Newer Design Guide Available

Cisco Smart Business Architecture has become part of the Cisco Validated Designs program.

For up-to-date guidance on the designs described in this guide, see http://cvddocs.com/fw/Aug13-418

For information about the Cisco Validated Design program, go to http://www.cisco.com/go/cvd

On-Premises IM Using Cisco Jabber Deployment Guide

SMART BUSINESS ARCHITECTURE

February 2013 Series

Preface

Who Should Read This Guide

This Cisco® Smart Business Architecture (SBA) guide is for people who fill a variety of roles:

- Systems engineers who need standard procedures for implementing solutions
- Project managers who create statements of work for Cisco SBA implementations
- Sales partners who sell new technology or who create implementation documentation
- Trainers who need material for classroom instruction or on-the-job training

In general, you can also use Cisco SBA guides to improve consistency among engineers and deployments, as well as to improve scoping and costing of deployment jobs.

Release Series

Cisco strives to update and enhance SBA guides on a regular basis. As we develop a series of SBA guides, we test them together, as a complete system. To ensure the mutual compatibility of designs in Cisco SBA guides, you should use guides that belong to the same series.

The Release Notes for a series provides a summary of additions and changes made in the series.

All Cisco SBA guides include the series name on the cover and at the bottom left of each page. We name the series for the month and year that we release them, as follows:

month year Series

For example, the series of guides that we released in February 2013 is the "February Series".

You can find the most recent series of SBA guides at the following sites:

Customer access: http://www.cisco.com/go/sba

Partner access: http://www.cisco.com/go/sbachannel

How to Read Commands

Many Cisco SBA guides provide specific details about how to configure Cisco network devices that run Cisco IOS, Cisco NX-OS, or other operating systems that you configure at a command-line interface (CLI). This section describes the conventions used to specify commands that you must enter.

Commands to enter at a CLI appear as follows:

```
configure terminal
```

Commands that specify a value for a variable appear as follows:

```
ntp server 10.10.48.17
```

Commands with variables that you must define appear as follows:

```
class-map [highest class name]
```

Commands shown in an interactive example, such as a script or when the command prompt is included, appear as follows:

```
Router# enable
```

Long commands that line wrap are underlined. Enter them as one command:

```
wrr-queue random-detect max-threshold 1 100 100 100 100 100
100 100 100
```

Noteworthy parts of system output or device configuration files appear highlighted, as follows:

```
interface Vlan64
  ip address 10.5.204.5 255.255.255.0
```

Comments and Questions

If you would like to comment on a guide or ask questions, please use the SBA feedback form.

If you would like to be notified when new comments are posted, an RSS feed is available from the SBA customer and partner pages.

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What's In This SBA Guide

Cisco SBA Collaboration

Cisco SBA helps you design and quickly deploy a full-service business network. A Cisco SBA deployment is prescriptive, out-of-the-box, scalable, and flexible.

Cisco SBA incorporates LAN, WAN, wireless, security, data center, application optimization, and unified communication technologies—tested together as a complete system. This component-level approach simplifies system integration of multiple technologies, allowing you to select solutions that solve your organization's problems—without worrying about the technical complexity.

Cisco SBA Collaboration is a design incorporating unified communications, video collaboration, and web conferencing. By building upon the hierarchical model of network foundation, network services, and user services, Cisco SBA Collaboration provides dependable delivery of business applications and services.

Route to Success

To ensure your success when implementing the designs in this guide, you should first read any guides that this guide depends upon—shown to the left of this guide on the route below. As you read this guide, specific prerequisites are cited where they are applicable.

About This Guide

This *deployment guide* contains one or more deployment chapters, which each include the following sections:

- **Business Overview**—Describes the business use case for the design. Business decision makers may find this section especially useful.
- **Technology Overview**—Describes the technical design for the business use case, including an introduction to the Cisco products that make up the design. Technical decision makers can use this section to understand how the design works.
- **Deployment Details**—Provides step-by-step instructions for deploying and configuring the design. Systems engineers can use this section to get the design up and running quickly and reliably.

You can find the most recent series of Cisco SBA guides at the following sites:

Customer access: http://www.cisco.com/go/sba

Partner access: http://www.cisco.com/go/sbachannel

Introduction

Business Overview

The ability to collaborate efficiently and effectively in a fast-growing enterprise is challenging for many organizations because they want their employees to work anywhere, anytime, and from any device. They want to lower their IT support requirements, but not stifle the ability of their employees to remain mobile. They also want to establish a common platform for communication inside and outside their organization, irrespective of geography or distance.

The biggest challenges for workers are the difficulty connecting with the right people at the right time and the significantly increasing modes of communications. Most knowledge workers use several devices on a day-to-day basis to communicate, including traditional desk phones, smart phones, tablets, laptops, and desktop computers. The modes to communicate are time-consuming to learn because each device is different from the rest. This always-on and always-connected mentality is permeated by the youngest members of the workforce who have grown accustomed to using technology to give them more flexibility in how and where they work. The new workforce prefers immediate communication, which is easier than email and voicemail but less intrusive than a phone call or web-based meeting.

Technical Overview

Cisco Jabber is a unified communications application for laptops, desktops, Macs, tablets, and smartphones that allows you to be more productive from anywhere on any device. You can easily find the right people, see if and how they are available, and collaborate using your preferred method of communication.

Cisco Jabber can help you:

- **Reduce communication delays with presence and contact information**—The Cisco Jabber application enables you to see the availability of co-workers and colleagues within and outside your organization. You can immediately see who is available, busy, on the phone, in a meeting, presenting, in a do-not-disturb state, or offline. You can create customized availability states such as "Gone to lunch. Back at 1 p.m." to provide added context to your status. These capabilities help reduce communication delays, which results in faster decision making and enhanced productivity.
- **Quickly communicate with borderless enterprise-class instant messaging**—Instant messaging is an important communication option that lets you efficiently interact in today's multitasking business environment. The Cisco Jabber application delivers enterprise-class instant messaging capabilities that are based on the Extensible Messaging and Presence Protocol (XMPP). The solution provides personal and group chat so you can quickly connect with your business colleagues. Chat history and server-based logging capabilities allow you to view the content of prior chats and to store messages for convenience, compliance, and regulatory purposes. Instant messaging is integrated with other communication capabilities so you can simply move between chats, audio conversations, and web conferences. You can even share presence and send instant messages outside your organization to people who may not be using Cisco Jabber. The enterprise-class instant messaging capabilities of this application provide more efficient, highly secure, flexible, and borderless collaboration.
- **Bring business-class IP telephony and video to the desktop**—Cisco Jabber for Windows delivers business-quality voice and video to your desktop. Powered by the market-leading Cisco Unified Communications Manager call-control solution, Cisco Jabber is a soft phone with wideband and high-fidelity audio, standards-based high-definition video (720p), and desk-phone control features. These features mean that high-quality and high-availability voice and video telephony is available at all locations and to your desk phones, soft clients, and mobile devices. Cisco Jabber for Windows makes voice communications simple, clear, and reliable.
- **Accelerate team performance with multiparty conferencing and collaboration**—The Cisco Jabber application provides for smooth escalation to desktop sharing or Cisco's market-leading collaboration solution, Cisco WebEx Conferencing. You can instantly share documents and expand chats and conversations to multiparty voice, video, and web conferencing.

- **Collaborate from common business applications**—You can access the capabilities of the Cisco Jabber application from common desktop applications such as Microsoft Outlook, including lighting presence bubbles and click-to-communicate (instant message and audio and video calling) capabilities. For Microsoft Outlook 2010, you can use the Microsoft contact card click-to-communicate icons directly from within the application. This saves time and streamlines workflows because you can view user availability and initiate communications such as personal and group voice, video, and chat sessions—without having to switch between applications.

Cisco Jabber for Windows streamlines communications and enhances productivity by unifying presence, instant messaging, video, voice, voice messaging, desktop sharing, and conferencing capabilities securely into one desktop client. It delivers highly secure, clear, and reliable communications. Cisco Jabber for Windows offers flexible deployment models, is built on open standards, and integrates with commonly used applications. You can communicate and collaborate effectively from anywhere you have an Internet connection.

Cisco Jabber for Windows can also be deployed in virtual environments. In a virtual environment, Cisco Jabber for Windows supports presence, instant messaging, and desk-phone control.

Cisco Jabber for iPad provides instant messaging (IM), video and voice calling, corporate directory search, availability, and voicemail. Cisco Jabber for iPad uses video rate adaptation in order to negotiate optimal video quality based on your network conditions. Video rate adaptation dynamically scales video quality when video transmission begins.

Cisco Jabber IM for iPhone lets you reduce communication delays by knowing a person's availability with rich presence status. You can use the application to connect quickly over IM and, if necessary, escalate to a phone call, send an email or text message, start an instant web conference, or use Short Message Service (SMS).

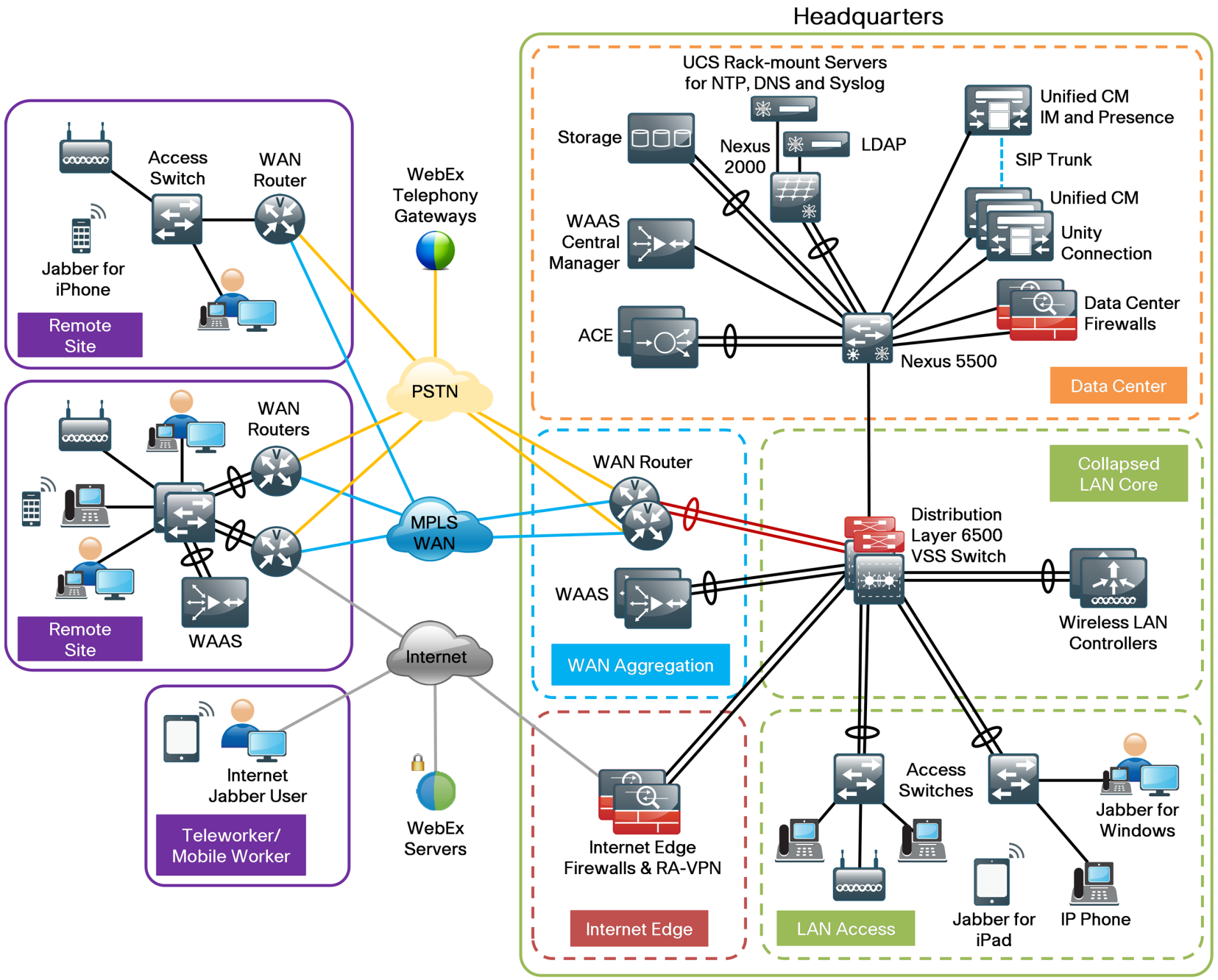
Cisco Jabber for iPhone provides voice-over-IP (VoIP) capabilities. Whether you are in the office on a Wi-Fi network or roaming using a public Wi-Fi network or a mobile data network, the Cisco Jabber platform connects you securely to your corporate network so your iPhone becomes your portable IP phone and company directory.

Cisco Jabber can be deployed on-premises or by using a cloud-based service, offering IT departments the flexibility to choose the model that best suits their business.

This deployment guide focuses on the on-premises design, which has the following components:

- **Software phone**—Connects to Cisco Unified Communications Manager for signaling and configuration.
- **Cisco Unity Connection**—Provides voicemail capabilities.
- **Cisco Unified Communications Manager (Unified CM)**—Provides audio and video call management capabilities. It also provides user and device configuration settings, and finally, it connects to the directory for user synchronization and user authentication.
- **Cisco Unified Communication Manager IM and Presence**—Provides instant messaging and presence capabilities. It also enables Cisco Jabber to retrieve details for available services.
- **Directory**—One of the following types of directory:
  - Microsoft Active Directory (Used in this guide for all clients)
  - Lightweight Directory Access Protocol (LDAP) directory
- As an alternative to a standalone directory, you can use Cisco Unified Communications Manager User Data Service as your directory source for your Cisco Jabber for Windows clients.
- **Cisco WebEx Meeting Center**—Provides hosted meeting capabilities.

Figure 1 - On-premises IM using Cisco Jabber in Cisco SBA foundation architecture



This guide includes the following Cisco Jabber features:

- **Communication integration**—Use a single, intuitive interface for instant messaging with individuals and groups, IP telephony, visual voicemail, voice and web conferencing, desktop sharing, communication history, and integrated directories.
- **Presence**—View real-time availability of co-workers and colleagues within and outside the enterprise network.
- **Enterprise instant messaging**—Chat in real time by using instant messaging. Several chat modes are supported, ranging from:
  - Point-to-point chat with co-workers inside your network, or supported federated business and personal contacts
  - Group chat, which enables multiple colleagues to communicate and collaborate in a single discussion
  - Personal instant messaging history for your reference
- **Predictive search**—Provides suggestions to you as you type in a search query and is capable of indexing your Cisco Jabber contact list, recent contacts, Microsoft Active Directory, or LDAP directory.
- **Media escalation**—Escalate from a chat to an audio call, video call, desktop share, or web meeting. Media escalations are as easy as clicking a button.
- **Desktop share**—Share what is on your desktop with Cisco Jabber users, as well as Cisco and other standards-based video endpoints.
- **Integrated voice and video telephony**—A coordinated video display on the screen and voice conversation with a dedicated soft phone.
  - Make, receive, and control your phone calls whether you are in or out of the office.
  - Business-quality video communication up to high-definition (720p) and high-fidelity wideband audio is supported.
  - You can use voice, video, and even desktop share when interacting with telepresence endpoints and room-based and multipoint videoconferencing systems.
  - Many call-control options are available, including mute, call transfer, call forwarding, and ad-hoc conferencing.
  - The reliability and failover features of Cisco Unified Communications Manager are supported.
- **Visual voice message access**—Access and manage your voice messages.
  - View, play back, and delete voice messages from Cisco Unity Connection.
  - Secure messaging is provided, with support for private and encrypted voice messages.

Deployment Details

The procedures for configuring a basic Cisco Unified Communications Manager (Unified CM) cluster with LDAP and Cisco Unity Connection are documented in the *Telephony Using Cisco UCM Deployment Guide*, so the concepts are not covered again in this guide.

This guide covers the details for installing Cisco Jabber for Windows, Cisco Jabber for iPad, and Cisco Jabber for iPhone. The first three processes have to be completed by all users of this guide. However, the remaining processes can be done together or on an individual basis, depending on the type of Cisco Jabber clients you are planning to deploy.

Process

Preparing the Platform for Cisco Unified CM IM and Presence

1. Configure platform connectivity to the LAN
2. Prepare the server for IM and Presence

The on-premises design requires a server running the Cisco Unified Communications Manager Instant Messaging and Presence Service. It runs on the same Linux operating systems as several other unified communications platforms from Cisco. You install the operating system with the application by using the standard installation DVD or ISO file.

For a quick and easy installation experience, it is essential to know up-front what information you will need. For Cisco Unified CM Instant Messaging and Presence, make sure you have completed the following steps before you start:

- If you are installing Cisco Unified CM IM and Presence on a new virtual machine (VM), download the Open Virtualization Archive (OVA) file from the Cisco website at: http://www.cisco.com/cisco/software/release.html?mdfid=284330176&flowid=33722&softwareid=283757588&release=9.0&relind=AVAILABLE&rellifecycle=&reltype=latest
- Check the Cisco website to determine if there is a patch for your version of Cisco Unified CM IM and Presence: http://software.cisco.com/download/release.html?mdfid=284510549&flowid=37582&softwareid=282074312&release=9.1(1)&relind=AVAILABLE&rellifecycle=&reltype=latest

Procedure 1 Configure platform connectivity to the LAN

The Cisco Unified CM IM and Presence server can be connected to a Cisco Nexus switch in the data center or a Cisco Catalyst switch in the server room. In both cases, quality of service (QoS) policies are added to the ports in order to maintain voice and data quality. Please choose the option that is appropriate for your environment.

Option 1. Connect the Cisco Unified CM IM and Presence server to a Cisco Nexus 2248UP switch

Step 1: Login to the Cisco Nexus switch with a username that has the ability to make configuration changes.

Step 2: If there is a previous configuration on the switch port where the Cisco Unified CM IM and Presence server is connected, remove the individual commands by issuing a **no** in front of each one. This brings the port back to its default state.

Step 3: Configure the port as an access port and apply the QoS policy.

```
interface Ethernet107/1/14
 description Unified CM IM and Presence
 switchport access vlan 148
 spanning-tree port type edge
 service-policy type qos input DC-FCOE+1P4Q_INTERFACE-DSCP-QOS
```

Tech Tip

When deploying a dual-homed Cisco Nexus 2248 switch, you must apply this configuration to both Nexus 5548 switches.

Option 2. Connect the Cisco Unified CM IM and Presence server to a Cisco Catalyst 3750-X Series switch

To ensure that signaling traffic is prioritized appropriately, you must configure the Cisco Catalyst access switch port where the Cisco Unified CM IM and Presence server is connected to trust the differentiated services code point (DSCP) markings. The easiest way to do this is to clear the interface of any previous configuration and then, apply the egress QoS macro that was defined in the access-switch platform configuration of the *Cisco SBA—Borderless Networks LAN Deployment Guide*.

Step 1: Login to the Cisco Catalyst switch with a username that has the ability to make configuration changes.

Step 2: Clear the interface's configuration on the switch port where the Cisco Unified CM IM and Presence server is connected.

```
default interface GigabitEthernet1/0/16
```

Step 3: Configure the port as an access port and apply the egress QoS policy.

```
interface GigabitEthernet1/0/16
 description Unified CM IM and Presence
 switchport access vlan 148
 switchport host
 macro apply EgressQoS
```

Procedure 2 Prepare the server for IM and Presence

You must choose one of the following options, depending upon how to plan to deploy the server:

- If you are installing a virtual machine, follow the steps in Option 1, "Prepare a virtual machine for Cisco Unified CM IM and Presence."
- If you are installing a standalone server, follow the steps in Option 2, "Prepare a standalone server for Cisco Unified CM IM and Presence."

The following tables describe the scaling options for Cisco Unified CM IM and Presence:

Table 1 - Cisco Unified CM IM and Presence virtual machine scaling options

	5000 full UC users	15000 full UC users
Virtual CPUs	2	4
CPU speed	2500 MHz	8000 MHz
RAM	4 GB	6 GB
Hard disk	80 GB (2)	80 GB (2)
VMware ESXi	4.0, 4.1, 5.0	4.0, 4.1, 5.0
OS support	RHE Linux 5 (32-bit)	RHE Linux 5 (32-bit)
Total users	5000 or fewer	5000 to 10,000

Table 2 - Cisco Unified CM IM and Presence standalone server scaling options

	5000 full UC users	15000 full UC users
Cisco MCS equivalent	MCS 7835	MCS 7845
CPU type	E5504 quad-core	E5540 quad-core
CPU speed	2.0 GHz	2.53 GHz
RAM	4 GB	6 GB
Hard disk	300 GB (2)	300 GB (4)
OS support	RHE Linux 5 (32-bit)	RHE Linux 5 (32-bit)
Total users	5000 or fewer	5000 to 10,000

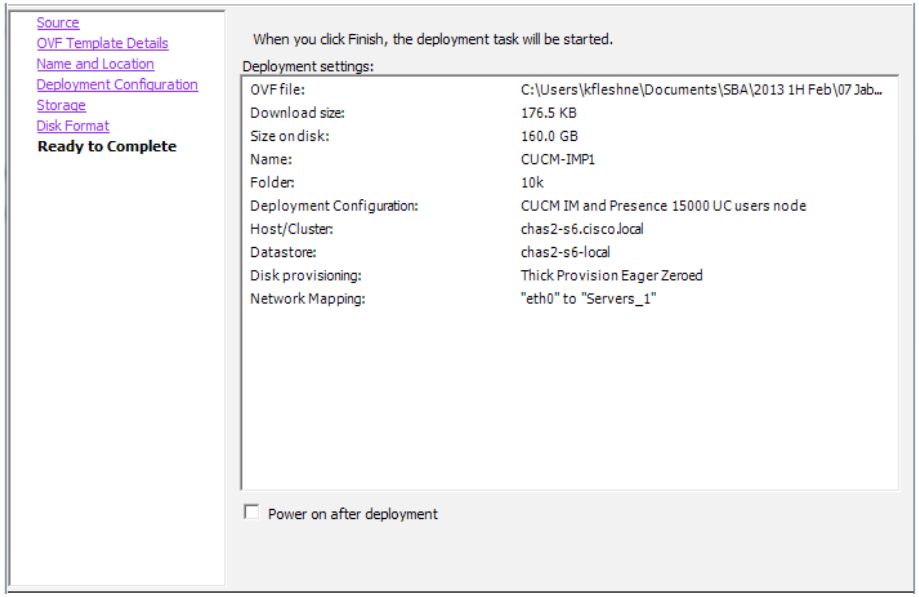
Option 1. Prepare a virtual machine for Cisco Unified CM IM and Presence

When you install Cisco Unified CM IM and Presence on VMware, follow the steps below to deploy an OVA file in order to define the virtual machine requirements. You use the Open Virtualization Format (OVF) support of VMware in order to import and deploy the OVA file.

Step 1: In VMware vSphere Client, choose **File > Deploy OVF Template**.

Step 2: In the Deploy OVF Template wizard, enter the following information, and then click **Finish**:

- On the **Source** page, next to the **Deploy from a file or URL** box, click **Browse**, navigate to the location of the OVA file that you downloaded from Cisco, and then click **Next**.
- On the **OVF Template Details** page, verify the information, and then click **Next**:
- On the **Name and Location** page, in the **Name** box, enter the virtual machine name CUCM-IMP1, and then click **Next**.
- On the Deployment Configuration page, select one of the following options for the number of Cisco UC users, and then click **Next**:
  - **5000 full UC users**—For a cluster of less than 5000 Cisco UC users
  - **15000 full UC users**—For a cluster of more than 5000 Cisco UC users
- On the Storage page, choose the location to store the VM files, and then click **Next**.
- On the **Disk Format** page, select **Thick Provision Eager Zeroed**, and then click **Next**.
- On the **Ready** to Complete page, verify the settings, and then click **Finish**.

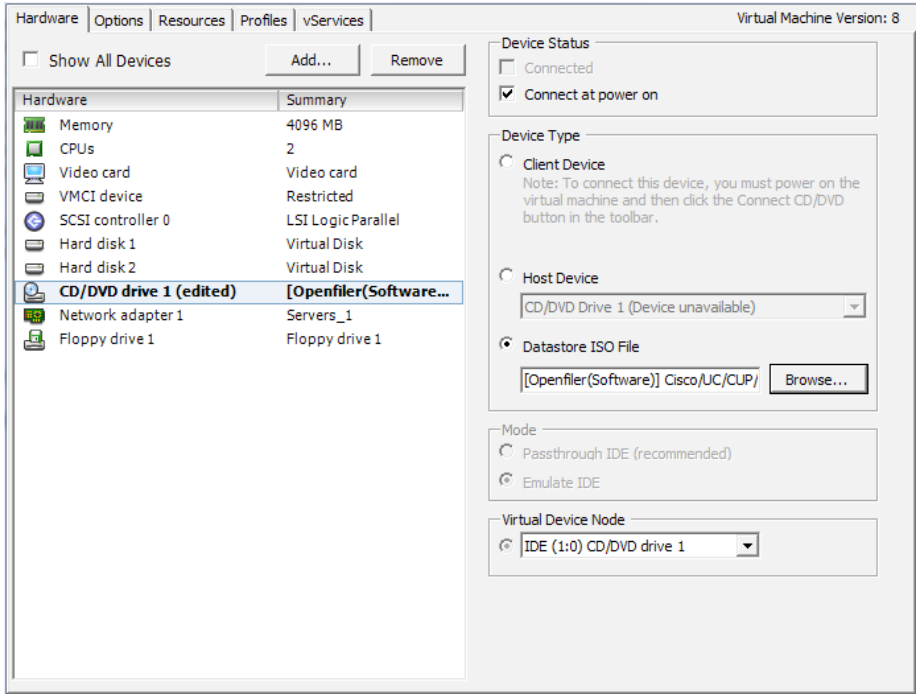


Step 3: In the message window, click **Close**.

Step 4: After the virtual machine is created, click on the server name (Example: CUCM-IMP1), navigate to the **Getting Started** tab, and then click **Edit virtual machine settings**.

Step 5: On the Hardware tab, select **CD/DVD Drive 1**, and then select **Connect at power on**.

Step 6: Select **Datastore ISO File**, click **Browse**, and then navigate to the location of the Cisco Unified CM IM and Presence bootable installation file. After selecting the correct ISO image, click **OK**.



Step 7: On the **Getting Started** tab, click **Power on the virtual machine**.

Step 8: Click the **Console** tab, and then watch the server boot.

The virtual machine is prepared for installation.

Option 2. Prepare a standalone server for Cisco Unified CM IM and Presence

Step 1: Physically install the server and attach the monitor, keyboard, and network cable.

Step 2: Insert the DVD with Cisco Unified CM IM and Presence into the DVD drive, and then power up the server.

The standalone server is prepared for installation.

Process

Installing Cisco Unified CM IM and Presence

1. Install Cisco Unified CM IM and Presence
2. Configure Unified CM IM and Presence

The process is the same whether you are installing in a virtual environment or on a standalone server.

Make sure you have the following information:

- Time zone for the server
- Host name, IP address, network mask, and default gateway
- Domain Name System (DNS) server IP addresses
- Administrator ID and password
- Organization, unit, location, state, and country
- Network Time Protocol (NTP) server IP addresses
- Security password
- Application username and password

Complete the tasks listed below before you start the installation:

- In DNS, configure the Cisco Unified CM IM and Presence host name: CUCM-IMP1
- Obtain license files from the Cisco licensing system

Procedure 1 Install Cisco Unified CM IM and Presence

After the ISO/DVD loads, continue the installation on the server console.

Step 1: On the **DVD Found** page, choose **Yes**.

Step 2: If the media check is successful, choose **OK**.

If the media check does not pass, contact Cisco Technical Assistance Center or your local representative in order to replace the media, and then repeat Step 1.

Step 3: On the **Product Deployment Selection** page, verify the product is Cisco Unified Communications Manager IM and Presence, and then choose **OK**.

Step 4: On the **Proceed with Install** page, verify that the version is correct, and then choose **Yes**.

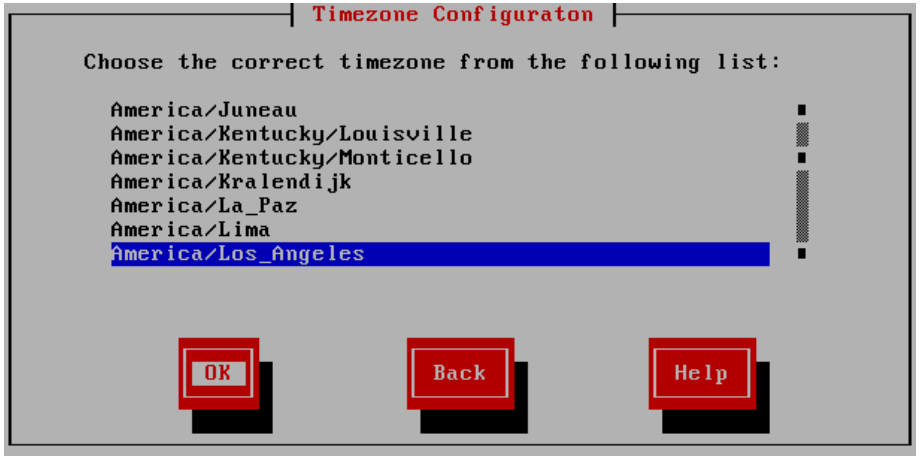
Step 5: On the **Platform Installation Wizard** page, choose **Proceed**.

Step 6: If no upgrade patch exists for the version you are installing, on the Apply Patch page, choose **No**.

If an upgrade patch does exist, on the Apply Patch page, choose **Yes**, and then follow the instructions on the pages to complete the process.

Step 7: On the **Basic Install** page, choose **Continue**.

Step 8: On the **Timezone Configuration** page, select the correct time zone for the server location, and then choose **OK**.



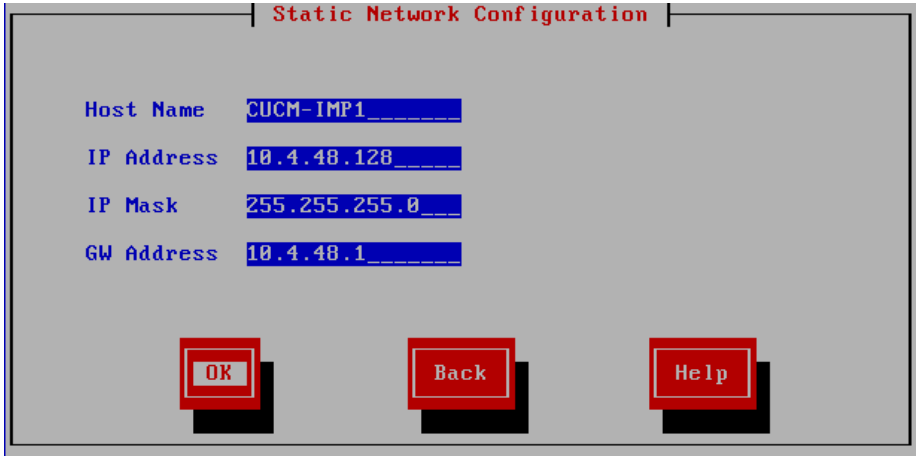
Step 9: On the **Auto Negotiation Configuration** page, choose **Continue**.

Step 10: On the **MTU Configuration** page, choose **No**.

Step 11: On the DHCP Configuration page, choose **No**.

Step 12: On the **Static Network** Configuration page, enter the following information, and then choose **OK**:

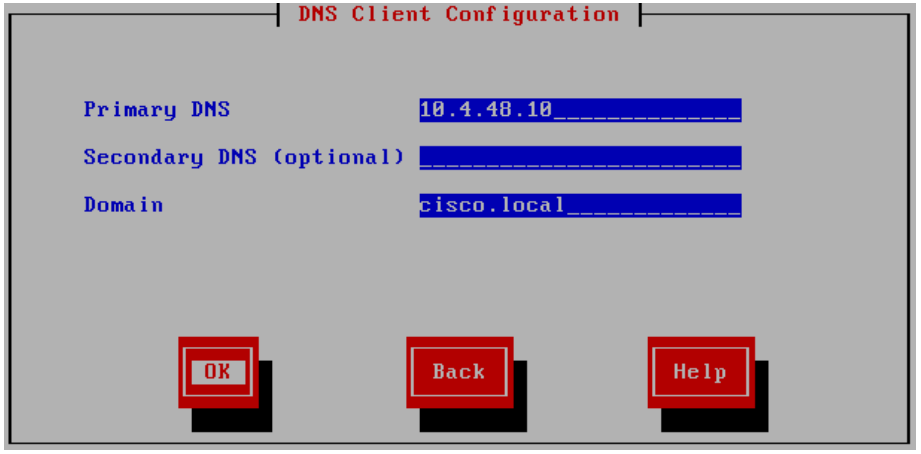
- Host Name—CUCM-IMP1
- IP Address—10.4.48.128
- IP Mask—255.255.255.0
- GW Address—10.4.48.1



Step 13: On the first DNS Client Configuration page, choose **Yes**.

Step 14: On the second **DNS Client Configuration** page, enter the following information, and then choose **OK**:

- Primary DNS—10.4.48.10
- Domain—cisco.local



Step 15: On the **Administrator Login Configuration** page, enter the following information, and then choose **OK**:

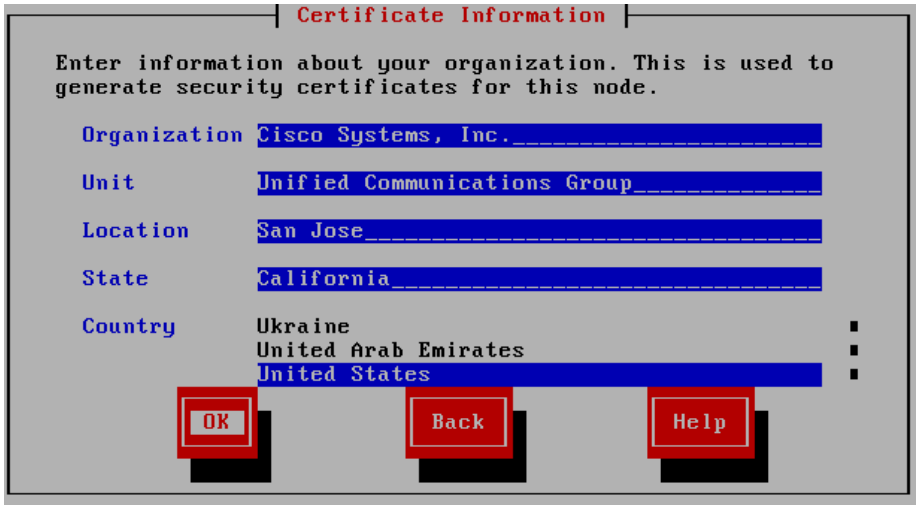
- Administrator ID—Admin
- Password—[password]
- Confirm Password—[password]

Step 16: On the **Certificate Information** page, enter the information that will be used to generate security certificates, and then choose **OK**:

- Organization—Cisco Systems, Inc.
- Unit—Unified Communications Group
- Location—San Jose
- State—California
- Country—United States

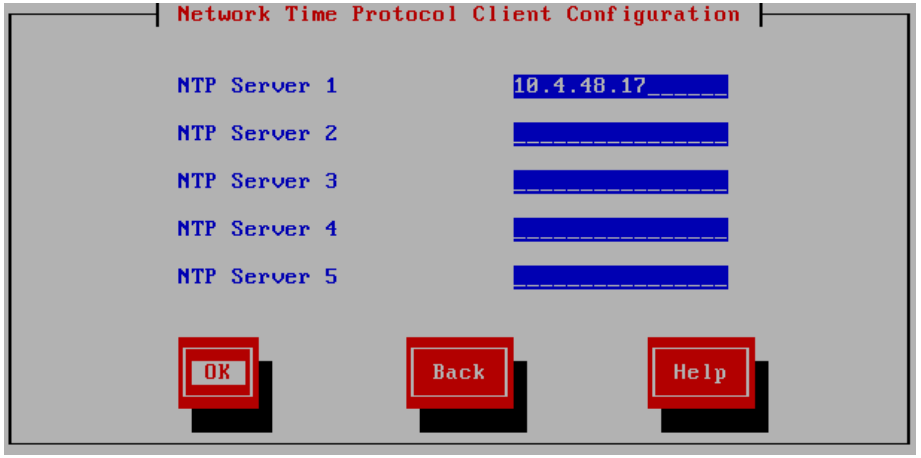
Tech Tip

These fields must match the information submitted to Cisco, or the licenses will not be valid.



Step 17: On the **First Node Configuration** page, choose **Yes**.

Step 18: On the **Network Time Protocol Client** Configuration page, in the **NTP Server 1** box, enter 10.4.48.17, and then choose **OK**.

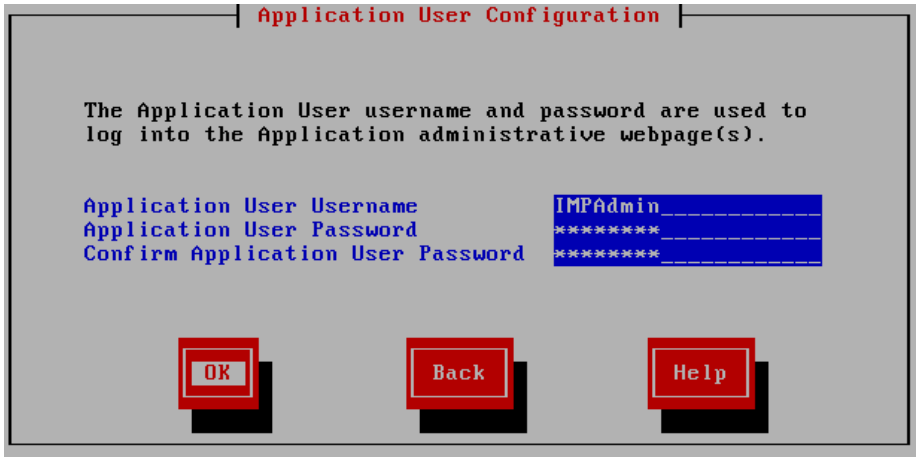


Step 19: On the **Security Configuration** page, enter the password for server-to-server communication, and then choose **OK**.

Step 20: On the **SMTP Host Configuration** page, choose **No**.

Step 21: On the **Application User Configuration** page, enter the following information, and then choose **OK**:

- Application User Username—IMPAdmin
- Password—[password]
- Confirm Password—[password]



Step 22: On the **Platform Configuration Confirmation** page, choose **OK**.

The system finishes the rest of the installation process without user input. The system reboots a few times during installation. The process can take 60 minutes or more, depending on your server hardware.

After the software has finished installing, the login prompt appears on the console.

Step 23: If you deployed your server from a virtual template, return to VMware vSphere Client.

If you deployed a standalone server, skip to the next procedure.

Step 24: In vSphere Client, navigate to the virtual machine's **Getting Started** tab, and then click **Edit virtual machine settings**.

Step 25: On the **Hardware** tab, select **CD/DVD Drive 1**.

Step 26: Clear **Connect at power on**, and then click **OK**.

Procedure 2 Configure Unified CM IM and Presence

After the software is installed, use the web interface in order to complete the rest of the procedures.

Step 1: In a web browser, access the IP address or hostname of the Cisco Unified CM IM and Presence server, and then in the center of the page under Administrative Applications, click **Cisco Unified Communications Manager IM and Presence**.

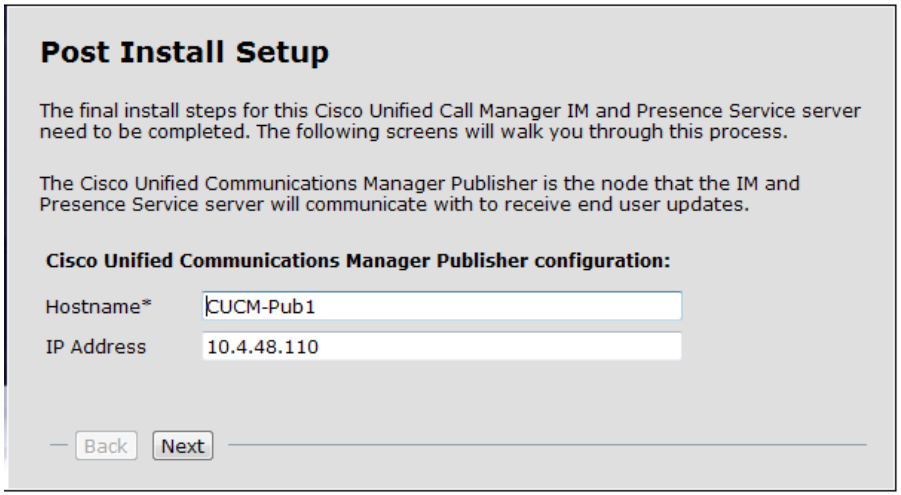
Tech Tip

If you receive a message about the website's security certificate, ignore it and continue to the page.

Step 2: Enter the name and password you entered on the Application User Configuration page in Step 21 of Procedure 1 "Install Cisco Unified CM IM and Presence," and then click **Login**.

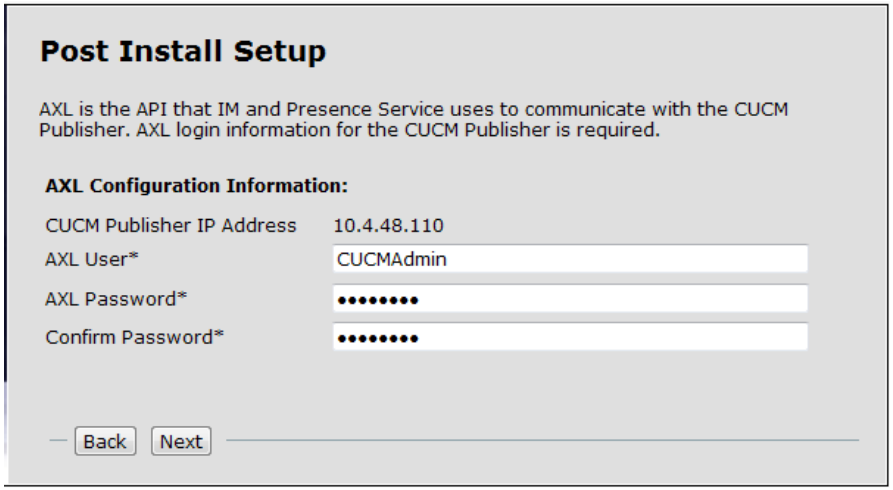
Step 3: On the Post Install Setup page, enter the following information, and then click **Next**:

- Hostname—CUCM-Pub1
- IP Address—10.4.48.110



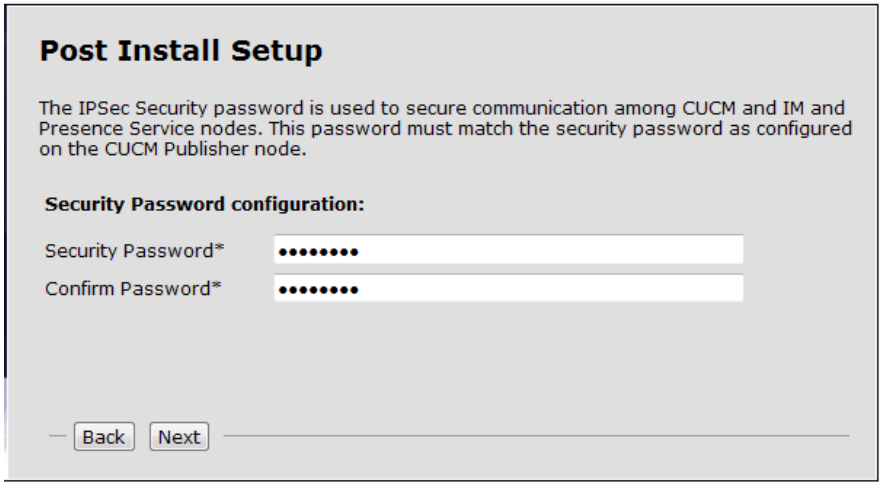
Step 4: On the next page, enter the following information, and then click **Next**:

- AXL User—CUCMAdmin
- AXL Password—[password] (must match the password on Cisco Unified CM)
- Confirm Password—[password]



Step 5: On the next page, enter the following information, and then click **Next**:

- Security Password—[password] (must match the password on Cisco Unified CM)
- Confirm Password—[password]



Step 6: On the next page, verify the information, and then click **Confirm**.

Step 7: On the next page, click **Home**.

Step 8: In the **Navigation** list at the top right of the page, choose **Cisco Unified IM and Presence Serviceability**, and then click **Go**.

Step 9: Navigate to **Tools > Service Activation**, enter the following information, and then click **Save**:

- Cisco SIP Proxy—**Select**
- Cisco Presence Engine—**Select**
- Cisco Sync Agent—**Select**
- Cisco XCP Connection Manager—**Select**
- Cisco XCP Directory Service—**Select**
- Cisco XCP Authentication Service—**Select**

IM and Presence Services

	Service Name	Activation Status
☑	Cisco SIP Proxy	Activated
☑	Cisco Presence Engine	Activated
☑	Cisco Sync Agent	Activated
☐	Cisco XCP Text Conference Manager	Deactivated
☐	Cisco XCP Web Connection Manager	Deactivated
☑	Cisco XCP Connection Manager	Activated
☐	Cisco XCP SIP Federation Connection Manager	Deactivated
☐	Cisco XCP XMPP Federation Connection Manager	Deactivated
☐	Cisco XCP Message Archiver	Deactivated
☑	Cisco XCP Directory Service	Activated
☑	Cisco XCP Authentication Service	Activated

Database and Admin Services

	Service Name	Activation Status
☐	Cisco AXL Web Service	Deactivated
☐	Platform SOAP Services	Deactivated
☐	Cisco Bulk Provisioning Service	Deactivated

Performance and Monitoring Services

	Service Name	Activation Status
☐	Cisco Serviceability Reporter	Deactivated

Step 10: In the message window, click **OK**.

Step 11: In the **Navigation** list at the top right of the page, choose **Cisco Unified CM IM and Presence Administration**, and then click **Go**.

Step 12: Navigate to **Application > Legacy Clients > Settings**, enter the following information, and then click **Save**:

- Primary TFTP Server—10.4.48.120
- Backup TFTP Server—10.4.48.121

Legacy Client Security Settings

The Proxy Listener is only applicable to SIP Clients, it does not apply to Cisco Jabber 8.x. The TFTP Servers apply to Cisco Jabber 8.x and previous clients.

Proxy Listener* Default Cisco SIP Proxy TCP Listener

Primary TFTP Server 10.4.48.120

Backup TFTP Server 10.4.48.121

Backup TFTP Server

The initial application administration setup is now complete.

Process

Configuring Services for Cisco Jabber IM and Cisco UC

1. Configure Cisco Unified CM for Jabber IM
2. Configure Unity Connection for Jabber
3. Configure IM and Presence services
4. Configure users for IM and Presence

The next several procedures will create the specific services on Cisco Unified CM, Cisco Unity Connection and the Unified CM IM and Presence servers for Cisco Jabber IM and Cisco UC installations.

Procedure 1 Configure Cisco Unified CM for Jabber IM

When you integrate Cisco Unified Communications Manager and Cisco Unified Communications IM and Presence, you must configure the required services in order to enable communication between the servers. This communication includes a Session Initiation Protocol (SIP) publish trunk in order to enable synchronization of availability status between Cisco Unified Communications Manager and Cisco Unified Communications IM and Presence.

You also create several Cisco UC service profiles and apply them to a service profile for all Cisco Jabber users.

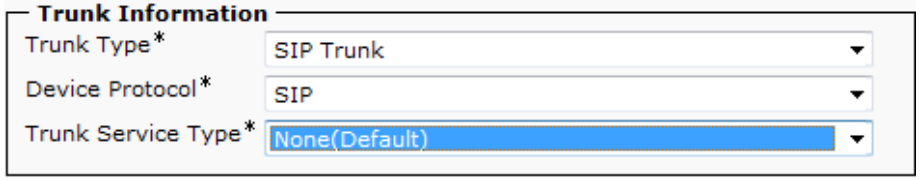
Step 1: In a web browser, access the IP address or hostname of the Cisco Unified CM publisher, and then in the center of the page, under Installed Applications, click **Cisco Unified Communications Manager**.

Step 2: Enter the application username and password, and then click **Login**.

Step 3: Navigate to **Device > Trunk**, and then click **Add New**.

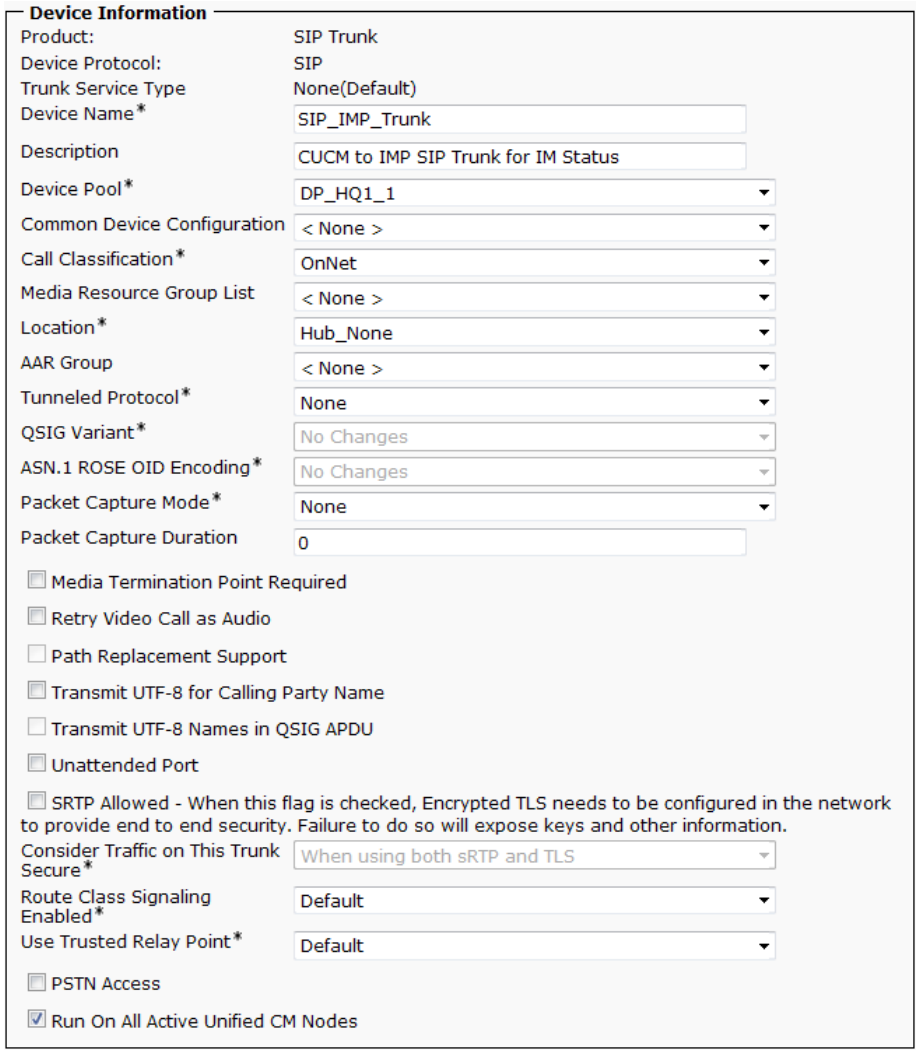
Step 4: On the Trunk Configuration page, enter the following values, and then click **Next**:

- Trunk Type—SIP Trunk
- Device Protocol—SIP
- Trunk Service Type—None (Default)



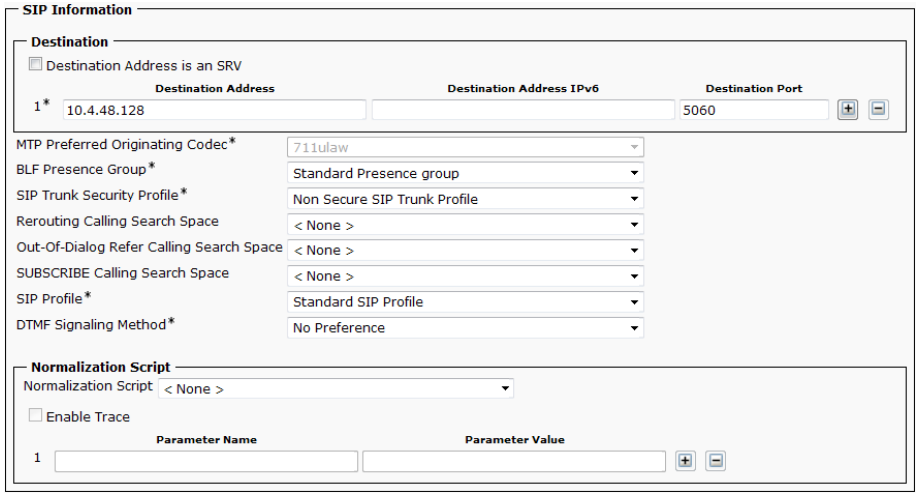
Step 5: On the next page, in the Device Information section, enter the following values:

- Device Name—SIP_IMP_Trunk
- Description—CUCM to IMP SIP Trunk for IM Status
- Device Pool—DP_HQ1_1
- Call Classification—OnNet
- Location—Hub_None
- Run On All Active Unified CM Nodes—Select



Step 6: In the SIP Information section, enter the following values, and then click **Save**:

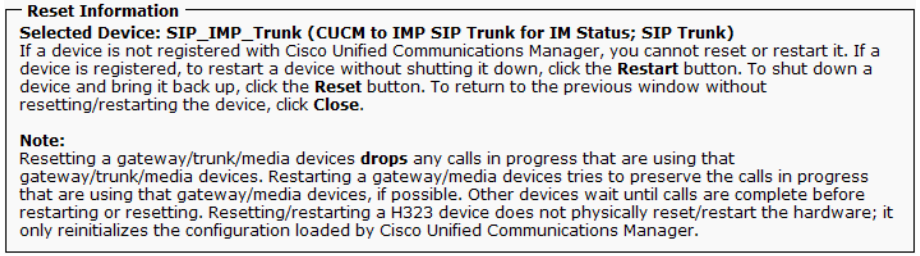
- Destination Address 1—10.4.48.128
- Destination Port 1—5060
- SIP Trunk Security Profile—Non Secure SIP Trunk Profile
- SIP Profile—Standard SIP Profile



Step 7: In the Message window, click **OK**.

Step 8: On the Trunk Configuration page, click **Reset**.

Step 9: On the Device Reset page, click **Reset**, and then click **Close**.

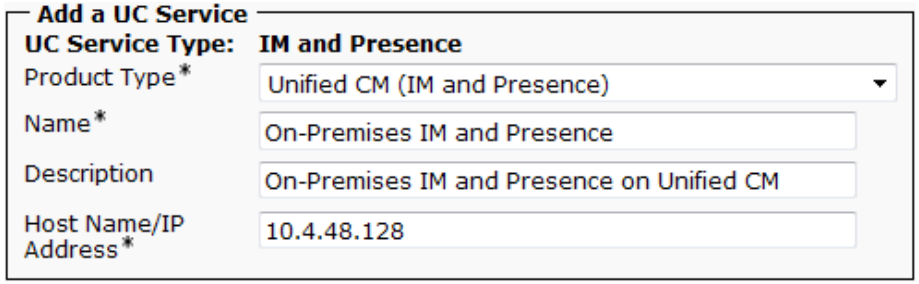


Step 10: Navigate to **User Management** > **User Settings** > **UC Service**, and then click **Add New**.

Step 11: On the UC Service Configuration page, in the UC Service Type list, select **IM and Presence**, and then click **Next**.

Step 12: In the Add a UC Service section, enter the following information, and then click **Save**:

- Product Type—Unified CM (IM and Presence)
- Name—On-Premises IM and Presence
- Description—On-Premises IM and Presence on Unified CM
- Host Name/IP Address—10.4.48.128

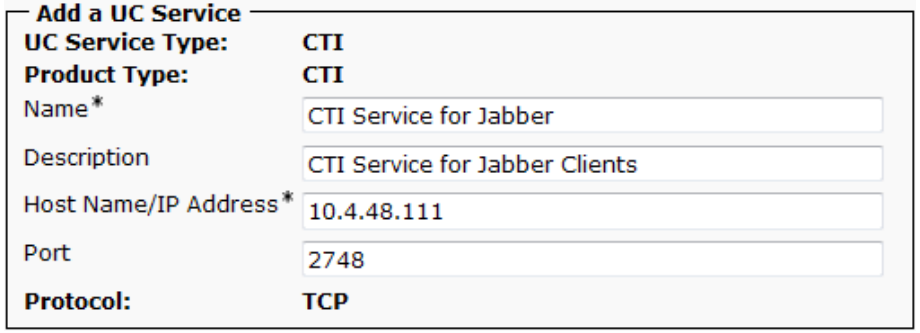


Step 13: Navigate to **User Management** > **User Settings** > **UC Service**, and then click **Add New**.

Step 14: On the UC Service Configuration page, in the UC Service Type list, select **CTI**, and then click **Next**.

Step 15: In the Add a UC Service section, enter the following information, and then click **Save**:

- Name—CTI Service for Jabber
- Description—CTI Service for Jabber Clients
- Host Name/IP Address—10.4.48.111 (Subscriber 1)
- Port—2748

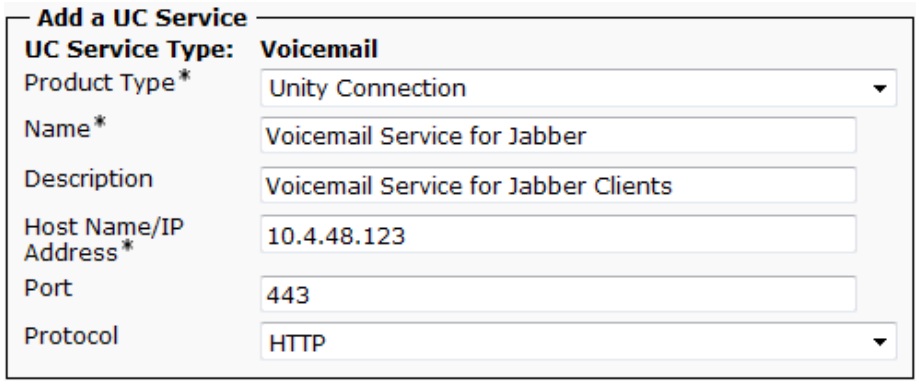


Step 16: Navigate to **User Management** > **User Settings** > **UC Service**, and then click **Add New**.

Step 17: On the UC Service Configuration page, in the UC Service Type list, select **Voicemail**, and then click **Next**.

Step 18: In the Add a UC Service section, enter the following information, and then click **Save**:

- Product Type—Unity Connection
- Name—Voicemail Service for Jabber
- Description—Voicemail Service for Jabber Clients
- Host Name/IP Address—10.4.48.123
- Port—443
- Protocol—HTTP



Step 19: Navigate to **User Management** > **User Settings** > **UC Service**, and then click **Add New**.

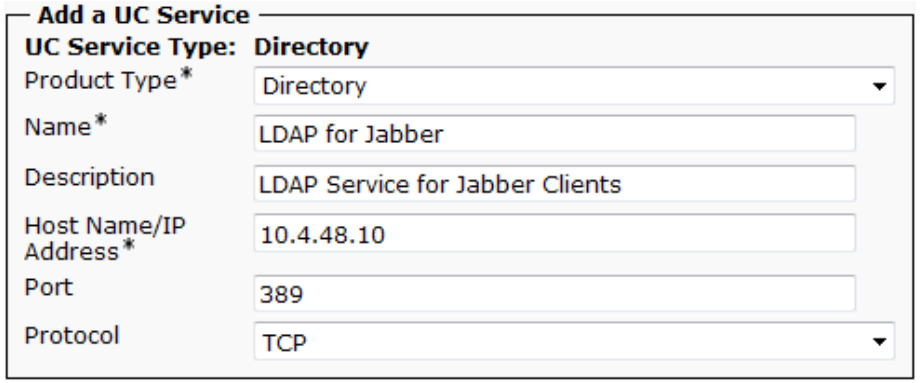
Step 20: On the UC Service Configuration page, in the UC Service Type list, select **Directory**, and then click **Next**.

Tech Tip

When using an LDAP directory service, the Cisco Jabber client's click-to-call the phone number that is listed in the Telephone Number attribute of LDAP. This may or may not be the same attribute that was used when you synchronized your users with Cisco Unified CM.

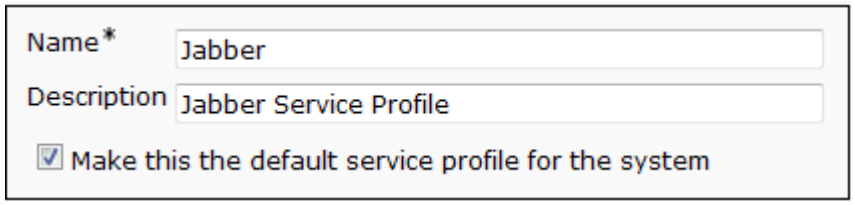
Step 21: In the Add a UC Service section, enter the following information, and then click **Save**:

- Product Type—Directory
- Name—LDAP for Jabber
- Description—LDAP Service for Jabber Clients
- Host Name/IP Address—10.4.48.10
- Port—389
- Protocol—TCP



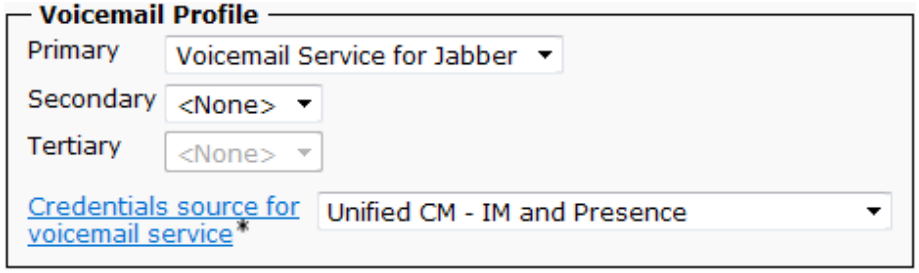
Step 22: Navigate to **User Management > User Settings > Service Profile**, click **Add New**, and then enter the following information:

- Name—Jabber
- Description—Jabber Service Profile
- Make this the default service profile for the system—Select



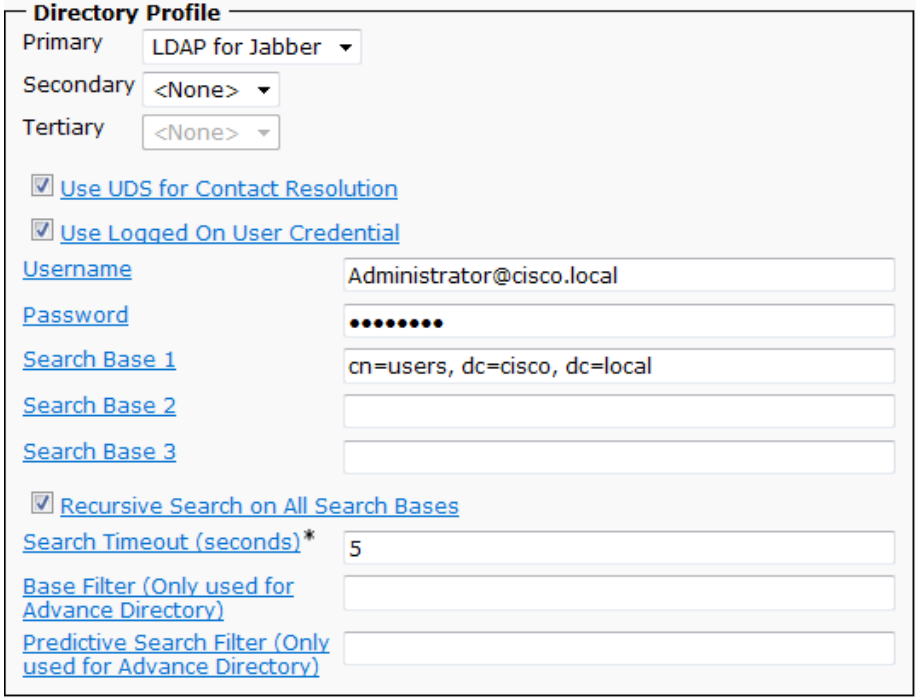
Step 23: In the Voicemail Profile section, enter the following information:

- Primary—Voicemail Service for Jabber
- Credential source for voicemail service—Unified CM - IM and Presence

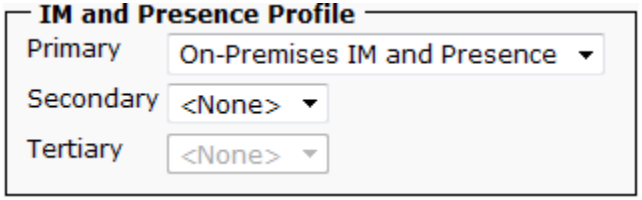


Step 24: In the Directory Profile section, enter the following information:

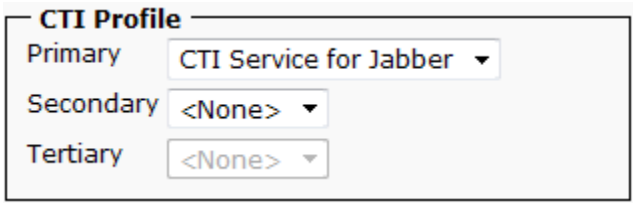
- Primary—LDAP for Jabber
- Use UDS for Contact Resolution—Select
- Use Logged On User Credential—Select
- Username—Administrator@cisco.local
- Password—[password]
- Search Base 1—cn=users, dc=cisco, dc=local



Step 25: In the IM and Presence Profile section, in the **Primary** list, choose **On-Premises IM and Presence**.



Step 26: In the CTI Profile section, in the **Primary** list, choose **CTI Service for Jabber**, and then click **Save**.



Procedure 2 Configure Unity Connection for Jabber

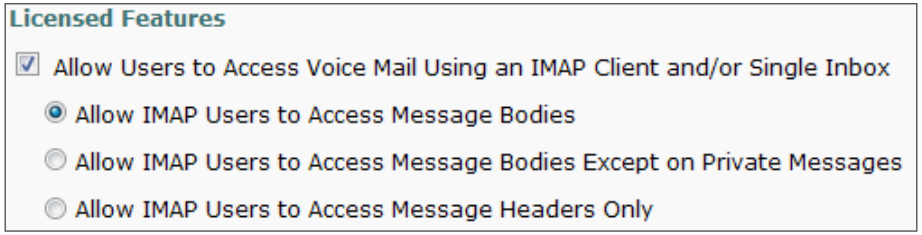
The next set of steps will configure Cisco Unity Connection for use with Jabber.

Step 1: In a web browser, access the Cisco Unity Connection administration interface, and then in the center of the page, under Installed Applications, click **Cisco Unity Connection**.

Step 2: Enter the application administrator username and password, and then click **Login**.

Step 3: Navigate to **Class of Service** > **Class of Service** and then click **Voice Mail User COS**.

Step 4: On the Edit Class of Service (Voice Mail user COS) page, in the Licensed Features section, select **Allow users to Access Voice Mail Using IMPA Client and/or Single Inbox**, select **Allow IMAP Users to Access Message Bodies**, and then click **Save**.



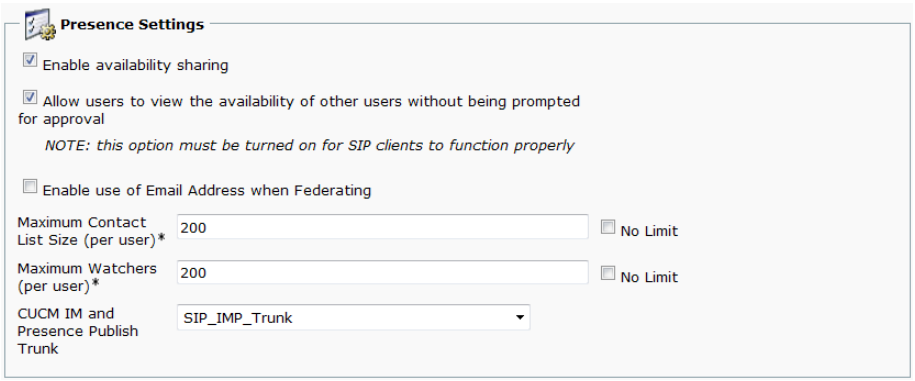
Procedure 3 Configure IM and Presence services

This procedure configures Cisco Unified CM IM and Presence with a publish trunk, presence gateway, and a Cisco Unified Communications Manager IP phone service profile.

Step 1: In a web browser, access the IP address or hostname of the Cisco Unified CM IM and Presence server, and then in the center of the page under Administrative Applications, click **Cisco Unified Communications Manager IM and Presence**.

Step 2: Enter the name and password you entered on the Application User Configuration page in Step 21 of Procedure 1 "Install Cisco Unified CM IM and Presence," and then click **Login**.

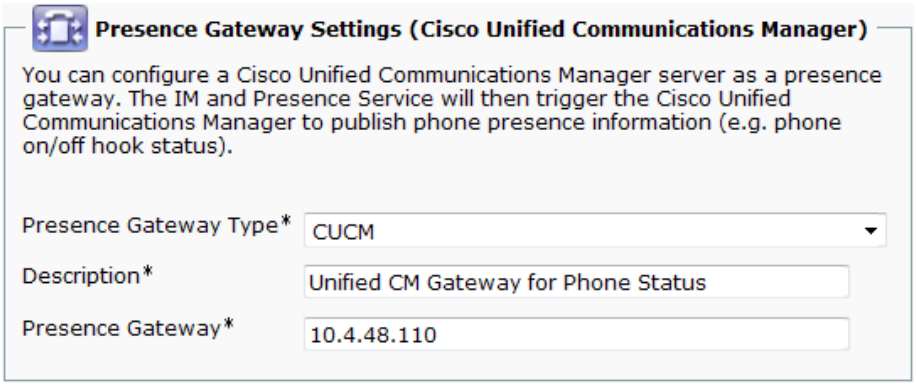
Step 3: Navigate to **Presence > Settings**, and in the CUCM IM and Presence Publish Trunk list, choose **SIP_IMP_Trunk**, and then click **Save**.



Step 4: Navigate to **Presence > Gateways**, and then click **Add New**.

Step 5: On the Presence Gateway Configuration page, enter the following information, and then click **Save**:

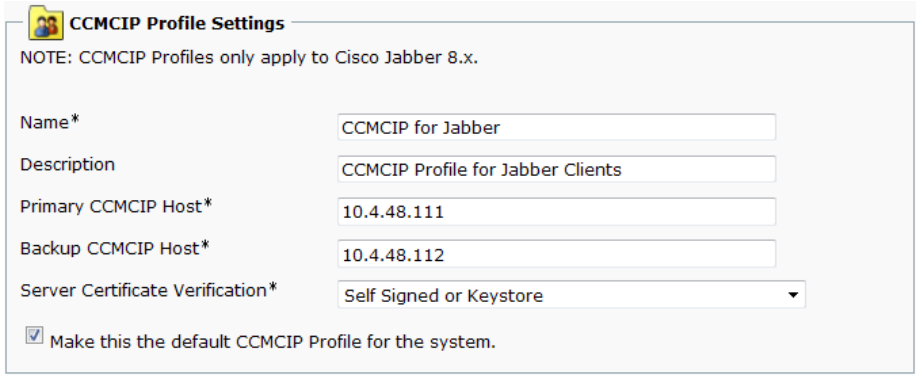
- Presence Gateway Type—CUCM
- Description—Unified CM Gateway for Phone Status
- Presence Gateway—10.4.48.110 (publisher)



Step 6: Navigate to **Application > Legacy Clients > CCMCIP Profile**, and then click **Add New**.

Step 7: On the CCMCIP Profile Configuration page, enter the following information, and then click **Save**:

- Name—CCMCIP for Jabber
- Description—CCMCIP Profile for Jabber Clients
- Primary CCMCIP Host—10.4.48.111 (subscriber 1)
- Backup CCMCIP Host—10.4.48.112 (subscriber 2)
- Server Certificate Verification—Self Signed or Keystore
- Make this the default CCMCIP Profile for the system—Select



Step 8: In the message window, click **OK**.

Procedure 4 Configure users for IM and Presence

This procedure will configure Cisco Unified CM for Cisco Jabber for Windows, Jabber for iPad, and Jabber for iPhone users who require these capabilities.

Step 1: In a web browser, access the IP address or hostname of the Cisco Unified CM publisher, and then in the center of the page, under Installed Applications, click **Cisco Unified Communications Manager**.

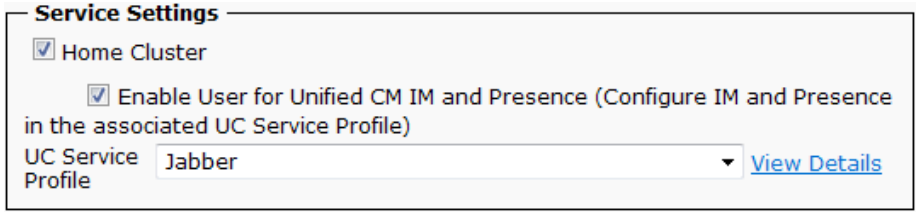
Step 2: Enter the Unified CM application username and password, and then click **Login**.

Step 3: Navigate to **User Management > End User**, and then click **Find**.

Step 4: Find the appropriate Cisco Jabber user, and then click the username.

Step 5: In the Service Settings section, enter the following information, and then click **Save**:

- Home Cluster—**Select**
- Enable User for Unified CM IM and Presence—**Select**
- UC Service Profile—**Jabber**



Step 6: In the Permissions Information section, select **Add to Access Control Group**.

Step 7: On the Find and List Access Control Groups page, click **Find**, and then select the following groups:

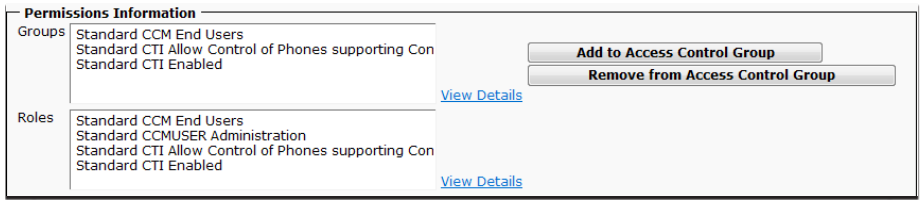
- Access Control Group—**Standard CCM End users** (existing)
- Access Control Group—**Standard CTI Enabled**

Step 8: If you are using one of the following phone models, select the appropriate additional control group:

- Cisco Unified IP Phone 9900 Series—**Standard CTI Allow Control of Phones supporting Connected Xfer and conf**
- Cisco Unified IP Phone 6900 Series—**Standard CTI Allow Control of Phones supporting Rollover Mode**

Step 9: Click **Add Selected**.

Step 10: On the End User Configuration page, click **Save**.



Step 11: Repeat Step 3 through Step 10 for each additional Cisco Jabber for Windows, Jabber for iPad, and Jabber for iPhone user.

Process

Configuring Cisco Jabber for Windows

1. Configure Profiles in Unified CM
2. Configure Jabber for Windows softphones
3. Configure Jabber for Windows users
4. Download and install Jabber for Windows

This process is only necessary if you plan to deploy Cisco Jabber for Windows.

In this process, you configure Cisco Unified CM to enable unified communications on Cisco Jabber for Windows clients. You also download and install Cisco Jabber for Windows and the Cisco Media Services Interface software to a user's laptop or desktop computer.

Procedure 1 Configure Profiles in Unified CM

To enable unified communications with voice and video calling capabilities from Cisco Unified CM, a software phone device is required for each Cisco Jabber for Windows user.

The first stage in building a software phone device is to create a SIP profile enabling video desktop sharing. You cannot edit or configure the default SIP profile, so you create a new SIP profile from the default and modify the specific settings.

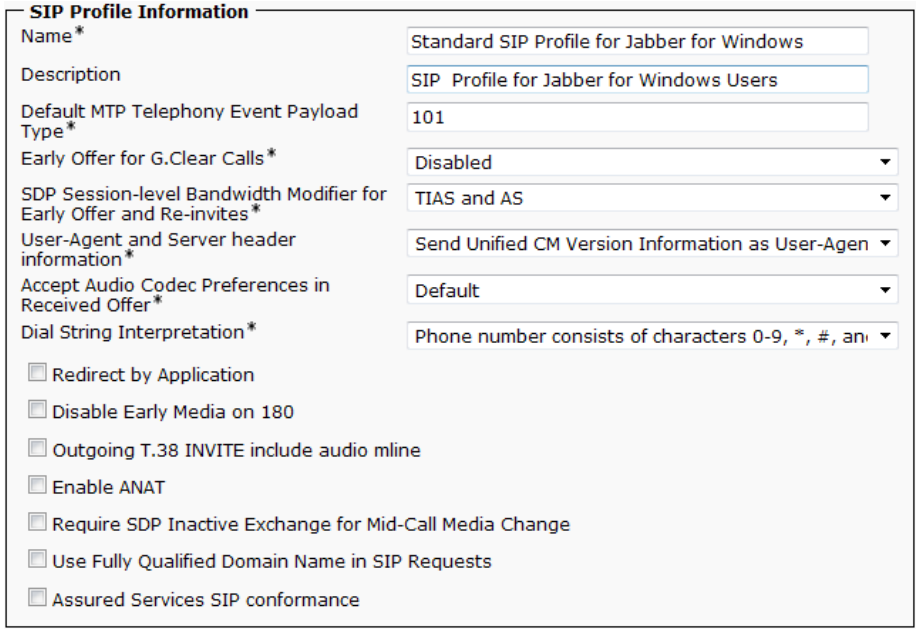
You also modify the default standard common phone profile in order to enable Real-time Transport Control Protocol (RTCP).

Step 1: Navigate to **Device > Device Settings > SIP Profile**, and then click **Find**.

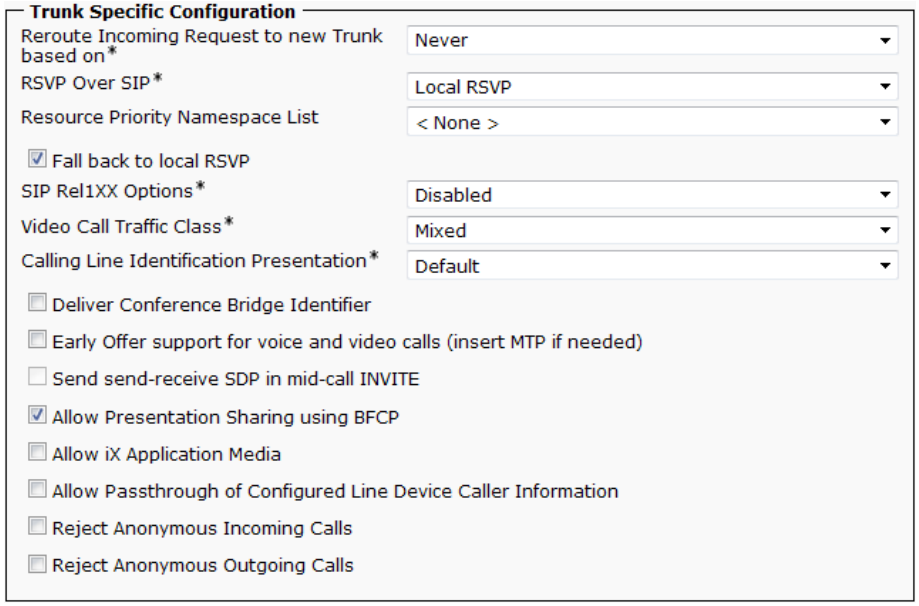
Step 2: Locate **Standard SIP Profile**, and then on the right side of the page in line with the profile, click the **Copy** icon.

Step 3: On the SIP Profile Configuration page, in the SIP Profile Information section, enter the following information:

- Name—Standard SIP Profile for Jabber for Windows
- Description—SIP Profile for Jabber for Windows Users



Step 4: In the Trunk Specific Configuration section, select **Allow Presentation Sharing using BFCP**, and then click **Save**.



Step 5: Navigate to **Device > Device Settings > Common Phone Profile**, click **Find**, and then click **Standard Common Phone Profile**.

Step 6: In the Product Specific Configurations Layout section, in the **RTCP** list, choose **Enabled**, and then click **Save**.

Step 7: On the Common Phone Profile Configuration page, click **Reset**, and then on the Device Reset page, click **Reset**.

Step 8: Click **Close** to return to the previous page.

Procedure 2 Configure Jabber for Windows softphones

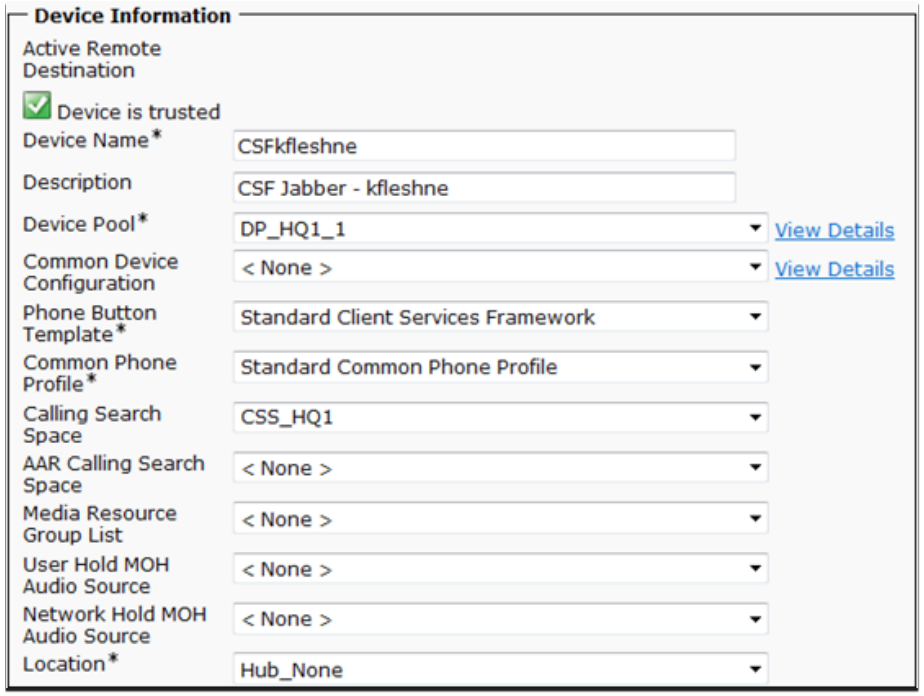
The Client Service Framework (CSF) phone type is used within Cisco Unified CM in order to deploy Cisco Jabber for Windows clients that require unified communications.

Step 1: Navigate to **Device > Phone**, and then click **Add New**.

Step 2: In the **Phone Type** list, choose **Cisco Unified Client Services Framework**, and then click **Next**.

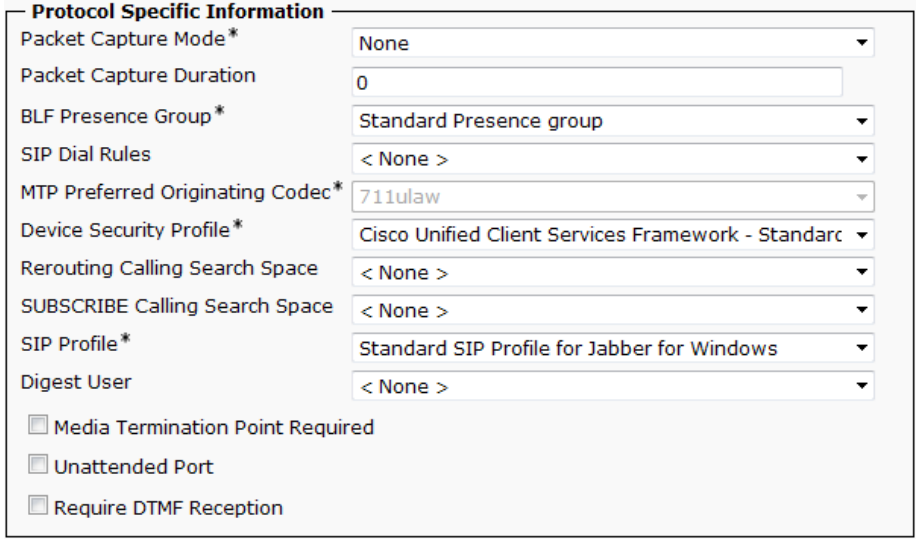
Step 3: On the Phone Configuration page, in the Device Information section, enter the following information:

- Device Name—CSFkfleshne (uppercase CSF plus username)
- Description—CSF Jabber - kfleshne
- Device Pool—DP_HQ1_1
- Phone Button Template—Standard Client Services Framework
- Common Phone Profile—Standard Common Phone Profile
- Calling Search Space—CSS_HQ1
- Location—Hub_None



Step 4: In the Protocol Specific Information section, enter the following information, and then click **Save**:

- Device Security Profile—Cisco Unified Client Services Framework - Standard SIP Non-Secure
- SIP Profile—Standard SIP Profile for Jabber for Windows



Step 5: On the Phone Configuration page, in the Association Information section, click **Line [1] - Add a new DN**.

Tech Tip

When using an LDAP directory service, the Cisco Jabber client's click-to-call the phone number that is listed in the Telephone Number attribute of LDAP.

Confirm that the Telephone Number attribute in your LDAP implementation matches the Directory Number used in Cisco Unified CM for your Cisco Jabber client.

Figure 3 has an example of the LDAP General Information page in Microsoft Active Directory.

Step 6: On the Directory Number Configuration page, enter the following values:

- Directory Number—81004007
- Route Partition—PAR_Base
- Description—Jabber - kfleshne
- Alerting Name—[Alerting name]
- ASCII Alerting Name—[ASCII alerting name]
- Allow Control of Device from CTI—Select

Figure 2 - Cisco Unified CM Directory Number information

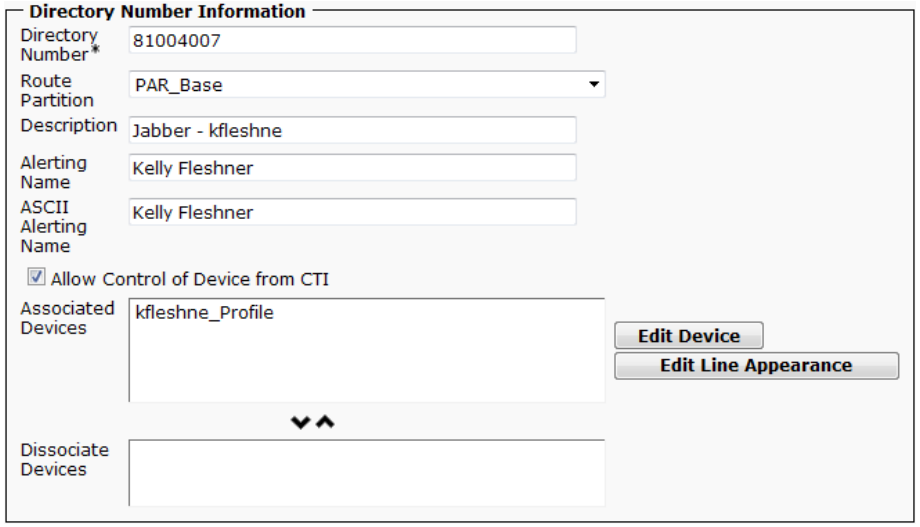
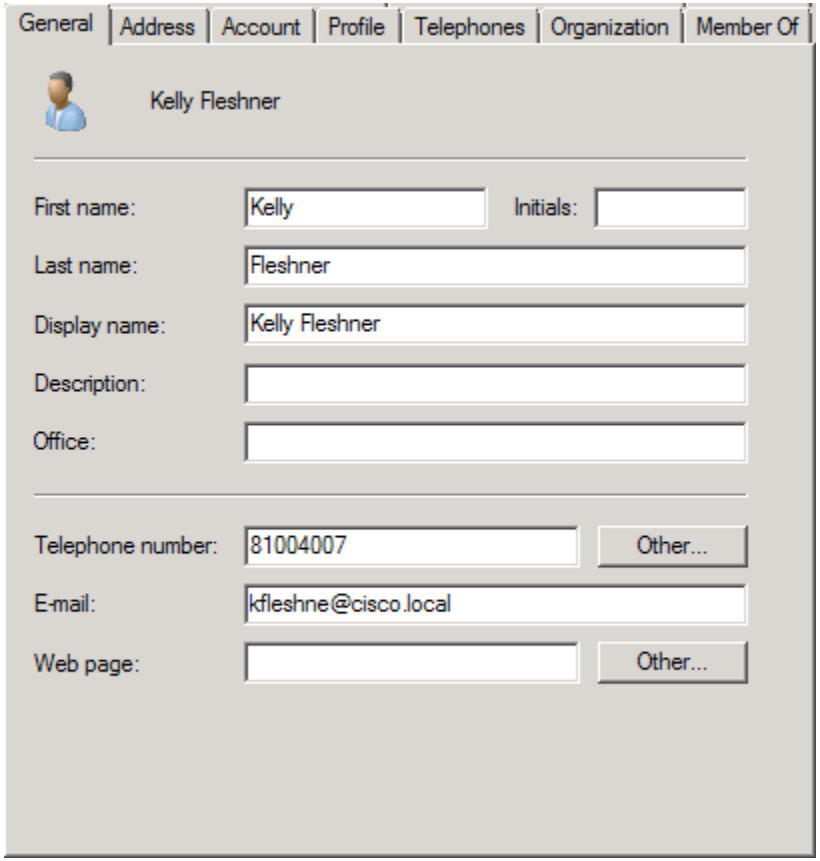


Figure 3 - Example LDAP general information telephone number attribute



Step 7: In the Users Associated with Line section at the bottom of the page, click **Associate End Users**, and then click **Find**.

Step 8: Select the Cisco Jabber user, click **Add Selected**, and then click **Save**.

Step 9: On the Directory Number Configuration page, click **Apply Config**, and then on the Apply Configuration page, click **OK**.

Procedure 3 Configure Jabber for Windows users

Associate the client services framework device with the end user to allow them to utilize the phone service from Unified CM.

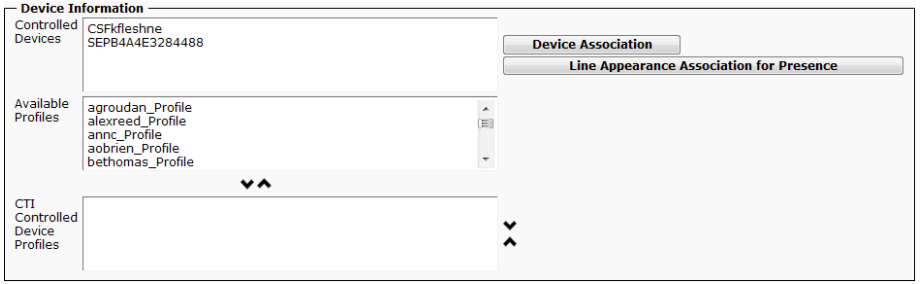
Step 1: Navigate to **User Management > End User**, and then click **Find**.

Step 2: Find the Cisco Jabber user, and then click the username.

Step 3: In the Device Information section, click **Device Association**, and then click **Find**.

Step 4: Select the user's client services framework device (Example: CSFkfleshne), and then click **Save Selected/Changes**.

Step 5: In the Related Links list, choose **Back to User**, and then click **Go**.



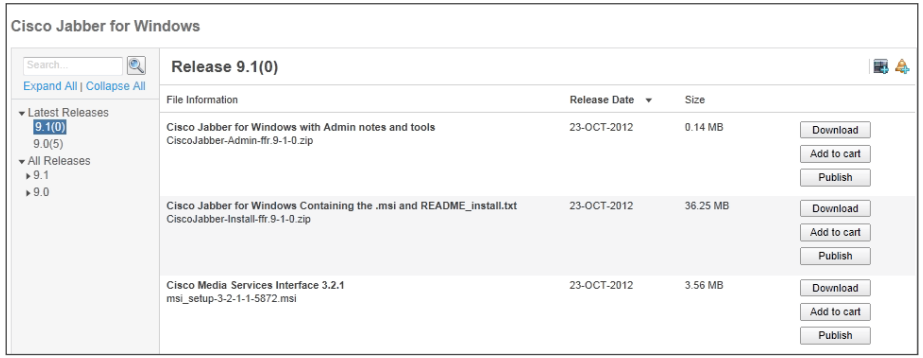
Step 6: Repeat Procedure 2 and Procedure 3 for each Cisco Jabber for Windows user.

Procedure 4 Download and install Jabber for Windows

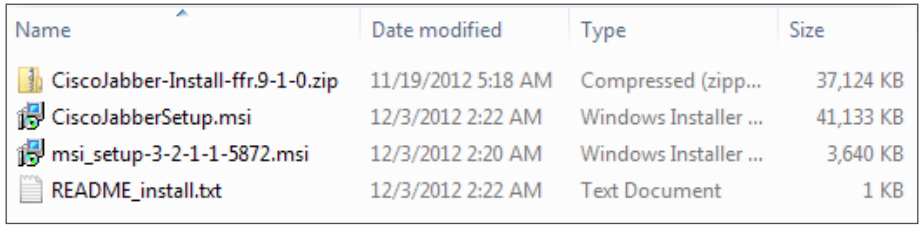
After adding the software phones into Cisco Unified CM, the users must download the software to their laptop or desktop computers in order to begin using Cisco Jabber for Windows.

Step 1: In a browser, access http://www.cisco.com/, login using your Cisco.com account name, and then navigate to **Support > All Downloads**.

Step 2: From the Download Home section, navigate to **Voice and Unified Communications > Unified Communications Applications > Unified Communications Clients > Cisco Jabber for Windows**, and then click the latest version.

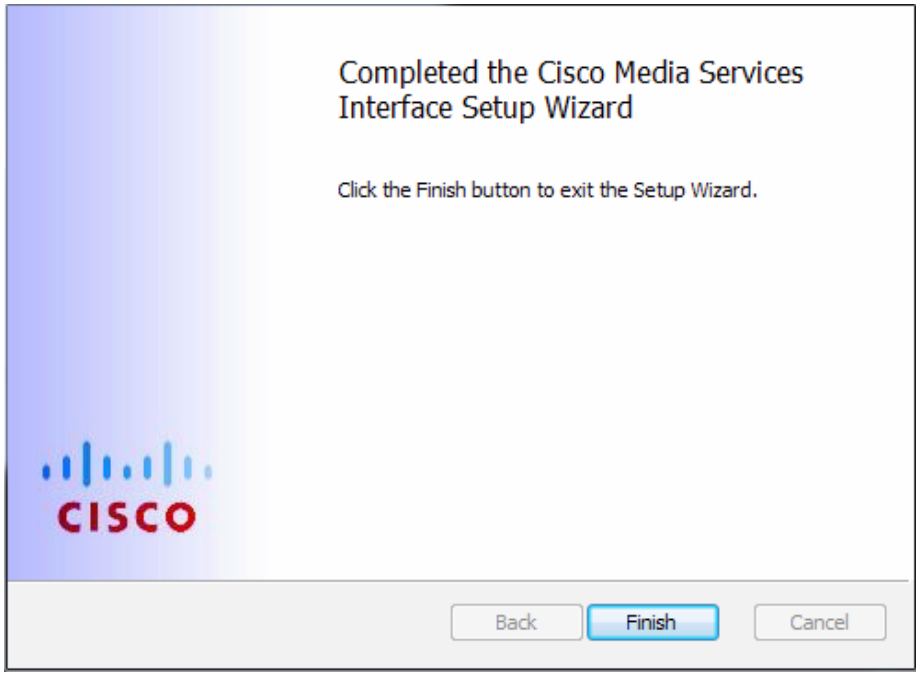


Step 3: Download the Cisco Jabber for Windows and Cisco Media Services Interface software, and then unzip the Cisco Jabber Install software into the local directory.



Step 4: Click on the **msi_setup** file, and then follow the installation instructions in the Cisco Media Services Interface Setup Wizard.

Step 5: Depending on your operating system, you have to accept several security messages as the software installs. After the software installs, click **Finish**.

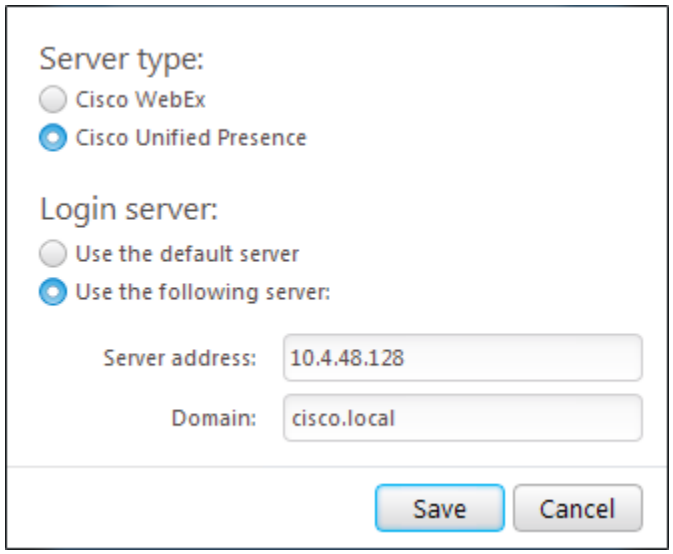


Step 6: Click the **CiscoJabberSetup.msi** file, and follow the installation instructions in the Cisco Jabber wizard.

Step 7: Depending on your operating system, you have to accept several security messages as the software installs. After the software installs, select **Launch Cisco Jabber**, and then click **Finish**.

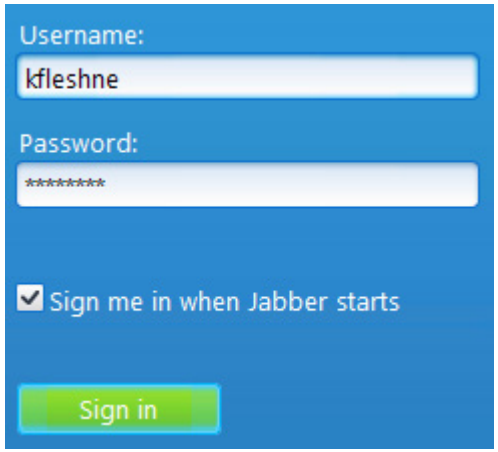
Step 8: On the Connection Settings page, enter the following information, and then click **Save**:

- Server type—Cisco Unified Presence
- Login server—Use the following server
- Server address—10.4.48.128
- Domain—cisco.local



Step 9: On the login page, enter the following information, and then click **Sign In**:

- Username—[username]
- Password—[password]
- Sign me in when Jabber Starts—Select



Step 10: Add contacts and favorites as needed.

Step 11: Repeat this procedure for each Cisco Jabber for Windows user.

Process

Configuring Cisco Jabber for iPad

1. Prepare the servers for Jabber for iPad
2. Configure SIP Profile in Unified CM
3. Configure Jabber for iPad softphones
4. Configure Jabber for iPad users
5. Download and install Jabber for iPad

This process is only necessary if you plan to deploy Cisco Jabber for iPad. The procedures for deploying Cisco Jabber for iPhone can be found in the next process.

Configure the Jabber for iPad softphones and users in Cisco Unified CM, and then download and install the Cisco Jabber for iPad software.

Download the latest shipping version of the Cisco Jabber for iPad Cisco Options Package (COP) file and install it on the Cisco Unified CM servers in your cluster. You need a valid Cisco.com account in order to download the COP file. You also need Secure File Transfer Protocol (SFTP) server software in order to safely transfer the file to your Unified CM servers.

Next, you download the client software to the iPad from the App store and begin the configuration procedure.

Procedure 1 Prepare the servers for Jabber for iPad

In this procedure, after transferring the COP file to the publisher and subscriber servers, you have to restart the Cisco Tomcat service in order to complete the installation. To avoid interruptions in phone service, ensure that each server has returned to active service before you perform this procedure on the next server.

Step 1: In a web browser, access www.cisco.com, login with your user ID, and then navigate to **Support** > **All Downloads**.

Step 2: On the **Select a Product** page, navigate to **Products** > **Voice and Unified Communications** > **Unified Communications Applications** > **Unified Communications Clients** > **Cisco Jabber for iPad** > **Latest Releases**, and then choose to download the compressed version of the **Jabber for iPad Device COP file** to a local directory on your PC.

Step 3: Unzip the Jabber for iPad COP file into the local directory on your PC using your favorite file archive program. For example: 7-Zip.

Step 4: Start the SFTP server software on your PC, and then configure it with a username and password for accessing the downloaded software in a specified directory.

Step 5: In a web browser, access the Cisco Unified CM administration interface of the publisher server in your cluster.

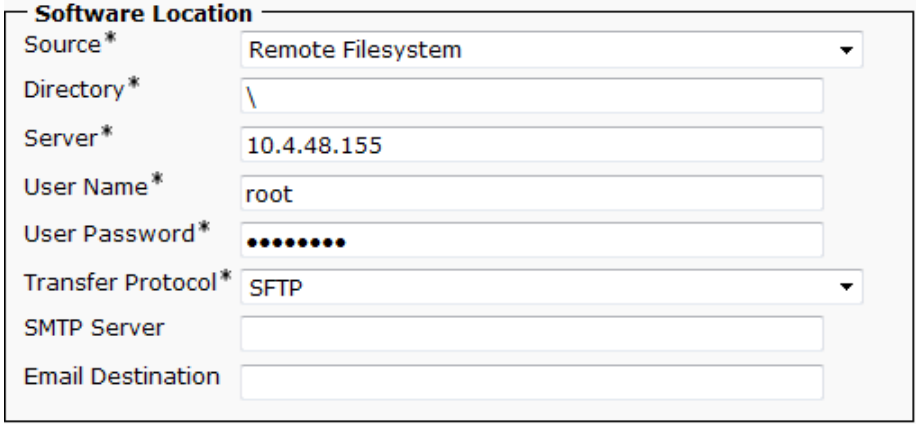
Step 6: In the center of the page, under Installed Applications, click the **Cisco Unified Communications Manager** link.

Step 7: In the Navigation list at the top of the page, choose **Cisco Unified OS Administration**, and then click **Go**.

Step 8: Enter the case-sensitive username and password for the platform administrator, and then click **Login**. For example: Admin and [password]

Step 9: Navigate to **Software Upgrades > Install/Upgrade**, enter the following information and then, click **Next**:

- Source—Remote Filesystem
- Directory—\
- Server—10.4.48.155 (IP address of the PC running SFTP server software)
- User Name—root (user name on SFTP PC to access files)
- User Password—[password] (user password on SFTP PC to access files)
- Transfer Protocol—SFTP



Step 10: In the **Options/Upgrades** list, choose the Cisco Jabber tablet COP file that was extracted from the .zip in Step 3, and then click **Next**.

Step 11: After the file is downloaded and validated, verify the MD5 Hash Value on the server matches the MD5 Hash Value on your PC.

Figure 4 - MD5 Hash Value from Cisco Unified CM

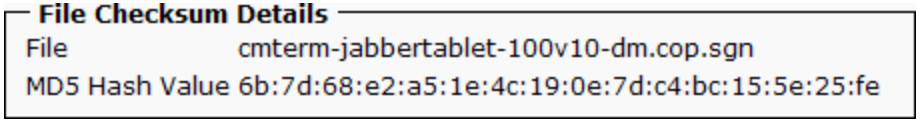
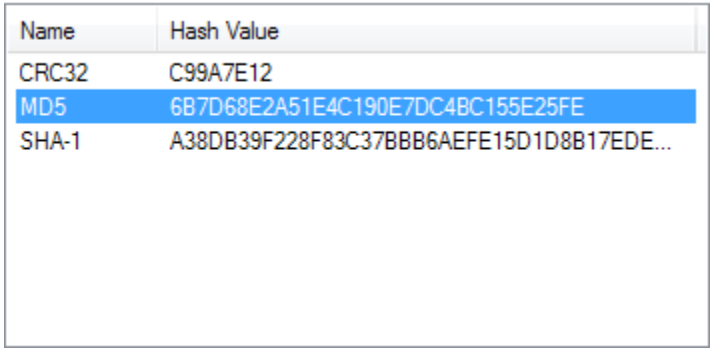
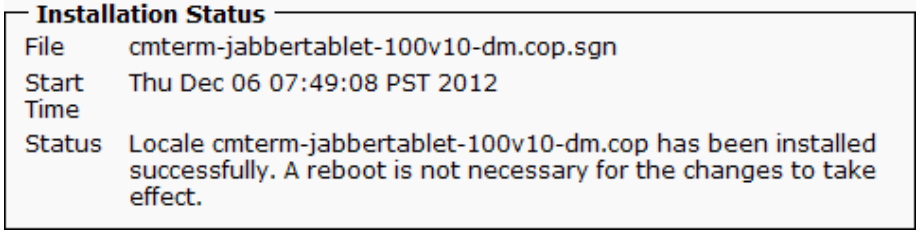


Figure 5 - MD5 Hash Value from your PC



Step 12: If the MD5 Hash Values do not match, transfer the file again.

If they match, click **Next**, and then confirm the file is successfully installed.



Step 13: Log into the command line interface of the server by using the case-sensitive platform administrator username and password. For example: Admin and [password]

Step 14: Restart the Cisco Unified CM Cisco Tomcat service from the command line interface. This clears the Tomcat image cache and displays the table device icon properly.

```
utils service restart Cisco Tomcat
```

Step 15: If the service does not restart properly, execute the same command again. Depending on your server hardware, the restart can take up to five minutes. Wait for the service to return to an active state before continuing.

Step 16: Repeat Step 5 through Step 15 for each subscriber server in your cluster.

Procedure 2 Configure SIP Profile in Unified CM

To enable unified communications with voice and video calling capabilities from Cisco Unified CM, a software phone device is required per Cisco Jabber for iPad user.

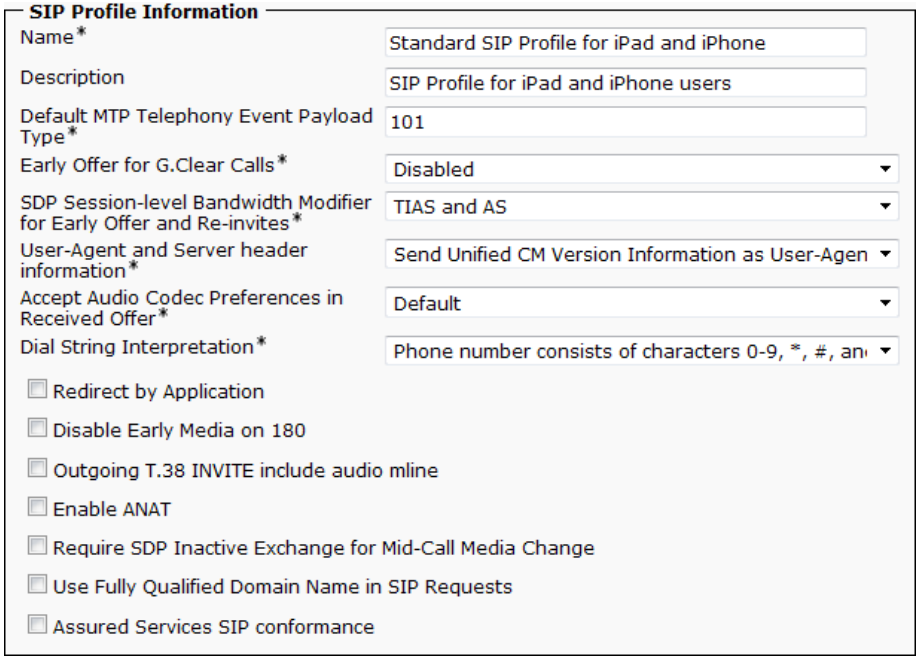
The first stage in building a software phone device is to create a SIP profile that enables the Cisco Jabber for iPad application to run in the background. You cannot edit or configure the default SIP profile, so you must create a new SIP profile from the default and modify the specific settings.

Step 1: Navigate to **Device** > **Device Settings** > **SIP Profile**, and then click **Find**.

Step 2: Locate the **Standard SIP Profile**, and then on the right side of the page in line with the profile, click the **Copy** icon.

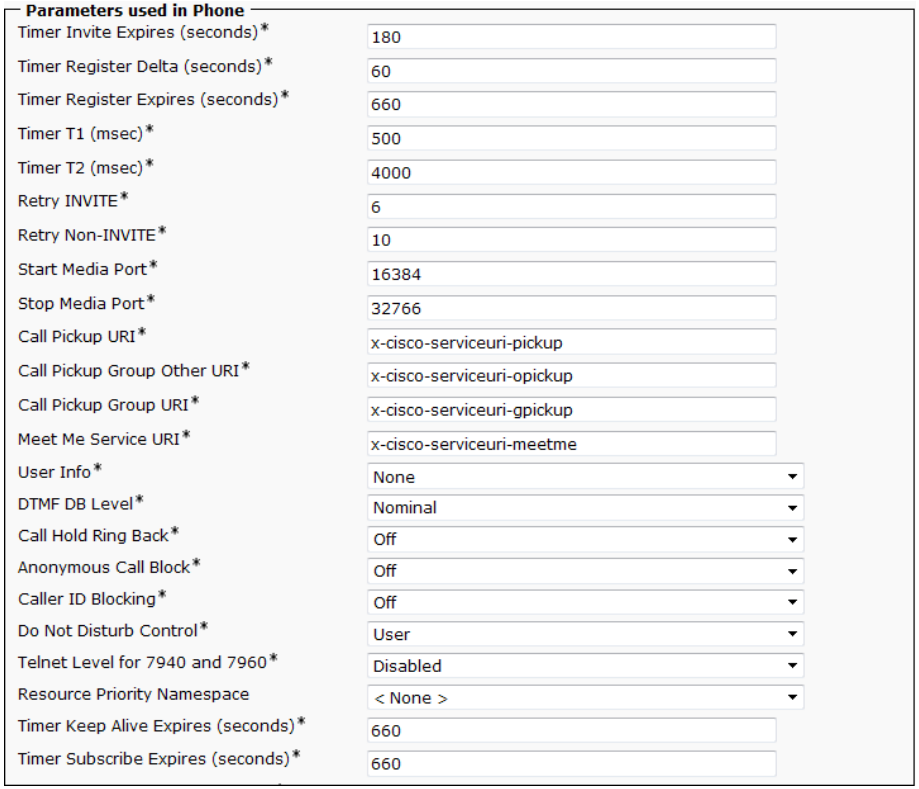
Step 3: On the SIP Profile Configuration page, in the SIP Profile Information section, enter the following information:

- Name—Standard SIP Profile for iPad and iPhone
- Description—SIP Profile for iPad and iPhone Users



Step 4: In the Parameters Used in Phone section, enter the following information, and then click **Save**:

- Timer Register Delta (seconds)—60
- Timer Register Expires (seconds)—660
- Timer Keep Alive Expires (seconds)—660
- Timer Subscribe Expires (seconds)—660



Procedure 3 Configure Jabber for iPad softphones

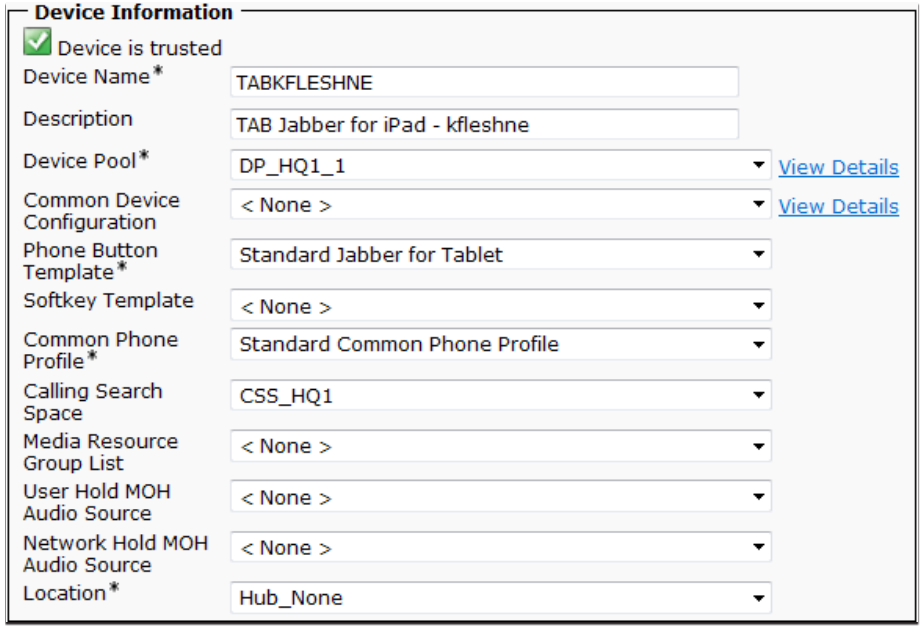
The Cisco Jabber for Tablet (TAB) phone type is used within Cisco Unified CM in order to deploy Jabber for iPad clients that require unified communications.

Step 1: Navigate to **Device > Phone**, and then click **Add New**.

Step 2: In the **Phone Type** list, choose **Cisco Jabber for Tablet**, and then click **Next**.

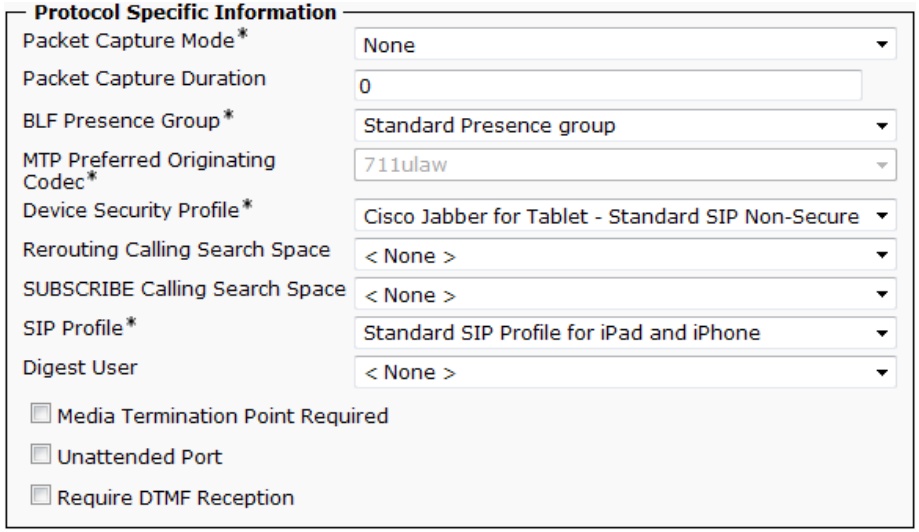
Step 3: On the Phone Configuration page, in the Device Information section, enter the following information:

- Device Name—TABKFLESHNE (TAB plus username, all uppercase)
- Description—TAB Jabber for iPad - kfleshne
- Device Pool—DP_HQ1_1
- Phone Button Template—Standard Jabber for Tablet
- Common Phone Profile—Standard Common Phone Profile
- Calling Search Space—CSS_HQ1
- Location—Hub_None



Step 4: In the Protocol Specific Information section, enter the following information, and then click **Save**:

- Device Security Profile—Cisco Jabber for Tablet - Standard SIP Non-Secure
- SIP Profile—Standard SIP Profile for iPad and iPhone



Step 5: In the message windows, click **OK**.

Step 6: On the Phone Configuration page, in the Association Information section, click **Line [1] - Add a new DN**.

Tech Tip

When using an LDAP directory service, the Cisco Jabber client's click-to-call the phone number that is listed in the Telephone Number attribute of LDAP.

Confirm that the Telephone Number attribute in your LDAP implementation matches the Directory Number used in Cisco Unified CM for your Cisco Jabber client.

Figure 7 has an example of the LDAP General Information page in Microsoft Active Directory.

Step 7: On the Directory Number Configuration page, in the Directory Number Information section, enter the following information:

- Directory Number—81004007
- Route Partition—PAR_Base
- Description—Jabber - kfleshne
- Alerting Name—[Alerting name]
- ASCII Alerting Name—[ASCII alerting name]
- Allow Control of Device from CTI—Select

Figure 6 - Cisco Unified CM Directory Number information

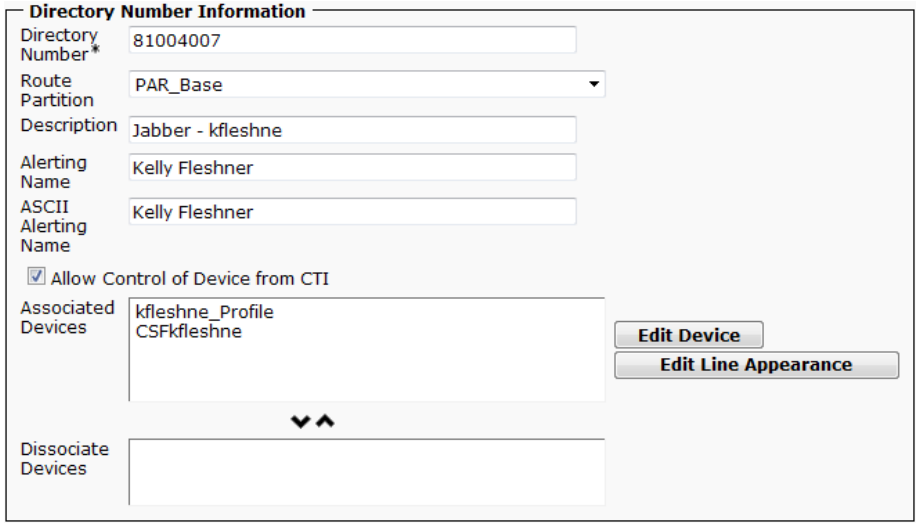
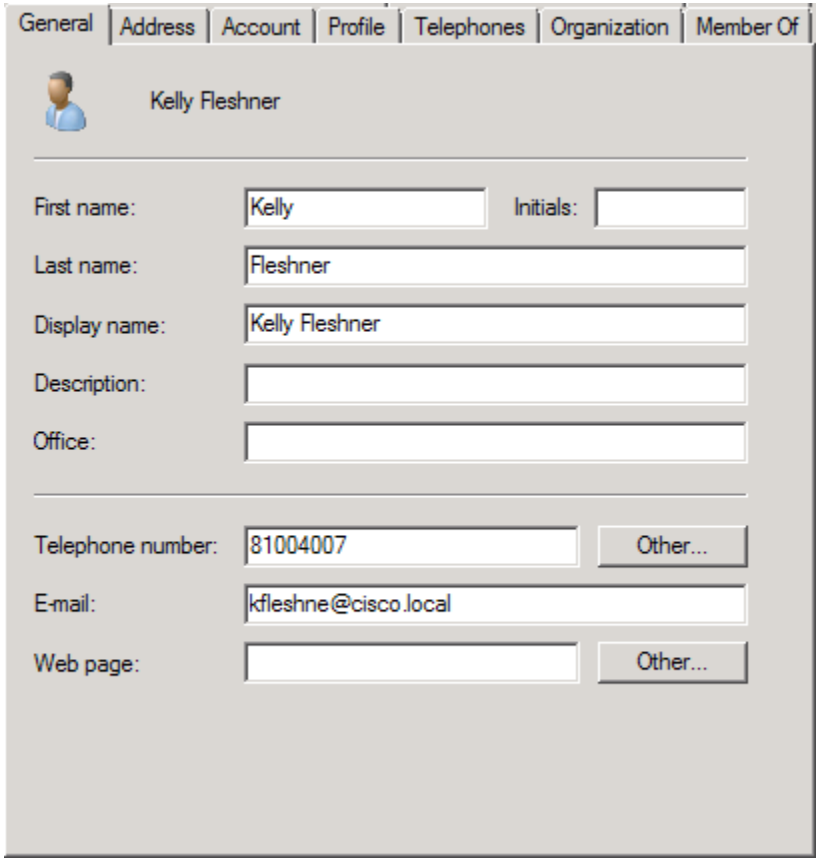


Figure 7 - Example LDAP general information telephone number attribute



Step 8: In the Users Associated with Line section at the bottom of the page, click **Associate End Users**, and then click **Find**.

Step 9: Select the Cisco Jabber user, click **Add Selected**, and then click **Save**.

Step 10: On the Directory Number Configuration page, click **Apply Config**, and then on the Apply Configuration page, click **OK**.

Procedure 4 Configure Jabber for iPad users

Associate the Cisco Jabber for tablet device with the end user to allow them to utilize the phone service from Unified CM.

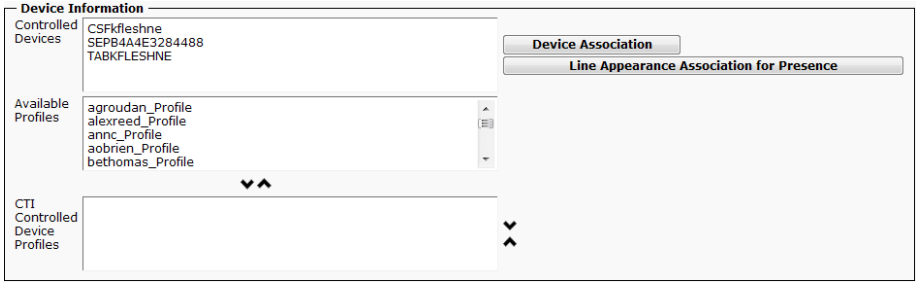
Step 1: Navigate to **User Management > End User**, and then click **Find**.

Step 2: Find the Cisco Jabber user, and then click the username.

Step 3: In the Device Information section, click **Device Association**, and then click **Find**.

Step 4: Select the user's Cisco Jabber for iPad device (Example: TABKFLESHNE), and then click **Save Selected/Changes**.

Step 5: In the Related Links list, choose **Back to User**, and then click **Go**.



Step 6: Repeat Procedure 3 and Procedure 4 for each Cisco Jabber for iPad user.

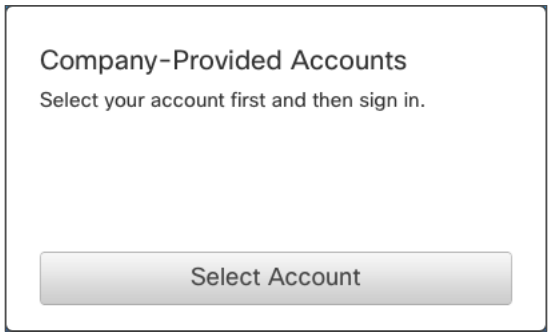
Procedure 5 Download and install Jabber for iPad

After adding the software phones into Cisco Unified CM, the users must download the software to their iPads in order to begin using Cisco Jabber for iPad.

Step 1: On the iPad, tap the **App Store** icon, and then in the search box, enter **Cisco Jabber for iPad**.

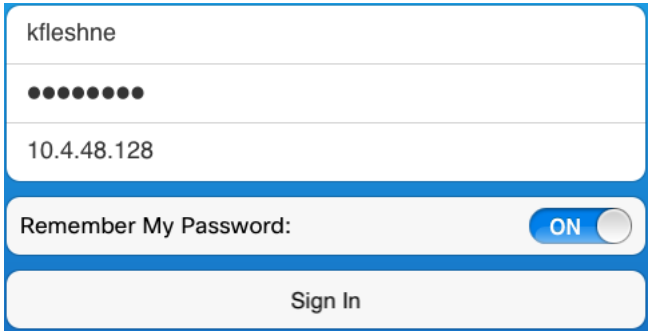
Step 2: Locate the application, tap **FREE**, enter your Apple ID password, and then tap **OK**.

Step 3: After the application finishes installing, tap the **Jabber** icon, and then tap **Select Account**.



Step 4: Under Cisco Instant Messaging, choose **Unified Presence**, enter the following information, and then tap **Sign In**:

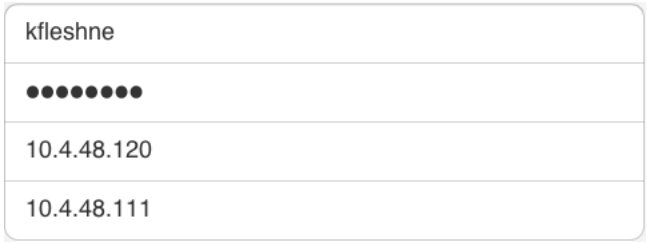
- Username—kfleshne
- Password—[password]
- Server address—10.4.48.128 (Unified CM IM and Presence server)
- Remember My Password—On



Step 5: On the right side of the page, tap **Set Up Video and Voice Calling Account**, and then choose **Unified Communications Manager**.

Step 6: Enter the following information, choose **Save**, and then tap **Done**:

- Username—kfleshne
- Password—[password]



Step 7: In the top right corner of the page, tap the **Settings** icon, scroll down to the bottom of the page, and then tap **Voicemail Pilot Number**.

Step 8: On the Voicemail Pilot Number page, enter the voice mail pilot (Example: 8009400), choose **Settings**, and then tap **Done**.

Step 9: Add contacts and favorites as needed.

Step 10: Repeat this procedure for each Cisco Jabber for iPad user.

Process

Configuring Cisco Jabber for iPhone

1. Configure SIP Profile in Unified CM
2. Configure Jabber for iPhone softphones
3. Configure Jabber for iPhone users
4. Download and install Jabber for iPhone

This process is only necessary if you plan to deploy Cisco Jabber for iPhone. The procedures for deploying Cisco Jabber for iPad can be found in the previous process.

First, you configure Jabber for iPhone softphones and users in Cisco Unified CM. Next, you download the Cisco Jabber for iPhone software from the App store and begin the configuration procedure on your phone.

Procedure 1 Configure SIP Profile in Unified CM

If you have already configured the Standard SIP Profile for iPad and iPhone in the "Configure SIP Profile in Unified CM" procedure in the previous process, please skip ahead to the next procedure in this process. If you have not previously configured a SIP profile in Unified CM, please follow the steps below.

To enable unified communications with voice and video calling capabilities from Cisco Unified CM, a software phone device is required per Cisco Jabber for iPhone user.

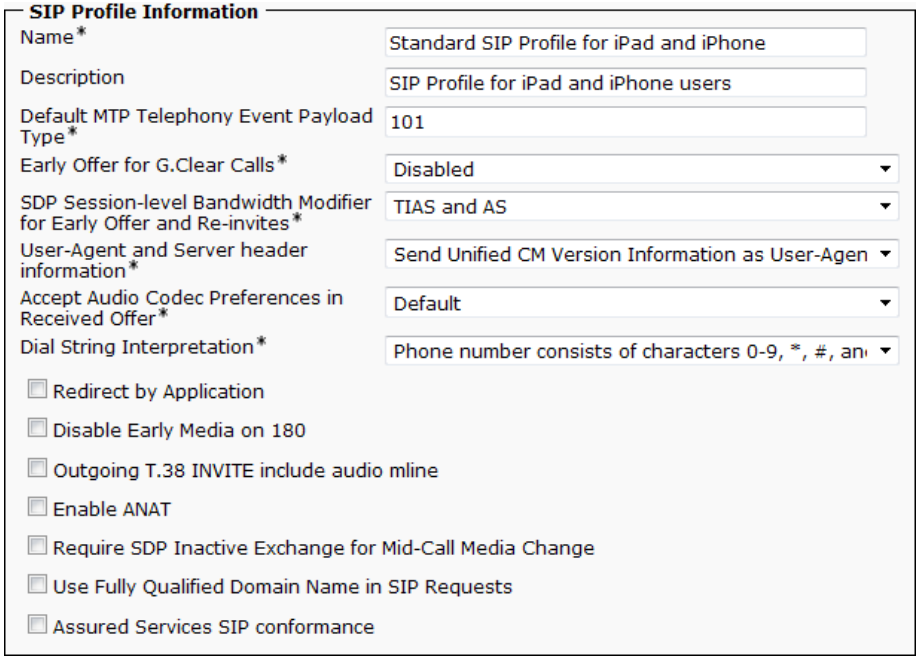
The first stage in building a software phone device to deploy with Cisco Jabber for iPhone users is to create a SIP profile that enables the application to run in the background. You cannot edit or configure the default SIP profile, so you must create a new SIP profile from the default and modify the specific settings.

Step 1: Navigate to **Device** > **Device Settings** > **SIP Profile**, and click **Find**.

Step 2: Locate the **Standard SIP Profile**, and on the right hand side of the page, click the **Copy** icon.

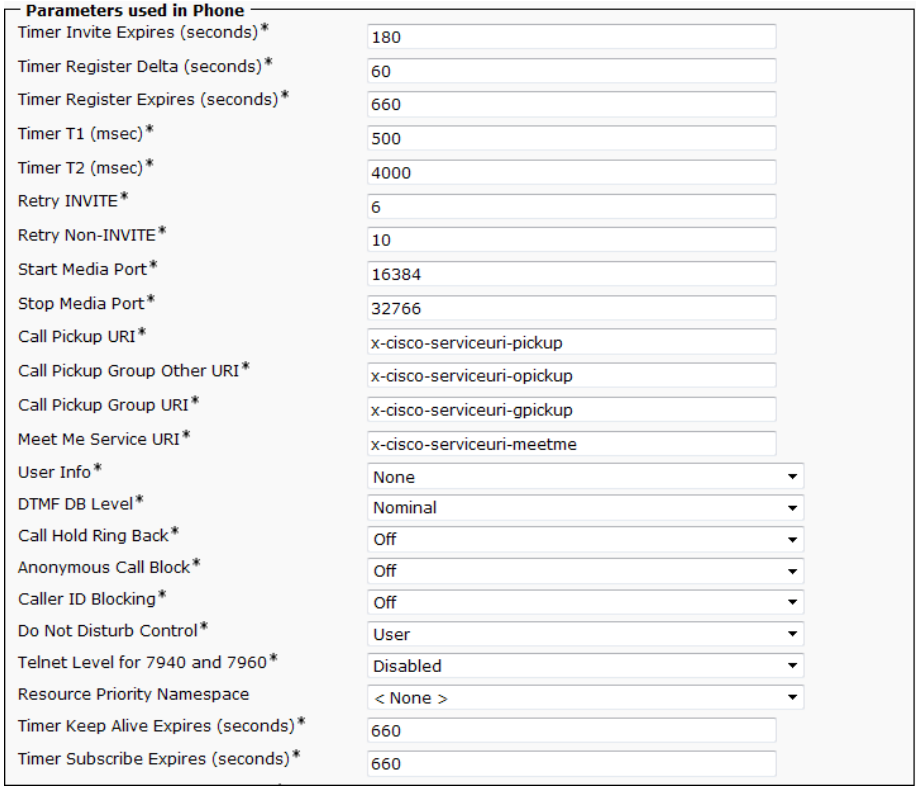
Step 3: On the SIP Profile Configuration page, in the SIP Profile Information section, enter the following information:

- Name—**Standard SIP Profile for iPad and iPhone**
- Description—**SIP Profile for iPad and iPhone Users**



Step 4: In the Parameters Used in Phone section, enter the following information, and then click **Save**:

- Timer Register Delta (seconds)—**60**
- Timer Register Expires (seconds)—**660**
- Timer Keep Alive Expires (seconds)—**660**
- Timer Subscribe Expires (seconds)—**660**



Procedure 2 Configure Jabber for iPhone softphones

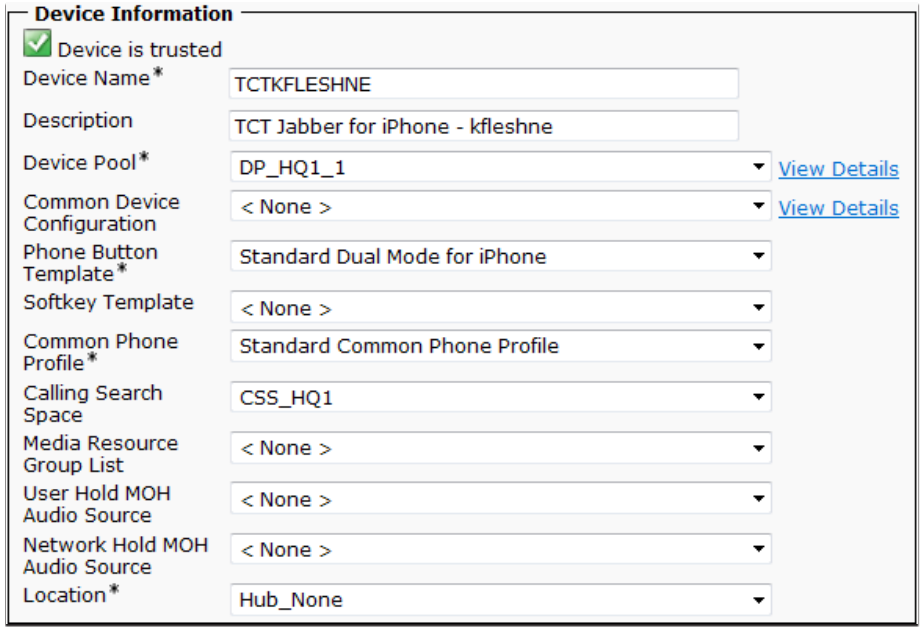
The Cisco Dual Mode for iPhone (TCT) phone type is used within Cisco Unified CM in order to deploy Cisco Jabber for iPhone clients that require unified communications.

Step 1: Navigate to **Device > Phone**, and then click **Add New**.

Step 2: In the **Phone Type** list, choose **Cisco Dual Mode for iPhone**, and then click **Next**.

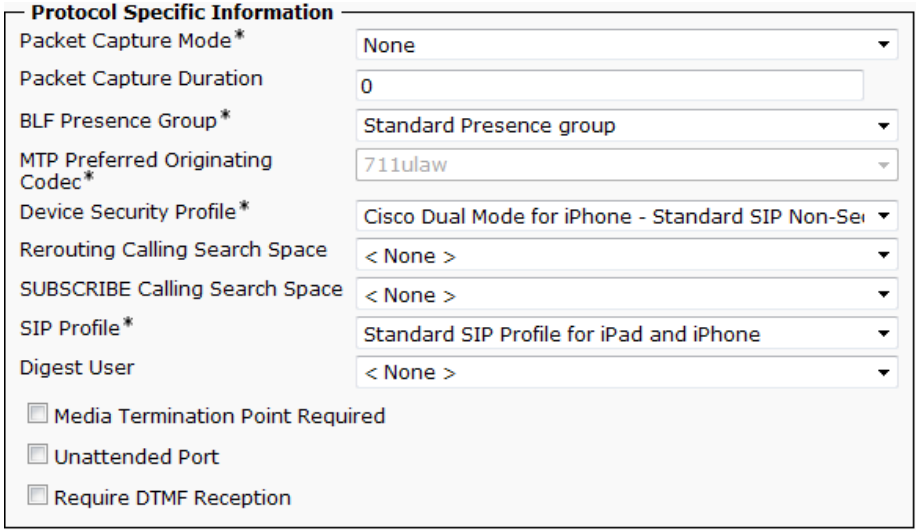
Step 3: On the Phone Configuration page, in the Device Information section, enter the following information:

- Device Name—TCTKFLESHNE (TCT plus username, all uppercase)
- Description—TCT Jabber for iPhone - kfleshne
- Device Pool—DP_HQ1_1
- Phone Button Template—Standard Dual Mode for iPhone
- Common Phone Profile—Standard Common Phone Profile
- Calling Search Space—CSS_HQ1
- Location—Hub_None



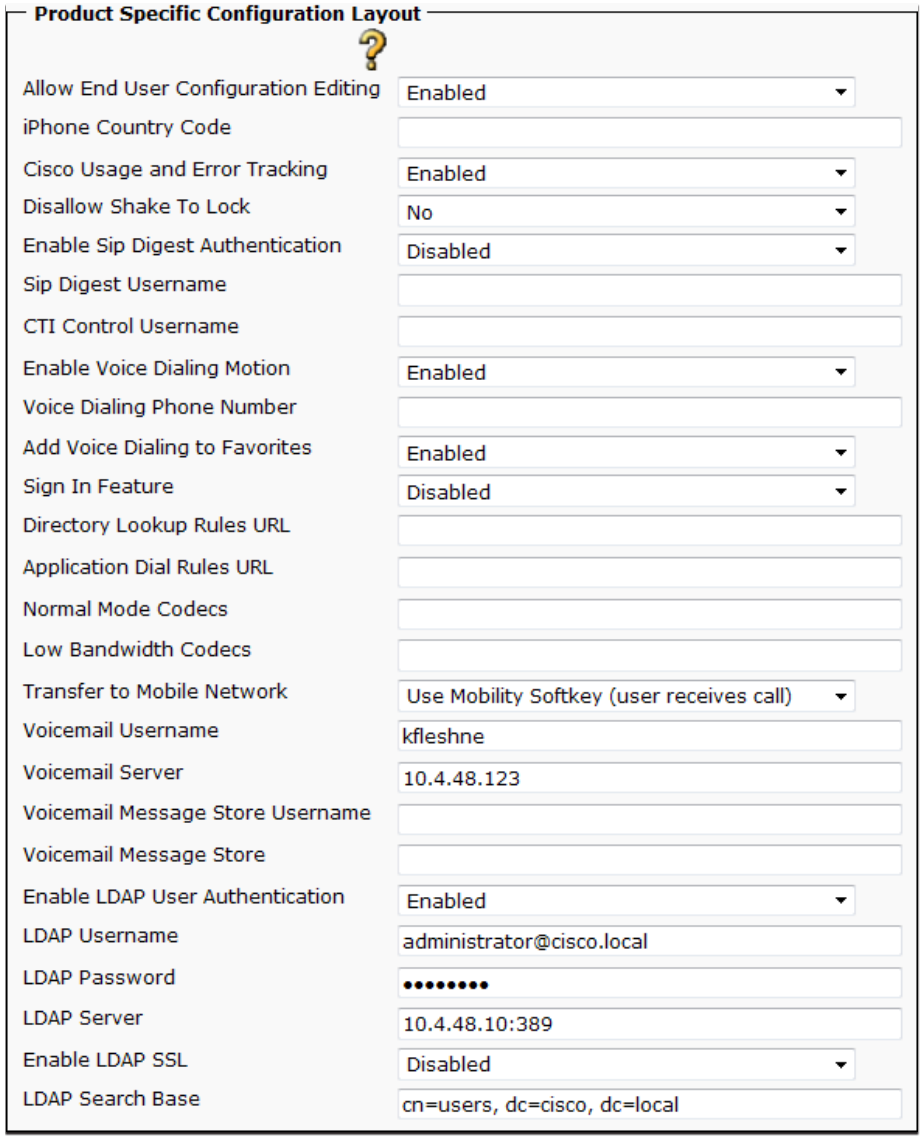
Step 4: In the Protocol Specific Information section, enter the following information:

- Device Security Profile—Cisco Dual Mode for iPhone - Standard SIP Non-Secure
- SIP Profile—Standard SIP Profile for iPad and iPhone



Step 5: In the Product Specific Configuration Layout section, enter the following information, and then click **Save**:

- Allow End User Configuration Editing—Enabled
- Voicemail Username—kfleshne
- Voicemail Server—10.4.48.123 (Unity Connection)
- Enable LDAP User Authentication—Enabled
- LDAP Username—administrator@cisco.local
- LDAP Password—[password]
- LDAP Server—10.4.48.10:389 (LDAP server and port)
- Enable LDAP SSL—Disabled
- LDAP Search Base—cn=users, dc=cisco, dc=local



Step 6: In the message window, click **OK**.

Step 7: On the Phone Configuration page, in the Association Information section, click **Line [1] - Add a new DN**.

Tech Tip

When using an LDAP directory service, the Cisco Jabber client's click-to-call the phone number that is listed in the Telephone Number attribute of LDAP.

Confirm that the Telephone Number attribute in your LDAP implementation matches the Directory Number used in Cisco Unified CM for your Cisco Jabber client.

Figure 9 has an example of the LDAP General Information page in Microsoft Active Directory.

Step 8: On the Directory Number Configuration page, in the Directory Number Information section, enter the following information:

- Directory Number—81004007
- Route Partition—PAR_Base
- Description—Jabber - kfleshne
- Alerting Name—[Alerting name]
- ASCII Alerting Name—[ASCII alerting name]
- Allow Control of Device from CTI—Select

Figure 8 - Cisco Unified CM Directory Number information

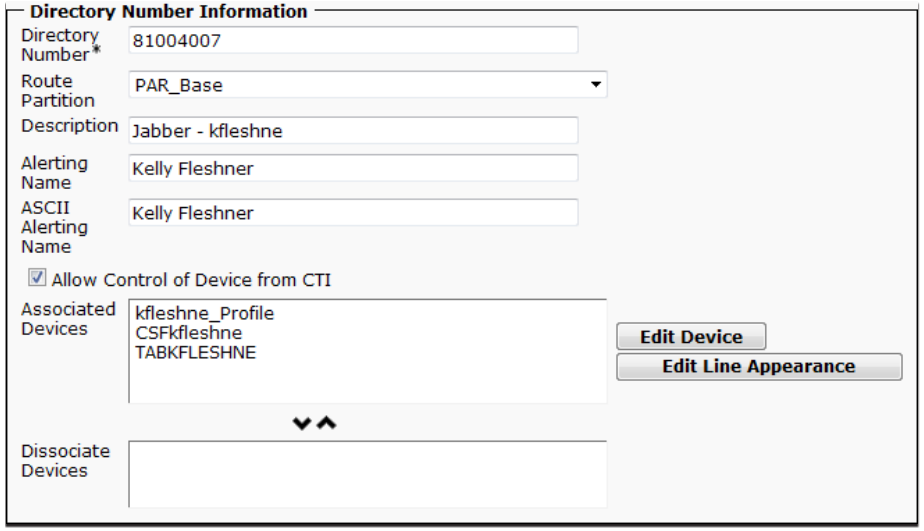
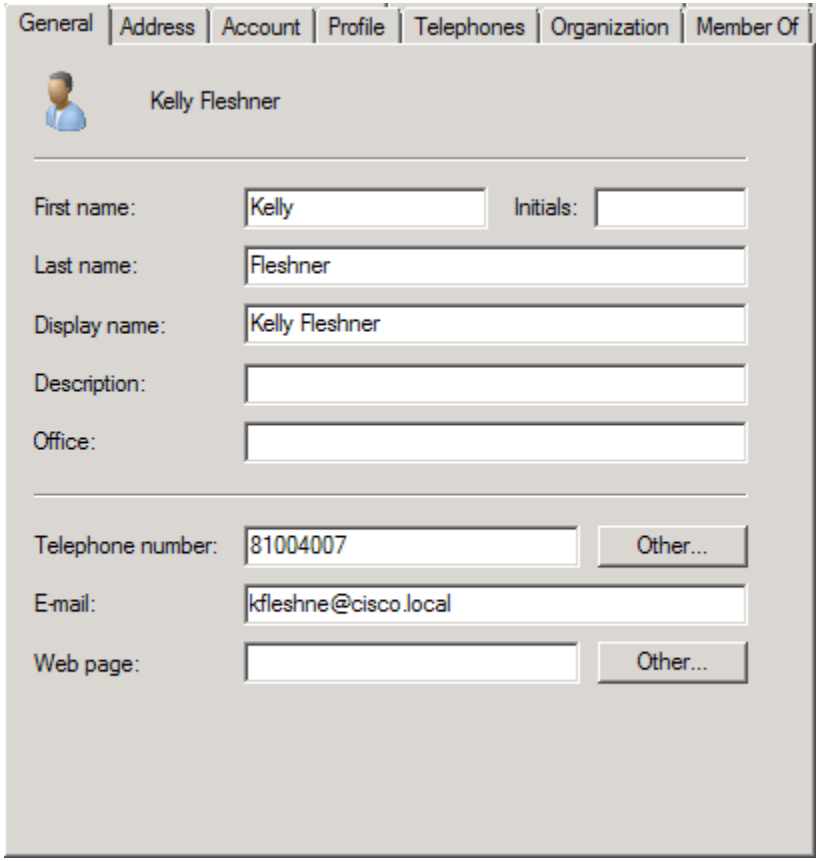


Figure 9 - Example LDAP general information telephone number attribute



Step 9: In the Users Associated with Line section at the bottom of the page, click **Associate End Users**, and then click **Find**.

Step 10: Select the Cisco Jabber user, click **Add Selected**, and then click **Save**.

Step 11: On the Directory Number Configuration page, click **Apply Config**, and then on the Apply Configuration page, click **OK**.

Procedure 3 Configure Jabber for iPhone users

Associate the Cisco Jabber for iPhone device with the end user to allow them to utilize the phone service from Unified CM.

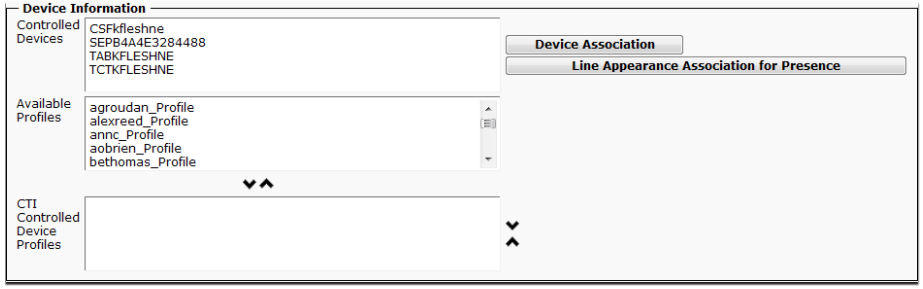
Step 1: Navigate to **User Management > End User**, and then click **Find**.

Step 2: Find the Cisco Jabber user, and then click the username.

Step 3: In the Device Information section, click **Device Association**, and then click **Find**.

Step 4: Select the user's Cisco Jabber for iPhone device (Example: TCTKFLESHNE), and then click **Save Selected/Changes**.

Step 5: In the Related Links list, choose **Back to User** and then click **Go**.



Step 6: Repeat Procedure 2 and Procedure 3 for each Cisco Jabber for iPhone user.

Procedure 4 Download and install Jabber for iPhone

After adding the software phones into Unified CM, the users must download two separate applications to their iPhones to begin using Cisco Jabber and Cisco Jabber IM for iPhone.

Step 1: On the iPhone, tap the **App Store** icon, and then in the search box, enter **Cisco Jabber**.

Step 2: Locate the application **Cisco Jabber**, tap **FREE**, enter your Apple ID password, and then tap **OK**.

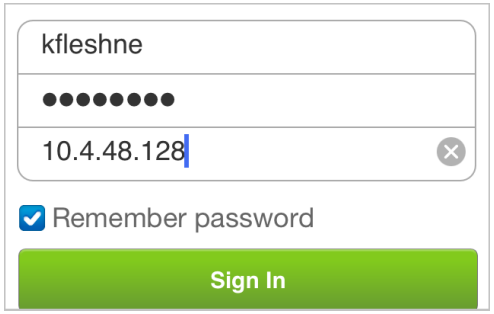
Step 3: On the iPhone, tap the **App Store** icon, and then in the search box, enter **Cisco Jabber IM**.

Step 4: Locate the application **Cisco Jabber IM for iPhone**, tap **FREE**, enter your Apple ID password, and then tap **OK**.

Step 5: After the two applications finish installing, tap the **Cisco Jabber IM for iPhone** icon, and then tap **Cisco Unified Presence**.

Step 6: Enter the following information, and then tap **Sign In**:

- Username—kfleshne
- Password—[password]
- Server address—10.4.48.128 (Unified CM IM and Presence server)
- Remember My Password—Select

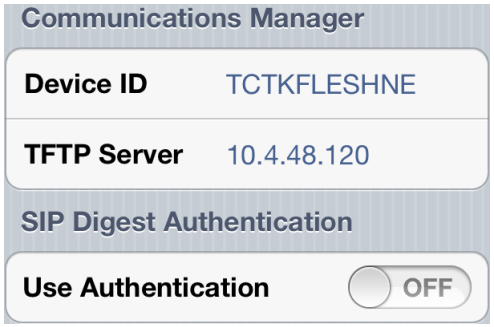


Step 7: Add contacts and favorites as needed.

Step 8: Push the Home button on the iPhone, tap the **Cisco Jabber** icon, tap **Accept**, and then tap **Enter Account Settings**.

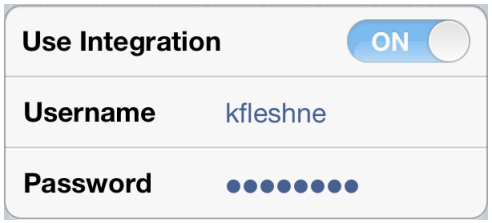
Step 9: Tap **Begin**, tap **Continue**, enter the following information, and then tap **Save**:

- Device ID—TCTKFLESHNE (TCT plus username, all uppercase)
- TFTP Server—10.4.48.120 (CUCM TFTP server)
- User Authentication—Off



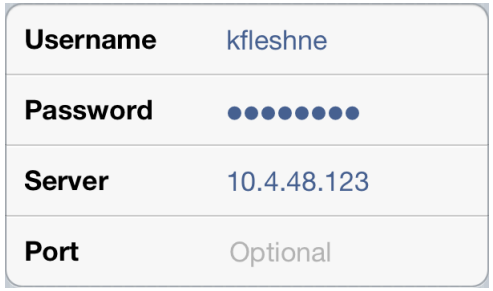
Step 10: On the Desk Phone Integration page, tap **Yes**, enter the following information, and then tap **Save**:

- User Integration—On
- Username—kfleshne
- Password—[password]



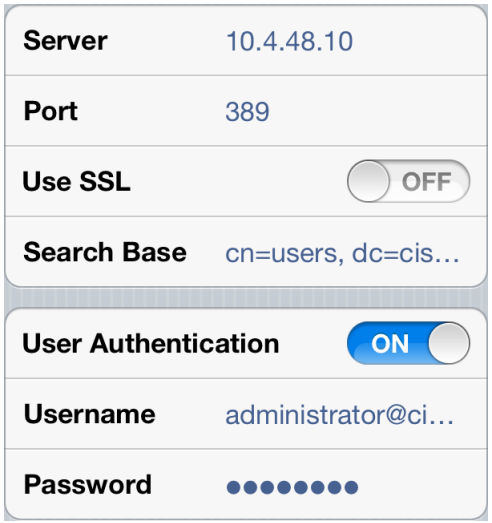
Step 11: On the Unified Messaging page, tap **Continue**, enter the following information, and then tap **Save**:

- Username—kfleshne
- Password—[password]
- Server—10.4.48.123 (Unity Connection)
- Port—[blank]



Step 12: On the Corporate Directory page, tap **Continue**, enter the following information, and then tap **Save**:

- Server—10.4.48.10 (LDAP)
- Port—389
- Use SSL—Off
- Search Base—cn=users, dc=cisco, dc=local
- User Authentication—On
- Username—administrator@cisco.local
- Password—[password]



Step 13: Tap **Continue**.

Step 14: Add contacts and favorites as needed.

Step 15: Repeat this procedure for each Cisco Jabber for iPhone user.

Notes

Appendix A: Product List

Data Center or Server Room

Functional Area	Product Description	Part Numbers	Software
IM and Presence	Cisco MCS 7845-I3 for unified communications applications	MCS-7845-I3-IPC2	9.1(1)
	Cisco MCS 7835-I3 for unified communications applications	MCS-7835-I3-IPC2	
Call Control	Cisco MCS 7845-I3 for Unified Communications Manager with 2500 to 10,000 users	MCS7845I3-K9-CME1	9.1(1)
	Cisco MCS 7835-I3 for Unified Communications Manager with 1000 to 2500 users	MCS7835I3-K9-CME1	
	Cisco MCS 7825-I5 for Unified Communications Manager with up to 1000 users	MCS7825I5-K9-CME1	
Virtual Servers	Cisco UCS C240 M3 C-Series Solution Pak for unified communications applications	UCUCS-EZ-C240M3S	9.1(1) ESXi 5.0
	Cisco UCS C220 M3 C-Series Solution Pak for unified communications applications	UCUCS-EZ-C220M3S	
	Cisco UCS C220 M3 for Business Edition 6000	UCSC-C220-M3SBE	9.1(1a) ESXi 5.0

Data Center Core

Functional Area	Product Description	Part Numbers	Software
Core Switch	Cisco Nexus 5596 up to 96-port 10GbE, FCoE, and Fibre Channel SFP+	N5K-C5596UP-FA	NX-OS 5.2(1)N1(1b) Layer 3 License
	Cisco Nexus 5596 Layer 3 Switching Module	N55-M160L30V2	
	Cisco Nexus 5548 up to 48-port 10GbE, FCoE, and Fibre Channel SFP+	N5K-C5548UP-FA	
	Cisco Nexus 5548 Layer 3 Switching Module	N55-D160L3	
Ethernet Extension	Cisco Nexus 2000 Series 48 Ethernet 100/1000BASE-T (enhanced) Fabric Extender	N2K-C2248TP-E	—
	Cisco Nexus 2000 Series 48 Ethernet 100/1000BASE-T Fabric Extender	N2K-C2248TP-1GE	
	Cisco Nexus 2000 Series 32 1/10 GbE SFP+, FCoE capable Fabric Extender	N2K-C2232PP-10GE	

Server Room

Functional Area	Product Description	Part Numbers	Software
Stackable Ethernet Switch	Cisco Catalyst 3750-X Series Stackable 48 Ethernet 10/100/1000 ports	WS-C3750X-48T-S	15.0(2)SE IP Base license
	Cisco Catalyst 3750-X Series Stackable 24 Ethernet 10/100/1000 ports	WS-C3750X-24T-S	
	Cisco Catalyst 3750-X Series Four GbE SFP ports network module	C3KX-NM-1G	
Standalone Ethernet Switch	Cisco Catalyst 3560-X Series Standalone 48 Ethernet 10/100/1000 ports	WS-C3560X-48T-S	15.0(2)SE IP Base license
	Cisco Catalyst 3560-X Series Standalone 24 Ethernet 10/100/1000 ports	WS-C3560X-24T-S	
	Cisco Catalyst 3750-X Series Four GbE SFP ports network module	C3KX-NM-1G	

Feedback

Please use the feedback form to send comments and suggestions about this guide.

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