Before You Begin

This guide provides a high-level overview of the tasks required to install and perform initial configuration of Cisco Unified MobilityManager.

Note Cisco Unified MobilityManager is an enterprise application server that provides Mobile Connect functionality in conjunction with Cisco Unified CallManager, Unity, and other IP communications applications. Mobile Connect refers to the set of features that includes the ability to answer incoming calls on the desk phone or cellular phone, to pick up in-progress calls on the desk phone or cellular phone without losing the connection, and to originate enterprise calls from the cellular phone.

Due to the integration of Cisco Unified MobilityManager with various Cisco Unified Communications products and services, some of the configuration tasks must be performed in Cisco Unified CallManager and the network gateway.

Note Read *Release Notes for Cisco Unified MobilityManager Release 1.2(1)* before installing and configuration Cisco Unified MobilityManager.

Before you begin, review these sections in this guide:

- Assumptions, page 5
- Detailed Compatibility Information, page 6
- For More Information, page 6
- Task Overview, page 6

Assumptions

These tasks assume that a working Cisco Unified CallManager installation, Release 4.0.2a or higher is in place.

Detailed Compatibility Information

For detailed information about the compatibility of Cisco Unified CallManager, refer to this Cisco.com sites:

- Cisco Unified CallManager

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

For More Information

Due to the variety of the installations and the complexity of the procedures that are required to completely set up a Cisco IP Telephony network, this document refers to other documents for additional information.

Access Cisco Unified MobilityManager documentation on this Cisco.com site:

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

Access Cisco Unified CallManager documentation on this Cisco.com site:

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

Task Overview

Table 1 provides a high-level overview of the tasks required to install and configure Cisco Unified MobilityManager. The tables that follow provide more detailed task lists.

Table 1 Task Overview

Task	Purpose	For More Information, See...
1. Install Cisco Unified MobilityManager.	A designated MCS-7815-I1 server is required for Cisco Unified MobilityManager. You must load the operating system and Cisco Unified MobilityManager software onto the server.	*Cisco Unified MobilityManager Installation Guide*
2. Configure Cisco Unified CallManager to Work with Cisco Unified MobilityManager.	Because Cisco Unified MobilityManager relies upon and is closely integrated with Cisco Unified CallManager, you must perform configuration tasks in Cisco Unified CallManager before configuring Cisco Unified MobilityManager.	*Cisco Unified MobilityManager Installation Guide*

Table 1 Task Overview (continued)

Task	Purpose	For More Information, See...
3. Configure the H.323 Gateway.	An H.323 gateway is required to support the system remote access feature in Cisco Unified MobilityManager. You can use an existing H.323 gateway, if one is already installed in your network. If you do not have an H.323 gateway, then you must add and configure one.	*Cisco Unified MobilityManager Installation Guide*
4. Verify the Desk Phone Configuration.	It is not necessary to change the configuration for any of the physical desk phones; however, it is recommended that you increase the timeout permitted before the enterprise voice mail system intercepts an incoming call.	*Cisco Unified CallManager Administration Guide*
5. Configure Cisco Unified CallManager Links in Cisco Unified MobilityManager.	The shared line and outgoing port user links are necessary to complete the connection between Cisco Unified CallManager and Cisco Unified MobilityManager, and are required to support Mobile Connect services.	*Cisco Unified MobilityManager Installation Guide*
6. Set Up the User Profile.	The user's profile contains all the user elements needed for Mobile Connect services, including user account, group, line appearances, and remote destinations.	*Cisco Unified MobilityManager Administration Guide*
7. Configure System Parameters.	You can configure system parameters settings to activate or modify Mobile Connect features. For basic Cisco Unified MobilityManager operation, it is not necessary to modify any of the default system parameters settings.	*Cisco Unified MobilityManager Administration Guide*

1. Install Cisco Unified MobilityManager

Before installing Cisco Unified MobilityManager, obtain the appropriate installation documentation, the required hardware, and the data that you must enter during the installation. Table 2 lists the major installation tasks.

Table 2 Installation Tasks

Task	Purpose	For More Information, See...
1. Gather network addresses and other installation information.	Prepare to properly install the Cisco Unified MobilityManager server on your network.	"Gathering Installation Information" chapter in the *Cisco Unified MobilityManager Installation Guide*
2. Using the Cisco Unified MobilityManager DVD, complete the installation process.	The installation process installs the server operating system and Cisco Unified MobilityManager application in one combined operation.	"Installing Cisco Unified MobilityManager on a Server" chapter in the *Cisco Unified MobilityManager Installation Guide*

2. Configure Cisco Unified CallManager to Work with Cisco Unified MobilityManager

Because Cisco Unified MobilityManager relies upon and is closely integrated with Cisco Unified CallManager, you must perform configuration tasks in Cisco Unified CallManager before configuring Cisco Unified MobilityManager. Use the Cisco Unified CallManager administration interface to perform the tasks listed in Table 3.

Table 3 Cisco Unified CallManager Configuration Tasks

Task	Purpose	For More Information, See...
1. Set parameters for the Mobile Connect IP Phone Service	Mobile Connect IP Phone Service is assigned to individual phones to enable users to determine the status of Mobile Connect functionality on their phones or to pick up calls at defined remote destinations.	"Setting Parameters for the Mobile Connect IP Phone Service in Cisco Unified CallManager" chapter in the *Cisco Unified MobilityManager Installation Guide*
2. Create a partition for the CTI route point.	A CTI route point in Cisco Unified CallManager designates a virtual device that can receive multiple, simultaneous calls for application-controlled redirection. Within Cisco Unified MobilityManager, the route point is used to present the correct caller ID to the cellular or additional wired telephone numbers that are contacted by Cisco Unified MobilityManager. The route point is also used by the CTI media ports to place calls to the remote destinations.	"Creating a Partition for the Route Point" chapter in the *Cisco Unified MobilityManager Installation Guide*
3. Create a calling search space.	A calling search space specifies the collection of partitions that are searched to determine how an originating number should be routed. You must create a special calling search space that contains the CTI route point partition.	"Creating the Calling Search Space" chapter in the *Cisco Unified MobilityManager Installation Guide*

Table 3 Cisco Unified CallManager Configuration Tasks (continued)

Task	Purpose	For More Information, See...
4. Create a pool of CTI ports for outgoing calls.	You must create a pool of CTI ports to manage all the calls that Cisco Unified MobilityManager makes to cellular phones and other destinations. A CTI port functions as a virtual phone device. The required number of ports will vary according to expected usage patterns and availability of external trunk lines.	"Creating a Pool of CTI Ports for Outgoing Calls" chapter in the *Cisco Unified MobilityManager Installation Guide*
5. Create a CTI port for the shared line.	To create a shared line, you must configure one CTI port with a directory number that is identical to the directory number on a physical phone. With a shared line, either the physical desk phone or the CTI port can answer the same call.	"Creating a CTI port for the Shared Line" chapter in the *Cisco Unified MobilityManager Installation Guide*
6. Create a CTI route point.	The CTI route point provides the correct caller ID to the receiving phone. Without a route point, the display for an incoming call would show only the caller ID of the CTI port originating the call, rather than the actual originating telephone number. In order for a number to be available for Mobile Connect use, the number must be available to the route point. The route point is also used by the CTI media ports to place calls to the remote destinations.	"Creating a CTI Route Point" chapter in the *Cisco Unified MobilityManager Installation Guide*
7. Add Cisco Unified MobilityManager CTI users.	To support Cisco Unified MobilityManager, you must add two users in Cisco Unified CallManager. The users control the CTI ports and the CTI route point that you already created. One user controls the outgoing CTI ports. The other user controls the CTI ports that have a Shared Line with the physical desk phones and also controls the route point.	"Adding Cisco Unified MobilityManager CTI Users" chapter in the *Cisco Unified MobilityManager Installation Guide*

3. Configure the H.323 Gateway

An H.323 gateway is required to support the system remote access feature in Cisco Unified MobilityManager. You can use an existing H.323 gateway, if one is already installed in your network. If you do not have an H.323 gateway, then you must add and configure one, as explained in Table 4.

Table 4 H.323 Gateway Tasks

Task	Purpose	For More Information, See...
1. Install a H.323 gateway, if required.	The H.323 gateway is required to support the system remote access feature in Cisco Unified MobilityManager.	Installation instructions for the H.323 Gateway
2. Configure the H.323 gateway to support Cisco Unified MobilityManager.	Configure the T1/E1 controller and serial interface, load the VXML application from Cisco Unified MobilityManager, and configure dial peers.	"Installing Cisco Unified MobilityManager on a Server" chapter in the *Cisco Unified MobilityManager Installation Guide*

4. Verify the Desk Phone Configuration

To use Cisco Unified MobilityManager, it is not necessary to change the configuration for any of the physical desk phones; however, it is recommended that you increase the timeout permitted before the enterprise voice mail system intercepts an incoming call. You can also configure Mobile Connect as a speed dial, if desired. Refer to the tasks list in Table 5.

Table 5 Desk Phone Configuration Tasks

Task	Purpose	For More Information, See...
1. Increase desk phone timeout.	The normal default is for four rings to be permitted before a call is redirected to a user's voicemail box. For Mobile Connect, additional time may be needed for the call to be placed an answered on the remote extension.	*Cisco Unified MobilityManager Administration Guide*, System Configuration chapter
2. Configure Mobile Connect as a speed dial (optional).	You can optionally configure the Mobile Connect service as a speed dial.	*Cisco Unified CallManager Administration Guide*, Configuring Cisco IP Phones chapter

5. Configure Cisco Unified CallManager Links in Cisco Unified MobilityManager

Note Perform the remaining tasks listed in this document using the Cisco Unified MobilityManager Administration web pages. You can reach the Cisco Unified MobilityManager Administration pages from any PC that supports Microsoft Internet Explorer Version 6 or Netscape Navigator Version 7.2. Enter the URL http://<Mobility Server>:8080/cmmadmin, where <Mobility Server> equals the name or IP address of your Cisco Unified MobilityManager server. Log in with the administrator ID and password. The default ID is CMMAdmin and the default password is ciscocisco.

The tasks listed in Table 6 configure shared lines and outgoing port links in Cisco Unified MobilityManager. The Shared Line User Link is a connection between Cisco Unified MobilityManager and the CTI user in Cisco Unified CallManager that was set up during installation to control all shared lines. The Outgoing Port User Link is a connection between Cisco Unified MobilityManager and the CTI user in Cisco Unified CallManager that was set up during installation to control all outgoing call CTI ports. These links are necessary to complete the connection to Cisco Unified CallManager for the purpose of supporting Mobile Connect features.

Table 6 Cisco Unified CallManager Link Tasks

Task	Purpose	For More Information, See...
1. In Cisco Unified MobilityManager, add a shared line user link.	You must create a link between Cisco Unified MobilityManager and the CTI user in Cisco Unified CallManager that was set up as a shared line during installation.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*
2. In Cisco Unified MobilityManager, add an outgoing port user link.	You must create a link between Cisco Unified MobilityManager and the CTI user in Cisco Unified CallManager that was set up as an outgoing port during installation.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*

6. Set Up the User Profile

A user's profile consists of the user account, group, line appearances, and remote destinations, with relationships as shown in Figure 1. You must perform the tasks listed in Table 7 to set up all the elements of the end user profile.

Figure 1 User Profile Elements

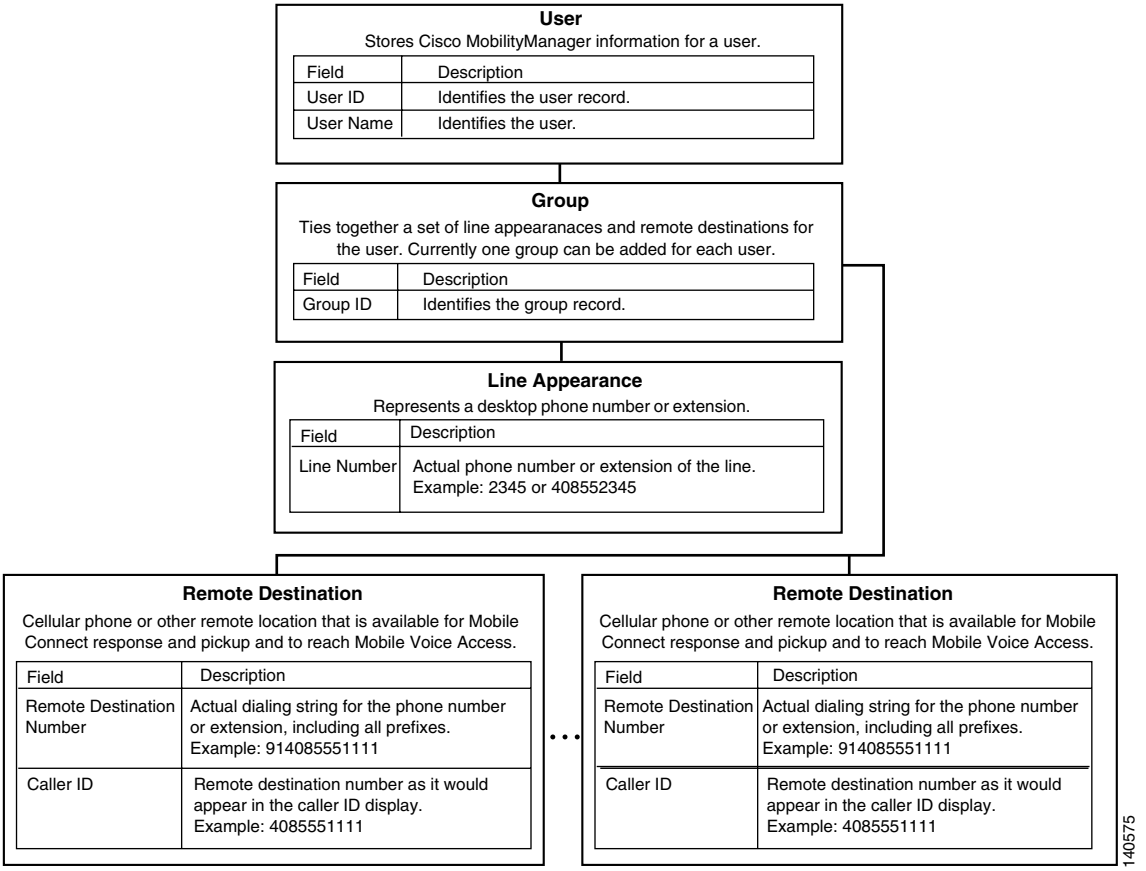

Table 7 User Profile Tasks

Task	Purpose	For More Information, See...
1. Add a new user account.	The user account provides the basic structure for the user profile.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*
2. Add a group for the user.	A group ties together a set of phone lines and remote destinations for the user. Currently one group is supported per user.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*
3. Add a line appearance or appearances for the user.	The line appearance is the desk phone line or extension for the user.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*
4. Add remote destinations.	A remote destination is a cellular phone that is available for Mobile Connect responses and pickup or other phone that is used for Mobile Voice Access.	"Getting Started" chapter in the *Cisco Unified MobilityManager Administration Guide*

7. Configure System Parameters

You can configure system parameters to activate or modify desired features; however, for basic Cisco Unified MobilityManager operation, it is not necessary to enter any information or change any of the default system parameter settings.

Table 8 describes the system parameter configuration task.

Table 8 System Parameter Configuration Task

Task	Purpose	For More Information, See...
Modify system parameters (optional).	Cisco Unified MobilityManager includes system-level mobility parameters for mobile connection, desktop and cellular phone rules and timers, settings for the JAVA telephony programming interface (JTAPI), and SNMP and Cisco Mobile Voice Access application settings. Many of the system parameters can also be configured for individual users. See the tasks listed in "Set Up the User Profile" section on page 13.	"System Configuration" chapter in the *Cisco Unified MobilityManager Administration Guide*