/marketplace/docstore

Ordering Documentation

You must be a registered Cisco.com user to access Cisco Marketplace. Registered users may order Cisco documentation at the Product Documentation Store at this URL:

http://www.cisco.com/go/marketplace/docstore

If you do not have a user ID or password, you can register at this URL:

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

Documentation Feedback

You can provide feedback about Cisco technical documentation on the Cisco Support site area by entering your comments in the feedback form available in every online document.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to do the following:

- Report security vulnerabilities in Cisco products
- Obtain assistance with security incidents that involve Cisco products
- Register to receive security information from Cisco

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For emergencies only—security-alert@cisco.com

  An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.*x* through 9.*x*.

Never use a revoked encryption key or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT to find other means of encrypting the data before sending any sensitive material.

Product Alerts and Field Notices

Modifications to or updates about Cisco products are announced in Cisco Product Alerts and Cisco Field Notices. You can receive these announcements by using the Product Alert Tool on Cisco.com. This tool enables you to create a profile and choose those products for which you want to receive information.

To access the Product Alert Tool, you must be a registered Cisco.com user. Registered users can access the tool at this URL:

http://tools.cisco.com/Support/PAT/do/ViewMyProfiles.do?local=en

To register as a Cisco.com user, go to this URL:

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

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Support website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Support Website

The Cisco 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 at this URL:

http://www.cisco.com/en/US/support/index.html

Access to all tools on the Cisco 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

Note Before you submit a request for service online or by phone, use the **Cisco Product Identification Tool** to locate your product serial number. You can access this tool from the Cisco Support website by clicking the **Get Tools & Resources** link, clicking the **All Tools (A-Z)** tab, and then choosing **Cisco Product Identification Tool** from the alphabetical list. This tool offers three search options: by product ID or model name; by tree view; or, for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Tip **Displaying and Searching on Cisco.com**

If you suspect that the browser is not refreshing a web page, force the browser to update the web page by holding down the Ctrl key while pressing **F5**.

To find technical information, narrow your search to look in technical documentation, not the entire Cisco.com website. After using the Search box on the Cisco.com home page, click the **Advanced Search** link next to the Search box on the resulting page and then click the **Technical Support & Documentation** radio button.

To provide feedback about the Cisco.com website or a particular technical document, click **Contacts & Feedback** at the top of any Cisco.com web page.

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 provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco 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 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)—An existing 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 operations 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 the network is impaired while 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.

- The Cisco Online Subscription Center is the website where you can sign up for a variety of Cisco e-mail newsletters and other communications. Create a profile and then select the subscriptions that you would like to receive. To visit the Cisco Online Subscription Center, go to this URL:

  http://www.cisco.com/offer/subscribe

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco channel product offerings. To order and find out more about the *Cisco Product Quick Reference Guide*, go to this URL:

  http://www.cisco.com/go/guide

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

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

- 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

- *Internet Protocol Journal* is a quarterly journal published by Cisco 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

- Networking products offered by Cisco, as well as customer support services, can be obtained at this URL:

  http://www.cisco.com/en/US/products/index.html

- Networking Professionals Connection is an interactive website where networking professionals share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

  http://www.cisco.com/discuss/networking

- "What's New in Cisco Documentation" is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category to direct you quickly to the documentation for your products. You can view the latest release of "What's New in Cisco Documentation" at this URL:

  http://www.cisco.com/univercd/cc/td/doc/abtunicd/136957.htm

- 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

Using the PMC Command Line Interface

The Cisco IPICS Push-to-Talk Management Center (PMC) Command Line Interface (CLI) lets you issue a variety of commands to a PMC. You can use CLI commands to perform the following activities:

- Determine whether the specified PTT channel is active, enabled, latched, or muted.
- Play out a wave audio file to the specified PTT channel.
- Toggle the Activate button to activate/deactivate the specified PTT channel.

This chapter provides information about how to use and issue CLI commands. It includes the following sections:

Using CLI Commands

This section includes information about the guidelines that pertain to issuing CLI commands and it describes how to issue a CLI command from a Windows Command window. It includes the following topics:

Tip You can also issue CLI commands by using a batch file. For more information see the "Using a Batch File" section on page 1-3.

CLI Command Guidelines

Be aware of the following guidelines when you issue CLI commands:

- Make sure that the PMC to which you are issuing the command is running.
  - If the PMC is not running, issuing a CLI command will start the PMC but the command will not execute.
- Issue the CLI command from a Windows Command window on the PMC client machine.
  - The command affects only that specific PMC.

Issuing CLI Commands

To issue a CLI command, perform the following procedure:

Procedure

Step 1 On the PMC client machine, open a Windows Command window by following these steps:

1. Choose **Start > Run**.
2. Enter **cmd** in the Open field.
3. Click **OK**.

Step 2 In the Windows Command window, change the active directory to the folder in which the PMC is installed.

An example of the change directory command is shown below:

x:\>cd c:\Program Files\Cisco Systems\Cisco IPICS\PMC

Step 3 Enter the CLI command that you want to run; then, press **Enter**.

Note For a description of each of the supported CLI commands, see Chapter 2, "Command Line Interface Commands."

Understanding Return Codes

Several PMC CLI commands generate return codes. A return code is an integer that represents specific information obtained by the command. For example, the **IsActive** command generates a return code that designates whether the specified PTT channel is active.

A CLI command stores its return code in the ERRORLEVEL environment variable.

Using a Batch File

This section contains information about the benefits of using a batch file. It also includes specific guidelines that apply to batch files in the "Batch File Guidelines" section on page 1-3.

A batch file provides a convenient way to perform the following activities:

- Issue multiple CLI commands to the PMC
- See the return code generated by the PMC

Batch File Guidelines

Be aware of the following guidelines that pertain to the use of a batch file to issue CLI commands:

- Make sure that the PMC to which you are issuing the commands is running.
  - The commands have no effect if the PMC is not running.
- Execute the batch file on the PMC client machine.

  - The commands in the batch file affect only that specific PMC.

- Execute the batch file from the folder in which you installed the PMC, or prepend the CLI command in the batch file with the path to the folder in which you installed the PMC.

Example 1-1 shows and example of a batch file that issues the **IsActive** CLI command and then displays the return code that this command generates.

Example 1-1 Batch File that Determines a Return Code

```
@echo off
REM Launch the IsActive command
PMC.EXE -IsActive

REM Determine return code in ERRORLEVEL and output it to command line
echo %ERRORLEVEL%
```

Command Line Interface Commands

This chapter describes each of the supported PMC CLI commands in detail.

Note

- Be aware that Cisco IPICS supports only the CLI commands that are described in this *Cisco IPICS PMC Command Line Interface, Release 2.0(1)* documentation.
- Make sure that you do not use the CLI commands that were previously documented in the *Cisco IPICS Command Line Interface, Release 1.0(1)* documentation, as they are no longer supported for use with Cisco IPICS.

For each command, this chapter provides all or some of the following information about the supported CLI commands, as appropriate:

- Description—Explains the functionality of the command.
- Syntax—Shows how to issue the CLI command and describes the meaning of arguments and options as they relate to the specific CLI command.
- Return codes—Describes the meaning of return codes that the CLI command generates.
- Examples—Provides examples of how to use the specific CLI commands.
- Related commands—Lists and cross-references related PMC CLI commands.

Table 2-1 lists the supported PMC CLI commands. It also provides a brief description of each command and a reference to the following sections that describe the individual CLI command in more detail:

- Activate Command, page 2-3
- IsActivate Command, page 2-4
- IsEnabled Command, page 2-5
- IsLatch Command, page 2-6
- IsTxMuted Command, page 2-7
- Play Command, page 2-7

Note Cisco IPICS supports only the CLI commands that are listed above.

Tip PMC CLI commands are not case sensitive. For example, entering **PMC.EXE -Activate**, **PMC.exe -ACTIVATE**, or **pmc.exe -activate** executes the same command.

Table 2-1 Cisco IPICS CLI Command Summary

Command	Description	Reference
PMC.EXE -Activate [**-line** *#*]	Toggles the **Activate/Deactivate** button on the specified PTT channel	Activate Command, page 2-3
PMC.EXE -IsActivate [**-line** *#*]	Returns a code that designates whether the specified PTT channel is active	IsActivate Command, page 2-4
PMC.EXE -IsEnabled [**-line** *#*]	Returns a code that designates whether the specified PTT channel is enabled	IsEnabled Command, page 2-5
PMC.EXE -IsLatch [**-line** *#*]	Determines whether the PMC **PTT** button for the specified PTT channel is latched	IsLatch Command, page 2-6

Table 2-1 Cisco IPICS CLI Command Summary (continued)

Command	Description	Reference
PMC.EXE -IsTxMuted [**-line** *#*]	Returns a code that designates whether the specified PTT is muted by Cisco IPICS.	IsTxMuted Command, page 2-7
PMC.EXE -Play *file* [**-line** *#*]	Outputs a wave audio file to the specified PTT channel	Play Command, page 2-7

Activate Command

The **Activate** command toggles the **Activate/Deactivate** button on the specified PTT channel.

- If the **Activate/Deactivate** button is already activated, issuing this command deactivates it.
- If the **Activate/Deactivate** button is not activated, issuing this command activates it.
- There are no return codes for this command.

Syntax

This command uses the following syntax:

PMC.EXE -Activate [**-line** *#*]

The **-line** *#* option, where *#* is a number from 1 through 18, specifies the PTT channel to which this command applies. If you omit this option, the command applies to channel 1.

Example

Table 2-2 shows examples of the **Activate** command.

Table 2-2 Examples of Activate Command Usage

Command	Result
PMC.EXE -Activate	• This command activates channel 1 if it is not activated. • This command deactivates channel 1 if it is activated.
PMC.EXE -Activate -line 1	• This command activates channel 1 if it is not activated. • This command deactivates channel 1 if it is activated.
PMC.EXE -Activate -line 6	• This command activates channel 6 if it is not activated. • This command deactivates channel 6 if it is activated.

Related Command

- IsActivate Command, page 2-4—This command returns a code that designates whether the selected channel is activated.

IsActivate Command

The **IsActivate** command returns a code that designates whether the selected channel is activated.

Syntax

This command uses the following syntax:

PMC.EXE -IsActivate [**-line #**]

The **-line #** option, where # is a number from 1 through 18, specifies the PTT channel to which this command applies. If you omit this option, the command applies to channel 1.

Return Codes

Table 2-3 shows the return codes for the **IsActivate** command.

Table 2-3 Return Codes for the IsActivate Command

Return Code	Meaning
0	This return code indicates that the specified channel is not activated.
1	This return code indicates that the specified channel is activated.

Related Command

- Activate Command, page 2-3—This command toggles the **Activate/Deactivate** button on the specified PTT channel.

IsEnabled Command

The **IsEnabled** command returns a code that designates whether the selected channel is enabled in Cisco IPICS.

Syntax

This command uses the following syntax:

PMC.EXE -IsEnabled [**-line #**]

The **-line #** option, where # is a number from 1 through 18, specifies the PTT channel to which this command applies. If you omit this option, the command applies to channel 1.

Return Codes

Table 2-4 shows the return codes for the **IsEnabled** command.

Table 2-4 Return Codes for the IsEnabled Command

Return Code	Meaning
0	This return code indicates that the specified channel is not enabled.
1	This return code indicates that the specified channel is enabled.

IsLatch Command

The **IsLatch** command determines whether the PMC **PTT** button for the specified channel is latched. The return code indicates the state of the **PTT** button.

Syntax

This command uses the following syntax:

PMC.EXE -IsLatch [**-line** #]

The **-line #** option, where # is a number from 1 through 18, specifies the PTT channel to which this command applies. If you omit this option, the command applies to channel 1.

Return Codes

Table 2-5 shows the return codes for the **IsLatch** command.

Table 2-5 Return Codes for the IsLatch Command

Return Code	Meaning
0	This return code indicates that the PTT button is not latched.
1	This return code indicates that the PTT button is latched.

IsTxMuted Command

The **IsTxMuted** command returns a code that designates whether the selected channel is muted. (PMC users cannot transmit on channels that are muted.)

Syntax

This command uses the following syntax:

PMC.EXE -IsTxMuted [**-line #**]

The **-line #** option, where # is a number from 1 through 18, specifies the PTT channel to which this command applies. If you omit this option, the command applies to channel 1.

Return Codes

Table 2-6 shows the return codes for the **IsTxMuted** command.

Table 2-6 Return Codes for the IsTxMuted Command

Return Code	Meaning
0	This return code indicates that the specified channel is not muted.
1	This return code indicates that the specified channel is muted.

Play Command

The **Play** command outputs a wave audio file to the specified PTT channel.

Specifically, this command latches the PMC PTT button, plays the designated wave file, and then unlatches the PTT button.

There are no return codes for this command.

Syntax

This command uses the following syntax:

PMC.EXE -Play *file* [**-line** #]

The *file* argument is the path and file name of the wave file that you want to play.

The **-line #** option, where # is a number from 1 through 18, specifies the PTT channel line to which this command applies. If you omit this option, the command applies to channel 1.

Example

Table 2-7 shows examples of the **Play** command.

Table 2-7 Examples of Play Command Usage

Command	Result
PMC.EXE -Play c:\sounds\tone.wav	This command plays the tone.wav file in the c:\sounds folder to PTT channel 1.
PMC.EXE -Play c:\sounds\tone.wav -line 3	This command plays the tone.wav file in the c:\sounds folder to PTT channel 3.

For more information about the PMC, refer to the *Cisco IPICS PMC Installation and User Guide* at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/cis/c_ipics/index.htm

A

action — A discrete function that is performed through a policy. Discrete functions include activate VTG, notification, VTG add participant, dial-out, and invite to VTG.

activate VTG — An action that activates a preconfigured VTG; can also specify a duration. At the end of the specified duration, the VTG is deactivated. If no duration is specified, the VTG must be manually deactivated by the dispatcher from the VTG Management drawer in the Cisco IPICS administration console.

activated — A state that indicates that the SIP (unicast) or multicast channel is fully operational. When a channel/VTG on the PMC is enabled and activated, all of the PMC buttons are operational.

activating — A state that becomes effective when you click the **Activate** button on the PMC. The Activate button appears highlighted while the other PMC buttons remain in an inactive state as the system attempts to activate and connect.

activation button — This button toggles activate and deactivate functionality on the PMC. Click this button on the PMC to activate a channel (to call out); click it again to deactivate the channel.

active virtual talk group — A virtual talk group (VTG) becomes active when Cisco IPICS commits global resources, such as a multicast address and any necessary dial-in peers, so that the participants in the VTG can communicate with each other.

Administration Console — The graphical user interface (GUI) in the Cisco IPICS server software through which authorized Cisco IPICS users can manage and configure Cisco IPICS resources, events and VTGs.

alert tone buttons Buttons on the PMC that can play out alert tones on one channel or multiple channels.

all talk button Allows you to simultaneously talk on all of the channels that you selected.

autonomous system A radio system under one administrative control; also known as a management domain. This system is usually mapped to an agency.

B

backward compatibility The ability of newer radio equipment to operate within an older system infrastructure or to directly intercommunicate with an older radio unit. The term usually applies to digital radios that are also capable of analog signal transmission.

bandwidth The difference between the highest and lowest frequencies that are available for network signals. The term also describes the rated throughput capacity of a specific network medium or protocol. Bandwidth specifies the frequency range that is necessary to convey a signal measured in units of hertz (Hz). For example, voice signals typically require approximately 7 kHz of bandwidth and data traffic typically requires approximately 50 kHz of bandwidth.

base station A land station in the land mobile radio service. In the personal communication service, the common name for all the radio equipment that is located at one fixed location and used for serving one or several calls.

C

CAI common air interface. The standard for the digital wireless communications medium that is employed for P25-compliant radio systems and equipment. The standard for P25 Phase I incorporates Frequency Division Multiple Access (FDMA) technology.

call delay The delay that occurs when there is no idle channel or facility available to immediately process a call that arrives at an automatic switching device.

call setup time The time that is required to establish a circuit-switched call between users or terminals.

carrier A wave that is suitable for modulation by an information-bearing signal.

CAS channel associated signaling. The transmission of signaling information within the voice channel. CAS signaling often is referred to as robbed-bit signaling because user bandwidth is being robbed by the network for other purposes.

channel A communication path that is wide enough to permit a single RF transmission. Multiple channels can be multiplexed over a single cable in certain environments. *See* PTT channel.

channel capacity The maximum possible information transfer rate through a channel, subject to specified constraints.

channel folder A logical grouping of channels

channel select check box Provides the ability to select or deselect the specified channel on the PMC for audio transmission.

channel spacing The distance from the center of one channel to the center of the next-adjacent-channel. Typically measured in kilohertz.

Cisco Unified CallManager The software-based call-processing component of the Cisco IP telephony solution. Cisco Unified CallManager extends enterprise telephony features and functions to packet telephony network devices, such as Cisco Unified IP Phones, media processing devices, VoIP gateways, and multimedia applications.

Cisco IPICS Cisco IP Interoperability and Collaboration System. The Cisco IPICS system provides an IP standards-based solution for voice interoperability by interconnecting voice channels, talk groups, and VTGs to bridge communications amongst disparate systems.

Cisco IPICS policy engine Integrated with the Cisco IPICS server, this component enables telephony dial functionality and is responsible for the management and execution of policies and user notifications.

Cisco IPICS server Provides the core functionality of the Cisco IPICS system. The Cisco IPICS server software runs on the Linux operating system on selected Cisco Media Convergence Server (MCS) platforms. The server software includes an incident management framework administration GUI that enables dynamic resource management for users, channels, and VTGs. The server also includes the Cisco IPICS policy engine, which enables telephony dial functionality and is responsible for the management and execution of policies and user notifications.

Cisco Unified IP Phone A full-featured telephone that provides voice communication over an IP network. A user can participate in a PTT channel or VTG by using a Cisco Unified IP Phone as a PTT device.

Cisco Security Agent Provides threat protection for server and desktop computing systems (endpoints) by identifying, preventing, and eliminating known and unknown security threats.

CLI command-line interface. An interface that allows the user to interact with the operating system by entering commands and optional arguments.

codec coder-decoder.

1. Integrated circuit device that typically uses pulse code modulation to transform analog signals into a digital bit stream and digital signals back into analog signals.

2. In Voice over IP, Voice over Frame Relay, and Voice over ATM, a DSP software algorithm that is used to compress/decompress speech or audio signals.

conference of conferences A conference that consists of two or more VTGs.

conventional radio system A non-trunked system that is similar to telephone party-line in that the user determines availability by listening for an open channel.

COR carrier operated relay. A signal from a receiver that indicates that the receiver is receiving a signal and that the receiver is not squelched.

coverage In radio communications, the geographical area that is within the range of, or that is covered by, a wireless radio system to enable service for radio communications. Also referred to as service delivery area.

D

delay time The sum of waiting time and service time in a queue.

decrypt Cryptographically restore ciphertext to the plaintext form it had before encryption.

decryption Reverse application of an encryption algorithm to encrypted data, thereby restoring that data to its original, unencrypted state.

dial engine scripts Scripts that the Cisco IPICS dial engine executes to provide the telephony user interface (TUI) for interaction with incoming and outgoing phone calls.

dial-in A phone call that is dialed in to the policy engine.

dial-in floor control A feature that allows one dial-in user, at a time, to talk in a VTG or a channel. The telephony user interface provides this dial-in floor control feature to support dial-in users. It does not provide support for floor control for other PTT users.

dial number The phone number that is used by the policy engine and the SIP provider and configured in the Dial Information pane in the Ops Views window. Dialing this number provides user access to the telephony user interface.

dial out invite An action that invites selected user(s) to the selected VTG.

A phone call that is dialed out by the policy engine to a phone user to invite the user in to a talk group.

dial peer Addressable call endpoint. In Voice over IP, there are two kinds of dial peers: POTS and VoIP.

digit ID A numeric identifier that is chosen by a Cisco IPICS user and stored in the user profile. Cisco IPICS uses this ID and a numeric password to authenticate a Cisco Unified IP Phone user.

digital modulation technique A technique for placing a digital data sequence on a carrier signal for subsequent transmission through a channel.

dispatcher The Cisco IPICS dispatcher is responsible for setting up the VTG templates, activating the VTGs to begin conferences, and adding and/or removing participants in VTG templates and active VTGs. The dispatcher also monitors the active VTGs and events, can mute and unmute PMC users, as necessary, and manages policies, which activate/deactivate VTGs based on specific criteria and designated intervals. Policy management activities include create/modify/delete policies, view policies, execute policies, and activate privileges.

DS0 digital service zero (0). Single timeslot on a DS1 (also known as T1) digital interface—that is, a 64-kbps, synchronous, full-duplex data channel, typically used for a single voice connection on a PBX.

dynamic regrouping A trunking system feature that allows multiple radios to be placed upon a specific talk group without manual manipulation of the programming of the radios. Dynamic regrouping is initiated through a system control console and transmitted to the radio via the trunking systems control channel.

E

E & M recEive and transMit (or ear and mouth). The E&M interface provides voice signals from radio channels, which are then mapped to IP multicast or unicast. The E&M interface provides the most common form of analog trunking.

1. Trunking arrangement that is generally used for two-way switch-to-switch or switch-to-network connections. Cisco's analog E&M interface is an RJ-48 connector that allows connections to PBX trunk lines (tie lines). E&M also is available on E1 and T1 digital interfaces.

2. A type of signaling that is traditionally used in the telecommunications industry. Indicates the use of a handset that corresponds to the ear (receiving) and mouth (transmitting) component of a telephone.

encipher To convert plain text into an unintelligible form by using a cipher.

encode To modify information into the required transmission format.

encryption Application of a specific algorithm so as to alter the appearance of data and make it incomprehensible to unauthorized users.

event An active VTG in the Cisco IPICS solution.

F

FDM frequency-division multiplexing. Technique whereby information from multiple channels can be allocated bandwidth on a single wire based on frequency.

FDMA frequency-division multiple access. A a channel access method in which different conversations are separated onto different frequencies. FDMA is employed in narrowest bandwidth and multiple-licensed channel operations.

FLEXlm Cisco software that enforces licensing on certain systems; FLEXlm ensures that Cisco IPICS software will work only on the supported and licensed hardware.

floor control The standard mechanism for Push-to-Talk speaker arbitration.

frame A logical grouping of information sent as a data link layer unit over a transmission medium. Often refers to the header and the trailer, used for synchronization and error control, that surround the user data contained in the unit. The terms cell, datagram, message, packet, and segment also describe logical information groupings at various layers of the OSI reference model.

frequency For a periodic function, frequency represents the number of cycles or events per unit of time.

frequency assignment Assignment that is given to a radio station to use a radio frequency or radio frequency channel under specified conditions.

frequency hopping The repeated switching of frequencies during radio transmission according to a specified algorithm, intended to minimize unauthorized interception or jamming of telecommunications.

frequency modulation Modulation technique in which signals of different frequencies represent different data values.

frequency sharing The assignment to or use of the same radio frequency by two or more stations that are separated geographically or that use the frequency at different times.

G

gateway Device that performs an application-layer conversion of information from one protocol stack to another. In Cisco IPICS, the gateway component includes LMR gateways, which functionality is usually installed as an additional feature in a supported Cisco router. LMR gateways provide voice interoperability between radio and non-radio networks by bridging radio frequencies to IP multicast streams.

GRE generic routing encapsulation. Tunneling protocol that can encapsulate a wide variety of protocol packet types inside IP tunnels, creating a virtual point-to-point link to Cisco routers at remote points over an IP internetwork. By connecting multiprotocol subnetworks in a single-protocol backbone environment, IP tunneling that uses GRE allows network expansion across a single-protocol backbone environment. GRE is generally used to route multicast traffic between routers.

H

H.323 Defines a common set of codecs, call setup and negotiating procedures, and basic data transport methods to allow dissimilar communication devices to communicate with each other by using a standardized communication protocol.

high-band frequency Refers to the higher frequency levels in the VHF band, typically 138-222 MHz.

Hoot ‘n’ Holler (Hootie) A communications system where the loudest and most recent talker or talkers are mixed into one multicast output stream. Also known as hootie, these networks provide “always on” multiuser conferences without requiring that users dial in to a conference.

Cisco enables the Cisco Hoot 'n' Holler feature in specific Cisco IOS versions.

i

I

inactive VTG A VTG that is stored for use. The Cisco IPICS server stores inactive VTGs so that they can be automatically activated by a policy or manually activated by a dispatcher.

incident management framework A software framework that includes an adaptable GUI to facilitate resources, such as users, radio channels, cameras, and sensor information, for delivery that is based upon policy or incident needs.

informix linux group Members of this group have full permission to Cisco IPICS server folders, files, and scripts that are related to the Informix database application. Members of this group include the informix and ipicsdba users.

informix user ID The Cisco IPICS Linux user that belongs to both the informix linux group, which includes full permission to the Cisco IPICS database server folders, files, and scripts, and the ipics linux group, which includes permission to Cisco IPICS application-related folders, files, and scripts. In addition, this user has full administrative permission to the Informix database instance. Cisco IPICS creates this Linux system user ID and generates the password during the software installation process. The password for this user ID never expires.

To access the informix user, log in to the Cisco IPICS server by using the root user ID; then, enter **su - informix** (superuser from root).

interference The effect of unwanted energy due to one or a combination of emissions, radiation, or inductions upon reception in a radio communication system, manifested by any performance degradation, misinterpretation, or loss of information, which could be extracted in the absence of such unwanted energy.

interoperability The capability of equipment manufactured by different vendors to communicate with each other successfully over a network.

invitation policy A policy that can be invoked only through the telephony user interface and can include only the invite to VTG action. After joining a talk group, a user can access the breakout menu and invoke invitation policies. The talk group that this user has joined is the talk group that the invited users join.

invite to VTG A version of the dial out invite action where users to be invited are preconfigured but the VTG that they are invited to depends on which VTG the invoker of the policy is dialed into.

ipicsadmin user ID The Cisco IPICS Linux user that, as part of the ipics linux group, has full permission to the Cisco IPICS server folders, files, and scripts that are related to the Cisco IPICS application and database backup and restore operations. In addition, the ipicsadmin user has permission to read and write data from and/or to the Informix database. Cisco IPICS creates this Linux system user ID during the software installation process. The password for this user ID never expires.

ipicsdba user ID The Cisco IPICS Linux user that belongs to both the informix linux group, which includes full permission to the Cisco IPICS database server folders, files, and scripts, and the ipics linux group, which includes permission to Cisco IPICS application-related folders, files, and scripts. In addition, the ipicsdba user has permission to read data, write data, create tables, and create databases in the Informix database instance. Cisco IPICS creates this Linux system user ID and generates the password during the software installation process. The password for this user ID never expires.

To access the ipicsdba user, log in to the Cisco IPICS server by using the root user ID; then, enter **su - ipicsdba** (superuser from root).

ipics linux group Members of this group have full permission to Cisco IPICS server folders, files, and scripts that are related to the Cisco IPICS application and database backup and restore operations. Members of this group include the ipicsadmin, ipicsdba, and informix users.

ipics user ID The Cisco IPICS application-level user ID that can perform all administration-related tasks via the Cisco IPICS Administration Console. Cisco IPICS creates this web-based user ID during the software installation process.

IPSec IP Security. A framework of open standards that provides data confidentiality, data integrity, and data authentication between participating peers. IPSec provides these security services at the IP layer. IPSec uses IKE to handle the negotiation of protocols and algorithms based on local policy and to generate the encryption and authentication keys to be used by IPSec. IPSec can protect one or more data flows between a pair of hosts, between a pair of security gateways, or between a security gateway and a host.

K

keepalive A message that is sent by one network device to inform another network device that the virtual circuit between the two devices is still active.

key The parameter that defines an encryption code or method.

kilohertz (kHz) A unit of frequency that denotes one thousand Hz.

L

latch The PMC functionality that allows a Cisco IPICS user to lock in a PTT channel.

linear modulation A radio frequency transmission technique that provides the physical transport layer of a radio system. This technology is compatible in digital and analog system environments and supports channel bandwidths of 5 kHz to 50 kHz.

LMR Land Mobile Radio. A Land Mobile Radio (LMR) system is a collection of portable and stationary radio units that are designed to communicate with each other over predefined frequencies. They are deployed wherever organizations need to have instant communication between geographically dispersed and mobile personnel.

Cisco IPICS leverages the Cisco Hoot 'n' Holler feature, which is enabled in specific Cisco IOS versions, to provide radio integration into the Cisco IPICS solution. LMR is integrated by providing an ear and mouth (E&M) interface to a radio or other PTT devices, such as Nextel phones. Configured as a voice port, this interface provides the appropriate electrical interface to the radio. You configure this voice port with a connection trunk entry that corresponds to a voip dial peer, which in turn associates the connection to a multicast address. This configuration allows you to configure a corresponding channel in Cisco IPICS, using the same multicast address, which enables Cisco IPICS to provide communication paths between the desired endpoints.

location In Cisco IPICS, location signifies reachability; meaning, channels or users who are associated with the same location can communicate with each other without additional network configuration. Location may refer to a physical or virtual location, as defined in the server.

low-band frequency Lower frequency levels in the VHF band, typically 25–50 MHz.

M

megahertz (MHz) A unit of frequency denoting one million Hz.

modulation The process, or result of the process, of varying a characteristic of a carrier in accordance with an information-bearing signal.

multicast Single packets that are copied by the network and sent to a specific subset of network addresses. Multicast refers to communications that are sent between a single sender and multiple recipients on a network.

multicast address A single address that may refer to multiple network devices.

multicast address/port Cisco IPICS uses this type of connection to enable the PMC to directly tune in to the multicast channel. Multicast address/port combinations are also used by gateways and RMS components.

multicast pool Multicast IP addresses that are defined as part of a multicast pool. Cisco IPICS allocates a multicast address from this pool of resources when a dispatcher activates a VTG.

multiplexing The combination of two or more information channels on to a common transmission medium. In electrical communications, the two basic forms of multiplexing are time-division multiplexing (TDM) and frequency-division multiplexing (FDM).

multipurpose policy A policy that can include any of the supported actions; may be invoked through the telephony user interface or the Cisco IPICS administration console.

multiselect buttons Provides the ability to select or deselect all channels on the PMC for audio transmission.

mute The functionality that enables a dispatcher to mute a PMC user from talking or transmitting voice on one or more channels. The dispatcher can mute the microphone of the user or both the microphone and the speaker.

mutual aid channel A national or regional channel that has been set aside for use only in mutual aid interoperability situations. Restrictions and guidelines governing usage usually apply.

N

narrowband channels Channels that occupy less than 20 kHz.

National Public Safety Planning Advisory Committee The committee that was established to conduct nationwide planning and allocation for the 821–824 MHz and 866–869 MHz bands.

National Telecommunication and Information Administration The United States executive branch agency that serves as the principal advisor to the president on telecommunications and information policies and that is responsible for managing the federal government's use of the radio spectrum.

network An interconnection of communications entities.

NAT Network Address Translation. Provides a mechanism for translating addresses that are not globally unique into globally routable addresses for connection to the Internet.

not activated A VTG state that becomes effective when the Activate button is clicked a second time (to deactivate the channel) or if the connection terminates. No PMC buttons appear highlighted.

notification An action that notifies selected user(s) via email, SMS, pager, or phone. The necessary IDs and phone numbers are configured in the communication preferences for each user. Notifications that are sent via the phone require user authentication before the notification prompt is heard.

An email, SMS, pager, or phone call that is placed to a user for the purpose of sending a notification message.

O

offline mode When the connection to the server goes offline, the PMC enters offline mode. Offline mode enables continuous communication during periods of server downtime. Using offline mode requires at least one successful login to the server.

operator The Cisco IPICS operator is responsible for setting up and managing users, configuring access privileges, and assigning user roles and ops views.

ops view operational view. A Cisco IPICS feature that provides the ability to organize users, user groups, channels, channel groups, VTGs, and policies into different user-definable views across multiple organizations or agencies that normally would not share resources. While ops views are maintained separately by the Cisco IPICS system administrator and/or ops view administrator, this functionality also allows multiple entities to use one Cisco IPICS server to enable resource sharing across multiple ops views, according to business need.

ops view administrator The ops view administrator capabilities include managing and monitoring the activity logs that are filtered by ops views and accessible in the Administration Console (**Administration > Activity Log Management**) window.

OTAR over-the-air re-keying. Provides the ability to update or modify over radio frequency the encryption keys that are programmed in a mobile or portable radio.

P

packet A logical grouping of information that includes a header that contains control information. Usually also includes user data.

packet switching The process of routing and transferring data by using addressed packets so that a channel is occupied during the transmission of the packet only. Upon completion of the transmission, the channel is made available for the transfer of other traffic.

PIM Protocol Independent Multicast. Multicast routing architecture that allows the addition of IP multicast routing on existing IP networks. PIM is unicast routing protocol independent and can be operated in two modes: PIM dense mode and PIM sparse mode.

PIM dense mode One of the two PIM operational modes. PIM dense mode is data-driven and resembles typical multicast routing protocols. Packets are forwarded on all outgoing interfaces until pruning and truncation occurs. In dense mode, receivers are densely populated, and it is assumed that the downstream networks want to receive and will probably use the datagrams that are forwarded to them. The cost of using dense mode is its default flooding behavior. Sometimes called dense mode PIM or PIM DM.

PIM sparse mode One of the two PIM operational modes. PIM sparse mode tries to constrain data distribution so that a minimal number of routers in the network receive it. Packets are sent only if they are explicitly requested at the RP (rendezvous point). In sparse mode, receivers are widely distributed, and the assumption is that downstream networks will not necessarily use the datagrams that are sent to them. The cost of using sparse mode is its reliance on the periodic refreshing of explicit join messages and its need for RPs. Sometimes called sparse mode PIM or PIM SM.

PMC Push-to-Talk Management Center. A standalone PC-based software application that simulates a handheld radio to enable PTT functionality for PC users. This application enables Cisco IPICS PMC end-users, dispatch personnel, and administrators to participate in one or more VTGs at the same time.

PMC ID The unique ID that the Cisco IPICS server generates for each PMC to track requests between the PMC and the server and to verify and manage concurrent PMC usage for licensing requirements.

policy Policies include one or more actions that execute sequentially and can be manually activated via the Cisco IPICS administration console or the telephony user interface. Cisco IPICS provides support for multiple policy types.

policy channel A channel that can be set up by the dispatcher and configured as a designated channel; that is, a channel that is always open to enable your interaction with the dispatcher.

policy execution status An indicator of policy execution success or failure. The Cisco IPICS administration console provides a status for each action under a policy,

portalization A web programming paradigm for customizing the interface and functionality of a client application.

protocol A set of unique rules that specify a sequence of actions that are necessary to perform a communications function.

PTT Push-to-talk. A signal to a radio transmitter that causes the transmission of radio frequency energy.

PTT channel A channel consists of a single unidirectional or bidirectional path for sending and/or receiving signals. In the Cisco IPICS solution, a channel represents one LMR gateway port that maps to a conventional radio physical radio frequency (RF) channel.

PTT channel button The button on the PMC that you click with your mouse, or push, and hold to talk. You can use the latch functionality on this button to talk on one or more channels at the same time.

PTT channel group A logical grouping of available PTT channels that can be used for categorization.

Q

QoS quality of service. A measurement of performance for a transmission system, including transmission quality and service availability.

queue Represents a set of items that are arranged in sequence. Queues are used to store events occurring at random times and to service them according to a prescribed discipline that may be fixed or adaptive.

queuing delay In a radio communication system, the queuing delay specifies the time between the completion of signaling by the call originator and the arrival of a permission to transmit to the call originator.

R

radio channel Represents an assigned band of frequencies sufficient for radio communication. The bandwidth of a radio channel depends upon the type of transmission and its frequency tolerance.

radio equipment Any equipment or interconnected system or subsystem of equipment (both transmission and reception) that is used to communicate over a distance by modulating and radiating electromagnetic waves in space without artificial guide. This equipment does not include microwave, satellite, or cellular telephone equipment.

receive indicator The indicator on the PMC that blinks green when traffic is being received.

remote connection Cisco IPICS uses this type of connection to provide SIP-based trunking into the RMS component, which is directly tuned into the multicast channel.

RF radio frequency. Any frequency within the electromagnetic spectrum that is normally associated with radio wave propagation. RF generally refers to wireless communications with frequencies below 300 GHz.

RF repeater An analog device that amplifies an input signal regardless of its nature (analog or digital). Also, a digital device that amplifies, reshapes, retimes, or performs a combination of any of these functions on a digital input signal for retransmission.

RMS router media service. Component that enables the Cisco IPICS PMC to remotely attach to a VTG. It also provides support for remotely attaching (combining) two or more VTGs through its loopback functionality.

The RMS mixes multicast channels in support of VTGs and it also mixes PMC SIP-based (unicast) connections to a multicast channel or VTG. The RMS can be installed as a stand-alone component (RMS router) or as an additional feature that is installed in the LMR gateway.

root user ID The Cisco IPICS Linux user that has access to all files in the Cisco IPICS server. Strong passwords are enforced and Linux operating system password expiration rules apply to this user ID.

RTP Real-Time Transport Procotol. Commonly used with IP networks to provide end-to-end network transport functions for applications transmitting real-time data, such as audio, video, or simulation data, over multicast or unicast network services.

S

scanning A subscriber unit feature that automatically allows a radio to change channels or talk groups to enable a user to listen to conversations that are occurring on different channels or talk groups.

script prompts The audio prompts that the dial engine scripts play out during execution and which callers hear when they are interacting with the telephony user interface.

secure channel A channel that is connected to a radio that provides secure (encrypted or scrambled) communications on the Common Air Interface (CAI) side of the radio. (The level of security that is configured in the data network determines the security of the communications between the LMR gateway and a network attached device, such as a PMC or Cisco Unified IP Phone.)

An attribute that is set in the server to indicate that a channel is secure. A PTT channel that is configured as secure cannot be combined with unsecure channels in a VTG.

service delivery area *See* coverage.

signal The detectable transmitted energy that carries information from a transmitter to a receiver.

skin Skins form the appearance of the PMC. In Cisco IPICS, skins are customizable and available in various options, including 4-channel and 8-channel mouse and touch screen formats.

speaker arbitration The procedure that is used to determine the active audio stream in a Push-to-Talk system.

spectrum The usable radio frequencies in the electromagnetic distribution. The following frequencies have been allocated to the public safety community:

High HF 25–29.99 MHz
Low VHF 30–50 MHz
High VHF 150–174 MHz
Low UHF 406.1–420/450–470 MHz
UHF TV Sharing 470–512 MHz
700 MHz 764–776/794–806 MHz
800 MHz 806–824/851–869 MHz.

spoken names The recorded names that are used for entities, such as channels, channel groups, VTGs, users, user groups, ops views, and policies. The names can be recorded through the policy engine or externally-recorded .wav files that can be uploaded into the system.

squelch An electric circuit that stops input to a radio receiver when the signal being received is too weak to be anything but noise.

stored VTG Also referred to as inactive VTG.

subscriber unit A mobile or portable radio unit that is used in a radio system.

system administrator The Cisco IPICS system administrator is responsible for installing and setting up Cisco IPICS resources, such as servers, routers, multicast addresses, locations, and PTT channels. The system administrator also creates ops views, manages the Cisco IPICS licenses and PMC versions, and monitors the status of the system and its users via the activity log files.

system architecture The design principles, physical structure, and functional organization of a land mobile radio system. Architectures may include single site, multi-site, simulcast, multicast, or voting receiver systems.

T

T1 Digital WAN carrier facility. T1 transmits DS-1-formatted data at 1.544 Mbps through the telephone-switching network, using alternate mark inversion (AMI) or binary 8 zero suppression (B8ZS) coding.

T1 loopback Allows mapping from multicast to unicast so that unicast phone calls can be patched into an LMR or into other multicast audio streams. A loopback is composed of two of the available T1 interfaces.

talk group A VTG or a channel.

A subgroup of radio users who share a common functional responsibility and, under normal circumstances, only coordinate actions among themselves and do not require radio interface with other subgroups.

TCP Transmission Control Protocol. A connection-oriented transport layer protocol that provides reliable full-duplex data transmission. TCP is part of the TCP/IP protocol stack.

TDMA time division multiple access. Type of multiplexing where two or more channels of information are transmitted over the same link by allocating a different time interval (“slot” or “slice”) for the transmission of each channel; that is, the channels take turns to use the link.

terminal A device capable of sending, receiving, or sending and receiving information over a communications channel.

throughput The number of bits, characters, or blocks passing through a data communications system, or a portion of that system.

TIA/EIA-102 standards A joint effort between government and industry to develop voice and data technical standards for the next generation of public safety radios.

tone control The process of sending a 2175 Hz inband tone with voice transmission to control receiving radios remotely. An inband tone can be used to control functions such as frequency selection and channel monitoring.

transmit indicator On some of the PMC skins, this indicator blinks red when traffic is being transmitted.

trigger A time-based event that invokes a policy on a scheduled basis, without manual intervention.

trunk A physical and logical connection between two switches across which network traffic travels. In telephony, a trunk is a phone line between two central offices (COs) or between a CO and a PBX.

trunked (system) Systems with full feature sets in which all aspects of radio operation, including RF channel selection and access, are centrally managed.

trunked radio system Integrates multiple channel pairs into a single system. When a user wants to transmit a message, the trunked system automatically selects a currently unused channel pair and assigns it to the user, decreasing the probability of having to wait for a free channel.

TUI telephony user interface. The telephony interface that the dial engine provides to enable callers to perform tasks, such as joining talk groups and invoking policies.

U

user The Cisco IPICS user may set up personal login information, download the PMC application, customize the PMC skin, and specify communication preferences that are used to configure audio devices. By using a predefined user ID and profile, the user can participate in PTT channels and VTGs by using the PMC, supported models of Cisco Unified IP Phones, and the Public Switched Telephone Network (PSTN) via the telephony dial functionality of the Cisco IPICS IP policy engine. Users may have one or more Cisco IPICS roles, such as system administrator, ops view administrator, operator or dispatcher.

unicast Specifies point-to-point transmission, or a message sent to a single network destination.

V

VAD Voice Activity Detection. When VAD is enabled on a voice port or on a dial peer, only audible speech is transmitted over the network. When VAD is enabled on Cisco IPICS, the PMC only sends voice traffic when it detects your voice.

virtual channel A virtual channel is similar to a channel but a radio system may not be attached. By creating a virtual channel, participants who do not use physical handheld radios to call into a VTG become enabled by using the PMC application or a supported Cisco Unified IP Phone model.

voice interoperability Voice interoperability enables disparate equipment and networks to successfully communicate with each other.

voice replay A feature that allows the PMC user to replay buffered audio on a per channel basis.

VoIP Voice over Internet Protocol. By digitalizing and packetizing voice streams, VoIP provides the capability to carry voice calls over an IP network with POTS-like functionality, reliability, and voice quality.

volume indicator The volume indicator on the PMC that shows the current volume level on the channel in a graphical format.

volume up/down buttons The buttons on the PMC that let you control the volume level.

VOX Voice-operated transmit. A keying relay that is actuated by sound or voice energy above a certain threshold and sensed by a connected acousto-electric transducer. VOX uses voice energy to key a transmitter, eliminating the need for push-to-talk operation.

VTG virtual talk group. A VTG can contain any combination of channels, channel groups, users, and user groups. A VTG can also contain other VTGs.

VTG add participant An action that adds selected participant(s) to the selected VTG.

VTG template Before becoming active, a VTG is in an inactive state as a VTG template. The server stores VTG templates so that they can be automatically activated by a policy or manually activated by a dispatcher. Also known as a preconfigured VTG.

W

wavelength The representation of a signal as a plot of amplitude versus time.

wideband channel Channels that occupy more than 20 kHz.

A

B

C

D

E

I

M

N

P

R

W