



Beacon Office™

Installation and Configuration Manual

Version - 2.5(1)

Radianta Inc.

September 2008

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Introduction

Welcome to Beacon Office! Beacon Office is the preeminent office productivity suite available for the Cisco Unified Application Environment. By integrating personal call control and communications management tools, Beacon Office enables employees to be more productive. Whether it is call-back capabilities or personal queuing, Beacon Office has something for every professional. Also, there are a host of other important features in our full Beacon Office version. To learn more about Beacon Office, just visit our website at www.radianta.com. However you decide to use Beacon Office, or our more powerful Beacon Office Premium, we are certain that their features will help your business streamline its communications.

What is Beacon Office

Beacon Office works in conjunction with Cisco Unified Application Environment (CUAE) and leverages Cisco Unified Communications Manager (CUCM) to provide a host of personalized communications utilities. These tools can be used to make every employee's experience with CUCM even more feature rich and valuable. Some of the tools are available with a Cisco IP phone-based user interface and some are available with a computer-based interface accessible from your personal computer.

How to Use This Guide

This guide will show you to how to install and configure the Beacon Office suite of features. IT personnel who wish to understand and manage the installation and configuration of Beacon Office are encouraged to read this guide. To get started, begin with the section regarding Beacon Office Overview on the next page.

Conventions

When using this guide, you will find simple tips, notes, and warnings after each section of this guide as shown below.

Title	Description
Notes	Informs you of items to pay attention to while working within Beacon Office.
Warnings	Informs you of items to be aware of while working within Beacon Office.

Beacon Office Overview

With applications built to enhance the Cisco Unified Communications platform, Beacon Office allows you to use personal communications tools. This suite consists of applications that can be accessed using either a Cisco IP phone or the Beacon Office Director through a web interface as part of Beacon Office Director. This guide will review the following personal communication application tools within Beacon Office Director. Beacon Office Director is the main administrative page that supports all Beacon Office user features. Beacon Office Director provides tools for all messaging, recording, scheduling and communications management as described below:

Communications Tool	Description
Call Notes	Beacon Office Call Notes allows you to create text messages or use existing text messages, which can be posted to a screen of a Cisco IP phone while a call is made.
Call Recording	Beacon Call Recording enables you to access the application through the Cisco IP Phone Services key so that you can record an active call, maintain, playback and delete recordings.
Call Back	Beacon Office Call Back enables you to interact with coworkers effectively. When a called party is busy or unreachable, callers may initiate a call back request from their phone. The called party is notified and gives the called party capabilities of tracking and responding to these call back requests.
Phone Lock	Beacon Office Phone Lock enables you to control access to Cisco IP phones by locking phones to prevent general outbound calling and unwanted access to personal directories, call records and other services. In addition, you can enable Phone Lock to automatically lock any phone according to a set schedule. Note - Unlocking a phone is as simple as entering an individual's Cisco Unified Communications Manager credentials. During locked mode, however, administrators have the flexibility to allow phones to dial emergency numbers if desired.
Extension Mobility Web	Beacon Office allows you to connect a PC to any Cisco IP phone and invoke Extension Mobility from a web screen. Extension Mobility Web requires the user to enter the target phone's extension—no additional information is required.
Dialer	Beacon Office Dialer allows you call a list of phone numbers and dial outbound calls and play pre-recorded messages to each number reached. The Dialer is a great tool for users who must broadcast a single message to multiple destinations both within the network and out over the public switch telephone network (PSTN).
Timecard	Beacon Office Timecard enables IP phones to become a time clock device. Employees can sign in and out for work anywhere there is a phone, relieving congestion at centralized time clock stations. Note - Logging information is easily exported from the associated database into third party time-tracking applications
Paging	Commence Paging by sending a text, text-to-speech, recorded message, or live pages simultaneously to any Cisco IP phone on your network. All types of pages except "live" can be immediate, scheduled, or automatically recurring.
Personal Queue	As numerous calls ring in, Personal Queue enables you to view calls in a visual queue on your PC workstation. Controls are provided by Personal Queue enabling you to play custom queue hold messages, music and to inject custom messages such as, "I'll be right there - just need to finish something up." while the caller is in the queue. The system will allow you to streamline daily communications by caller details to decide which call takes priority and answering or managing the messaging accordingly.

Introduction

The purpose of this document is to assist system administrators in the installation and configuration of the Beacon Office application suite.

Prerequisites:

- Good working knowledge of Cisco Unified Communications Manager (CUCM) operation and administration
- Network connectivity to both CUCM and CUAE

This guide is split into four main sections:

1. Cisco Unified Communications Manager (CUCM) configuration to support Beacon Office
2. Configuration of the Cisco Unified Application Environment (CUAE)
3. Installation of the Radianta Beacon Office application suite
4. Beacon Office application configuration

Prerequisites

The installation and configuration of the following items are considered out of scope for this guide, but are required for some Beacon Office applications to function properly.

Multicasting - Enable multicasting on all router and switches between CUAE and the IP Phones (Paging only)

SMTP Account - Create an SMTP account for CUAE on your mail server.

Configuring Communications Manager

This portion of the document assumes that the user has administrative knowledge of the Cisco Unified Communications Manager and has experience in its configuration. Also assumed is that the user has access to the administrative account and can create/modify user accounts. Though the CUAE and Beacon Office are compatible with CUCM version 5 and above, the figures shown in this document are taken from CUCM Version 6 and CUAE version 2.5(1). The configurations and settings described below pertain to the Beacon Office Application Suite as a whole. Later on in the document, application-specific settings will be covered.

Create Application User

It is not absolutely necessary that a unique user be created for Beacon Office. However it is recommended for auditing purposes and ease of troubleshooting. While you can give the user any name you want, this document will assume "**radAppUser**" as the application user account. Whether you create a new user or use an existing one, that user **must** have the following properties

- Be a member of the "Standard CTI Enabled" group
- All IP phones that may participate in Beacon Office Applications must be associated with this user

The following screenshots show how to create the application user. First open a browser and enter <https://<cucm-ip-address>/ccmadmin> to log into the Communications Manager administrative website.

Step 1: Login to the CUCM Administration Website

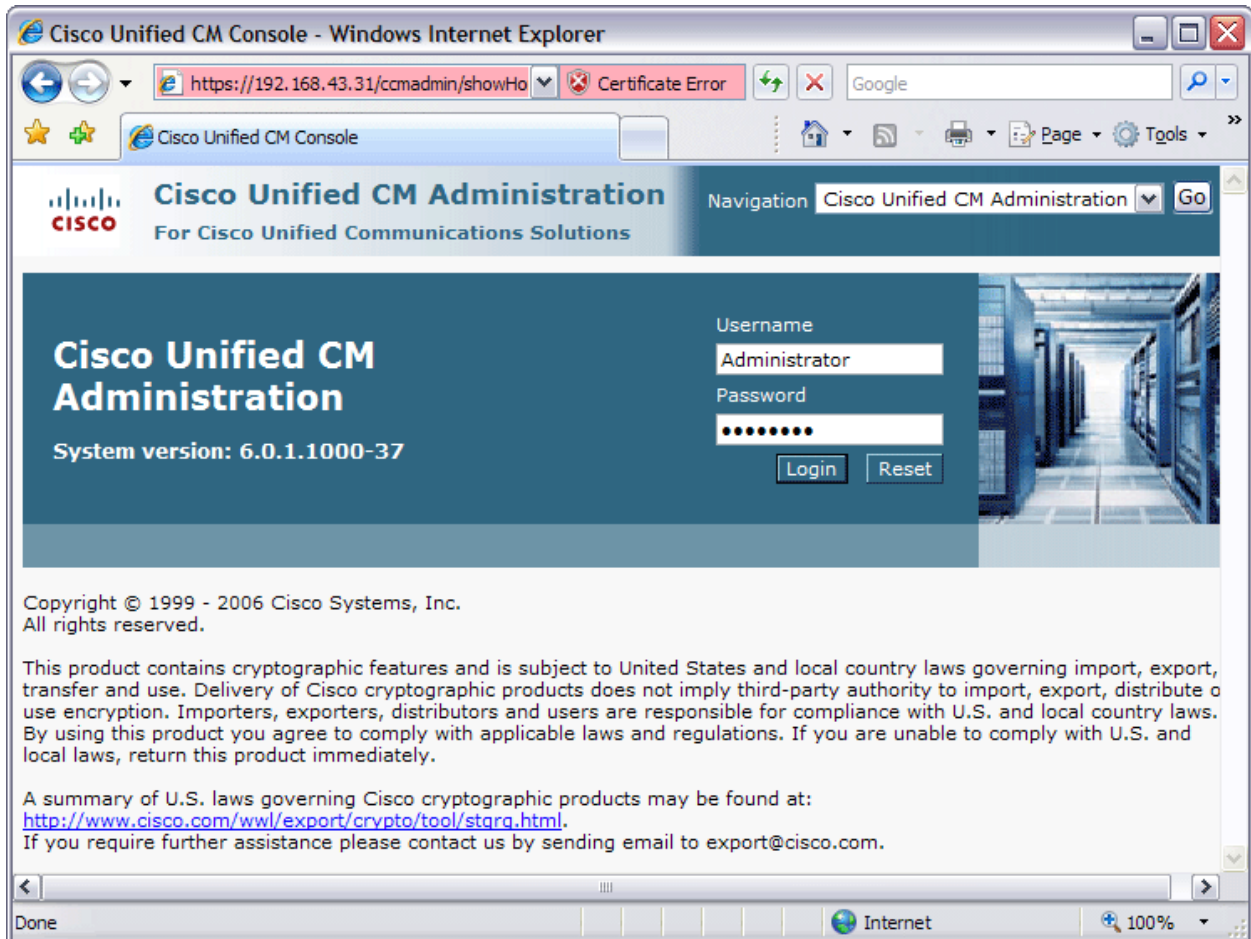


Figure 1: Login to CUCM

Step 2: Create Application User

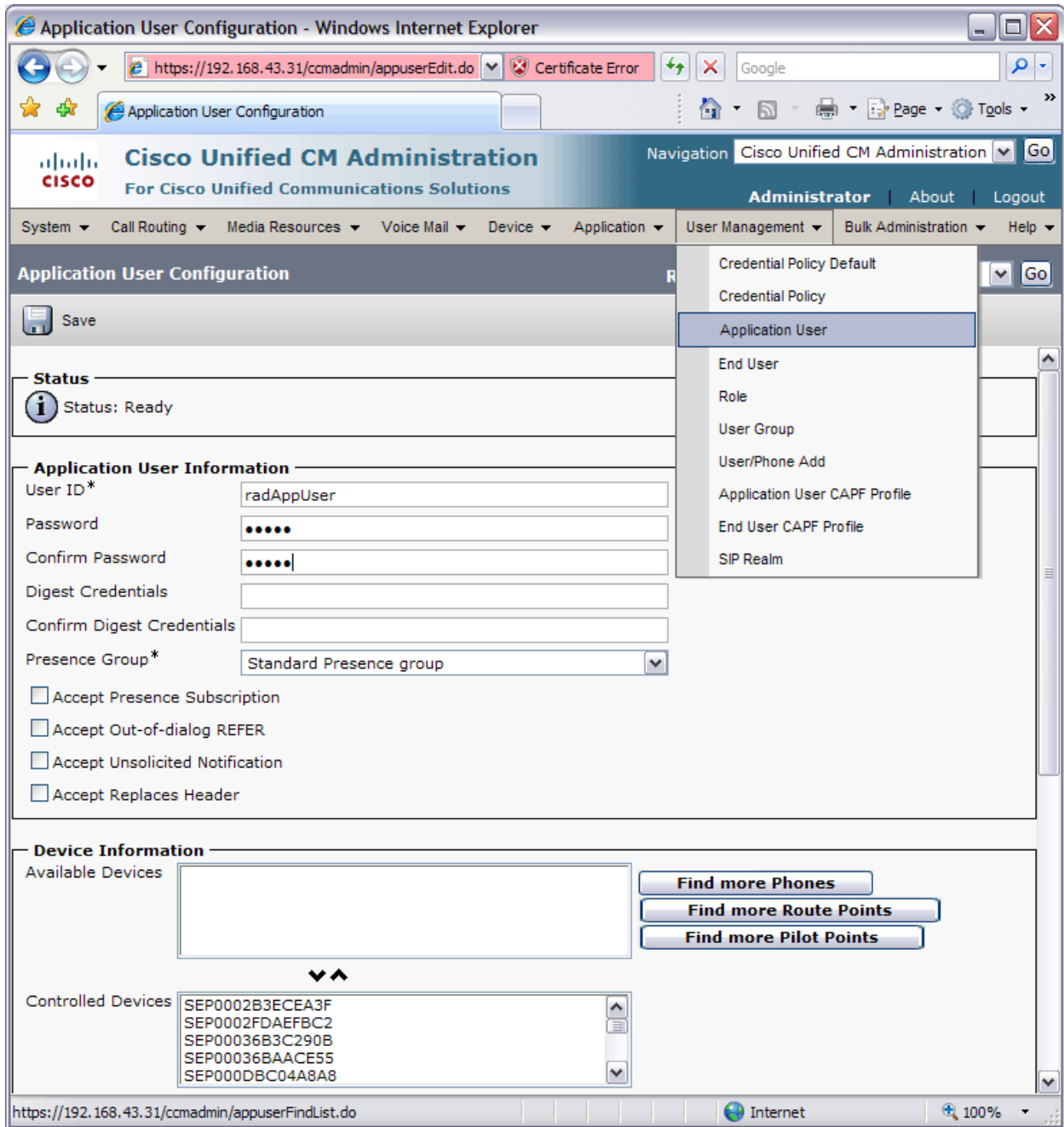


Figure 2: Create Application User

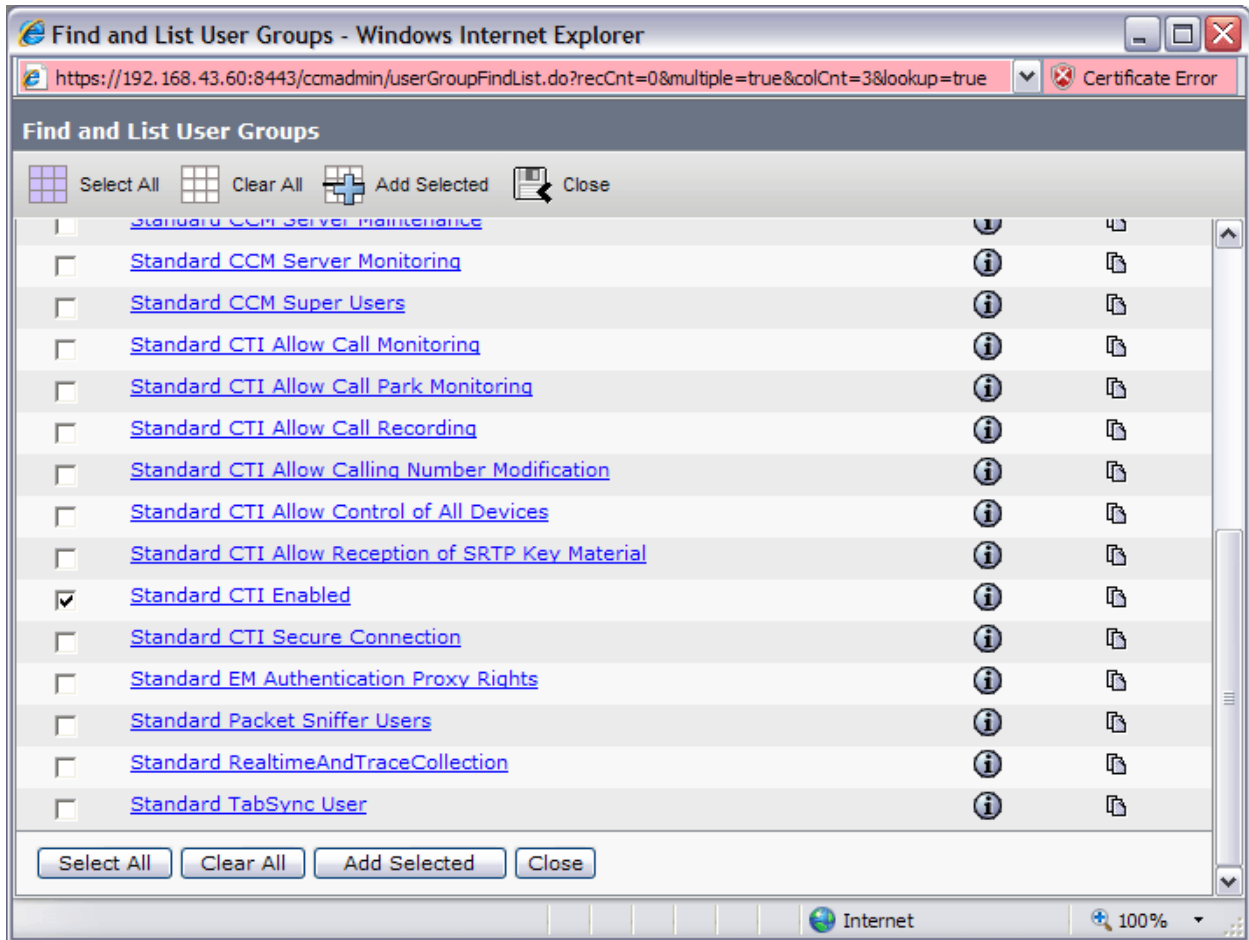


Figure 3: User Groups

Create SNMP Community String

The purpose of this action is to allow CUAE to access CUCM using SNMP. SNMP is used to query CUCM for phone information. If this is not done, important parts of the Beacon Office application suite will not function properly.

1. Select Cisco Unified Serviceability Navigation

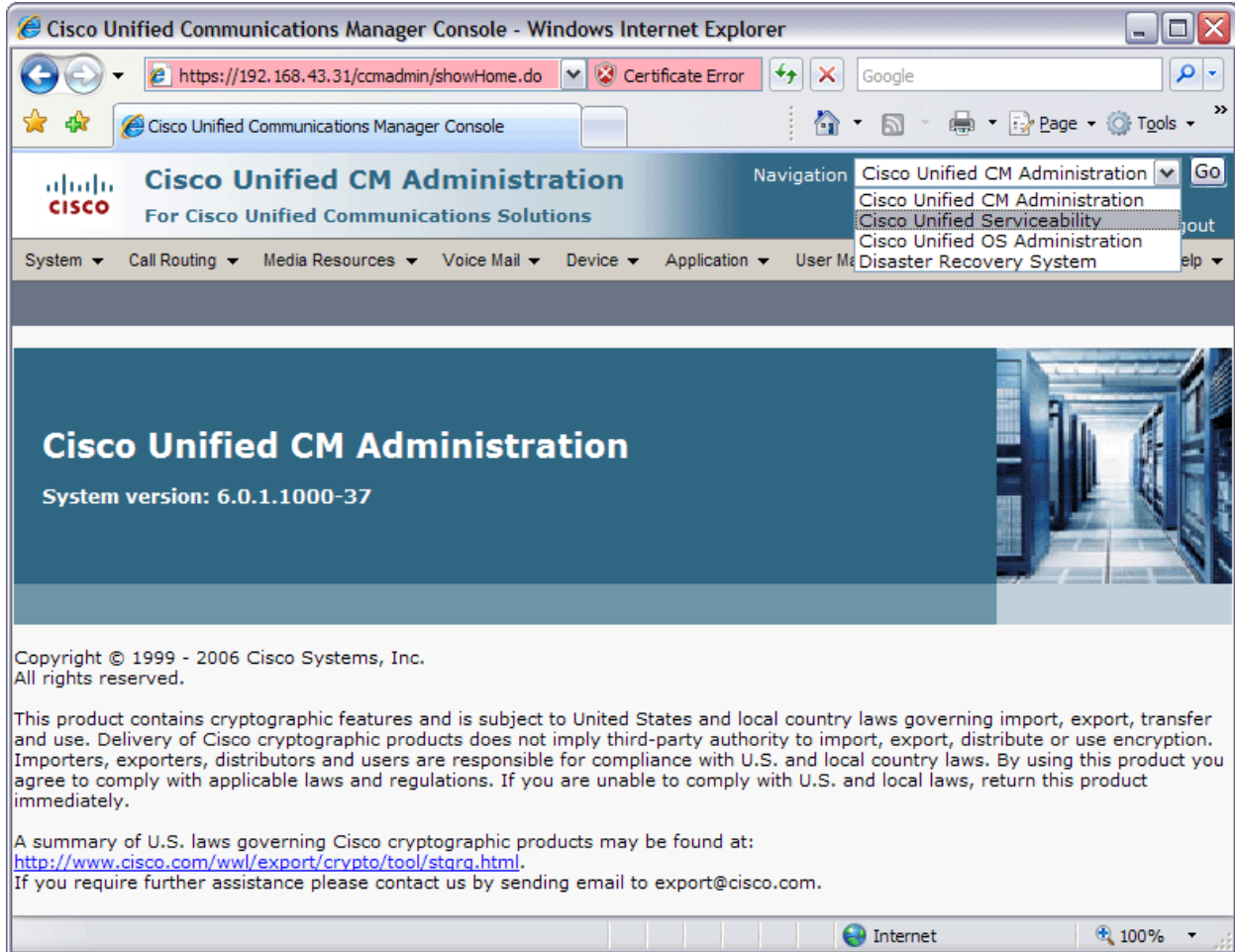


Figure 4: Selecting Cisco Unified Serviceability Navigation

2. Add a Community String

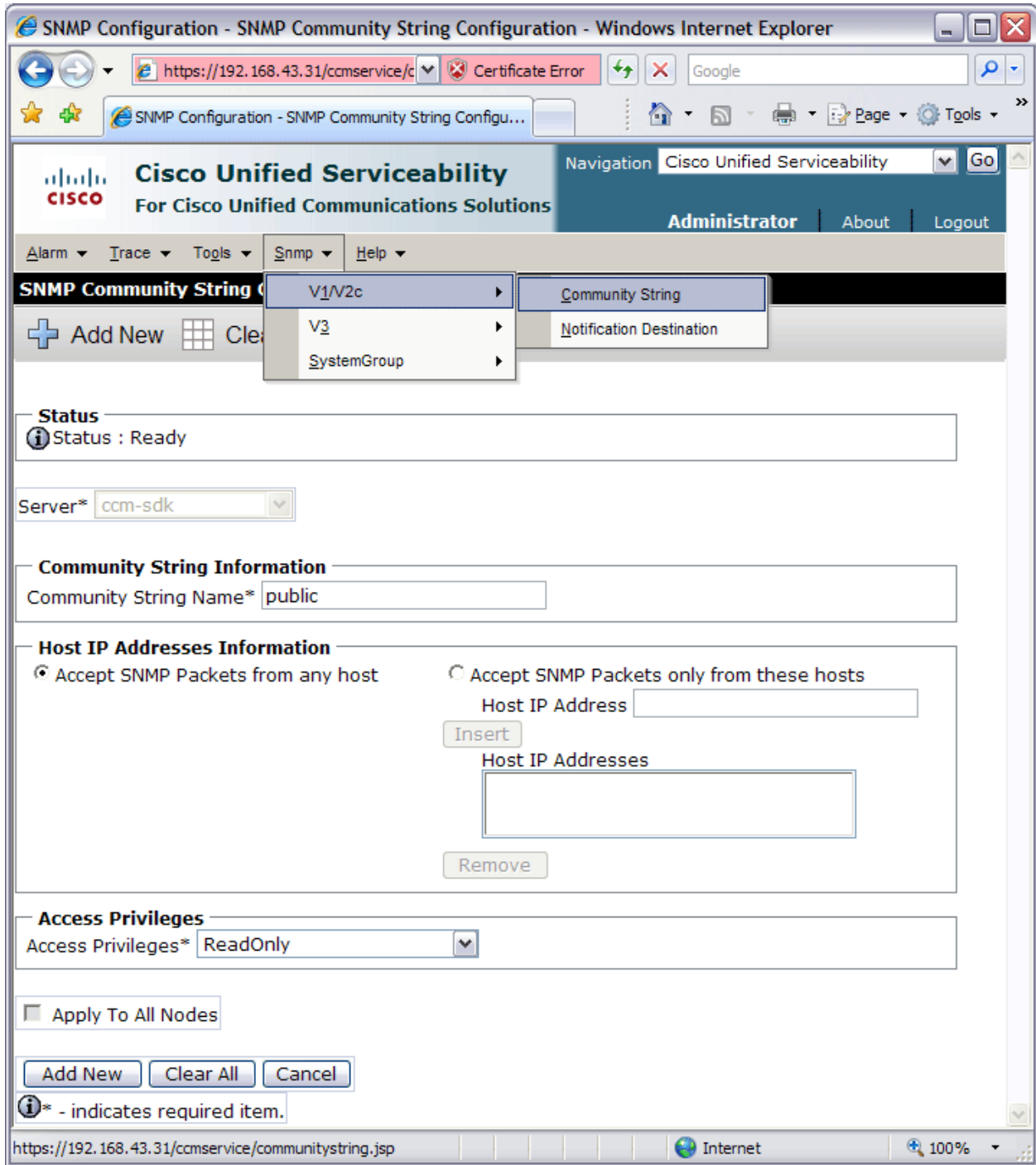


Figure 5: Adding SNMP Community String

Create an H.323 Gateway

CUAE functions as an H.323 gateway endpoint. Some Beacon Office applications use the CUAE as the endpoint for calls. The CUCM must know that it can route calls to and from the CUAE. The IP address of CUAE must be entered in the Device Name field. Also, ensure that the gateway's Calling Search Space is set correctly.

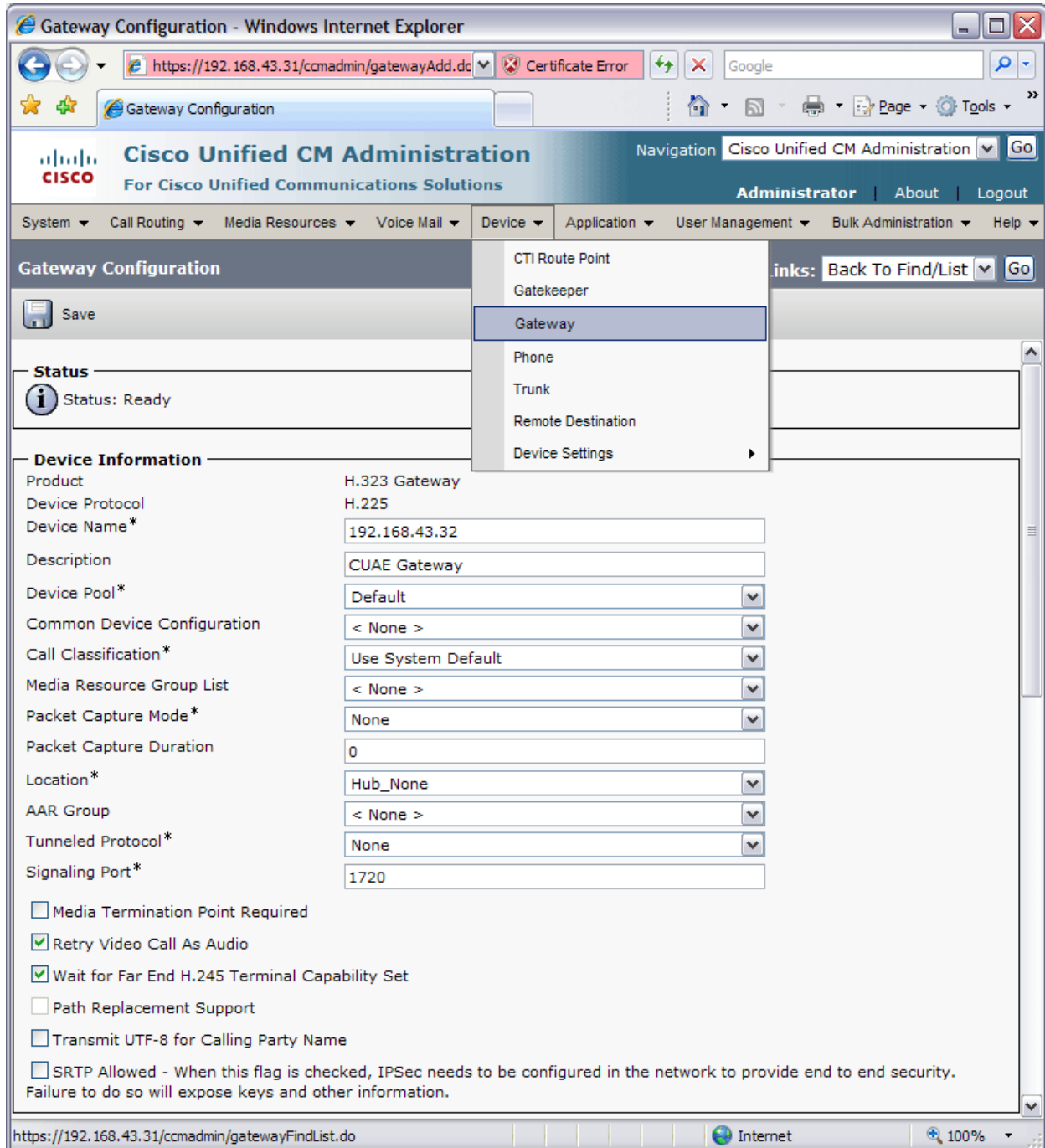


Figure 6: Create H.323 Gateway

Configuring Cisco Unified Application Environment

The following configuration settings are not specific to Beacon Office, but must be made in order for most CUAE applications to work. You must go through them one by one and make sure the correct configurations are in place.

At least two (2) Telephony Servers must be created in the CUAE Management Console. The screenshots below show how these Telephony servers can be added.

Add a Communications Manager Connection

1. Point your browser to <http://<CUAE>/cuaeadmin>.
2. Log in as the administrator.
3. Select **Connections** then **Add Connection** to begin the Connection Wizard.

The screenshot shows the Cisco Unified AE Administration interface. At the top left is the Cisco logo and the text "Cisco Unified AE Administration For Cisco Unified Communications Solutions". On the top right, there are links for "Administrator", "Logout", and "About". Below this is a navigation menu with dropdown arrows for "System", "Users", "Applications", "Plugins", "Connections", and "Serviceability". The main heading is "Connection Wizard". Below the heading, it says "Please select a connection type:". There are three sections of radio button options: "Unified Application Environment Connections" with "DevicePool" and "Media Engine"; "Unified Communication System Connections" with "Cisco Unified Communication Manager Cluster" (selected) and "Presence Server"; and "Other" with "H323 Gateway", "IETF Sip Proxy", "Nuance", and "Nuance License Server". A "Next" button is located at the bottom left of the options.

Figure 7: Add Connection Wizard

4. Select **Cisco Unified Communication Manager Cluster** and click **Next** button.



System ▾ Users ▾ Applications ▾ Plugins ▾ Connections ▾ Serviceability ▾

Add Unified Communication Manager Cluster

Name:

Version:

Publisher Username:

Publisher Password:

Verify Password:

SNMP Community:

Description:

Unified Communication Manager Cluster Nodes:

<input type="checkbox"/>	Name	Host	Publisher	Call Control	CTI
<input type="checkbox"/>	<input type="text" value="Publisher"/>	<input type="text" value="10.0.15.22"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 8: Add Server

5. Fill out the next page as follows. See the preceding screenshot for an example.

- **Name** - For CUAE reference only. Can be any valid string value.
- **Version** - The CUCM version.
- **Publisher Username** – The name of a user with Administrative or Super User privileges.
- **Publisher Admin Password** – The password for the user named above.
- **SNMP Community** - The SNMP community string that was configured on the CUCM.

6. Add all publisher and subscriber nodes and indicate their function using the checkboxes provided.

- **Note:** You must have at least one Call Control and one CTI node in the cluster.

7. Click **Connections** then **List Device Pools**.

8. Click **Add**.

Cisco Unified AE Administration
For Cisco Unified Communications Solutions

Administrator | Logout | About

System Users Applications Plugins Connections Serviceability

List Device Pools

Filter: Search Reset

Rows: 25 Viewing 1-2 of 2.

<input type="checkbox"/>	Device Pool Name	Device Pool Type
<input type="checkbox"/>	Monitored CTI Device Pool	Monitored CTI Device Pool
<input type="checkbox"/>	PersonalQueue	CTI Route Point

Add Delete

Figure 9: Add New Device Pool

9. Select **Monitored CTI Device Pool** and click **Go**.
10. Select the cluster created earlier and click **Go**.

Cisco Unified AE Administration
For Cisco Unified Communications Solutions

Administrator | Logout | About

System Users Applications Plugins Connections Serviceability

Add Monitored CTI Device Pool

Name:

Primary CTI Manager:

Secondary CTI Manager:

Username:

Password:

Verify Password:

Save Cancel

Figure 10: Add Monitored CTI Device Pool

11. Create a Monitored CTI Device Pool using the following settings as a guide:
 - **Name** - Any valid string value.
 - **Primary CTI Manager** – Select previously created CTI Manager in the dropdown.
 - **Secondary CTI Manager** - (Optional)
 - **Username** - The username of the CUCM application user created for Beacon Office.
 - **Password** - The password for the CUCM application user.
12. Click **Save**.

13. Click the **Devices** tab.
14. Click **Edit**.
15. Add all IP phones to the Monitored CTI Device Pool under **Add One Device**, pressing **Submit** after each.

The screenshot shows the Cisco Unified AE Administration interface. At the top, there is a navigation bar with 'System', 'Users', 'Applications', 'Plugins', 'Connections', and 'Serviceability' dropdown menus. The main heading is 'Beacon Office Devices'. Below this, there are two tabs: 'Details' and 'Devices'. The 'Devices' tab is selected, showing a search bar with dropdown menus for 'Search for devices by by', 'for', and 'that are', along with a 'Go' button and a 'Clear' button. Below the search bar, there is a 'Rows: 25' dropdown and a 'Viewing 1 of 1' indicator with a 'Go' button. A table displays the following data:

<input type="checkbox"/>	Name	Directory Number	Device Status
<input type="checkbox"/>	SEP001319ADD88A	0	Enabled Stopped

Below the table are 'Delete' and 'Refresh' buttons. At the bottom, there is an 'Add One Device' section with a 'Device Name' field containing 'SEP002387A3D67B' and a 'Submit' button.

Figure 11: Adding Monitored Devices

Add an H.323 Connection

1. Click **Connections** then **List Connections**.
2. Click **Add**.
3. Select **H.323 Gateway** and click **Next**.
4. Fill out the next page as follows.
 - **Name** - Any string value (e.g. "BeaconGateway").
 - **Address** – Address of CallManager node running H.323.
 - **Description** - Any valid string value. (optional)

Beacon Office Installation

The following portion of the document covers the installation of Beacon Office. Beacon Office is distributed as an EXE application. Extract it from the distribution media and double click to start the installation. The screen shots below show the sequence of the installation.

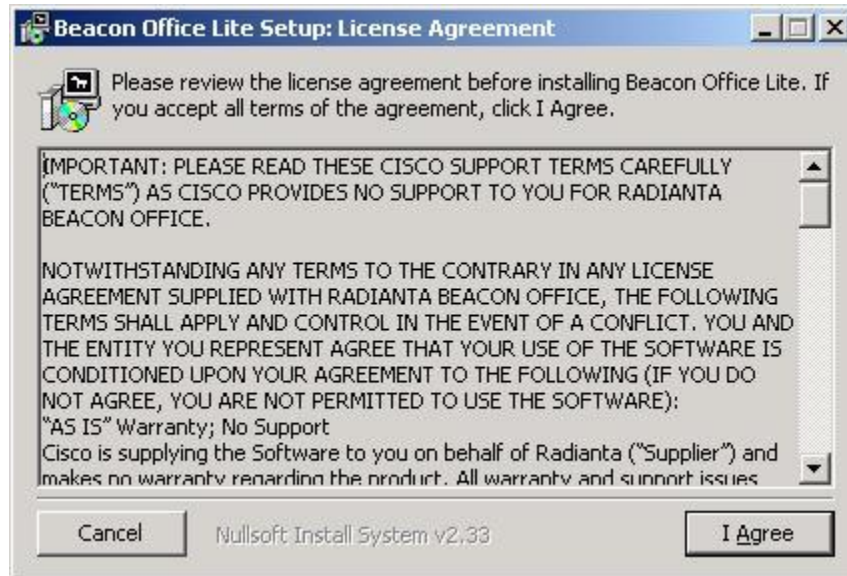


Figure 12: Beacon Office License Agreement

Read the license agreement carefully and click the "I Agree" button if you indeed agree to the terms of the license.

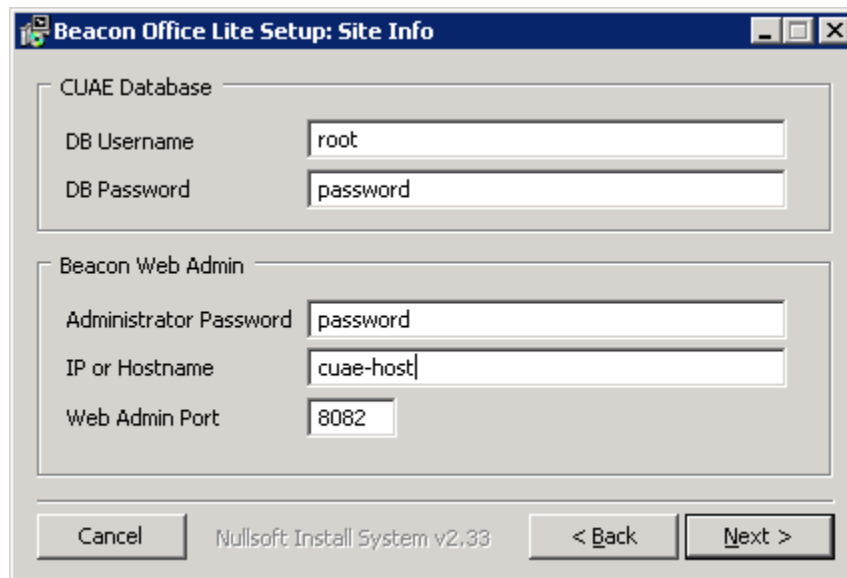


Figure 13: Site Info

Fill in the Site Info fields as follows:

- **DB Username** - The username assigned during CUAE installation. This can be the "root" user or a special user created on the CUAE MySQL database for Beacon Office. If the user is not root, care must be taken to

make sure the user has rights to create databases in the CUAE MySQL Server instance. MySQL configuration is beyond the scope of this document.

- **DB Password** - DB Username password. This is the password of the "root" CUAE user and was selected during the CUAE installation process.
- **Beacon Web Admin: Administrator Password** - Beacon Office "Administrator" password. The Administrator account is used to configure users for Beacon Office.
- **Beacon Web Admin: IP or Hostname** - The IP address or host name of the CUAE server.
- **Beacon Web Admin: Web Admin Port** - A non-conflicting port on the CUAE server that will be used to serve Beacon Office web pages.
- Click **Next** to continue.

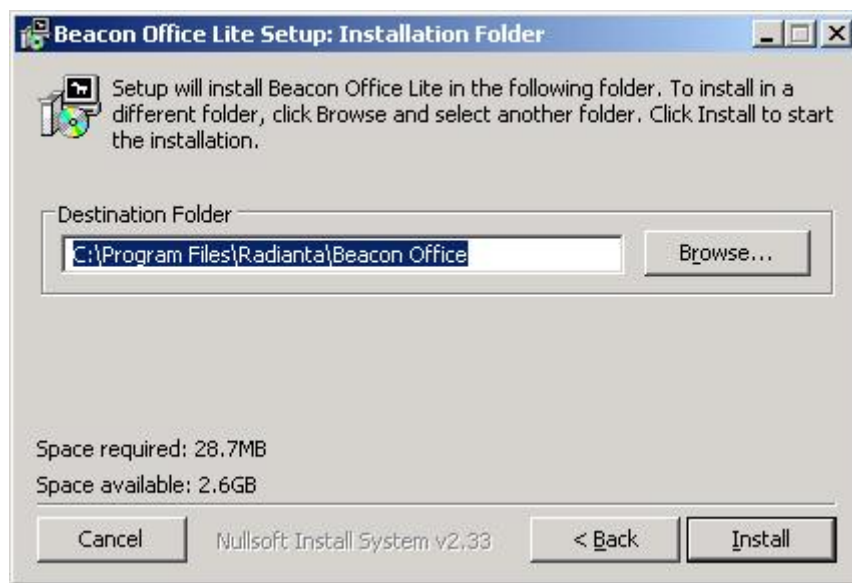


Figure 14: Beacon Office Installation Folder

- Choose an appropriate location to install Beacon Office files.
- Click **Install** to proceed.

The progress bar dialog window indicates that the Beacon Office installation has been completed. Click **Next** to continue.

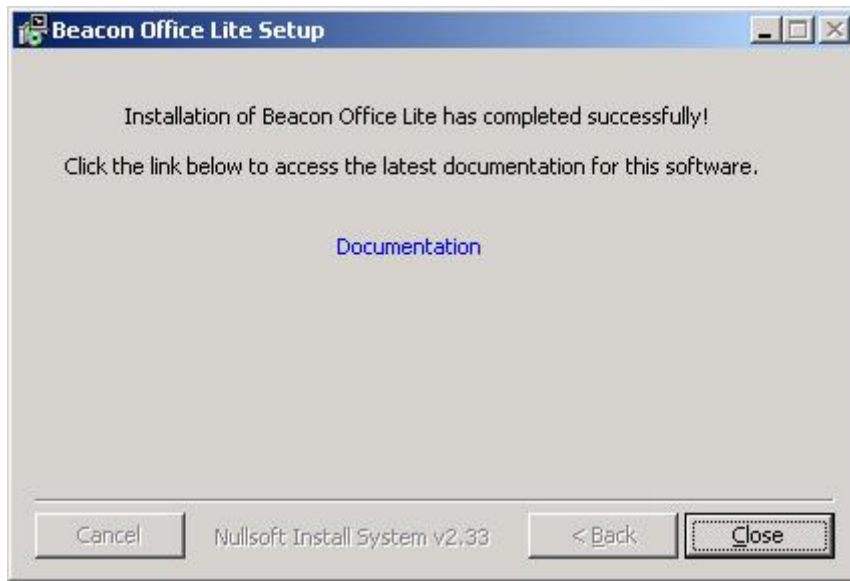


Figure 15: Document

Click on the **Documentation** link to see the installed documentation. Click **Close** to complete the installation.

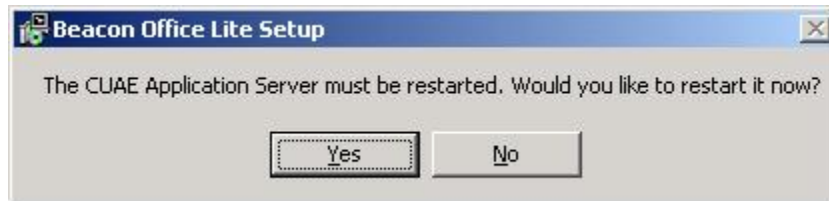


Figure 16: Restart CUAE Application server

Click **Yes** to restart the CUAE Application server.

Note that it is the CUAE Application Server *service* that will be restarted. The physical server will not restart. Failure to restart will cause the subsequent Beacon Office Configuration to fail.

Beacon Office General Configuration

The following procedure outlines the steps to configure Beacon Office for first use. Configuration is accomplished via the CUAE Management Console.

1. Login to CUAE management console.
 - a. Navigate to <http://<cuae-ip-address>/cuaeadmin> using a compliant web browser.
2. Enable Beacon Office applications.
 - a. Click **Applications** then **List Applications**.
 - b. Select each individual Beacon Office application then click **Enable**.
3. Open Beacon Office Global Settings plug-in page.
 - a. Click **Plugins** then **List Plugins**.
 - b. Click on **Beacon Office Global Settings**.

Beacon Office Global Settings

Beacon Office Global Settings

Developer:

Copyright:

Plugin Configuration

Display Name	Value	Description
Log Level	<input type="text" value="Info"/>	Filters all debug output below the specified level
Base Call Manager Version	<input type="text" value="7"/>	Base Call Manager Version
Call Manager IP	<input type="text" value="10.0.130.21"/>	The IP address of the Call Manager Publisher
Administrator Username	<input type="text" value="Administrator"/>	The Administrator Username
Administrator Password	<input type="text"/>	The Administrator Password
Push Username	<input type="text" value="radAppUser"/>	A username with permission to control all IP phones
Push Password	<input type="text"/>	The password for the push user
Host	<input type="text" value="10.0.130.20:8000"/>	The web host for Beacon Office applications (CUAEIPADDRESS:8000)
Database Location	<input type="text" value="127.0.0.1"/>	ADVANCED - Loopback address should always be used unless instructed differently by Beacon Office technical support. See the configuration guide for details
Database Name	<input type="text" value="radianta"/>	ADVANCED - Do not change unless instructed to do so by Beacon Office technical support
Database Username	<input type="text" value="root"/>	Database Username
Database Password	<input type="text"/>	Database Password
Sync Timer	<input type="text" value="3600"/>	The number of seconds in between sync processes
SMTP Host	<input type="text"/>	The hostname or IP Address of the SMTP server
SMTP Username	<input type="text"/>	
SMTP Password	<input type="text"/>	
SMTP Port	<input type="text"/>	
Email From Address	<input type="text"/>	The from address for all emails sent from Beacon Office. Must be a valid address.

Figure 17: Beacon Office Global Settings

4. Update configuration settings as follows:

- **Base Call Manager Version** - Set to **5**, **6**, or **7** depending on the version of the configured CUCM.
- **Call Manager IP** - IP address of the Communications Manager (CUCM) publisher.
- **Administrator Username** - The CUCM Administrator username. By default, CUCM 5.x uses "CCMAdministrator", while CUCM 6.x and above uses "Administrator".
- **Administrator Password** - The CUCM Administrator password.
- **Push Username** - The username of the CUCM application user created for Beacon Office.
- **Push Password** - The password for the CUCM application user.

- **Host** - The web host for Beacon Office applications. Use <cuae-ip-address>:8000 as the format (no "<http://>").
 - **Database Name** - Leave the default.
 - **Database Username** - User configured during installation of Beacon Office. This is the CUAE MySQL Server instance user.
 - **Database Password** - Password of the Database user above.
 - **Sync Timer** – The number of seconds between sync processes. (optional)
 - **SMTP Host** – The host name or IP address of the SMTP mail server. All SMTP settings must be configured for CUAE applications to send mail. (optional)
 - **SMTP Username** - SMTP user used to send email from CUAE. (optional)
 - **SMTP Password** - SMTP user password. (optional)
 - **SMTP Port** – Email server port, if not 21. (optional)
 - **Email From Address** - The "*from*" address for all emails sent from Beacon Office. Must be a valid email address. (optional)
5. Click **Apply** to save these settings.
 6. Click the **Invoke Extension** button for **StartSync** located at the bottom of the Global Settings configuration page.

Application-Specific Configuration

Each application in the Beacon Office suite will need some level of configuration to tailor it to your environment. Some applications require specific CUCM or CUAE configuration while others may require that both be configured.

Callback

1. Add Phone Service. (Callback List)

- Service Name: Callback List.
- ASCII Service Name: Callback List.
- Service URL: <http://<cuae-ip-address>:8000/callbacklist>.

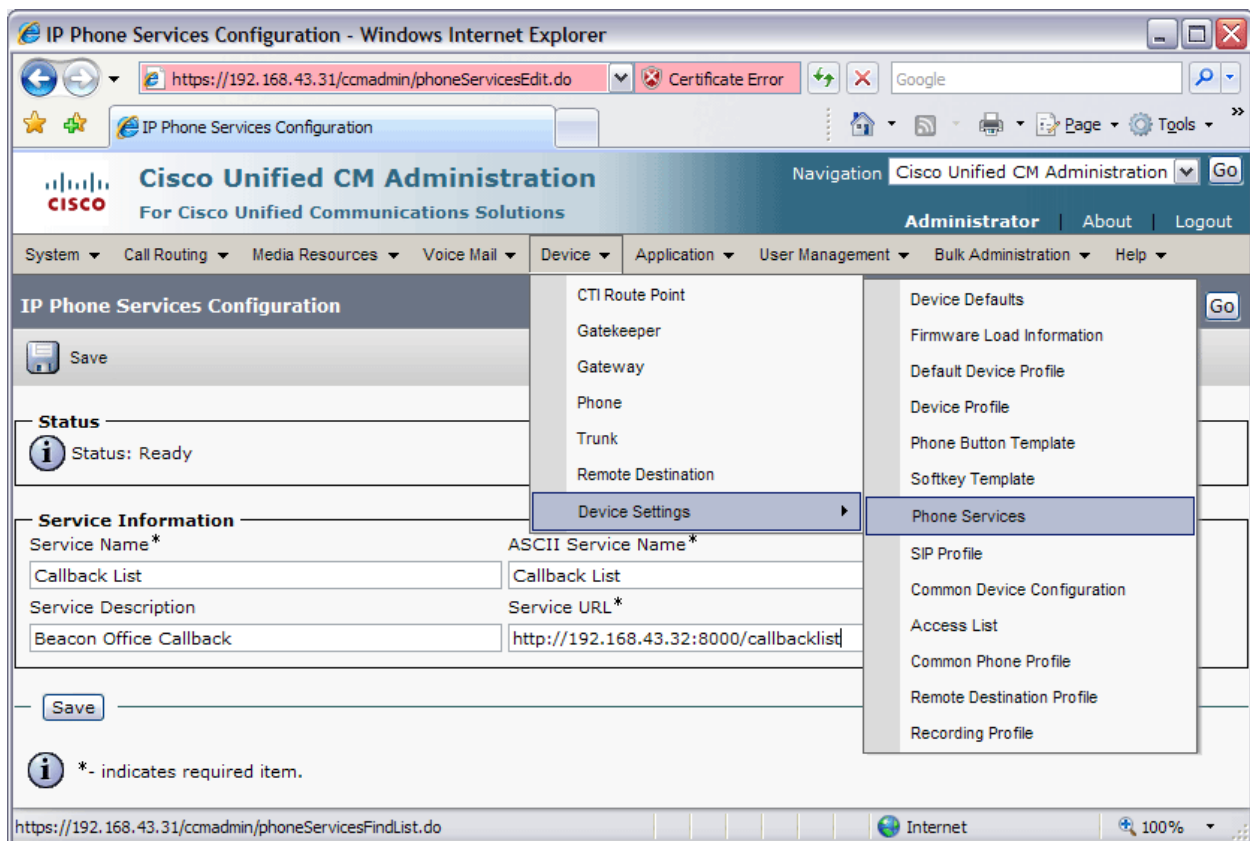


Figure 18: Configuring a service

2. Add Phone Service. (Request Callback)

- Service Name: Request Callback.
- ASCII Service Name: Request Callback.
- Service URL: <http://<cuae-ip-address>:8000/requestcallback>

3. Add Phone Service to all callback-enabled phones.

Note that only licensed users can actually use the service. User licensing and permissions are covered in the *Beacon Office Administration Guide*.

Call Recording

In order for Beacon Office to record a phone call, the call must “pass through” CUAE. To send the calls to CUAE, a route pattern that points to the CUAE H.323 gateway must be created in CUCM. You must then create a second pattern that CUAE can use to route calls to their final destinations. The second route pattern should match the first except that a distinguishing digit should be added to the beginning of that pattern. The Call Recording application will examine the incoming number (dialed number), add the distinguishing digit, place the outbound call, and make the call available for recording. An example follows:

Route Pattern Configuration

Create two route patterns similar to the following example.

1. From the **Cisco Unified CM Administration** page, click **Call Routing** then **Route/Hunt** then **Route Pattern**.

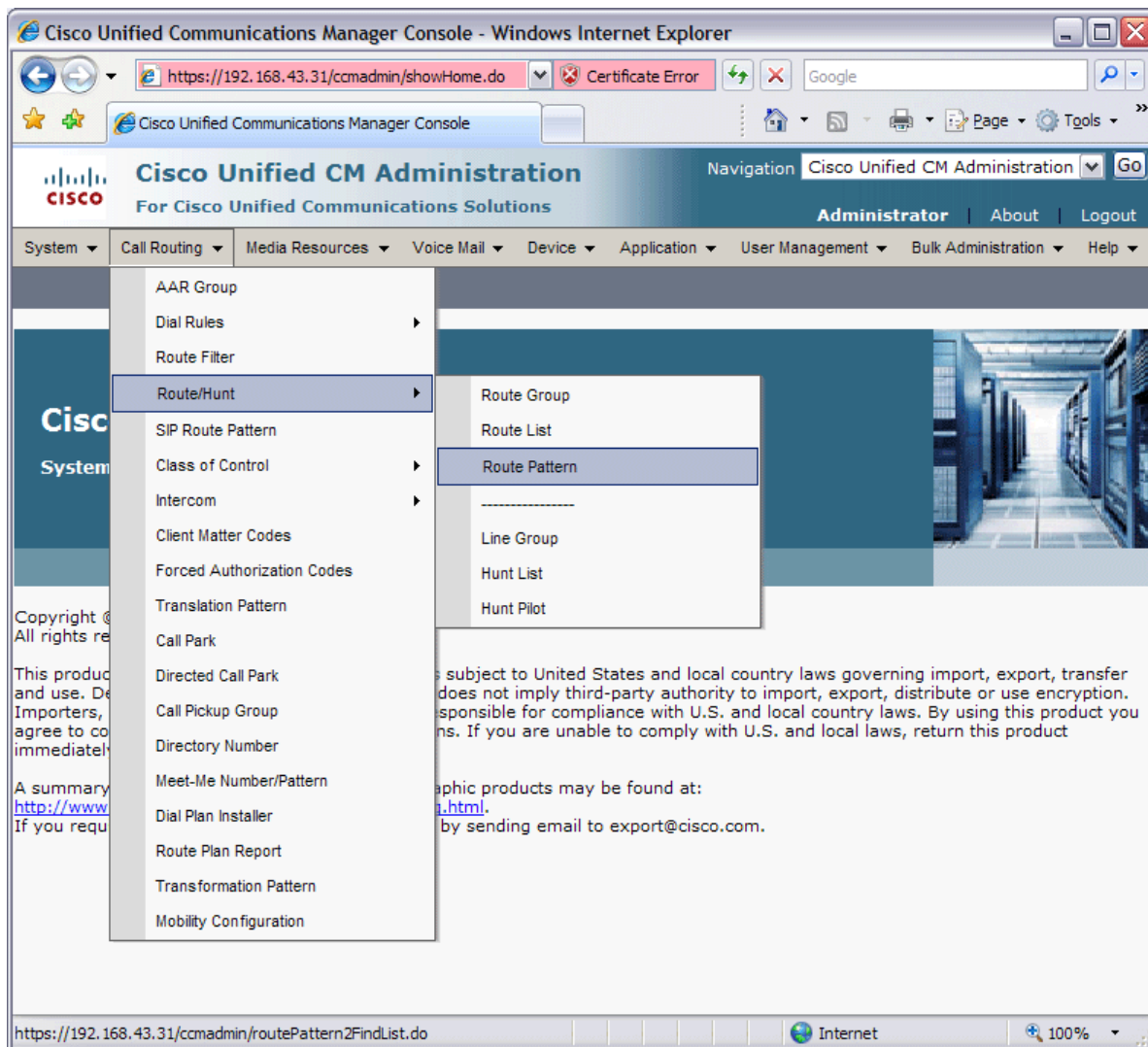


Figure 19: Add a Route Pattern

2. Click **Add New** and complete the form as follows:

- Route Pattern : 9.1XXXXXXXXXX(All outbound calls where a 9 (outside prefix) is used to dial).
- Gateway: CUAE Gateway ([created above](#)).
- Discard Digits: <None>.

Figure 20: Configure Route Pattern parameters

3. Click **Save**.

4. Repeat steps 1 and 2, except this time using the following parameters for the route pattern:

This pattern uses 0 (our example distinguishing digit) to route all outbound calls originating from the CUAE to the outbound voice gateway.

- Route Pattern: 09.1XXXXXXXXXX
- Gateway: Outbound voice gateway (configured outside the scope of this document)

- Discard Digits: PreDot

5. Click **Save**.

Phone Services

Phone services need to be added to all phones what will be using Call Recording. This process is the same as shown in Figure 18. Change the Service URL accordingly.

1. Add service for recording the current active call.
 - Service Name: In-Call Recording.
 - ASCII Service Name: Record Call.
 - Service URL: <http://<cuaeipddress>:8000/CR/service?deviceName=#DEVICENAME#>
2. Add service for placing a recorded call.
 - Service Name: Place Recorded Call
 - ASCII Service Name: Place Recorded Call
 - Service URL: <http://<cuaeipddress>:8000/placerecordedcall?deviceName=#DEVICENAME#>

CUAE Configuration

The application running on the CUAE must be set to prefix the outbound leg of the call with the digit specified above.

1. Navigate the CUAE Administration Console.
2. Click **Applications** then **List Applications**.
3. Click **BeaconOfficeCallRecording**.
4. Under **Extended Configuration**, set the **Outbound Dialing Prefix** to the distinguishing digit selected above.
5. Click **Apply**.

Configurations (Default)

Base Configuration

Name	Value	Description
Enabled	<input checked="" type="checkbox"/>	
Reserve Media Early	<input type="checkbox"/>	
Locale	en-US ▼	
Preferred Codec	G.711u_20ms ▼	
Call Route Group	Default H.323 ▼	
Media Resource Group	Default ▼	

Extended Configuration

Name	Value	Description
Outbound dialing prefix	<input type="text" value="0"/>	The prefix to include before the number is dialed.
Recording Tone Interval	<input type="text" value="0"/>	The number of seconds between recording tone "beeps". 12 - 15 seconds is standard. Set to 0 to disable.

Figure 21: Call Recording – Setting Outbound Dialing Prefix

Web Extension Mobility

This application extends the capability of extension mobility by allowing users to log into the service via the Radianta Director User Interface. Before the Extension Mobility service can be used, the target phone needs to have Extension Mobility enabled and the user must have an applicable device profile.

No special configuration is needed for this application beyond the normal configuration for extension mobility.

Paging

Like many other Beacon Office applications, Paging can be configured as a service on the phone or executed from the Director web interface. For scalability reasons, it is **required** that Communications Manager's default authentication URL be redirected to a separate web server running the authentication page supplied with Beacon Office.

Phone Service

1. Add a phone service with the following parameters:
 - Service Name: Paging
 - ASCII Service Name: Paging
 - Service URL: `http://<cuae-ip-address>:8000/paging/groups`
2. Add the service to all phones that will be initiating live pages.

Custom Authentication

Paging to a large number of phones can take a long time because each phone has to authenticate with CUCM. To get around this problem, an alternate authentication web page may be setup to immediately return a successful authentication result when a paging request is received. There are three alternate authentication pages, `authenticate.asp`, `authenticate.php` and `authenticate.jsp` in the Beacon Office installation directory under "WebFiles/auth/". `Authenticate.asp` can be hosted on IIS; `authenticate.php` can be hosted on any web server that supports PHP; `authenticate.jsp` can be hosted on any web server that supports Java Server Pages. The phones that use the alternate authentication page will need network access to the web server that hosts the authentication URL.

An alternate authentication URL is provided by Beacon Office at `http://<cuae-ip-address>/beaconoffice/auth/authenticate.php`. Either `authenticate.php` or `authenticate.asp` may also be deployed to a separate server to more efficiently distribute load and maintain a consistent user experience in larger deployments.

The authentication URL may be changed system wide, or on a phone by phone basis.

- System Wide
 1. Log in to the Communications Manager web interface.
 2. Navigate to **System** then **Enterprise Parameters**
 3. Change the **URL Authentication** field to the full web path of `authenticate.xxx`, e.g. `http://<web server ip>/authenticate.xxx` where xxx is "php", "asp", or "jsp".
- Individual Phone
 1. Log in to the Communications Manager web interface.
 2. Navigate to **Device** then **Phone**.
 3. Search for the phone you want to update.
 4. Select the phone

4. Scroll down to the **Authenticate Server** field and enter the full web path of authenticate.xxx, e.g. `http://<web server ip>/authenticate.xxx` where xxx is "php", "asp", or "jsp".

Note: IP Phones must be reset before the new authentication URL will take effect.

Configuring Custom Authentication on a Separate Server

The following configuration is for the ASP version of the authentication page. Adjust the directions as necessary for other platforms.

1. Copy authenticate.asp to an IIS hosting directory.
2. Try navigating to authenticate.asp in a web browser. You should get a response that says "UNAUTHORIZED".
3. Open authenticate.asp with a text editor and you will see comments instructing you to make two changes, indicated by `//#1` and `//#2`:
 - a. `//#1` – Replace the `<CALLMANAGER_USERNAME>` token in the "if statement" two lines below the comment. The replacement value should be the CUCM user that was setup for Beacon Office. You can find this user in the Push Username field in the Beacon Office Global Settings provider in CUAE.
 - b. `//#2` – Replace the `<AUTH_PAGE>` token with the CUCM authentication page we will be replacing. This is necessary because we still need to forward authentication requests on to CUCM if the authentication request was not initiated by the Beacon Office Paging System.

The steps for configuring authenticate.php or authenticate.jsp are exactly the same except that the php or jsp file should be used in place of the asp file and it should be hosted on a web server that supports the respective technology.

Phone Lock

Phone lock uses Calling Search Spaces (CSS) to control the numbers that a phone can dial when locked. As such, a special CSS must be created in CUCM that gives the desired calling permissions to locked phones. A recommended configuration for the Phone Lock CSS would be to disallow all outbound calls except for emergency numbers. There may be other exceptions for business or legal reasons, so the configuration of the CSS used for phone lock will vary. Furthermore, the details of configuring CSS are outside the scope of this document. After the CSS has been configured, a service may be added to phones that will use phone lock. IP phones may also be locked from the Beacon Director.

Phone Service

1. Add a phone service with the following parameters:
 - Service Name: Phone Lock.
 - ASCII Service Name: Phone Lock.
 - Service URL: <http://<cuae-ip-address>:8000/PhoneLock/Lock?deviceName=#DEVICENAME#>.
2. Add the phone service to all phones that will be using Phone Lock.

Calling Search Space

- All phones must have an active Calling Search Space.
- A CSS that implements the properties of phone lock must be defined.
- The CSS must not begin with a number.

CUAE Configuration

The application running on the CUAE must be configured with the name of the restricted CSS which will be used to “lock” the phone.

1. Navigate the CUAE Administration Console.
2. Select **Applications** then **List Applications**.
3. Click on **BeaconOfficePhoneLock**.
4. Insert the name of the Beacon Office Phone Lock Calling search space. The default name of the search space is “PhoneLock”. Please note that this calling search space must already exist and is not created by the installation of Beacon Office.

Configurations (Default)

Base Configuration

Name	Value	Description
Enabled	<input checked="" type="checkbox"/>	
Reserve Media Early	<input type="checkbox"/>	
Locale	en-US ▼	
Preferred Codec	G.711u_20ms ▼	
Call Route Group	Default H.323 ▼	
Media Resource Group	Default ▼	

Extended Configuration

Name	Value	Description
Phone Lock Calling Search Space Name	PhoneLock	The name of the calling search space all locked phones should be set to

Figure 22: Setting Phone Lock Calling Search Space

Time Card

This application only requires the addition of a phone service URL to the phones that will be used for time card entries. The phone service entry parameters are listed below.

Phone Services

1. Add a phone service with the following parameters:
 - Service Name: Time Card.
 - ASCII Service Name: Time Card.

- Service URL: <http://<cuae-ip-address>:8000/timeClock>

2. Add the phone service to all phones that will be using Time Card.

Personal Queue

To enable the operation of the Beacon Office Personal Queue application, a CTI route point must be created on CUCM. This CTI Route Point's directory number is then used in configuring the CUAE portion of the application. Operationally, calls in personal queues are "parked" at the route point. The route point then assists in managing the calls to and from the user's phone.

Note that you must be running Internet Explorer version 7.0 for Personal Queue to run on user's desktops.

Create a CTI Route Point

The screenshots below show how to create a CTI route point in CUCM for use with Beacon Office Personal Queue.

Note that the Calling Search Space *must* be set to <None>. Once the route point has been created, add a line using an unused directory number.

This route point *must* be associated with the Beacon Office CUCM application user.

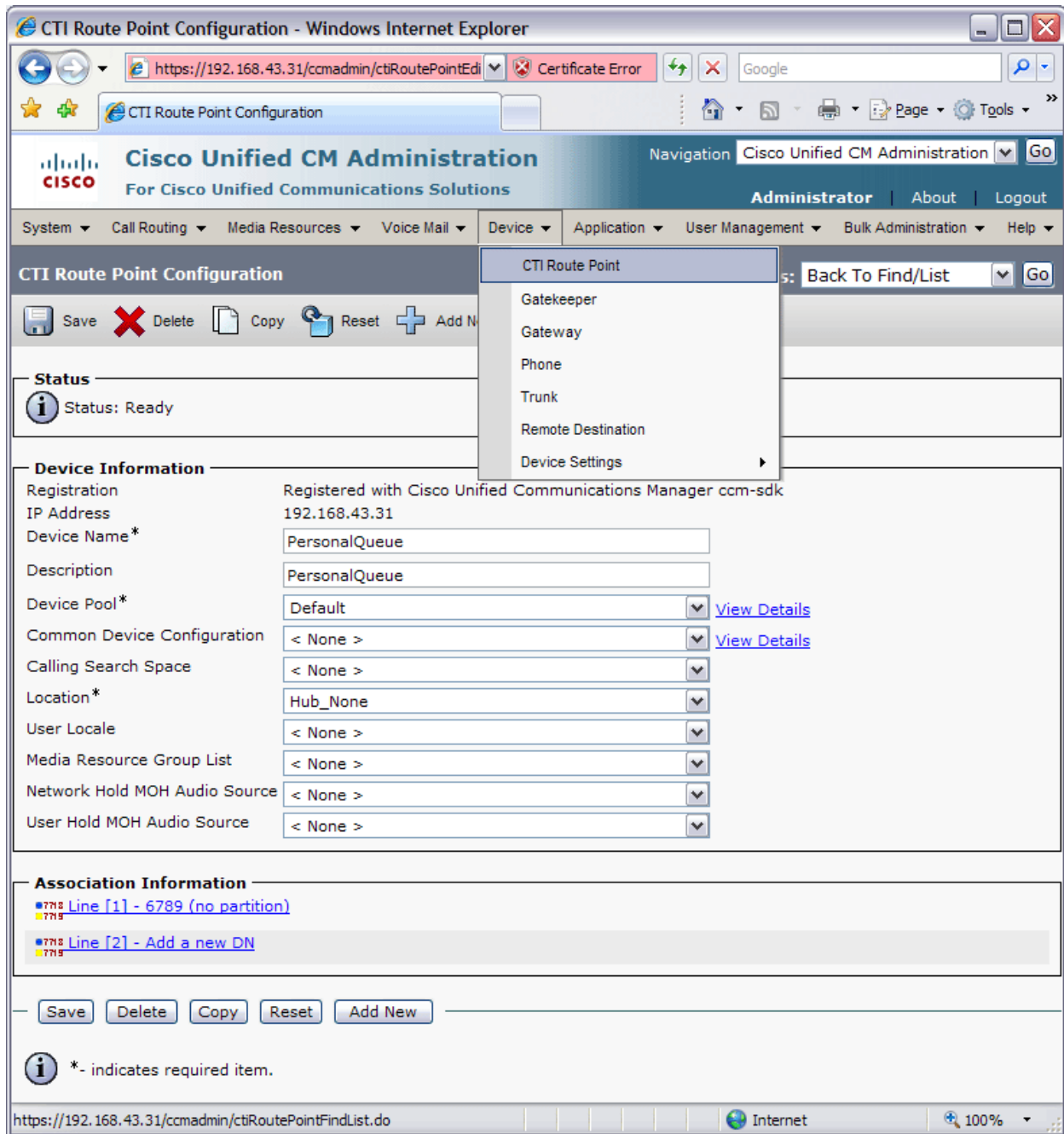


Figure 23: Creating a CTI Route Point

CUAE Configuration

The application running on the CUAE must be configured with a CTI route point which will be used to park calls which are in queue.

Associate the CTI Route Point with CUAE

1. Navigate the CUAE Administration Console.
2. Click **Connections** then **List Device Pools**.

3. Click **Add**.
4. Select **CTI Route Point** and click **Go**.
5. Choose the Communications Manager cluster created previously.

The screenshot shows the Cisco Unified AE Administration web interface. At the top, there is a navigation bar with the Cisco logo and the text 'Cisco Unified AE Administration For Cisco Unified Communications Solutions'. On the right side of the navigation bar, there are links for 'Administrator', 'Logout', and 'About'. Below the navigation bar, there is a menu with several items: 'System', 'Users', 'Applications', 'Plugins', 'Connections', and 'Serviceability'. The main content area is titled 'Add CTI Route Point'. The form contains the following fields:

- Name: PersonalQueue
- Device Name: PersonalQueue
- Primary CTI Manager: CUCM7
- Secondary CTI Manager: (empty)
- Username: radAppUser
- Password: (masked with dots)
- Verify Password: (masked with dots)
- Group: Default CTI

At the bottom left of the form, there are two buttons: 'Save' and 'Cancel'.

Figure 24: Associate the CTI Route Point with CUAE

6. Enter the CTI Route Point information as follows:
 - **Name** - Any valid string value.
 - **Device Name** - The name of the route point as given in CUCM.
 - **Primary CTI Manager** - The CTI manager that will control this route point.
 - **Username** - The Beacon Office application user.
 - **Password** - The Beacon Office application user password.
 - **Add To Group** - Set to "Default CTI".
7. Click **Save**.

Configure Application Settings

1. Click **Applications** then **List Triggers**.
2. Click on **BeaconOfficePersonalQueue** beside event type **Metreos.CallControl.IncomingCall**.



System Users Applications Plugins Connections Serviceability

List Triggers

Event Type	App Name	Partition Name	Script Name
Metreos.Providers.Http.GotRequest	BeaconOfficePaging	Default	BeaconOfficePaging
Metreos.Providers.Http.GotRequest	BeaconOfficePaging	Default	BeaconOfficePaging
Metreos.CallControl.IncomingCall	BeaconOfficePersonalQueue	Default	BeaconOffice_Perso
Radianta.Cuae.Providers.PersonalQueueProvider.ReminderCommand	BeaconOfficePersonalQueue	Default	BeaconOffice_Perso
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone
Metreos.Providers.Http.GotRequest	BeaconOfficePhoneLock	Default	BeaconOffice_Phone

Figure 25: Beacon Office Personal Queue Configuration

3. Add a parameter "To" and set the value to the number of the Route Point created earlier.



System Users Applications Plugins Connections Serviceability

TriggerDetails

Trigger Details

Trigger Id: 93-27
Application: BeaconOfficePersonalQueue
Partition: Default
Script: BeaconOffice_PersonalQueue_QueueCall
Event Type: Metreos.CallControl.IncomingCall

There is no data to display.

To

Update Parameters Add Parameter Delete Parameter Done

Figure 26: Set Trigger Parameter

4. Click **Applications** then **List Applications**.

5. Click on **BeaconOfficeUtilities**.
6. Set the **Personal Queue Number** parameter to the line number of the route point.

Configurations (Default)

Base Configuration

Name	Value	Description
Enabled	<input checked="" type="checkbox"/>	
Reserve Media Early	<input type="checkbox"/>	
Locale	en-US ▼	
Preferred Codec	G.711u_20ms ▼	
Call Route Group	Default H.323 ▼	
Media Resource Group	Default ▼	

Extended Configuration

Name	Value	Description
Personal Queue Number	<input type="text" value="6789"/>	The extension of the personal queue route point

Figure 27: Enter the Personal Queue Number

Beacon Office Dialer

The Dialer application creates a call campaign, dials the indicated contacts serially, plays a prerecorded message then emails the results to the designated recipient.

CUAE Configuration

The application running on the CUAE must be set with the necessary metadata for the outgoing result email.

1. Navigate the CUAE Administration Console.
2. Click **Applications** then **List Applications**.
3. Click on the **BeaconOfficeDialer** application.

Configurations (Default)

Base Configuration

Name	Value	Description
Enabled	<input checked="" type="checkbox"/>	
Reserve Media Early	<input type="checkbox"/>	
Locale	en-US ▾	
Preferred Codec	G.711u_20ms ▾	
Call Route Group	Default H.323 ▾	
Media Resource Group	Default ▾	

Extended Configuration

Name	Value	Description
Application Name	Radianta CUAE dialer	
Result email subject field	Radianta CUAE dial out	The subject line of the email

Figure 28: Configure Beacon Office Dialer

4. Set **Application Name** to any string which describes this application to the email recipient.
5. Set **Email Subject Field** to any string desired to appear in the subject line of the email.

This concludes the configuration procedure for Beacon Office.