



Introduction

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This chapter introduces the Cisco Unified Communications Manager Express (Cisco Unified CME, formerly known as Cisco Unified CallManager Express) Telephony Application Programming Interface (TAPI) implementation, describes the purpose of this document, and outlines the required software. The chapter includes the following sections:

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TAPI comprises the set of classes and principles of operation that constitute a telephony application programming interface. TAPI implementations provide the interface between computer telephony applications and telephony services. Cisco Unified CME provides a telephony service provider (Cisco Unified CME TSP 2.1). Cisco Unified CME TSP 2.1 allows developers to create customized IP telephony applications for Cisco Unified CME users; for example, voice messaging with other TAPI-compliant systems, automatic call distribution (ACD), and caller ID screen popups.

Cisco Unified CME TSP 2.1 implementation uses the Microsoft TAPI v2.2 specification and supplies extension functions to support Cisco Unified IP Telephony Solutions. To enable a Cisco Unified CME TSP-based solution, you must have the following:

- TAPI support/service that is running on your Windows system
- A TAPI-based software application
- A Cisco Unified CME IP telephone system



Note

The system does not support using Cisco Unified CME TSP 2.1 via the TAPI 3.x compatibility layer.



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Purpose

This document describes the Cisco Unified CME TAPI implementation by detailing the functions that comprise the implementation software and illustrating how to use these functions to create applications that support the Cisco Unified CME IP telephony hardware, software, and processes. A primary goal of a standard application programming interface (API), such as TAPI, is to provide an unchanging programming interface under which varied implementations may stand. Cisco's goal in implementing TAPI for the Cisco Unified CME platform remains to conform as closely as possible to the TAPI specification, while providing extensions that enhance TAPI and expose the advanced features of Cisco Unified CME to applications.

Audience

Cisco intends this document to be for use by telephony software engineers who are developing Cisco Unified telephony applications that require TAPI. This document assumes that the engineer is familiar with both the C or C++ languages and the Microsoft TAPI specification.

Organization

The organization of this manual is described in [Table 1](#).

Table 1 **Organization of Document**

Chapter	Description
Introduction	General information regarding target audience for the guide and sources of support.
Overview	Outlines the key concepts and describes changes in and enhancements to Cisco Unified CME TSP 2.1.
Cisco Unified CME TAPI Line Device	Describes the supported line device functions, messages and structures in the Cisco implementation of the standard Microsoft TAPI.
Cisco Unified CME TAPI Phone Device	Describes the supported phone device functions, messages and structures in the Cisco implementation of the standard Microsoft TAPI.

Related Documents

The following resources provide more information about TAPI specifications, creating an application to use TAPI, and TAPI administration:

- *The Microsoft Telephony Application Programming Interface (TAPI) Programmer's Reference*
- *For the Telephony API, Press 1; For Unimodem, Press 2; or Stay on the Line—A paper on TAPI by Hiroo Umeno who is a COMM and TAPI specialist*
- *TAPI 2.1 Microsoft TAPI Client Management*
- *TAPI 2.1 Administration Tool*

Required Software

For more information about TAPI specifications, creating an application to use TAPI, or TAPI administration, see:

Cisco Unified CME TSP 2.1 requires the following software:

- Cisco Unified Communications Manager Express version 12.3.11, 12.4

Supported Windows Platforms

All Windows operating systems support Cisco Unified CME TSP 2.1. Depending on the type and version of your operating system, you may need to install a service pack.

- Windows 2000
- Windows XP



Note

Check %SystemRoot%\system32 for these dynamically loaded library (.dll) files and versions:

- msvcrt.dll version: 6.00.8397.0
- msvcp60.dll version: 6.00.8168.0
- mfc42.dll version: 6.00.8447.0

Terminology

The terms shown in [Table 2](#) are used frequently in the manual to identify different kinds of individuals and objects.

Table 2 **Terms**

Term	Meaning
Administrator	The person responsible for the administration of the InstaRoute CallCenter system.
Agent	Person who answers ACD calls using an agent instrument.
Database	A database is a file that contains information in a tabular format.
Dialog	Popup window from which options are selected.
Directory	A directory is a database that usually contains names and related information.
Field	Each column of the database table is called a field.
Group	A supervisory collection of agents. A group is a division of a serving team that provides a supervisor with an easily manageable set of agents. Agents in the same group handle similar call types.
Queue	Displays a list of call queues. Queue is a first-in, first-out ranking of calls of one type waiting for agents to answer them. One group or serving team may service multiple call queues.

Table 2 **Terms (continued)**

Term	Meaning
Record or Entry	Each row of the database table is called an entry or a record.
Reports	A report is a pre-defined template or style for printing the information from a database.
Server	Named directory containing control and data files.
Supervisor	The person responsible for a group of agents.
Users	Individuals who are authorized to use the system.
Window	An area of the screen where the application displays information.