



CISCO UNIFIED PRESENCE SOLUTION LAB

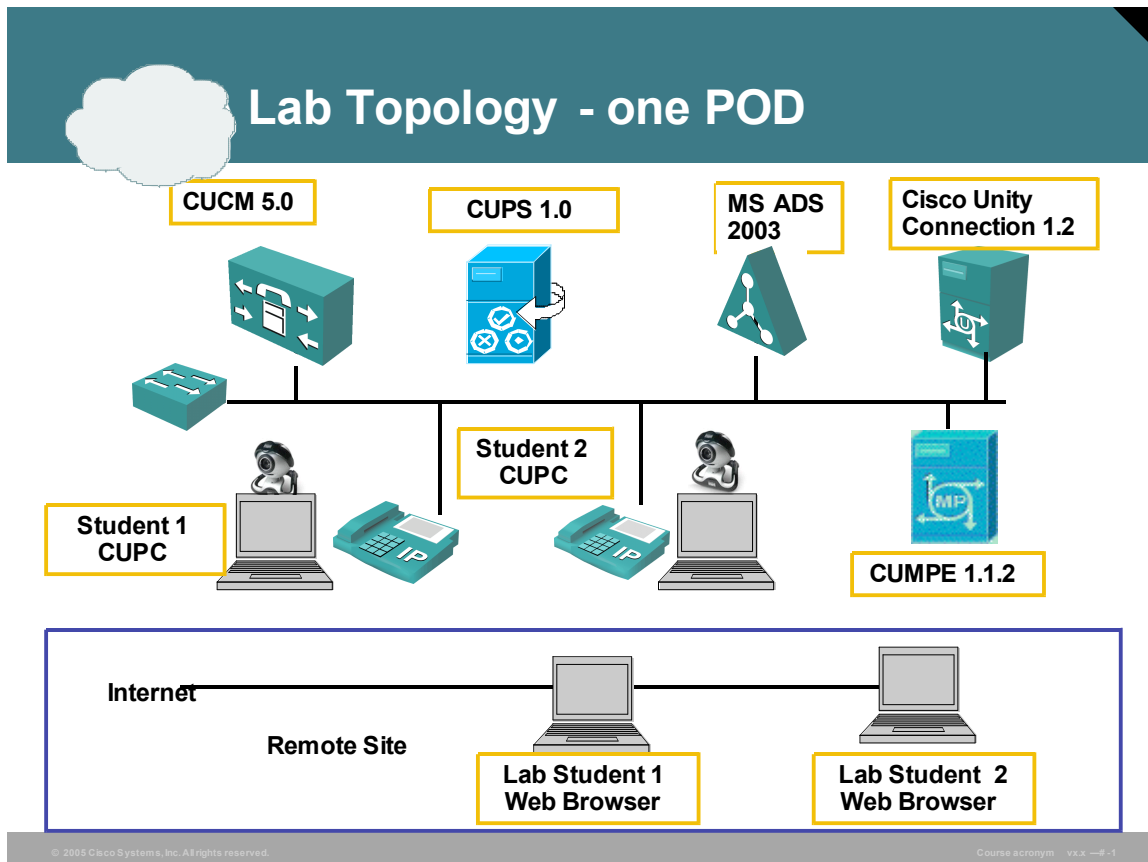
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Overview

Section 1: Preparing for the Lab

Overview of Lab Architecture



There are many different products you will configure during this lab.

Section 2: CCM Configuration

Section 3: CUPS Configuration

Section 4: CUPS Installation and Configuration

Section 5: Microsoft LCS and MOC Integration

The IP Phones, Video camera, Personal Communicator and Microsoft Office Communicator clients are located in a "remote lab" environment and you will not be able to "hear" phone calls with voice between clients. You will only be able to remotely control and see what is happening on the clients remotely. You will be able to see how CUPC operates in both softphone and hardphone modes (CTI control).

To connect to CUPS and CallManager please use Internet Explorer 6.0 – your mileage with other browsers may vary, use at your own peril. Please only use 2 connections into each pod total...otherwise there may be slower response times.

Server	IP Address	Server UserID	Server PW	Appl User ID	Appl PW
CCM 5.1	10.1.1.15	admin	cisco,123	CCMAdministrator	cisco,123
CUPS 1.0(3)	10.1.1.16	admin	cisco,123	CCMAdministrator	cisco,123
MS AD/DNS/DHCP	10.1.1.17				
Student 1 (WinXP) Steve Vizard	10.1.1.18	Administrator (local)	xxxCUPs2	steve	cisco,123
IP Phone 7961/Camera		x2001			Unity VM = 250415
Unity Connection 1.2	10.1.1.19				
MeetingPlace Express 1.1.2	10.1.1.20			http://mpe.cisco.com	
Student 2 (WinXP) Jane Turner	10.1.1.24	Administrator (local)	xxxCUPs2	jane	cisco,123
IP Phone 7961/Camera		x2002			Unity VM = 250415

Connecting to LabOps

Step1: Enter this URL into your IE 6 browser

<https://labops-out.cisco.com/labops/ilt/default.asp>

Step2: On your desk you have a pod number

- One of you will be 'student[x]a' and the other 'student[x]b'
- Enter your userid and lab name 'CUPS SEVT'
- Click 'access' and start your lab

Step3: On the resulting page click on 'access devices'

Step4: Click on your respective student workstation.

NOTE: CSA might pop a message about the launching of the web-based remote console. Allow this to happen and you should see the login screen of your remote workstation.

Step5: Login: student1 = steve/cisco,123
 student2 = jane/cisco,123

NOTE:- Make sure num-lock is OFF

Section 2: Configuration of CUPS and CallManager Environment

Configuring CallManager Prior to CUPS Installation

Some common aspects of CallManager configuration are in place for you. These will be listed below, so you will be aware they need attention in the field, but they are identified as having already been addressed. The instruction will say '**Skip this step**'. It means DO NOTHING but please go and look at that screen to see the configuration done for you.

This lab will primarily focus on the remaining configuration that is specific to your CUPS, CUPC, the end users, and the phone services you will need for IPPM lab.

1. From your student laptop on your IE Browser, Login to CallManager. You can click on the CCM Admin icon on your student desktop – and it should take you to the following address. <https://cmpub.cisco.com/CCMAdmin>
2. Once there click on Cisco Unified Call Manager, and enter the following User ID and Password
 UserID=CCMAdministrator
 PW=cisco,123
3. CCM License file is already uploaded. **Skip this step.**
4. To add your CP-7961 IP Phones you need to turn on auto-registration to get the phones added to the pod. Choose the directory number range 1000 – 1100, we will set the correct phone numbers later.
 Step 1: Go to System in the top toolbar on screen, select CallManager
 Step 2: Click find
 Step 3: Set 'Ending Directory Number' to 1100
 Step 4: Uncheck 'Auto-registration disabled'

The screenshot shows the Cisco Unified CallManager Administration web interface. The page title is "Cisco Unified CallManager Configuration". The status is "Ready". The server information includes CTI ID 1, Cisco Unified CallManager Server * cmcpub, and Cisco Unified CallManager Name * cmcpub. The auto-registration information shows starting and ending directory numbers of 1000 and 1100, respectively, with a partition of "< None >". The TCP port settings for this server are: Ethernet Phone Port * 2000, MGCP Listen Port * 2427, MGCP Keep-alive Port * 2428, SIP Phone Port * 5060, and SIP Phone Secure Port * 5061.

5. Once your phones are registered make one of the extension numbers 2001 and the other 2002 (extension 2001 for Steve Vizard and 2002 for Jane Turner) also set call forward noan and busy to 5000.
6. Next you are going to want to Configure Default Inter-Presence Group Subscription Service Parameter.
 - Step 1: Go to System in the top toolbar on screen, select Service Parameters
 - Step 2: When the Service Parameter page loads you will select the server, and service.
 - a. Select the server 'cmcpub'
 - b. Select the service 'Cisco CallManager'
 - Step 3: Scroll down to the Clusterwide Parameters (System – Presence) sub section.
 - a. Here Configure the Default Inter-Presence Group Subscription Service Parameter to "Allow subscription".

See graphic below:

The screenshot shows the "Clusterwide Parameters(System - Presence)" section. It contains three parameters:

Presence Subscription Throttling Threshold *	90000	90000
Presence Subscription Resume Threshold *	80	80
Default Inter-Presence Group Subscription *	Allow Subscription	Disallow Subscription

Step 4: **Save changes.**

7. Configure default non Secure SIP Trunk Security Profile (this is used for a SIP trunk to CUPS for data information exchanged between the two servers only)

Step 1: Go back to System in the top toolbar on screen, select Security Profile-->SIP Trunk Security Profile.

Step 2: Once the Find and List SIP Trunk Security Files page loads, click 'Find'

Step 3: Under Search Results, select the 'Non Secure SIP Trunk Profile'

Step 4: Under the SIP Trunk Security Profile Information check the following;

- a. check 'Accept Presence Subscription'
- b. check 'Accept Out-of-Dialog REFER'
- c. check 'Accept Unsolicited Notification'
- d. check 'Accept Replaces Header'

See Graphic Below:

The screenshot shows the 'SIP Trunk Security Profile Configuration' page in the Cisco Unified CallManager Administration interface. The page is titled 'SIP Trunk Security Profile Configuration' and shows the configuration for a 'Non Secure SIP Trunk Profile'. The 'SIP Trunk Security Profile Information' section includes the following fields and values:

- Name*: Non Secure SIP Trunk Profile
- Description: Non Secure SIP Trunk Profile authenticated by null String
- Device Security Mode: Non Secure
- Incoming Transport Type*: TCP+UDP
- Outgoing Transport Type: TCP
- Enable Digest Authentication:
- Nonce Validity Time (mins)*: 600
- X.509 Subject Name:
- Incoming Port*: 5060
- Enable Application Level Authorization:
- Accept Presence Subscription:
- Accept Out-of-Dialog REFER:
- Accept Unsolicited Notification:
- Accept Replaces Header:

At the bottom of the configuration section, there are buttons for 'Save', 'Delete', 'Copy', 'Reset', and 'Add New'. A note at the bottom left states: '* indicates required item.'

Step 5: Once all boxes have been checked **Save Changes**.

8. Make sure all necessary Services are activated in CCM. These are already set for this lab. **Skip this step.** (CallManager, TFTP, CTI Manager, etc.)

9. Configuring your CUPS as an Application Server is already done (this must be done prior to installation for CUPS to be able to authenticate while installing). **Skip this step**

Step 1: Go to System in the top toolbar on screen, select-->Application Server

- Step 2: Once the Find and List Application Servers page loads, select "Add New"
- Step 3: Under Application Server Information, select CUPS as the Application Server Type, and click Next.
- Step 4: Type in CUPS hostname, "CUPSPUB" and Save changes.
- Step 5: Repeat Step One, (go back to Find and List Application Servers page) and verify your configuration

10. Configure Active Directory Integration. **Skip this Step**

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾

LDAP System Configuration

Status

- Please Delete All LDAP Directories Before Making Changes on This Page
- Please Disable LDAP Authentication Before Making Changes on This Page

LDAP System Information

Enable Synchronizing from LDAP Server

LDAP Server Type

LDAP Attribute for User ID*

*- indicates required item.

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions

Navigation Cisco Unified CallManager Administration Go

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Logged in as: ccmadministrator

Log Off

LDAP Directory Related Links: [Back to LDAP Directory Find/List](#) Go

Status

Status: Ready

LDAP Directory Information

LDAP Configuration Name*

LDAP Manager Distinguished Name*

LDAP Password*

Confirm Password*

LDAP User Search Base*

LDAP Directory Synchronization Schedule

Perform Sync Just Once

Perform a Re-sync Every* HOUR ▾

Next Re-sync Time (YYYY-MM-DD hh:mm)*

User Fields To Be Synchronized

Unified CallManager User Fields	LDAP User Fields	Unified CallManager User Fields	LDAP User Fields
User ID	sAMAccountName	First Name	givenName
Middle Name	middleName	Last Name	sn
Manager ID	manager	Department	department
Phone Number	telephoneNumber	Mail ID	mail

LDAP Server Information

Host Name or IP Address for Server* LDAP Port* Use SSL

[Add Another Redundant LDAP Server](#)

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged In as: ccmadministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

LDAP Authentication

Status
 Status: Ready

LDAP Authentication for End Users

Use LDAP Authentication for End Users

LDAP Manager Distinguished Name: cn=Administrator,cn=Users,dc=cisco,dc=com

LDAP Password: *****

Confirm Password: *****

LDAP User Search Base: ou=SEVTLAB,dc=cisco,dc=com

LDAP Server Information

Host Name or IP Address for Server*	LDAP Port*	Use SSL
adlcs.cisco.com	389	<input type="checkbox"/>

Add Another Redundant LDAP Server

Save

*- indicates required item.

11. Configure a SIP Trunk between CUCM and your CUPS

Step 1: Go to Device in the top toolbar on screen, select -->Trunk

Step 2: Once the Find and List Trunks page loads, under Search Results, select "Add New"

Step 3: When the Trunk Configuration page is up, you will set the Trunk Type, and Device Protocol.

a. Set 'Trunk Type' to ' SIP Trunk'.

b. Device Protocol should default to 'SIP'. **Click Next.**

Step 4: Under Device Information configure the following;

a. Device Name with the '**Lab_CUPS_Server**'.

b. Select Default Device Pool.

Step 5: Under SIP Information, configure the following;

a. Enter Destination Address equal to Fully Qualified Domain Name (FQDN) of your CUPS. (type in, domain name, e.g., cupspub.cisco.com)

b. Set SIP Trunk Security Profile equal to Non Secure SIP Trunk Profile.

c. Set SIP Profile equal to Standard SIP Profile.

Step 6: **Save Changes.**

Step 7: To verify your configuration, Repeat Step 1, and click Find. Once you do so, you should see your configuration, under Search Results.

12. Add CUPC softphone device to CallManager.

The CUPC device in CallManager is the first phone device that is not identified by a MAC address but by the username of the user logging in to the CUPC. The device name is "UPC" followed by up to 9 characters of the username – all in uppercase. Only digits and numbers of the username are used, special characters (dots, underscores etc) are ignored. THIS IS NEVER USED BY AN ENDUSER but only between CCM and CUPS for identifying a CUPC user properly.

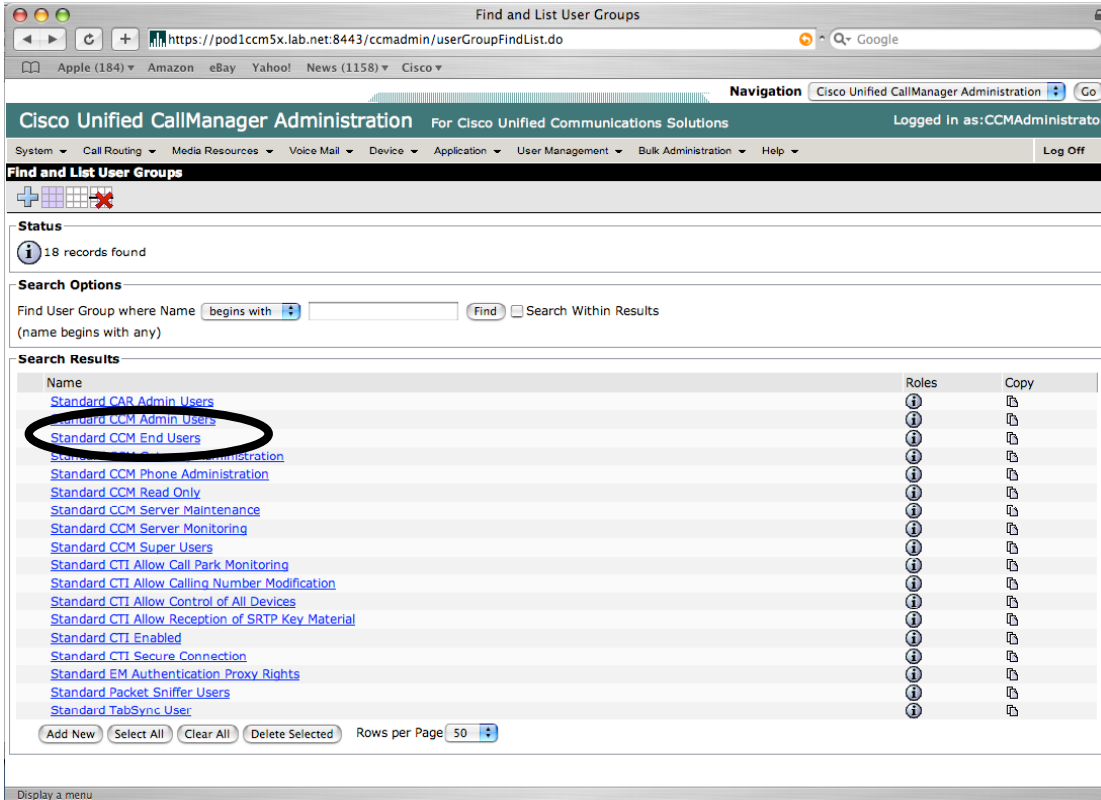
- a. Device-->Phone
- b. Add New
- c. Select Cisco Unified Personal Communicator
- d. Set device name to "UPCSTEVE" for Steve Vizard (note: all uppercase)
- e. Device Pool =>Default, Device Security Profile, Presence Group and SIP Profile are the "standard" but need to be selected.
- f. Save
- g. Add directory number 2001 to line 1 for Steve Vizard
- h. Save
- i. Add another device with name "UPCJANE" for Jane Turner with directory number 2002.

13. Configure your group's End Users and Hard Phone Association

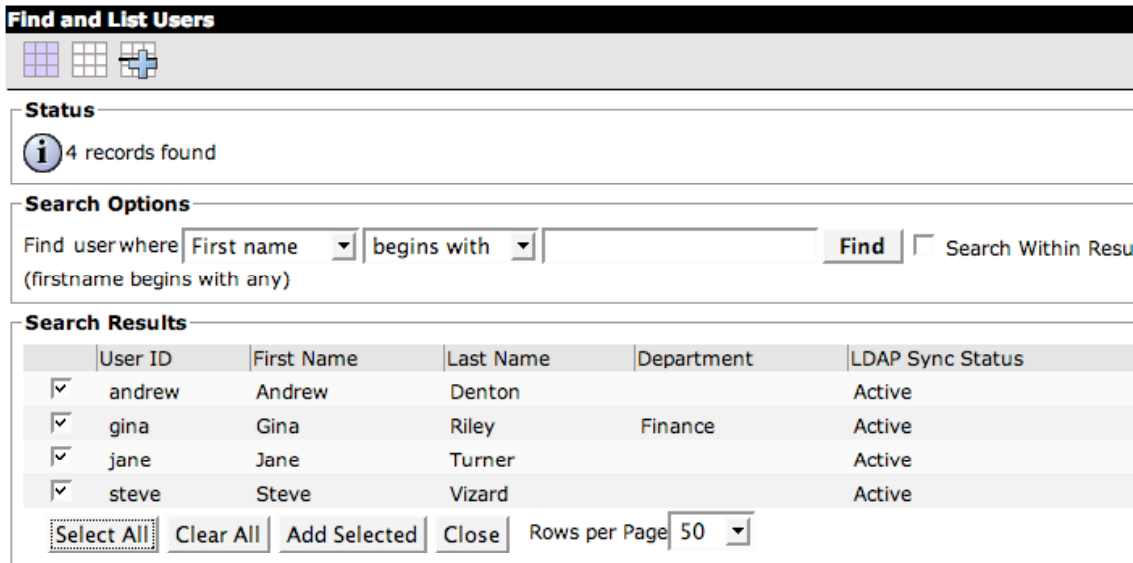
- a. User Management-->End User
- b. From the list find your TWO users. (Steve and Jane)
- c. Click on the User ID for your user (e.g. steve)
- d. Set PIN to '250415'
- e. Click 'Save'
- f. Click Device Association
- g. From the list select the phone and CUPC you want to use for this user.
- h. Click 'Save Selected Changes'
- i. In the top right hand corner select in 'related links' 'Back to User', click Go.
- j. Enable 'Allow Control of Device from CTI' (ie make sure it is checked)
- k. Set Primary Extension to your primary extension.
- l. Click 'Save'
- m. Repeat for your other User ID.

User Group Settings

- n. User Management-->User Group
- o. Click 'Find'
- p. Click on 'Standard CCM End Users'



- q. Click on 'Add End Users to Group' button.
- r. Checkbox your UserID's and click 'Add Selected'.



- s. User Management-->User Group
- t. Click on 'Standard CTI Enabled'

The screenshot shows the Cisco Unified CallManager Administration interface. The page title is 'Find and List User Groups'. The search results table is as follows:

Name	Roles	Copy
Standard_CAR_Admin_Users	1	📄
Standard_CCM_Admin_Users	1	📄
Standard_CCM_End_Users	1	📄
Standard_CCM_Gateway_Administration	1	📄
Standard_CCM_Phone_Administration	1	📄
Standard_CCM_Read_Only	1	📄
Standard_CCM_Server_Maintenance	1	📄
Standard_CCM_Server_Monitoring	1	📄
Standard_CCM_Super_Users	1	📄
Standard_CTI_Allow_Call_Park_Monitoring	1	📄
Standard_CTI_Allow_Calling_Number_Modification	1	📄
Standard_CTI_Allow_Control_of_All_Devices	1	📄
Standard_CTI_Allow_Recording_of_SRTP_Key_Material	1	📄
Standard_CTI_Enabled	1	📄
Standard_CTI_Web_Construction	1	📄
Standard_EM_Authentication_Proxy_Rights	1	📄
Standard_Packet_Sniffer_Users	1	📄
Standard_TabSync_User	1	📄

At the bottom of the table, there are buttons: Add New, Select All, Clear All, Delete Selected, and Rows per Page: 50.

- u. Click on 'Add End Users to Group' button.
- v. Checkbox your userids and click Add both steve and jane users to this group.
- w. Finally check it has taken affect
- x. User Management → End User
- y. Click on one of the User ID's
Check the Permissions Information at the bottom of the page

Permissions Information

Groups: Standard CCM End Users
Standard CTI Enabled [View Details](#)

Roles: Standard CCM End Users
Standard CCMUSER Administration
Standard CTI Enabled [View Details](#)

*- indicates required item.

CUPC Licensing in CCM

14. Cisco Unified CallManager Administration tracks the number of Cisco Unified Personal Communicator devices that are connected to it and compares it with the number of device licenses that have been purchased. You can configure Cisco Unified Personal Communicator in these ways:

- Base functionality—This configuration provides a user with a presence-enabled directory with desk phone control. Two device licenses are required: one for Cisco Unified Personal Communicator user enablement and one for Cisco Unified Presence Server enablement.
- Base plus soft-phone functionality—In addition to the base capabilities, you can configure Cisco Unified Personal Communicator as a video soft phone. Five device license units are required: one for Cisco Unified Personal Communicator user enablement, one for Cisco Unified Presence Server enablement, and three for the soft-phone enablement.

Assigning Capabilities to Users

After the Cisco Unified Personal Communicator license files are uploaded, you must assign the capabilities to existing users in the Cisco Unified CallManager database. **Note** You must upload the license file before you can assign capabilities to users.

- a. Choose **System > Licensing > Capabilities Assignment**. The Find and List Capabilities Assignments window displays.
- b. Click **Find** to display a list of all users.
- c. In the search results section, click the user's link to display the Capabilities Assignment Configuration window.

Tip To assign capabilities to more than one user, select multiple user check boxes, and click **Bulk Assignment**.

- d. Check **Enable UPS** to enable the user to log in to Cisco Unified Presence Server. (One device license is consumed.)

- e. Check **Enable UPC** to enable Cisco Unified Personal Communicator to obtain presence information for the contact list from Cisco Unified Presence Server. (One device license is consumed.)
- f. If you completed the "Adding Cisco Unified Personal Communicator as a Phone Type", three device licenses are consumed per user for video soft-phone capabilities.
- g. Click **Save**.

The screenshot displays the Cisco Unified CallManager Administration interface. The main window is titled "Cisco Unified CallManager Administration For Cisco Unified Communications Solutions". The browser address bar shows "https://10.1.1.15:8443 - Capabilities Assignme...".

The interface is divided into two main sections:

- Find and List Capabilities Assignments:** This section includes a "Status" box indicating "4 records found". Below it is a "Search Options" box with a dropdown menu set to "User ID" and a search criteria "(enduser.userid begins with any)". The "Search Results" section contains a table with the following data:

	User ID	Last Name
<input checked="" type="checkbox"/>	andrew	Denton
<input checked="" type="checkbox"/>	gina	Riley
<input checked="" type="checkbox"/>	iane	Turner
<input checked="" type="checkbox"/>	steve	Vizard

Below the table are buttons for "Select All", "Clear All", and "Bulk Assignment".

- Capabilities Assignment Configuration:** This is a configuration window for the selected users. It includes:
- Status:** Status: Ready
- User Information:** 4 Selected User(s)
- Capabilities Assignment Information:** Two checkboxes are checked: "Enable UPS (Unified Presence Server)" and "Enable UPC (Unified Personal Communicator)".
- Buttons for "Save" and "Close".
- A note: "*- indicates required item."

2. Configure CCM Application Dialing Rules **Skip this step...the Presence Solution lab is a 4 digit dial plan and no digit manipulation is required.**

Based on a company's dial plan and the information stored in the LDAP directory (telephone number for the end user), you might need to define application dialing rules and directory dialing rules through the Cisco Unified CallManager routing information administration pages. The Cisco Unified Presence Server queries Cisco Unified CallManager to obtain these dialing rules for the Cisco Unified Personal Communicator. These rules define how Cisco Unified Personal Communicator can reformat the inbound call ID to be used as a directory lookup key and how to transform a phone number retrieved from the LDAP directory for outbound dialing. Application dial rules automatically strip numbers from or add numbers to telephone numbers that the user dials. For example, you can configure a dial rule that automatically adds the digit 9 in front of a 7-digit telephone number to provide access to an outside line. Application dial rules are used to dial rules through Cisco Unified CallManager Administration from the **Call Routing > Dial Rules > Application Dial Rules** menu. Directory lookup rules transform caller identification numbers into numbers that can be looked up in the directory from Cisco Unified Personal Communicator. Each rule specifies which numbers to transform based on the beginning digits and length of the number. For example, you can create a directory lookup rule that automatically removes the area code and two prefix digits from a 10-digit telephone, which would transform 4089023139 into 23139. You configure these dial rules through Cisco Unified CallManager Administration from the **Call Routing > Dial Rules > Directory Lookup Dial Rules** menu. Before Cisco Unified Personal Communicator places a call through contact information, it removes everything from the phone number to be dialed except for letters and digits. It transforms the letters to digits and applies the dialing rules it obtains from Cisco Unified Presence Server. The letter-to-digit mapping is locale specific and corresponds to the letters found on a standard telephone keypad for that locale (for example, for an US English locale, 1800-GOTMILK transforms to 18004686455). Users cannot view or modify transformed numbers before Cisco Unified Personal Communicator places them. If there is a problem with the dialed number because of mistransformations, you must correct the dialing rules so that the attempted dialed number will work.

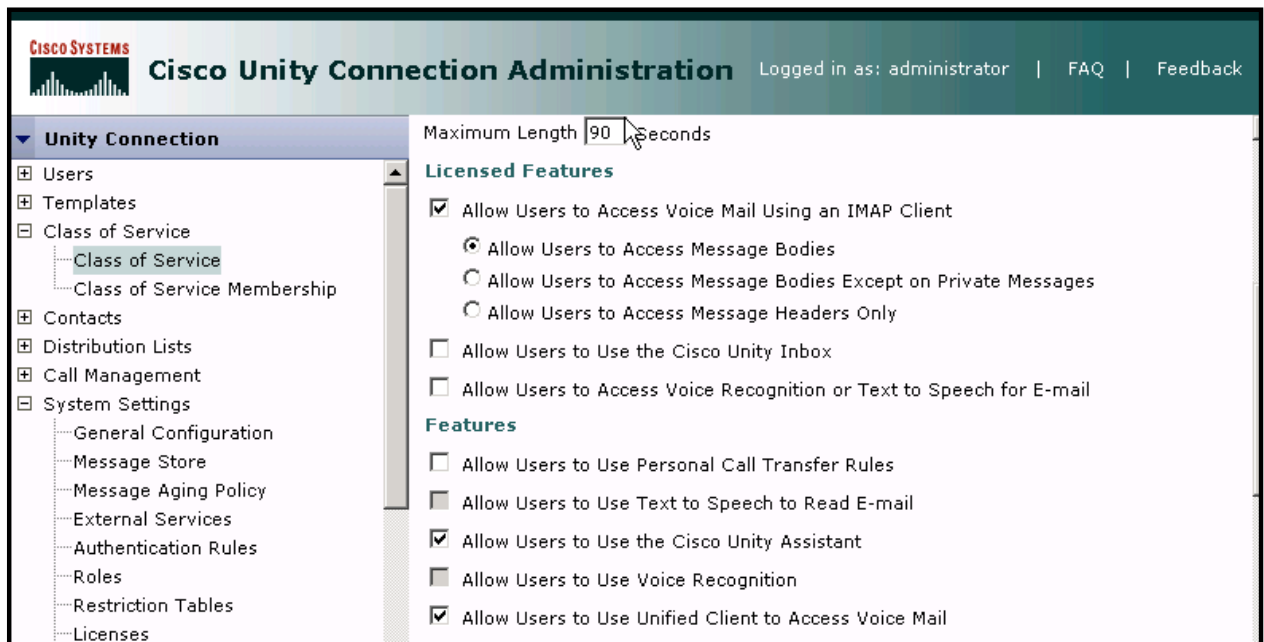
For detailed conceptual and task-based information on dial rules, see the Cisco Unified CallManager Administration online help or the *Cisco Unified CallManager Administration Guide* at this URL:

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

15. Setup voicemail integration to Unity Connection. **Skip this step. This has already been configured for this lab.**
- Each CUPC user that would like to have voicemail in their "Recent =>Voicemail" List uses an IMAP connection to Cisco Unity Connection.
 - There are 2 parameters enabled in CUC to setup an IMAP Connection with CUPC.

Note: Check the following website for capacity planning on Cisco Unity Connection using IMAP connections based on your size MCS server.
http://www.cisco.com/en/US/products/ps6509/products_data_sheet0900aecd80372879.html

- Under Class of Service Configuration under "Licensed Features, click the "Allow Users to Access Voice Mail Using an IMAP Client" and "Allow Users to Use Unified Client to access voice mail.



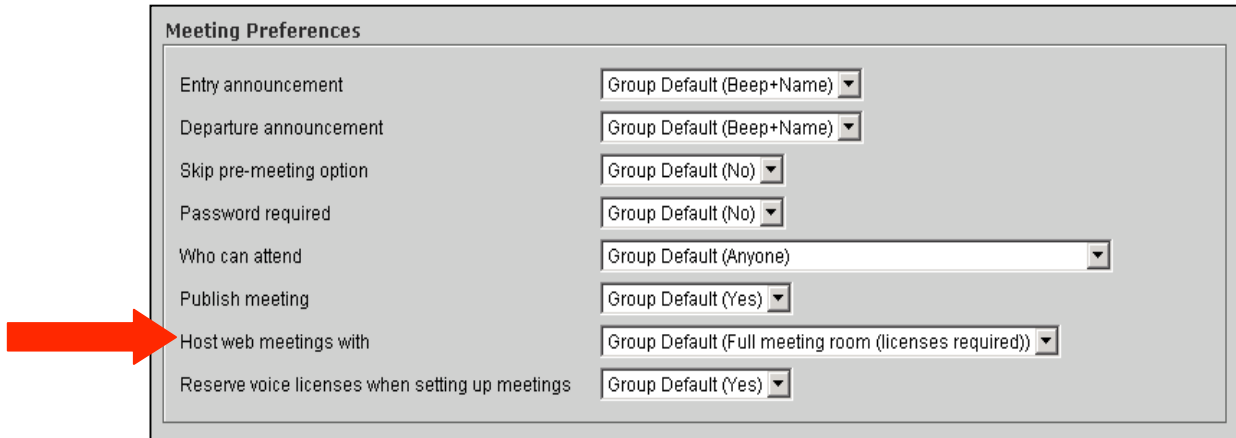
16. Setup CUPC web conferencing integration to Cisco Unified MeetingPlace Express **Skip these steps a.-e., this has already been configured for this lab environment but feel free to go view the configuration screens.**
- Each CUPC User requires a Profile established on CUMPE via the System Administration interface or if desired this can automatically be created the first time a user initiates access to the CUMPE Web interface if LDAP connection is turned on with CCM 4.X or 5.X.

- b. Log In to MeetingPlace Express using an "System Administration" user ID and password. Lab uses mpe.cisco.com with default User ID = admin, and password = cisco (please do not change anything in this CUMPE system.)
- c. Click on "Administration" Link on Home page.

- d. Click on User Configuration on left pane, then User Profile Management and add your required profiles. steve and jane are already created for you. The "Group Name" ("System" is the default group name) field will provide the profile with default setting to use the "Full MeetingRoom" View. It is recommended that all Users use the same password into Cisco Unity Connection and Cisco Unified MeetingPlace Express for ease of use. **Skip this step.**

- e. On the Profile "Meeting Preferences Section", the "Host web meetings with" parameters allows for "Full meeting room access" for sharing files/desktop, annotations, etc. NOTE: Each user that participates in a CUMPE web meeting utilized 1 MP Web UL each and no voice UL's. So

three people with CUPC clients who are using CUMPE web collaboration are using 3 Web ULs and 0 Voice ULs. Any CUPC user must have a profile on the CUMPE system to **INITIATE** a web conference, all other users join as "GUEST" profile defaults (even if you have a profile). **Skip this step.**



Meeting Preferences	
Entry announcement	Group Default (Beep+Name) ▼
Departure announcement	Group Default (Beep+Name) ▼
Skip pre-meeting option	Group Default (No) ▼
Password required	Group Default (No) ▼
Who can attend	Group Default (Anyone) ▼
Publish meeting	Group Default (Yes) ▼
Host web meetings with	Group Default (Full meeting room (licenses required)) ▼
Reserve voice licenses when setting up meetings	Group Default (Yes) ▼

There are no other specific CUMPE Setting required for use with the Cisco Unified Personal Communicator client.

Section 3: Configuration of CUPS Server

Please reference the Installation Guide for Cisco Unified Personal Communicator, Release 1.1 available on CCO details all of the steps for getting the CUPS ready for CUPC installation.

http://www.cisco.com/en/US/partner/products/ps6844/products_installation_guide_book09186a008063484e.html

Also, the guide for [Cisco Unified Presence Server Administration Guide, Release 1.0\(3\)](#) will take you step by step through various configuration tasks on CUPS.

From either Student1 or Student2 web browser, Login to your CUPS

<https://cupspub.cisco.com/> User ID:CCMAdministrator PW=cisco,123

1. Obtaining a License File

Use the following steps to obtain a license file for a new installation of Cisco Unified Presence Server. This file is located on the Student 1 or Student 2 Desktop "CUPCLicense.lic" which is already obtained for you.

3. When you place an order for Cisco devices, Cisco provides a Product Authorization Key (PAK). **Skip this step.**

4. Register the PAK that you received with Cisco Unified Presence Server by using the License Registration web tool that is provided on CCO. **Skip this step.**
5. You must enter the MAC address of the Cisco Unified Presence Server for which you are requesting the licenses, and a valid e-mail address. You must enter the number of nodes and phone units for which you want licenses. **Skip this step.**
6. CCO generates a license file with the number of unit licenses that you requested and sends it to you via e-mail by using the e-mail address that you provided. **Skip this step.**

2. Install CUPS License File

- a. From the CUPS Main Menu, choose **System > License > Upload License File**. **Skip this step.**
- b. The License File Upload window displays. To choose a new license file to upload, click **Upload License File**. **Skip this step.**
- c. The Upload File pop-up window displays. **Skip this step.**
- d. Browse to your Student1 or Student2 desktop and find the CUPCLicense.lic file to upload. Click Upload License File. **Skip this step.**
- e. After the upload process is complete, the Upload Result file displays. Click **Close**. **Skip this step.**
- f. In the License File Upload window, the status of the uploaded file displays. **Skip this step.**
- g. The UPS License Unit Report can indicate that the license file has been accepted. **Skip this step.**

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Cisco UPS License Unit Report

Status
 ⓘ Status: Ready

License Unit Distribution

Proxy Server

Cisco UPS License Server	Units Available	Units Used	Units Remaining
cupslab	1	0	1
Total Units for Feature	1	0	1

Presence Engine

Cisco UPS License Server	Units Available	Units Used	Units Remaining
cupslab	1	0	1
Total Units for Feature	1	0	1

- h. From the Cisco Unified Presence Server Serviceability window (Upper right corner of browser window), navigate to **Tools>Service Activation**, choose **"cupspub"** system. **Skip this step.**

Navigation Cisco Unified Presence Server Serviceability Go

- Cisco Unified Presence Server Administration
- Cisco Unified Presence Server Serviceability**
- Cisco Unified OS Administration
- Disaster Recovery System

Cisco Unified Presence Server Serviceability For Cisco Unified Communications Solutions

Alarm ▾ Trace ▾ Tools ▾ Snmp ▾ Help ▾

- Service Activation
- Control Center - Feature Services
- Control Center - Network Services
- Serviceability Reports Archive
- CDR Management

Cisco Unified Presence Server Ser

System version: 1.0.1.1000-30
 Administration version: 1.1.0.0-1

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- i. Activate the required Cisco Unified Presence Server services, including Cisco Enterprise SIP Proxy and Cisco Enterprise Presence Engine. **Skip this step.**

EPAS Services

Service Name	Activation Status
<input checked="" type="checkbox"/> Cisco UPS SIP Proxy	Activated
<input checked="" type="checkbox"/> Cisco UPS Presence Engine	Activated

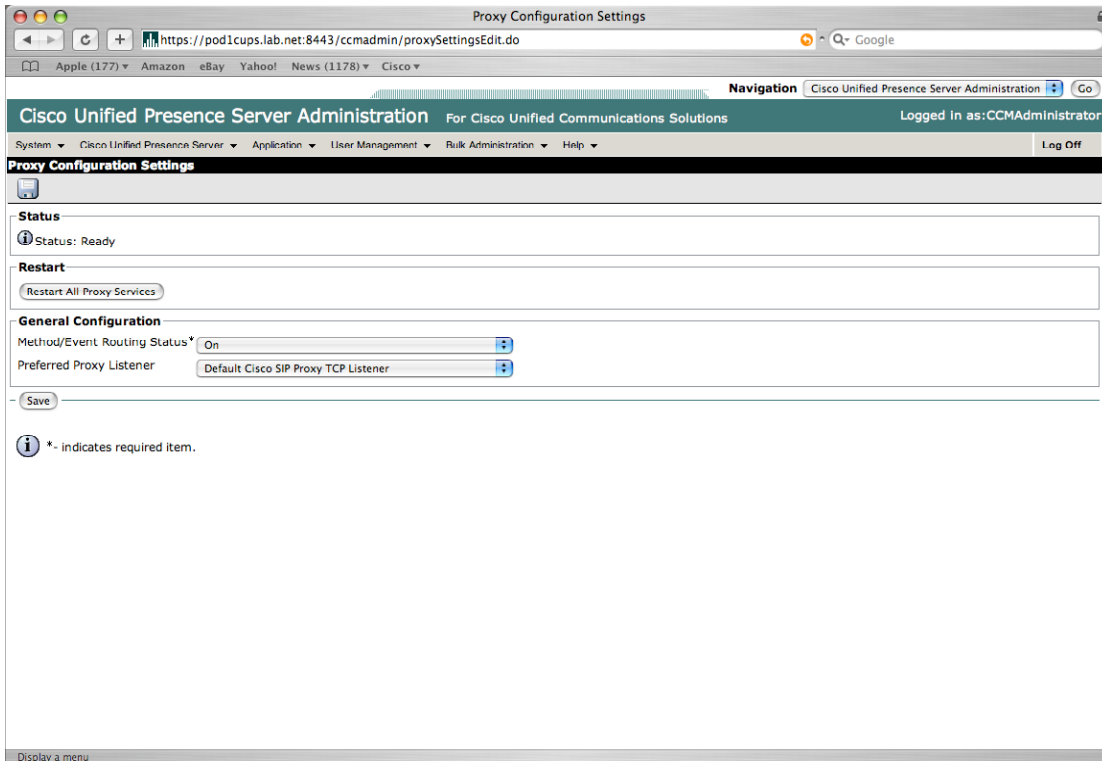
Save Set Default Refresh

- j. For this lab we are using the domain for the CUPS SIP Proxy as "cisco.com".
 - a. System->Service Parameter
 - b. Select 'cupspub'
 - c. Select 'Cisco UPS SIP Proxy (inactive)'. You will activate it later.
 - d. Set SIP Proxy Domain to 'cisco.com' (should already be set)

The screenshot displays the Cisco Unified Presence Server Administration web interface. The page title is "Service Parameter Configuration" and it shows the configuration for the "Cisco UPS SIP Proxy (Active)" on server "cupspub (Active)". The "Proxy Domain" parameter is highlighted with a black oval and is set to "cisco.com".

Parameter Name	Parameter Value	Suggested Value
Clusterwide Parameters (Parameters that apply to all servers)		
Initial processes *	5	5
Minimum no. of processes *	5	5
Maximum no. of spare processes *	15	15
Maximum no. of processes *	50	50
Maximum no. of forked requests allowed *	5	5
Maximum INVITE Retransmissions *	6	6
Add Record-Route Header *	On	On
Use Transport in Record-Route Header *	Off	Off
Shared memory size (bytes) *	512000000	512000000
Address Resolution Type *	IP	IP
Proxy Domain *	cisco.com	cisco.com

- k. Cisco Unified Presence Server ->Proxy Server->Settings
- Set 'Method/Event Routing Status' to 'ON'
 - Set 'Preferred Proxy Listener' to 'Default Cisco SIP Proxy TCP listener'
 - Click 'Restart All Proxy Servers'
 - Click Save



- I. Cisco Unified Presence Server ->Proxy Server->Incoming ACL
 - a. Click 'Add'
 - b. Set Description to 'All'
 - c. Set Address Pattern to 'all'
 - d. Click 'Save'

The screenshot shows the 'Proxy Access Control List Configuration' page. At the top, there is a navigation bar with 'System', 'Cisco Unified Presence Server', 'Application', 'User Management', 'Bulk Administration', and 'Help'. Below this is a breadcrumb trail: 'System > Cisco Unified Presence Server > Application > User Management > Bulk Administration > Help'. The main heading is 'Proxy Access Control List Configuration'. There is a 'Status' section with an information icon and the text 'Status: Ready'. Below that is the 'Proxy ACL Information' section with two input fields: 'Description' containing 'All' and 'Address Pattern*' containing 'all'. A 'Save' button is located below the fields. At the bottom, there is an information icon and the text '*- indicates required item.'

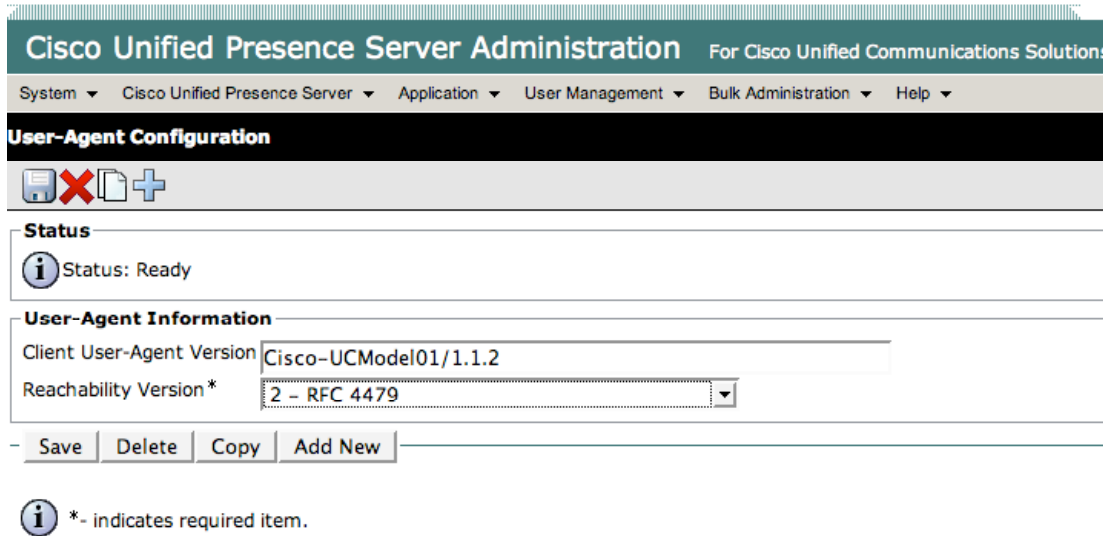
- m. CUPS->Presence Engine-> CallManager Presence Gateways
 - a. Click 'Add New'
 - b. Set Description to 'CallManager Gateway for Lab'
 - c. Set CallManager Presence to 'cmpub.cisco.com'
 - d. Click Save

The screenshot shows the 'CallManager Presence Gateway Configuration' page. At the top, there is a navigation bar with 'System', 'Cisco Unified Presence Server', 'Application', 'User Management', 'Bulk Administration', and 'Help'. Below this is a breadcrumb trail: 'System > Cisco Unified Presence Server > Application > User Management > Bulk Administration > Help'. The main heading is 'CallManager Presence Gateway Configuration'. There is a 'Status' section with an information icon and the text 'Status: Ready'. Below that is the 'CallManager Presence Gateway Information' section with two input fields: 'Description*' containing 'CallManager Gateway for Lab' and 'CallManager Presence Gateway*' containing 'cmpub.cisco.com'. A 'Save' button is located below the fields. At the bottom, there is an information icon and the text '*- indicates required item.'

n. CUPS->Presence Engine->User-Agent Configuration

- a. Click 'find'
- b. Click on 'Cisco-UCMode01/1.1.2'
- c. Change reachability version to 2 - RFC4479

NOTE:- this is only relavent for this lab due to the special version of CUPC we are using. Normally you do NOT need to change this.



o. Application->Unified Personal Communicator->Settings

- a. For this lab we are using MS Active Directory 2003 as the LDAP server that the CUPC uses for its searches.
- b. Enter "10.1.1.15" in the "Primary TFTP Server" field.
- c. Please change the Fields to match the following EXACT entries. LDAP field are CASE SENSITIVE and must match exactly what the customer LDAP.
- d. Change UID=uid, Nickname=sAMAccountName, **UserID=sAMAccountName, IM=sAMAccountName**

LDAP Attribute Mapping	
UPC Attribute Name	LDAP Attribute Name
UID	uid
LastName	SN
Nickname	sAMAccountName
Photo	jpegPhoto
DisplayName	displayName
NameSuffix	
BusinessEMail	mail
BusinessPhoneNumber	telephoneNumber
BusinessMobilePhone	mobile
BusinessFax	facsimileTelephoneNumber
HomeEMail	
HomeFax	


UPC Attribute Name	LDAP Attribute Name
FirstName	givenName
MiddleName	initials
UserID	sAMAccountName
Title	title
NamePrefix	
Gender	
IM	sAMAccountName
BusinessVoiceMail	voicemail
BusinessPager	pager
BusinessOtherPhone	
HomeMobilePhone	
URL	labeledURI


- q. Application->>UPC->>Unity Server
- Click 'Add new'
 - Set 'Name' to 'CUPC_CUCXN'
 - Click 'Save'

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾


Unity Host Configuration



Status
 Status: Ready

Unity Host Configuration

Name*	<input type="text" value="CUPC_UCXN"/>
Description	<input type="text"/>
Hostname/IP Address*	<input type="text" value="cupscuc.cisco.com"/>
Port*	<input type="text" value="143"/>
Protocol Type*	<input type="text" value="TCP"/>

 *- indicates required item.

- r. Application->>UPC->>Unity Profile
- Click 'Add new'
 - Set 'Name' to 'CUPC_CUCXN_Profile'
 - Set 'Voice Messaging Pilot' to 'default'
 - Set 'Primary Unity Server' to 'CUPC_UCXN'
 - Click 'Save'

The screenshot displays the Cisco Unified Presence Server Administration web interface. The page title is "Cisco Unified Presence Server Administration" with a subtitle "For Cisco Unified Communications Solutions". The navigation menu includes "System", "Cisco Unified Presence Server", "Application", "User Management", "Bulk Administration", and "Help". The main heading is "Unity Profile Configuration".

Status
Status: Ready

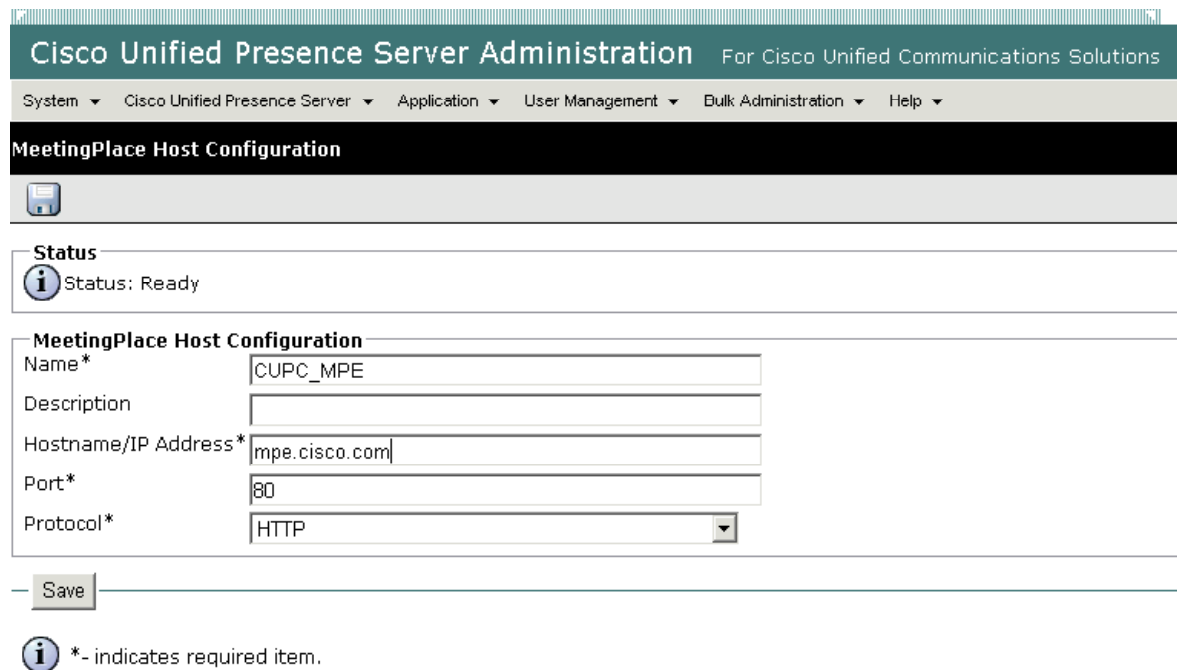
Unity Profile Information

Name*	<input type="text" value="CUPC_CUCXN_Profile"/>
Description	<input type="text"/>
Voice Messaging Pilot	<input type="text" value="Default"/>
Primary Unity Server*	<input type="text" value="CUPC_UCXN"/>
Backup Unity Server	<input type="text" value="< None >"/>
Backup Unity Server	<input type="text" value="< None >"/>

Users in Profile

i *- indicates required item.

- s. Application->UPC->MeetingPlace Server
 - a. Click 'Add New'
 - b. Set 'Name' to 'CUPC_MPE'
 - c. Set 'Hostname' to 'mpe.cisco.com'
 - d. Set 'Port' to '80' (this would be port 443 for SSL systems).
 - e. Set 'protocol' to 'http'
 - f. Click 'Save'



The screenshot displays the Cisco Unified Presence Server Administration web interface. At the top, there is a navigation bar with the title "Cisco Unified Presence Server Administration" and a subtitle "For Cisco Unified Communications Solutions". Below this is a breadcrumb trail: "System > Cisco Unified Presence Server > Application > User Management > Bulk Administration > Help". The main content area is titled "MeetingPlace Host Configuration" and features a save icon. A "Status" section shows "Status: Ready". The "MeetingPlace Host Configuration" form includes the following fields:

Name*	CUPC_MPE
Description	
Hostname/IP Address*	mpe.cisco.com
Port*	80
Protocol*	HTTP


Below the form is a "Save" button. A note at the bottom states: "i *- indicates required item."


- t. Application->UPC->MeetingPlace Profile
 - a. Click 'Add New'
 - b. Set 'Name' to 'CUPC_MPE_Profile'
 - c. Set 'primary MeetingPlace Server' to 'CUPC_MPE'
 - d. Click 'Save'

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

MeetingPlace Profile Configuration




Status
 Status: Ready

MeetingPlace Profile Information

Name*	<input type="text" value="CUPC_MPE_Profile"/>
Description	<input type="text"/>
Primary MeetingPlace Server*	<input type="text" value="CUPC_MPE"/>
Backup MeetingPlace Server	<input type="text" value="< None >"/>
Backup MeetingPlace Server	<input type="text" value="< None >"/>

Users in Profile





 *- indicates required item.

- u. Application->>UPC-CTI Gateway Server
 - a. Click 'Find'
 - b. Select '**cmpub_cti_tcp_host_synced_000**'
 - c. Set 'Hostname' to 'cmpub.cisco.com'
 - d. Click 'Save'


Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

CTI Gateway Host Configuration


   

Status

 Update successful

CTI Gateway Host Configuration

Name*	cmpub_cti_tcp_host_synced_000
Description	automatically created
Hostname/IP Address*	cmpub.cisco.com
Port*	2748
Protocol Type*	TCP




 *- indicates required item.


- v. Application->>UPC-CTI Gateway Profile (Already done for you)
- Click 'Find'
 - Name '**Default_cti_tcp_profile_synced_000**'
 - Set Primary CTI Gateway Server – cmpub_cti_tcp_host_synced_000
Click 'Save'

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

CTI Gateway Profile Configuration


  

Status
 Status: Ready

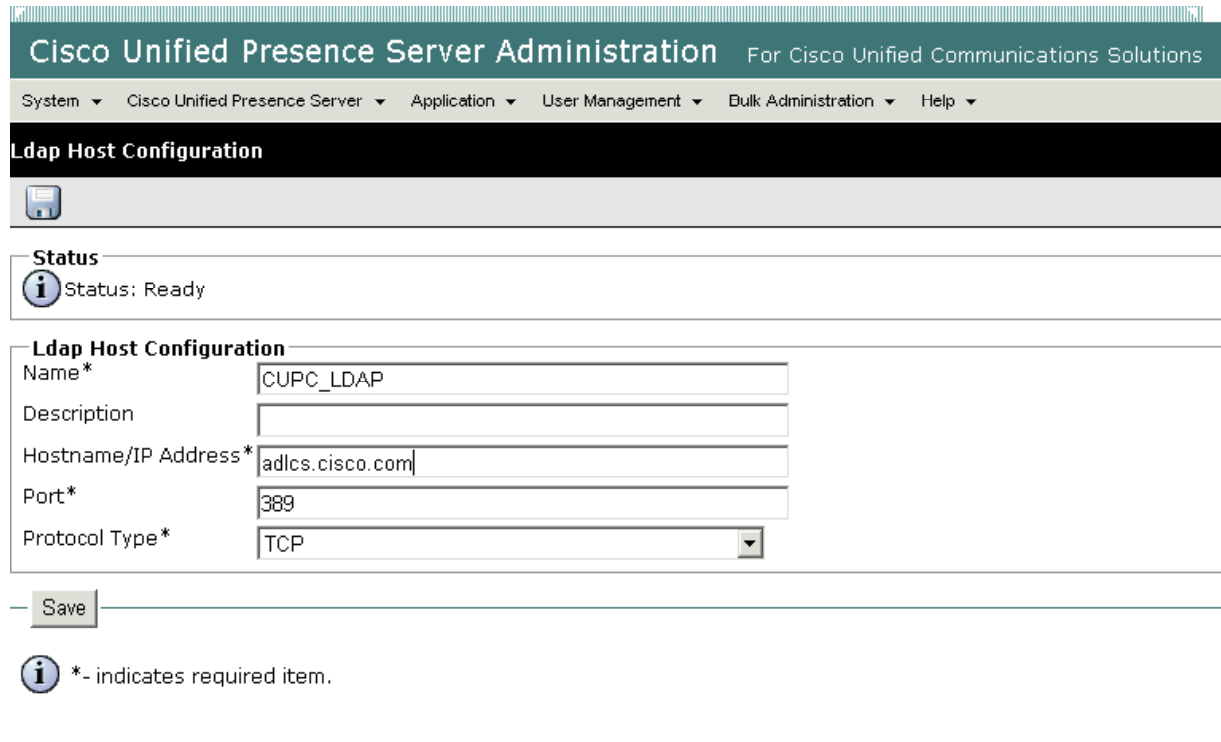
CTI Gateway Profile Information

Name*	<input type="text" value="Default_cti_tcp_profile_synced_000"/>
Description	<input type="text" value="automatically created"/>
Primary CTI Gateway Server*	<input type="text" value="cmpub_cti_tcp_host_synced_000"/>
Backup CTI Gateway Server	<input type="text" value="< None >"/>
Backup CTI Gateway Server	<input type="text" value="< None >"/>

Users in Profile

 *- indicates required item.

- w. Applications->UPC->LDAP Server
- Click 'Add New'
 - Set 'Name' to 'CUPC_LDAP'
 - Set 'Hostname' to 'adlcs.cisco.com'
 - Set 'Port' to '389'
 - Set 'Protocol' to 'tcp'



The screenshot shows the Cisco Unified Presence Server Administration web interface. The page title is "Cisco Unified Presence Server Administration" with the subtitle "For Cisco Unified Communications Solutions". The navigation menu includes "System", "Cisco Unified Presence Server", "Application", "User Management", "Bulk Administration", and "Help". The main heading is "Ldap Host Configuration". Below this, there is a "Status" section showing "Status: Ready". The "Ldap Host Configuration" form contains the following fields:

Name*	CUPC_LDAP
Description	
Hostname/IP Address*	adlcs.cisco.com
Port*	389
Protocol Type*	TCP

Below the form is a "Save" button. A note at the bottom states: "i *- indicates required item."

- x. Applications->UPC->LDAP Profile
 - a. Click 'Add New'
 - b. Fill in your desired description
 - c. Set 'Name' to 'CUPC_LDAP_Profile'
 - d. Set Bind Distinguished Name (DN) to
'cn=Administrator,cn=Users,dc=cisco,dc=com'
 - e. Enter the password cisco,123
 - f. Set 'Search Context' to 'ou=SEVTLAB, dc=cisco, dc=com'
 - g. Check 'Recursive Search'
 - h. Set 'Primary LDAP Server' to 'CUPC_LDAP'
 - i. Click 'Save'

The screenshot displays the Cisco Unified Presence Server Administration web interface. The page title is "Cisco Unified Presence Server Administration" with a subtitle "For Cisco Unified Communications Solutions". A navigation menu includes "System", "Cisco Unified Presence Server", "Application", "User Management", "Bulk Administration", and "Help". The main heading is "Ldap Profile Configuration".

Status
Status: Ready

LDAP Profile Information
Name*: CUPC_LDAP_Profile
Description:

LDAP Directory Information
Bind Distinguished Name (DN): cn=Administrator,cn=Users,dc=cisco,dc=com
Password: [masked]
Confirm Password: [masked]
 Anonymous Bind

LDAP Search Context Information
Search Context: ou=SEVTLAB,dc=cisco,dc=com
 Recursive Search

LDAP Server Information
Primary Ldap Server*: CUPC_LDAP
Backup Ldap Server: < None >
Backup Ldap Server: < None >

- y. Application->UPC->Proxy Profile
- Click 'Add New'
 - Set 'Name' to 'CUPC_Proxy'
 - Set "Proxy Listener" to 'Default Cisco SIP Proxy TCP Listener'
 - Set 'Primary Proxy Server' to 'cupspub'
 - Set Backup Proxy Server to cupspub
 - Click 'Save'

The screenshot displays the Cisco Unified Presence Server Administration web interface. At the top, there is a navigation bar with the title "Cisco Unified Presence Server Administration" and the subtitle "For Cisco Unified Communications Solutions". Below the navigation bar, there are several menu items: "System", "Cisco Unified Presence Server", "Application", "User Management", "Bulk Administration", and "Help". The main content area is titled "Proxy Profile Configuration" and features a "Save" button. The "Status" section shows "Status: Ready". The "Proxy Profile Information" section contains the following fields:

Name*	CUPC_Proxy
Description	
Proxy Listener	Default Cisco SIP Proxy TCP Listener
Primary Proxy Server*	cupspub
Backup Proxy Server	cupspub

The "Users in Profile" section includes a button labeled "Add Users to Profile". At the bottom of the form, there is a "Save" button. A legend at the bottom left indicates that an asterisk (*) denotes a required item.

- z. Application->UPC->User Settings
 - a. Click 'Find'
 - b. Click on 'steve' user
 - c. Select the Deskphone previously assigned to this user in CallManager. If no phone is available, go back to CallManager and check you have assigned the phone to the user.
 - d. Assign all the previously defined UPC profiles to the user.
 - e. Click 'Save'
 - f. Repeat for user 'jane' user

The screenshot shows the Cisco Unified Presence Server Administration interface. The title bar reads "Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions". Below the title bar is a navigation menu with items: System, Cisco Unified Presence Server, Application, User Management, Bulk Administration, and Help. The main content area is titled "Unified Personal Communicator User Settings".

Below the title bar, there is a "Status" section with an information icon and the text "Status: Ready".

The "User Information" section shows "User: steve".

The "CTI Control Information" section has a "Preferred CTI Device" dropdown menu set to "SEP001562106F77".

The "Application Profile Information" section contains several dropdown menus:

- Unity Profile: CUPC_CUCXN_Profile
- MeetingPlace Profile: CUPC_MPE_Profile
- CTI Gateway Profile: Default_cti_tcp_profile_synced_000
- LDAP Profile: CUPC_LDAP_Profile
- SIP Proxy Profile: CUPC_Proxy

At the bottom of the form is a "Save" button.

Below the form is an information icon and the text "*- indicates required item."

- aa. Activate the "UPS SIP Proxy" and "UPS Presence Engine" Services
 - a. In the top right hand corner select 'Cisco Unified Presence Server Serviceability'
 - b. Tools
 - c. Service Activation, choose 'cupspub' server.
 - d. Go to the bottom of the screen and select 'UPS SIP Proxy', Click 'Reset'
 - e. Repeat for 'UPS Presence Engine'

YOU HAVE COMPLETED THE CONFIGURATION OF CCM AND CUPS!

Section 4: Installation of Cisco Unified Personal Communicator

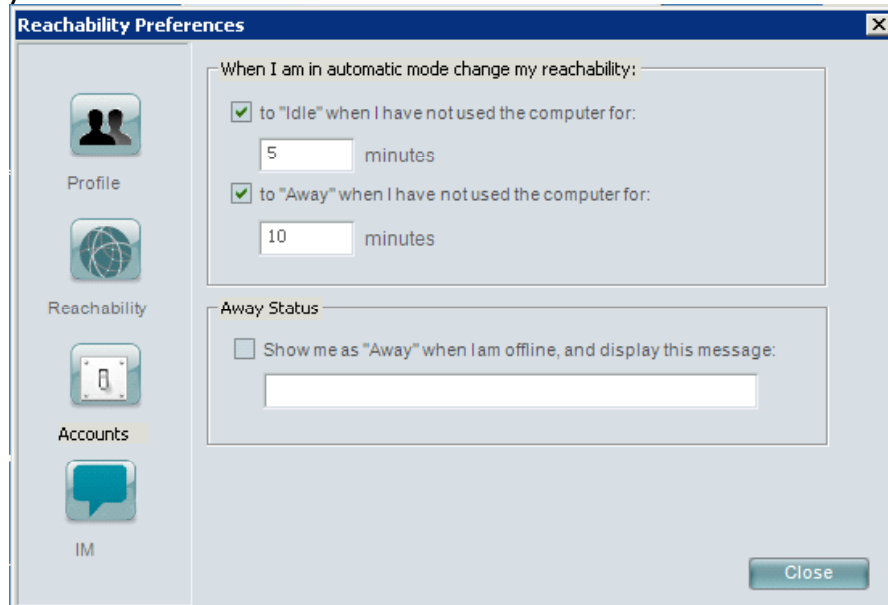
1. Find the CUPC client software executable on the Student1 and Student2 desktops.
2. Install client on Student1 and Student2 Windows XP VMWare image using all the default settings. (DO NOT INSTALL THIS CLIENT ON YOUR OWN LAPTOP).
3. You have a Cisco Camera plugged into the USB port during installation, then during the CUPC installation, you may see a window stating that it found new hardware and will install software for it. This window should be ignored. Click Cancel.

NOTE: In customer environments, there may be specific Windows XP USB Hotfixes required. Please reference the Release Notes and Installation Guide for specific references.

4. Launch the Cisco Unified Personal Communicator from the desktop ICON
 - a. At the login screen enter your UserID (eg steve on Student1 and jane on Student2)
 - b. Password is 'cisco,123'
 - c. Login server is 'cupspub.cisco.com' or IP Address 10.1.1.16
 - d. Click 'Login'



5. Select File->> Edit Preferences
 - a. Click 'Reachability'
 - i) Set 'Idle' to '5' minutes
 - ii) Set 'Away' to '10' minutes



- b. Select Accounts
- i) Select 'Unity Connection'
 - ii) Set 'Username' to either 'steve' or 'jane'
 - iii) Set 'Password' to 'cisco,123'
 - iv) Click 'Save'

The screenshot shows the 'Account Preferences' dialog box. On the left is a navigation pane with icons for Profile, Reachability, Accounts (selected), and IM. The main area is divided into two sections. The top section, titled 'Accounts', contains a list with 'Unity Connection' and 'Cisco Unified MeetingPlace'. The bottom section, titled 'Unity Connection', contains the following fields:

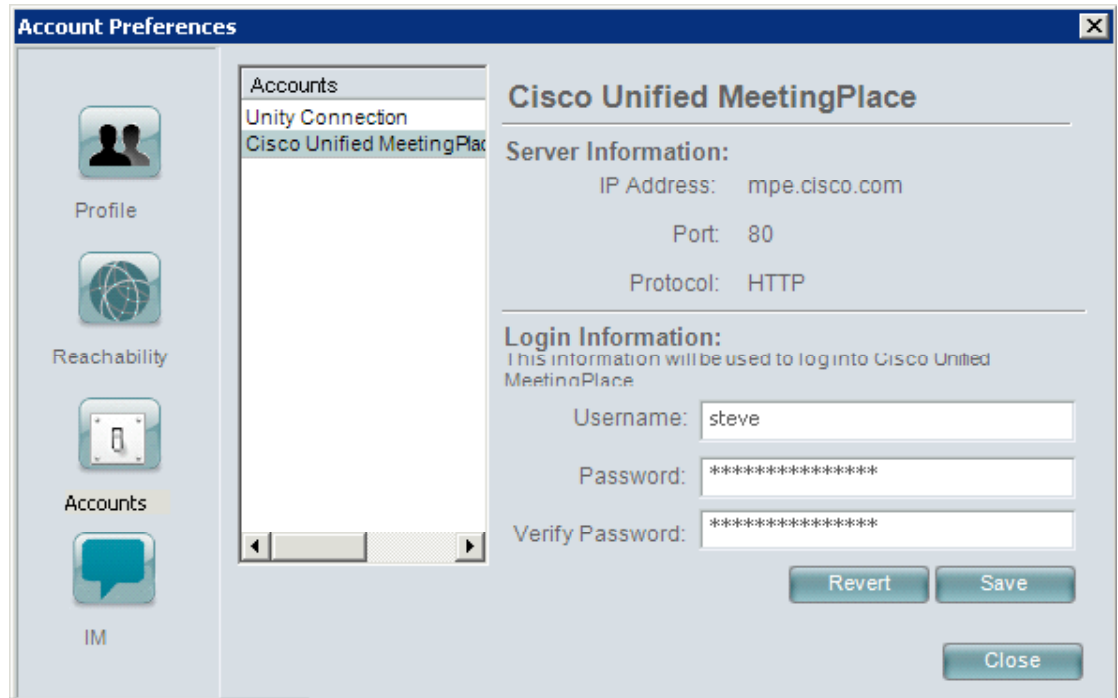
- Server Information:**
 - IP Address: cupsuc.cisco.com
 - Port: 143
 - Protocol: TCP
- Login Information:**

This information will be used to log into Unity Connection.

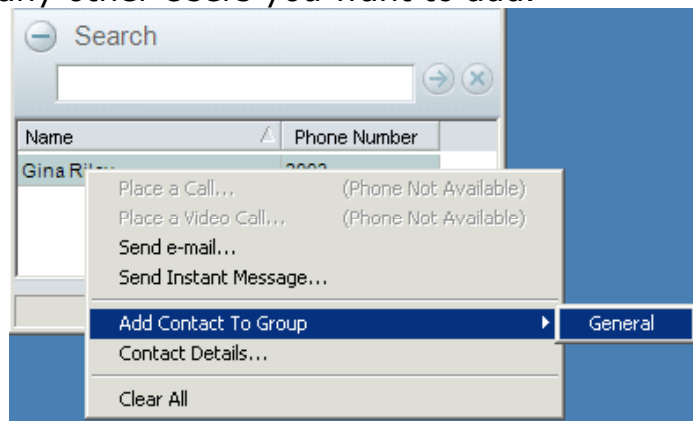
 - Username: steve
 - Password: *****
 - Verify Password: *****

At the bottom right, there are three buttons: 'Revert', 'Save', and 'Close'.

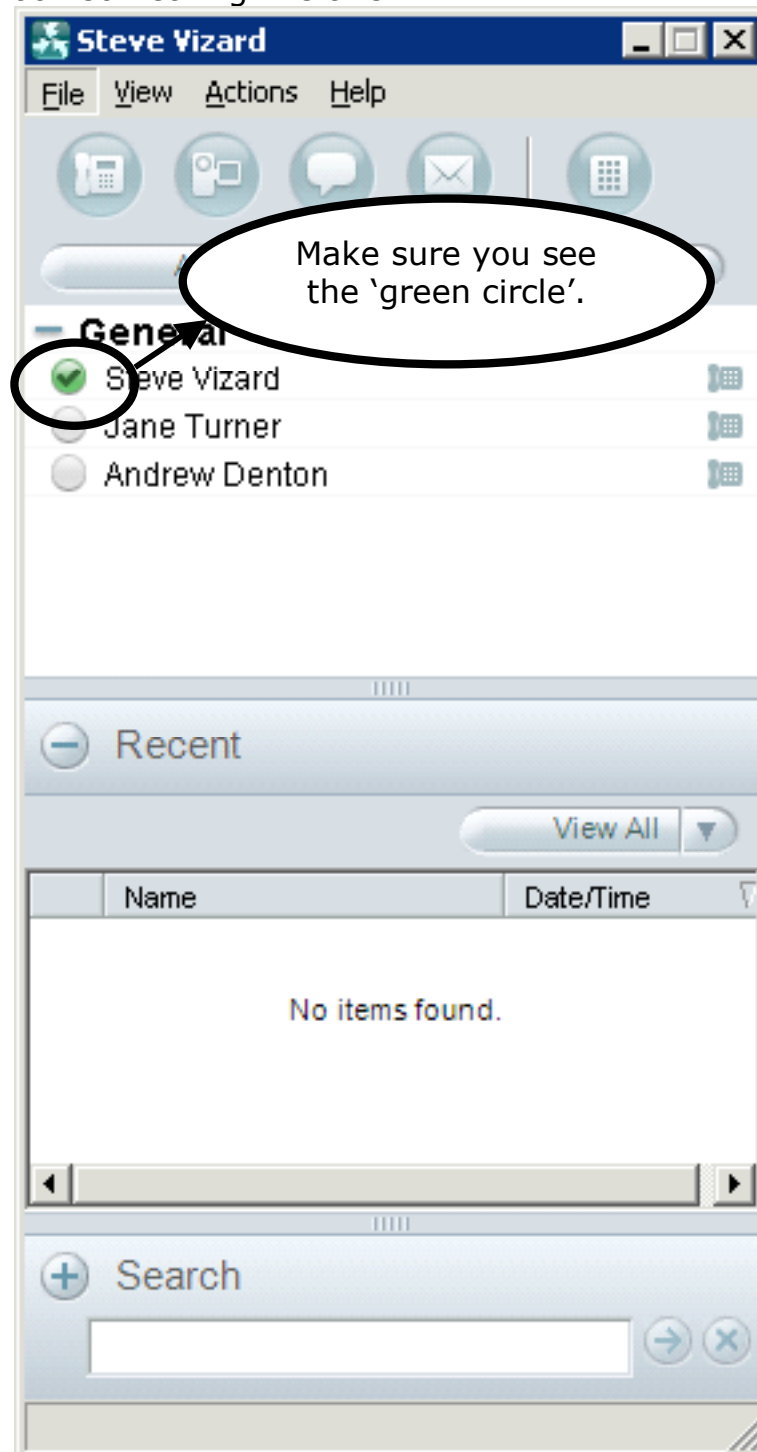
- v) Repeat for 'MeetingPlace Express'
- vi) Click 'Save'
- vii) Click 'Close'



6. In the 'Search' Tab of the client type 'steve'. Press 'enter'
 - a. Right Click on the first name in the list
 - b. Select 'Add Contact to Group ->> General'
 - c. Repeat for any other Users you want to add.



7. Result should look something like this



8. If you see grey "question marks" then exit the client and restart.

9. You are now ready to make calls and try out the client!!!

10. **Note:** you may need to restart the CTI Manager service on the CallManager if the 'Desk Phone' does not associate.

11. Suggested call flow to understand what is possible with CUPC v1.0
 - a. Leave a voicemail message for each user in your group (voicemail number is 5000 for the lab). It may take up to 30 sec for IMAP to update the voicemail in the client.
 - b. From the client find the voicemail in the centre part of the client's screen (in amongst the placed calls/missed calls etc) and double click on it.
 - c. From the resulting window click on the "play" button and listen to the message on you client.
 - d. When you are done click on the phone icon to return a call to the originator of the voicemail.
 - e. Answer the call on your partners client.
 - f. "Promote" the call to video by clicking the video icon button
 - g. Click the share button to launch the MPExpress application on both sides of the call. Share your desktop or something between the two participants.
 - h. On the "call" bar click "disconnect from conference" to conclude the collaboration session.
 - i. Click the "X" button to finish the call.
 - j. Play around with the various options and settings to get a feel for the way the client works.



CISCO UNIFIED PERSONAL COMMUNICATOR DEMO GUIDE

Open main window of the Unified Personal Communicator and describe the major areas of functionality.

- Launch Cisco Unified Personal Communicator
- Explain that the Unified Personal Communicator is an "all-in-one" communications tool that helps streamline communications
- Show buttons on top that enable you to click-to-call (phone icon), click-to-video call (video icon), launch email client (envelope icon), or dial a number (keypad icon).
- Highlight the user options – presence (available, busy, etc) and phone (softphone/desktop)
- Expand the "Contacts" section to show the list of contacts – point out the presence indicators and preferred method of contact. This helps reduce phone tag and enables employees to communicate more effectively
- Expand the "Recent" section. Show that all recent communications activities can be found here. You can view incoming/outgoing calls and voice messages.

Make a Call

1. Type name into search field on the client. Hit enter to search.
2. The search results section expands (downward) automatically and the results appear.
3. Double-click to call. A new conversation window appears on the PC. The window displays "connecting" state.
4. Discuss how easy it is to place a call. You don't have to go to a corporate directory, find a contact, then dial a number – you can search your directories from the client and simply click-to-call using either the softphone or IP Phone.
5. An incoming call notification appears on the screen of the other PC. Click to answer.
6. A new conversation window appears on the desktop when the two users are connected.

Escalate to Video

1. Show how to escalate an audio call to a video call. Explain how Unified Personal Communicator makes video calling/conferencing as easy as a phone call.
2. Click the camera icon and video windows appear automatically on both PCs.

Check Voice Mail

1. Explain how Cisco Unified Personal Communicator enables users to search, view, sort, delete, and play Unity Connection voice messages.
2. Show the indicator in the "Recent" section which signifies that new voice mail has arrived.
3. Expand the "Recent" section
4. Highlight voice mail message
5. Double-click the voice mail message. A voice mail window appears on the left.

6. Discuss how the voice mail window shows the name, message details (duration, time, etc.), and presence.
7. Click the play button to listen to the message.
8. Hit double-speed to speed up the message.
9. Click the video icon to return the call (or click the phone icon).

Conference/Merge (CANT Do with lab setup but for reference)

1. Keep the previous video conversation open – do not hang up.
2. Open the contact window and click-to-call another user.
3. The video conversation “freezes” and explain that the call is automatically placed on hold.
4. Answer the call.
5. Click the “merge” button on the conversation window.
6. The secondary conversation window disappears, leaving only a single conversation window on each desktop.
7. The roster appears (slides out) from the conversation window to the right, showing three participants.
8. Explain how the calls are automatically merged and the call roster shows all participants in a conference.

Web Conferencing/Document Sharing

1. Continue from previous demo – do not hang up.
2. Explain how Cisco Unified Personal Communicator enables employees to collaborate virtually anytime, anywhere by using MeetingPlace Express Web conferencing capabilities.
3. Escalate to Meeting Place Express by clicking the Web share button.
4. The Web share window appears on all desktops.
5. Enter the share room.
6. Click the share button and select the document you want to share.
7. The document appears on all desktops.

Summary/Key Messages

In summary, Cisco Unified Personal Communicator seamlessly integrates a wide variety of communication applications and services into a single desktop application to help people work smarter and faster. It lets users easily access a variety of powerful communications tools, including voice, video, call management, presence and Web conferencing. Cisco Unified Personal Communicator is easy to use and features an intuitive user interface. It streamlines the communication experience, enabling teams and knowledge workers to enhance productivity and communicate in real-time. With Cisco Unified Personal Communicator, users can communicate and collaborate anytime, anywhere, and easily escalate their communication methods for smarter, more effective communications.

Intuitive and flexible, Cisco Unified Personal Communications enables workers to:

- **Increase productivity and speeds decision-making.** Connect with colleagues on the first try by knowing beforehand if they are available and how they prefer to be reached.
- **Improve collaboration.** Share documents and communicate face-to-face using video and web conferencing.

- **Streamline communications.** Integrating voice, video, document sharing, voicemail playback and directories into one “easy-to-use” interface streamlines communications and reduces training time, helping employees work smarter and faster.
- **Enhance mobility.** With Cisco Unified Personal Communicator, you can communicate and collaborate virtually anytime, anywhere, and easily escalate communication methods for more effective communications.
- **Build a competitive advantage.** Get answers fast, collaborate in real-time and respond faster to customer needs.

Section 5A: Configuration of Microsoft Live Communication Server

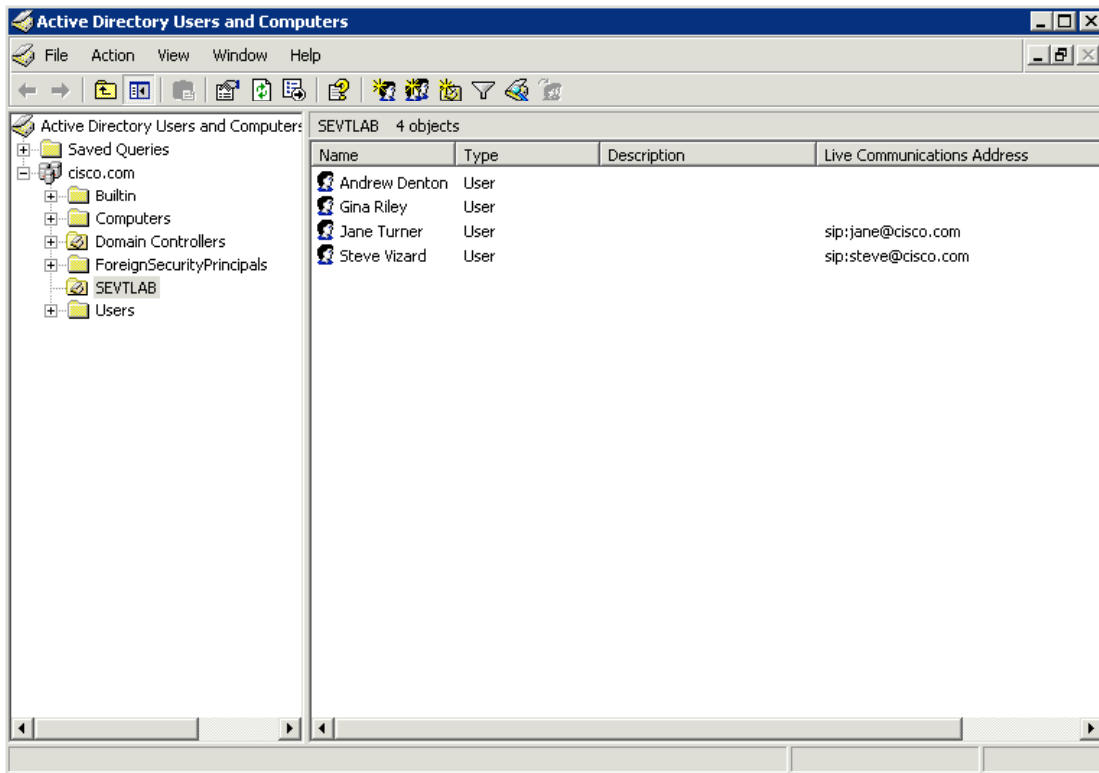
NOTE: The Administration tools for Active directory and LCS have been installed on your STUDENT2 Workstation, You do not need to access the LCS / Active Directory server directly.

Login to Student2 desktop as user 'Administrator', password 'cisco,123'

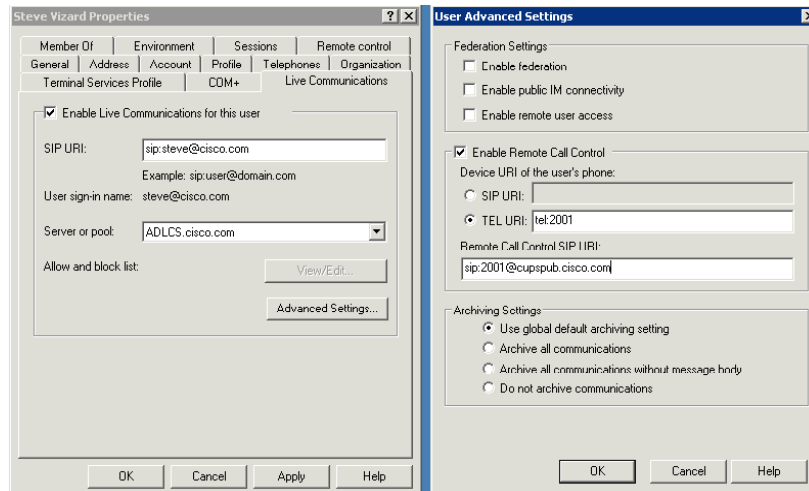
Enabling your users as LCS users.

The Active Directory Users and Computers Administration tool has been loaded onto the Student2 workstation for you.

Your Users have been placed in a SEVTLAB OU which is shown on the diagram below.

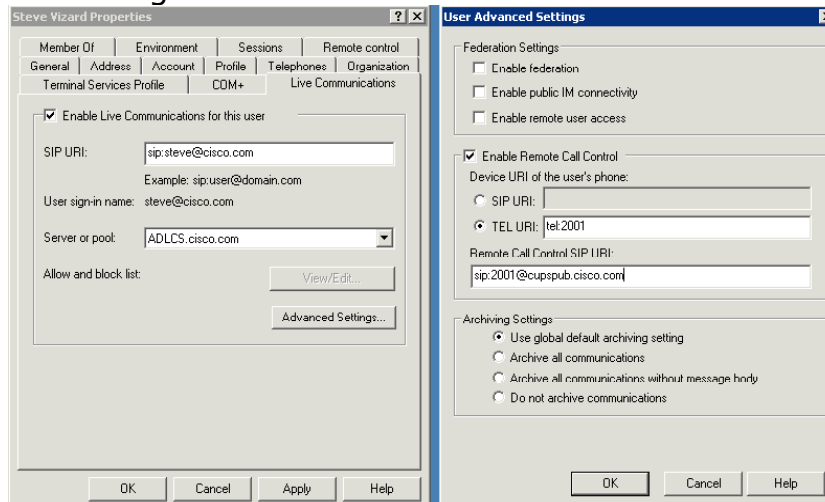


Select each of your users (steve and jane) and enabled them for LCS



We are going to configure Remote Call Control settings in active directory (This could also be configured in the MOC client)

Click the "Advanced Settings" button



We need to configure the TEL URI and Remote Call Control SIP URI for each user

The format for each setting is:

TEL URI: tel:[User DN]

RCC SIP URI : sip :[User DN]@[FQDN of CUPS Server]

Eg. For Steve

tel:2001

sip:2001@cupspub.cisco.com

For Jane

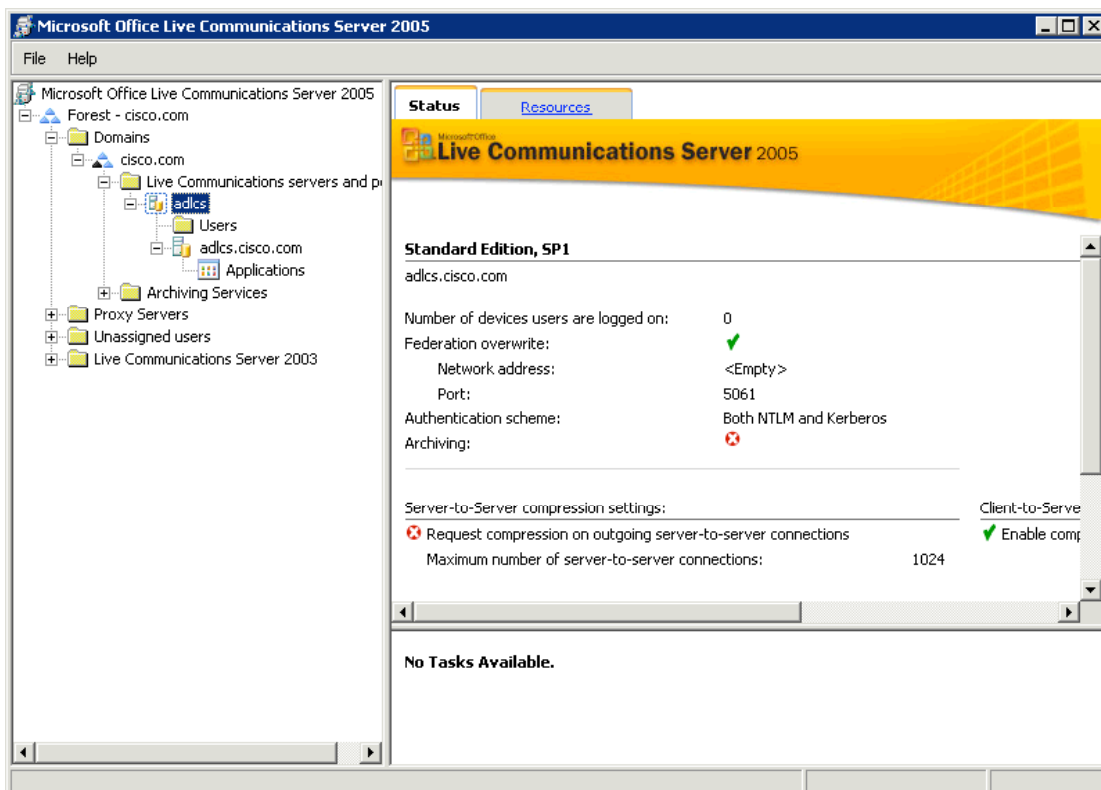
tel:2002

sip:2002@cupspub.cisco.com

Once you have enabled BOTH users exit **Active Directory Users and Computers**

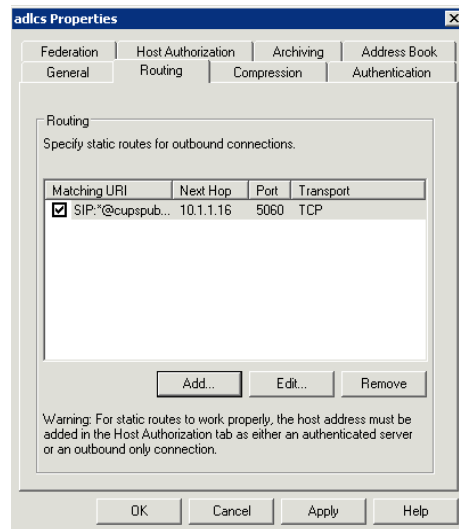
We now need to configure LCS Routing and authorization, The Live Communication Server 2005 Administration Plug-in has been installed on your STUDENT2 workstation.

Start the configuration tool for "Live Communications Server 2005"



To Configure routing and host authorization select the server name (adlcs) and right-click, select properties.

First we will configure a routing entry



Add a New route to your CUPS Server

Username: *

Domain: cupspub.cisco.com

Next hopcc

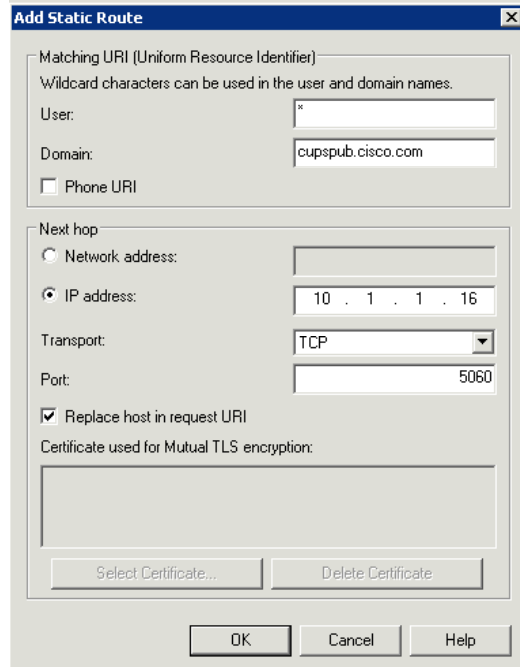
IP Address: 10.1.1.16

Transport: "Airbus 380"

or if option not available select "TCP"

Port: 5060

Enable: Replace host in the request URI



Add Static Route

Matching URI (Uniform Resource Identifier)
Wildcard characters can be used in the user and domain names.

User: *

Domain: cupspub.cisco.com

Phone URI

Next hop

Network address:

IP address: 10 . 1 . 1 . 16

Transport: TCP

Port: 5060

Replace host in request URI

Certificate used for Mutual TLS encryption:

Select Certificate... Delete Certificate

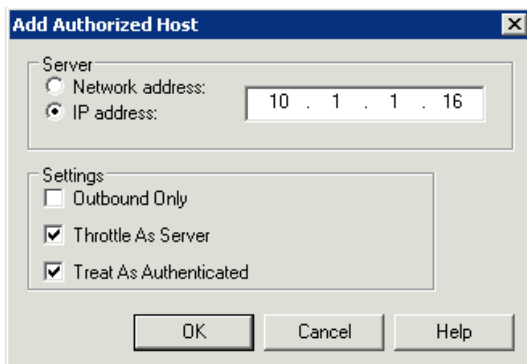
OK Cancel Help

We need to authorize the CUPS server to communicate with LCS
(later in the lab we will authorize LCS to communicate with CUPS)

Select the "Host Authorization" Tab and add an entry with the IP Address of your cups server. (10.1.1.16 would be a good choice)

Check boxes 'Throttle As Server' and 'Treat As Authenticated'

Click 'OK'



Add Authorized Host

Server

Network address:

IP address: 10 . 1 . 1 . 16

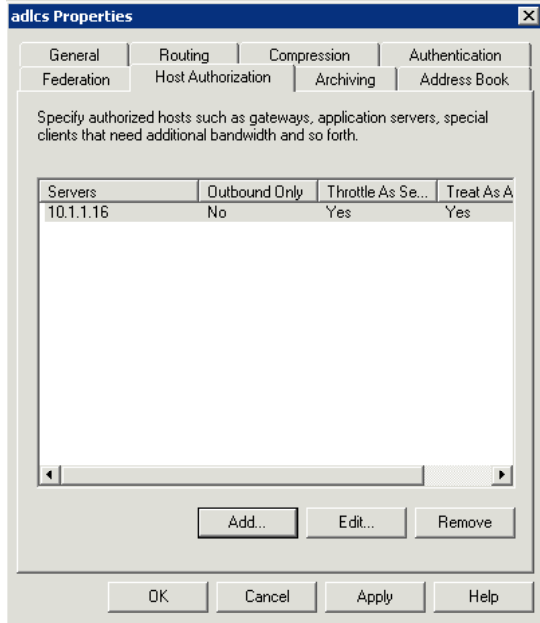
Settings

Outbound Only

Throttle As Server

Treat As Authenticated

OK Cancel Help



Section 5b: Configuration of CUPS for Microsoft Live Communication Server

In this section of the lab you will create a LCS integration with CUPS. You will be using a shared Lab LCS server which has already been configured for you. You will perform the following tasks.

- Assign Capabilities to the MOC users
- Create a Call manager Application user for the CTI-GW
- Assign CTI capabilities to the Application User
- Configure CUPS CTI-GW
- Configure CUPS ACLs to connect to LCS
- Install the MOC client on your laptop
- Configure the MOC client
- Enable telephony feature in MOC
- Test the integration.
- Configure MOC transfer rules (Stretch Task)

Assign Capabilities to the MOC users

Assign MOC Capabilities to your Lab Users. This is performed in the **CUPS server**

Application > CTI-Gateway > MOC Assignments

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List MOC Assignments

Status
 ⓘ 4 records found

MOC Usage
 0 MOC users assigned

Search Options
 Find MOC Assignment(s) where begins with (enduser.userid begins with any)

Search Results

	User ID	Last Name
<input type="checkbox"/>	andrew	Denton
<input type="checkbox"/>	gina	Riley
<input checked="" type="checkbox"/>	jane	Turner
<input checked="" type="checkbox"/>	steve	Vizard

Select All Clear All Bulk Assignment Rows per page

CTI Gateway MOC Assignment

Status
 ⓘ Status: Ready

MOC Usage
 2 Selected User(s)

MOC Assignment Information
 Enable MOC (Microsoft Office Communicator)

Save Close

ⓘ *- indicates required item.

Enable the following accounts:

steve jane

Create a Call manager Application user for the CTI-GW

In Call Manager create a new Application User for CUPS CTI-GW to use to connect to your Call manager CTI manager.

Application User Information

User ID*

Password*

Confirm Password*

Digest Credentials

Confirm Digest Credentials

Presence Group*

Accept Presence Subscription

Accept Out-of-dialog REFER

Accept Unsolicited Notification

Accept Replaces Header

Assign CTI capabilities to the Application User

Your application user should have the following permissions

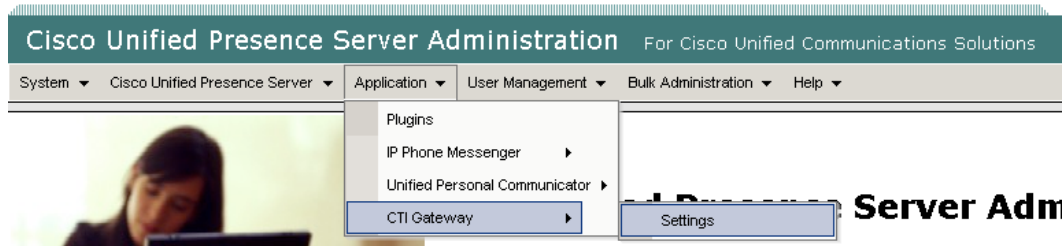
Permissions Information

Groups	Standard CTI Allow Control of All Devices Standard CTI Enabled	Edit Group
▼ ▲		
Roles	Standard CTI Allow Control of All Devices Standard CTI Enabled	Edit Role
▼ ▲		

Remember, this is similar to what you did for the users back at the beginning of the lab.....so, no instructions needed 😊.

Configure CUPS CTI-GW

Now switch to the management interface of your CUPS server and setup the CTI-Gateway. This is in the Applications Menu.



To Configure the CTI-Gateway

Change the Application Status to On

Set the IP Address of your CTI Manager (Call Manager)

Set the User to your LCS CTI user

 A screenshot of the 'CTI Gateway Settings' page in the Cisco Unified Presence Server Administration interface. The page has a header with the same navigation as the previous screenshot. Below the header, there is a 'Status' section showing 'Status: Ready'. The 'Application Settings' section contains several fields:

Application Status*	On
Application Username*	LCS-ctigw
Application Password*	••••••••
Confirm Password*	••••••••
CTI Address	10.1.1.15
CTI Address (Failover)	
Heartbeat Interval (seconds)*	8
Session Timer (seconds)*	1810

 At the bottom of the settings section, there is a 'Save' button. Below the settings, an information icon indicates that asterisks (*) denote required items.

Run the trouble shooter to check your configuration

Systems > Troubleshooter

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions Logged in as: ccmadministrator

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Configuration Troubleshooter

Key

- ✓ Test Passed
- ✗ Test Failed
- ⚠ Test Warning (indicates possible configuration issue)

Results

Group	Test Description	Outcome	Problem	Solution
Sync Agent				
	Verify AXL settings entry exists	✓		
	Verify valid AXL user-id	✓		
	Verify reachability of publisher address, login and execute basic query	✓		
	Verify Sync Agent has sync'ed over relevant data (e.g. devices, users, licensing information)	✓		
	Verify Sync Agent service is running	✓		
Presence Engine				
	Verify CallManager Presence Gateway entries exist	✓		
	Verify Presence Engine service is running	✓		
	Verify Presence Engine OAM Agent service is running	✓		
	Verify Presence Engine Database service is running	✓		
	Verify valid CallManager Presence Gateways (check reachability)	✓		
	Verify valid SIP trunk exists on CallManager server	✓		
Proxy Server				
	Verify SIP Proxy service Proxy Domain service parameter value is valid	✓		
	Verify method/event routes exist	✓		
	Verify SIP Proxy service is running	✓		
	Verify Config Agent service is running	✓		
IPPM				
	Verify IPPM service is active	✓		
	Verify IPPM settings entry exists	✓		
	Verify valid IPPM application username	✓		
	Verify valid IPPM application password	✓		
	Verify CUPS IPPM application username/password matches configured CallManager application username/password	✓		
	Verify IPPM service is running	✓		
CTI Gateway				
	Verify CTI Gateway service is active	✓		
	Verify CTI Gateway application settings entry exists	✓		
	Verify valid CTI address (check reachability)	✓		
	Verify CUPS CTI Gateway application username/password matches configured CallManager application username/password	✓		
	Verify CTI Gateway service is running	✓		
	Verify if any users are currently MOC-assigned	✓		

Section 5c: Configuration and Operation for Microsoft Office Communicator

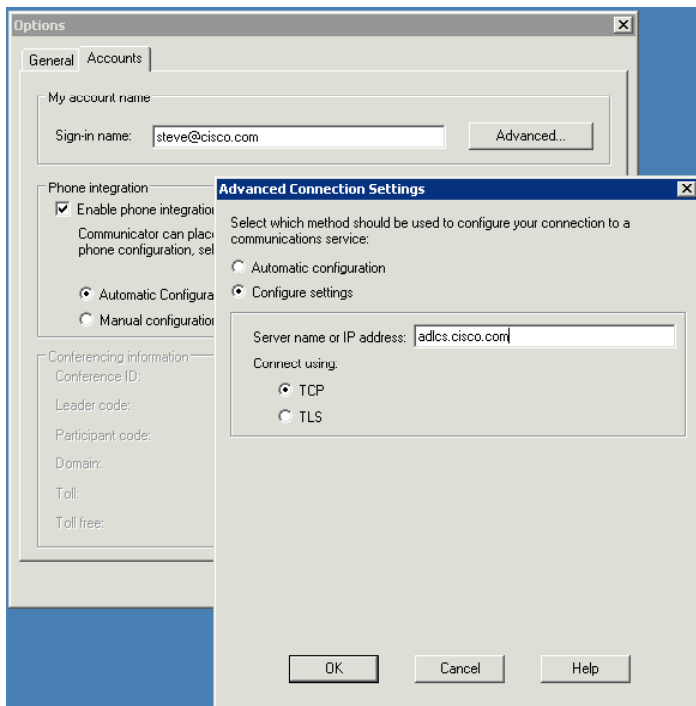
On the desktop of BOTH users (steve and jane) find the communicator.msi file

Launch the communicator.msi file. Please just select default values using the "Next" key.



Configure the MOC client

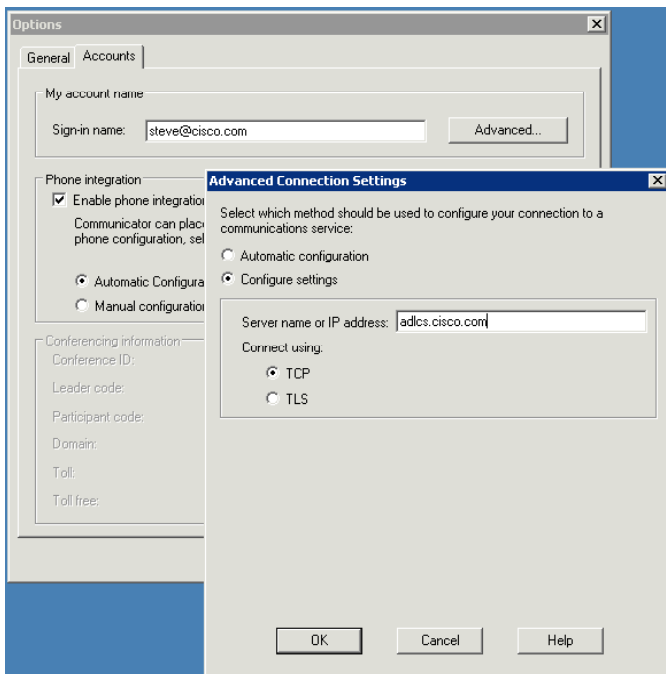
Now start your MOC client, select actions, options, and enter your username



Microsoft Office communicator can automatically find an LCS server using DNS and SRV records. We are going to manually configure the LCS server location for the lab.

Click the Advanced button select Configure Settings

Now Enter the **FQDN** (adlcs.cisco.com) of the LCS server and select **TCP** as the Protocol



We need to change a registry entry in the client to allow remote control of the deskphone

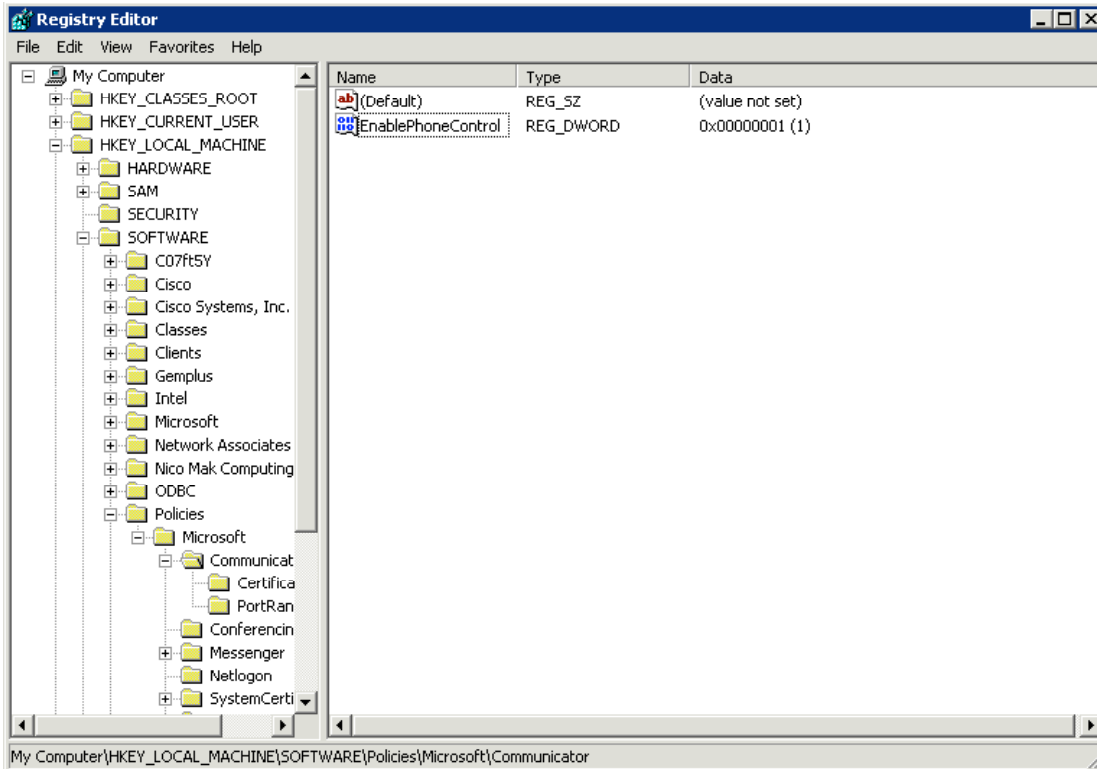
Launch the regedit.exe application to configure the system policy to allow remote call control for MOC

Start -> Run -> regedit.exe

Select HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Communicator

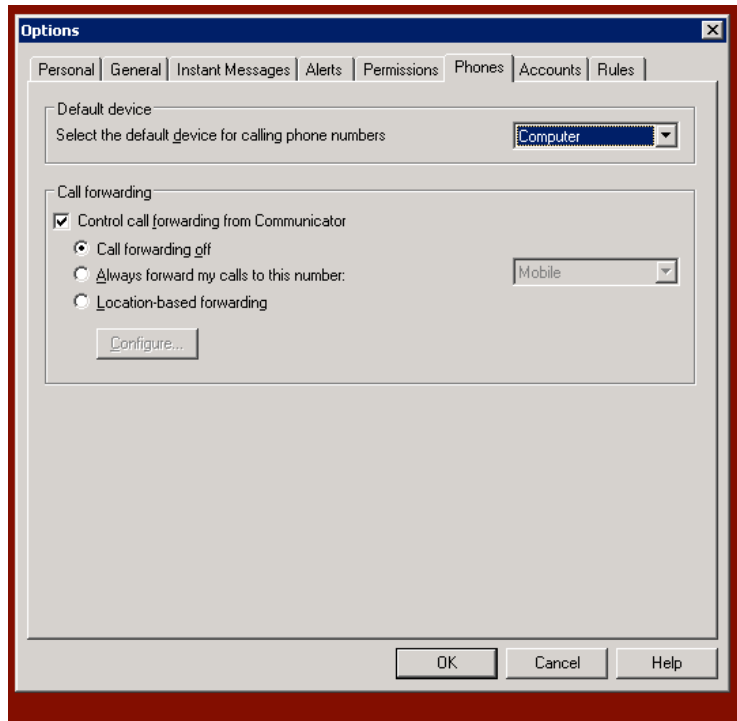
Create a new DWORD value with name 'EnablePhoneControl'

Change the value of this key to '1'



We configure LCS to use the telephone to make calls rather than operate as a softphone.

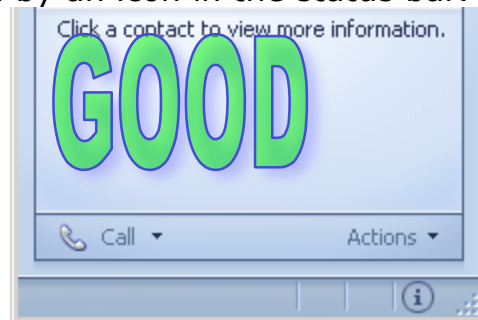
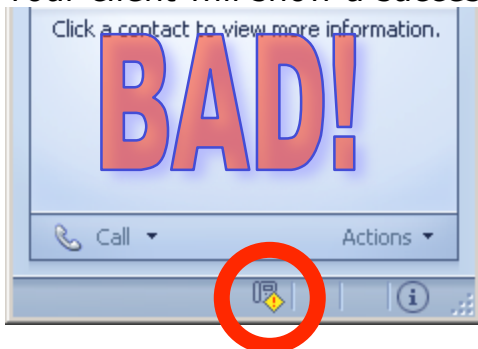
From the Menu select **Actions, Options** and on the **Phone** tab change the default device to "**Phone**"



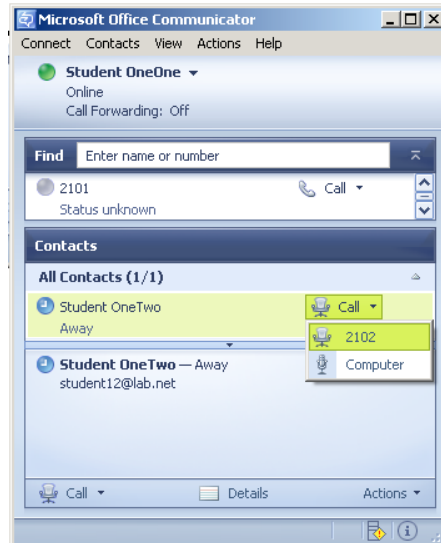
Test your client by send an IM message to your partner workstation.

Test the integration.

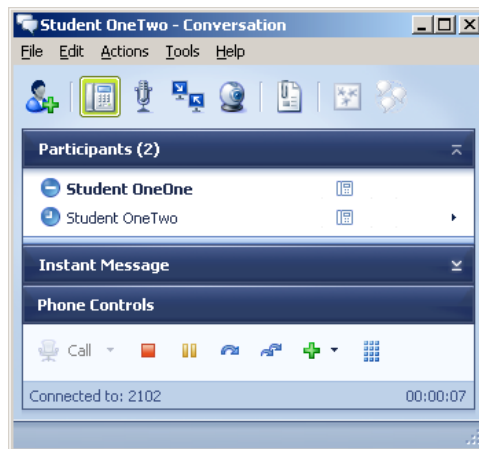
Your client will show a successful integration by an icon in the status bar.



Add the other user to you MOC as a contact and enable the extended view option.



You should now be able to call your partners phone using the MOC GUI.



AND NOW YOU ARE FINISHED!!