How to Configure ICD on CRA 2.2(1)

Document ID: 20364

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Introduction

Interactive Call Distribution (ICD) is an application that runs on Cisco CallManager to offer queuing and dispatch services for a call center or help desk environment. ICD can be used as part of IP Contact Center (IPCC), but IPCC is not required to use ICD. In normal use, agents log into ICD using an application on their PC that signals Cisco CallManager that they are ready to accept calls from a shared call in number. This document provides step−by−step ICD configuration instructions.

Prerequisites

Requirements

This document assumes that the directory configuration has been done and the Application Server has access to the Lightweight Directory Access Protocol (LDAP) directory.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco CallManager 3.1
- CRA 2.2

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

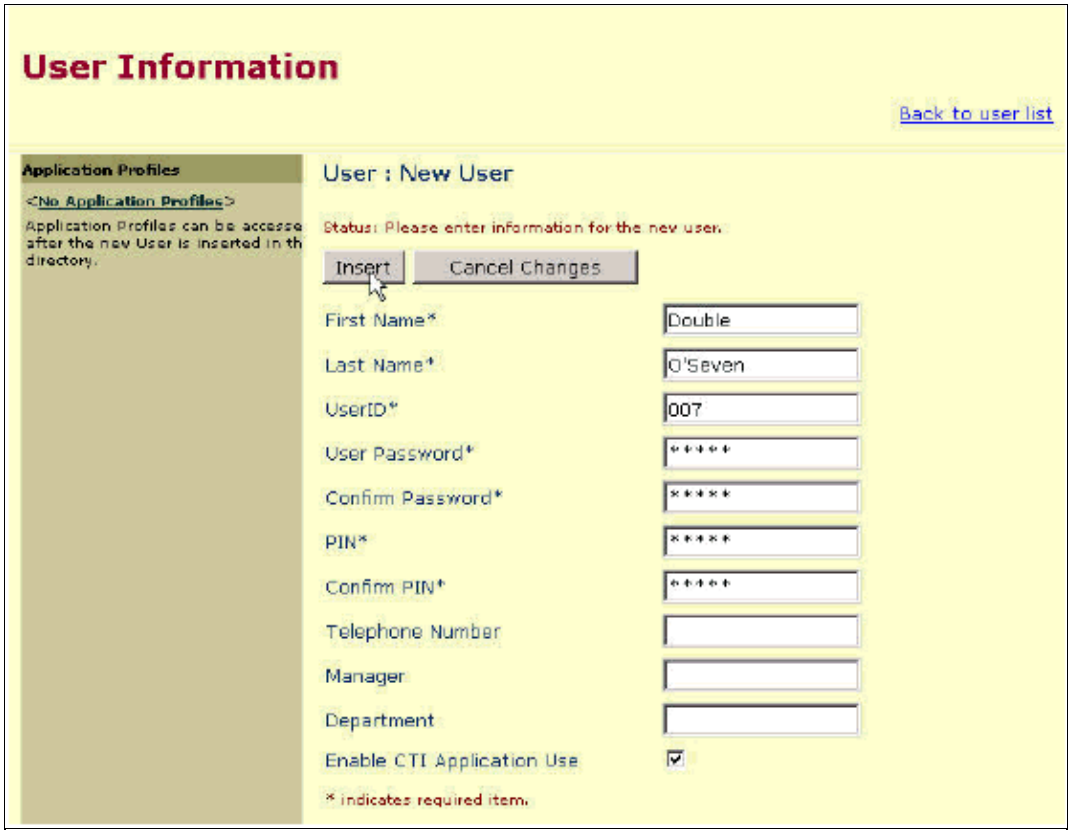
Configure ICD on CRA 2.2(1)

Add a New User/Agent

Complete these steps to add a new user/agent.

1. Go to the Cisco CallManager Administration page (***http://<ip address of your CallManager>/ccmadmin/***).
2. Select **User** > **Add a New User** to create a User for your Agent.

3. Enter the First Name, Last Name, UserID, User Password, and PIN.
4. Make sure that the **Enable CTI Application Use** box is checked and click **Insert**.



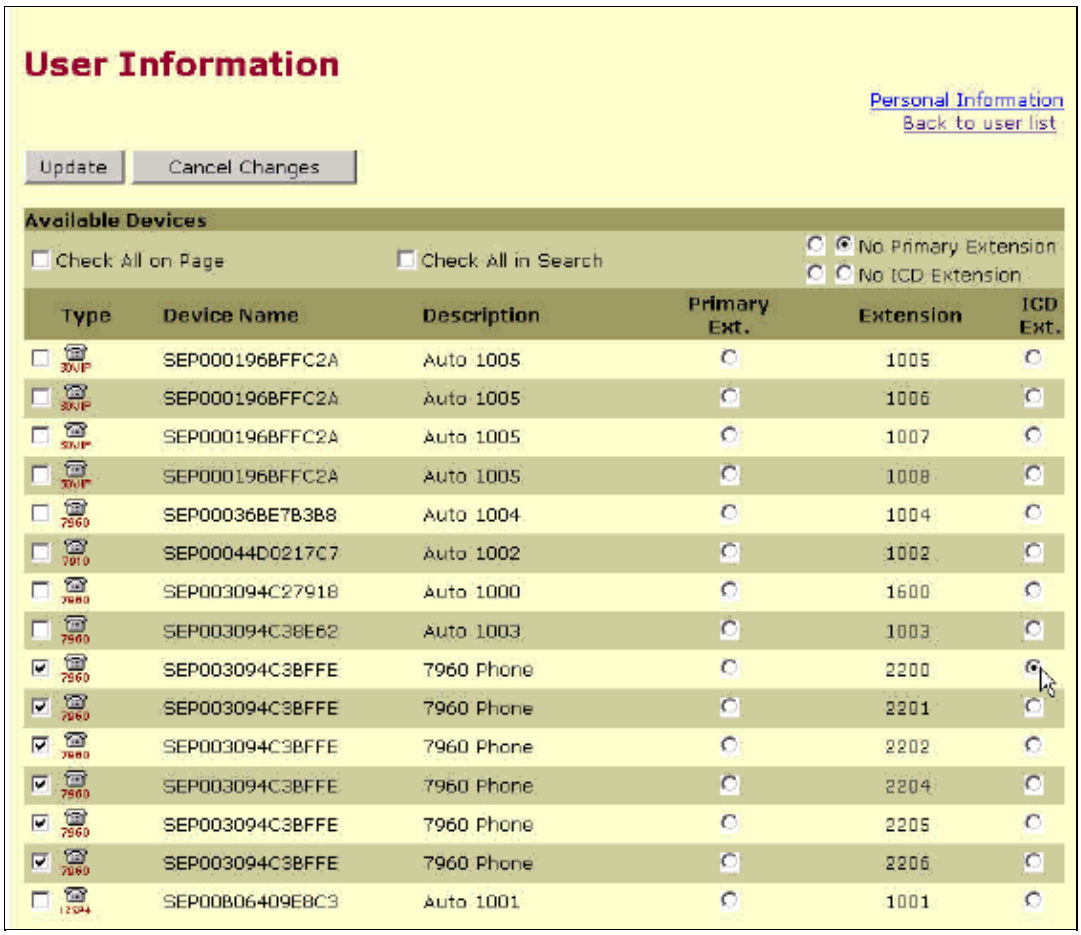
Associate a Phone with an Agent

Complete these steps to associate a phone with an agent.

1. Click **Device Association**.

2. Click on the square box to the left to assign extensions to your ICD agents.

   Each Agent Desktop uses a User ID to log in. The user ID they log in with determines which device their ICD calls are directed to. For example, if user 007 has an assigned ICD extension of 2200, then all of agent 007's calls are sent to extension 2200.
3. Click **Update** after you make a selection.



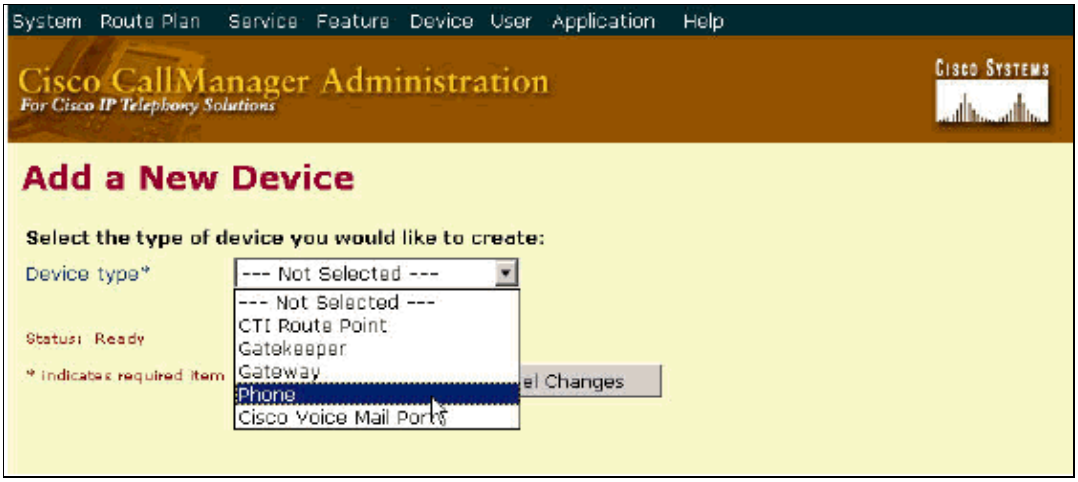
Add a CTI Port

Complete these steps to add a CTI port.

1. Select **Device** > **Add a New device**.

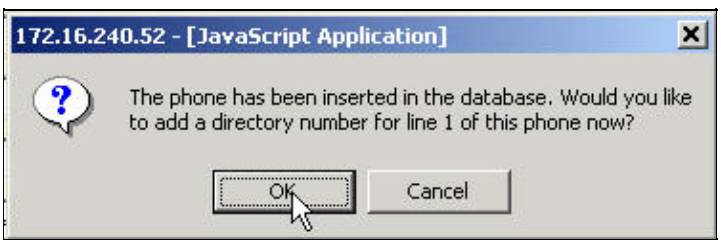
   Note: The number of CTI ports is dependent on how many access ports you want in your Interactive Voice Response (IVR) system.

2. Select **Phone** from the pull down menu.



3. Select **CTI port** from the pull down menu when asked for the type of phone.
4. Assign the Device Name, Description, Calling Search Space, and other fields and then click **Insert**.

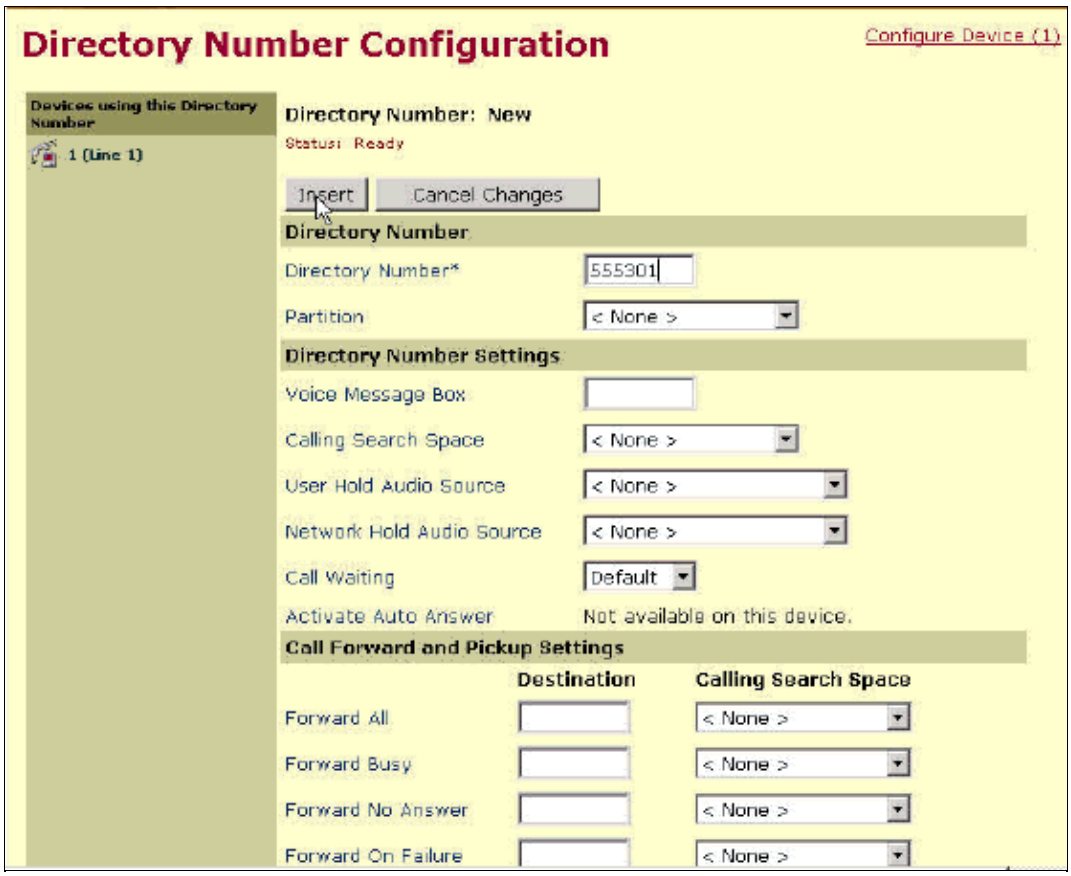
5. Click **OK** to add the Directory number for your CTI port.



6. Assign a Directory number to the first CTI port. This number must be unique. In order to add more CTI ports, repeat steps 1 through 5.

   Note: The directory numbers of subsequent CTI ports must be sequential.

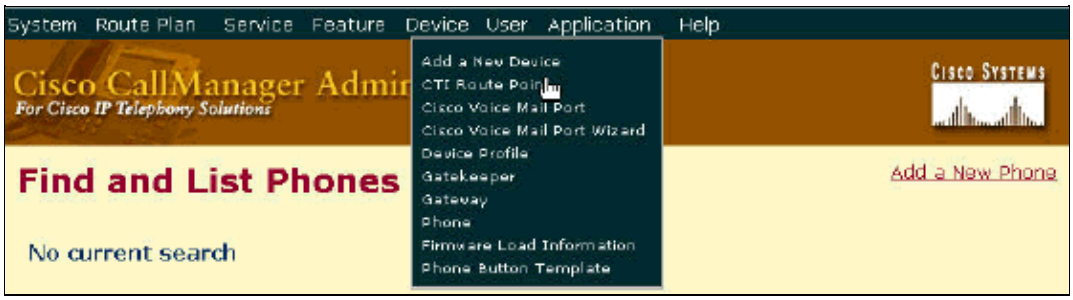
   Note: Make sure the CTI port partition is the same as the Agent partition in Cisco CallManager.



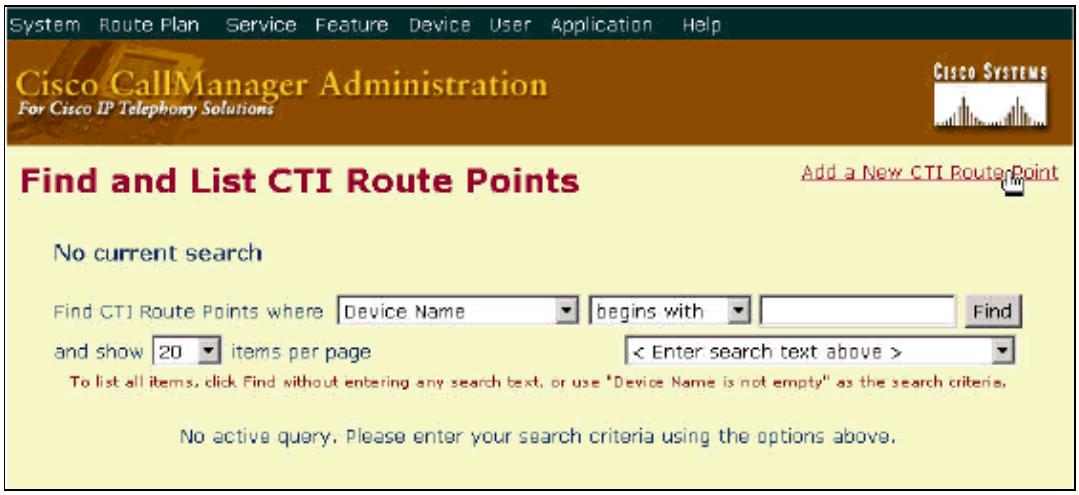
Add a CTI Route Point

Complete these steps to add a CTI route point.

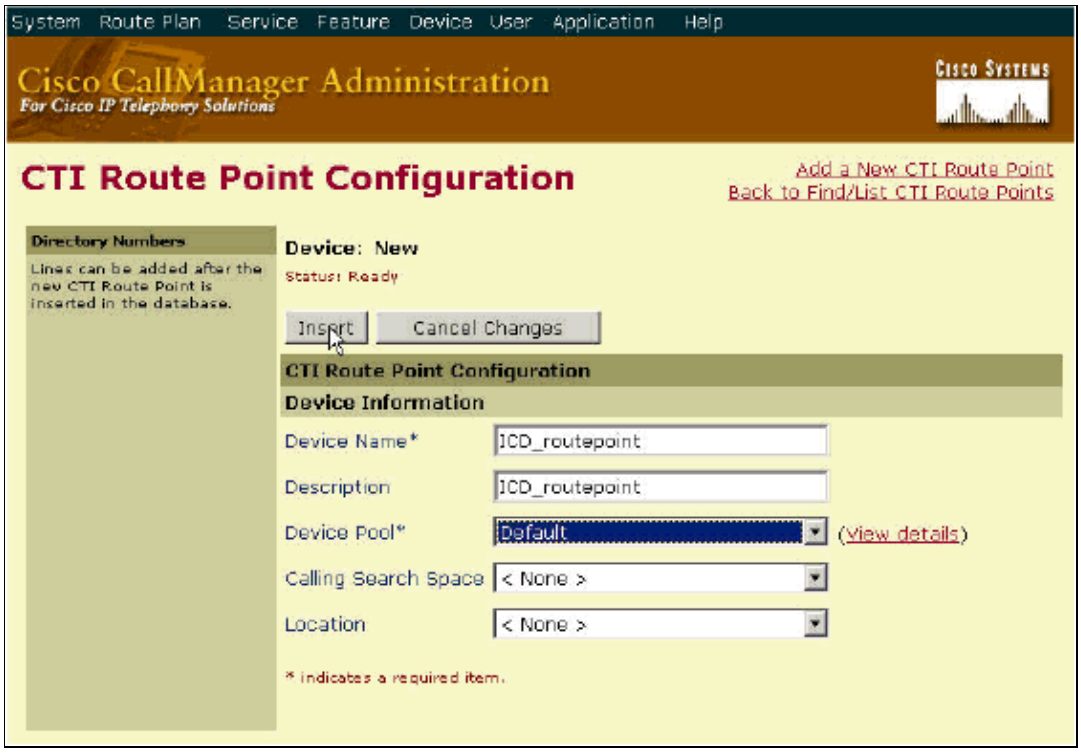
1. Select **Device** > **CTI Route Point** to add one CTI route point for each application that is called (for example, 6000 ICD, 5555 Auto Attendant.



2. Click **Add a New CTI Route Point**.



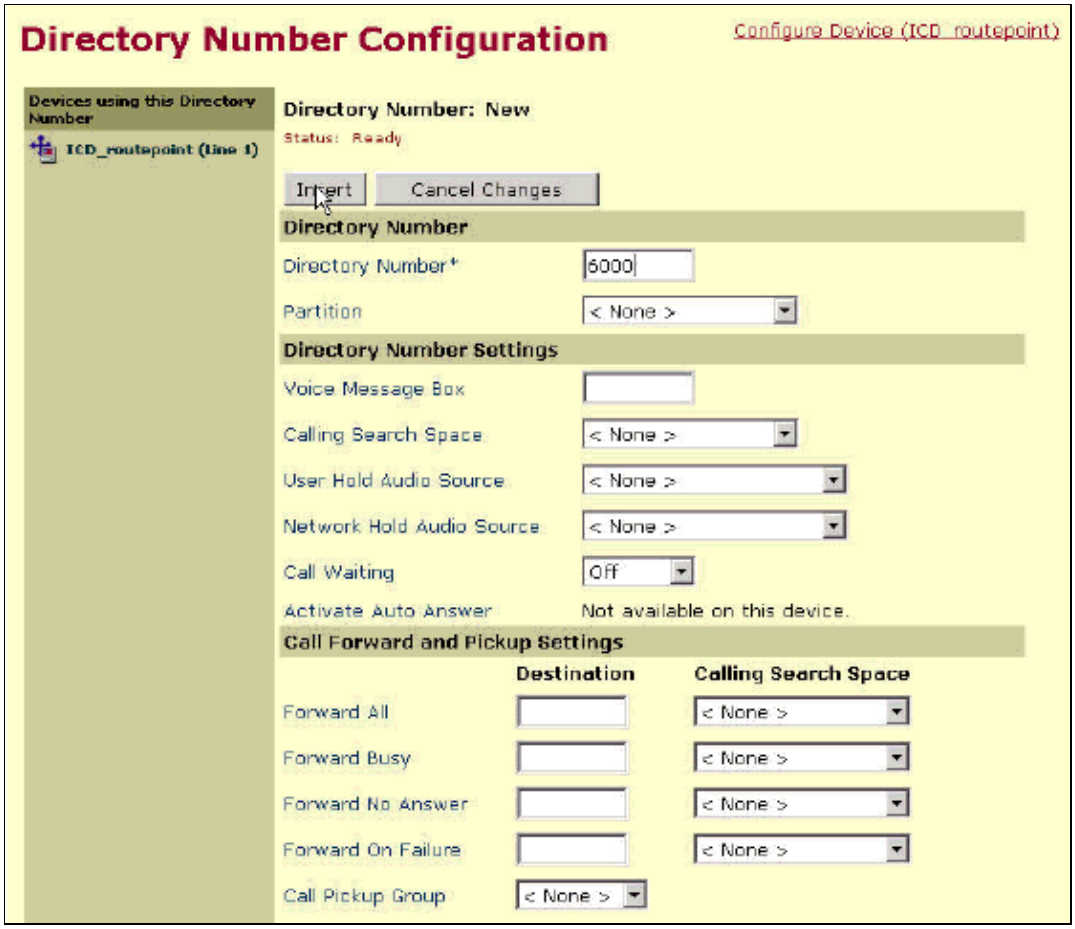
3. Assign a Device Name, Description, Device Pool, Calling Search Space and Location, then click **Insert**.



4. Click **OK** to add a directory number for line 1 of the CTI Route Point.

5. Assign a Directory Number to the route point and click **Insert**.

   This is the number that is called to go to the ICD Application. This number must be unique.



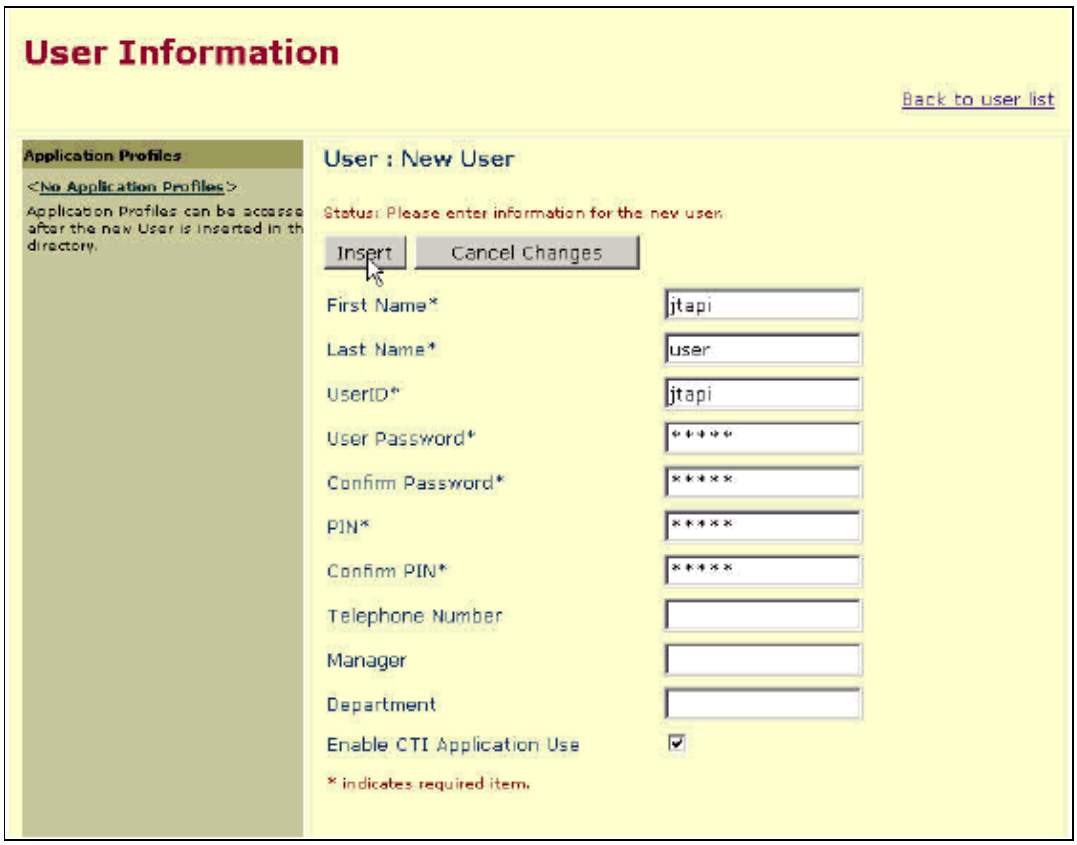
Add a JTAPI User for CTI Components

Complete these steps to add a JTAPI user for CTI components.

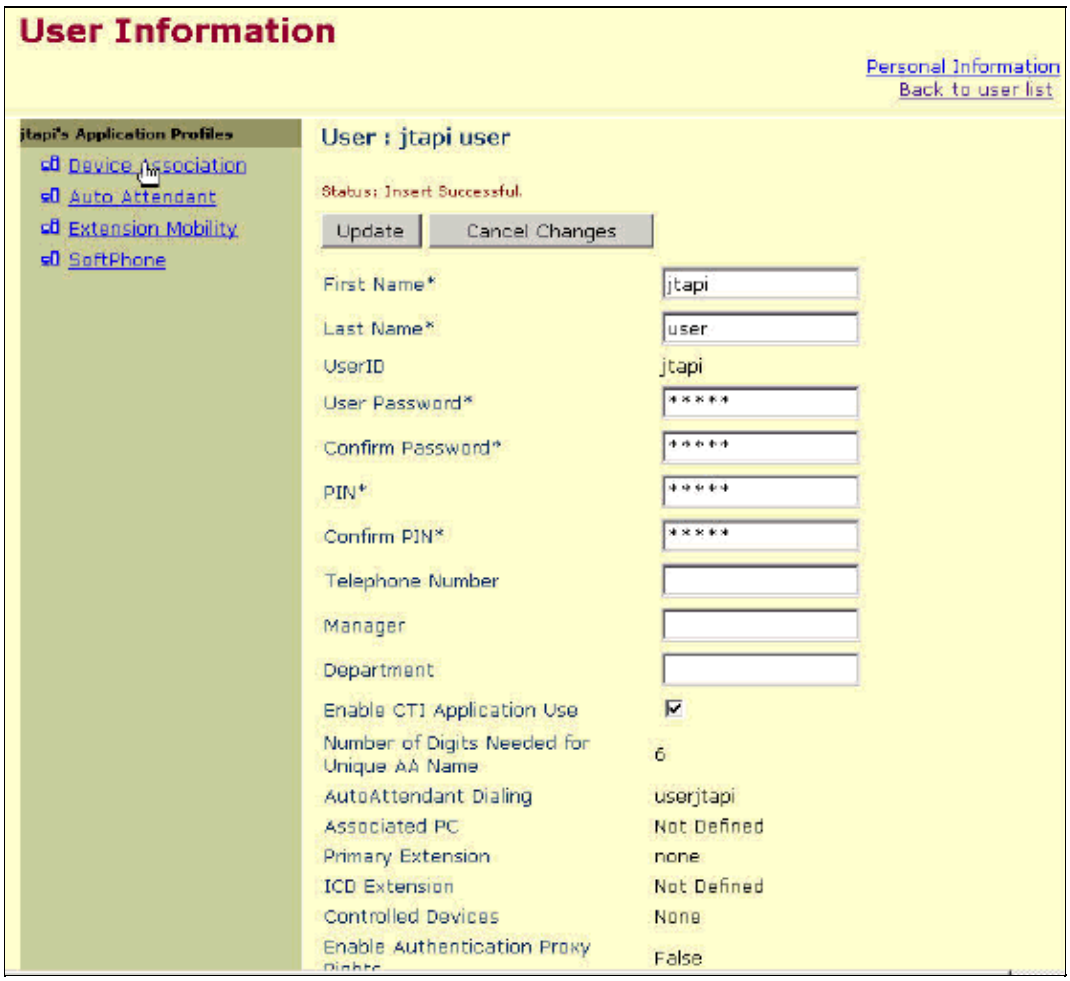
1. Select **User** > **Add a New User** to add a JTAPI user and associate the CTI Ports and CTI Route Points created earlier.

2. Assign a user ID and password for your JTAPI user.

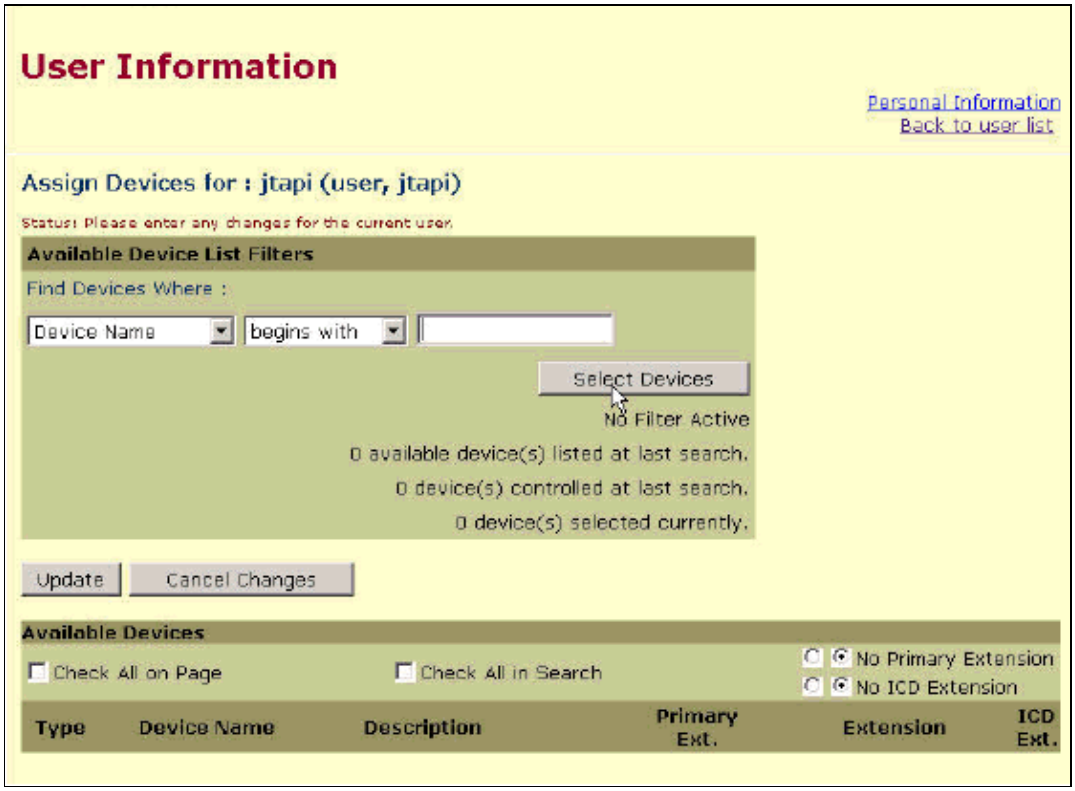
   Note: Enable CTI Application Use needs to be checked for this user. Click **Insert** to finish this step.



3. Associate the CTI ports and route point to the JTAPI user and click **Device Association** on the left side of the window.

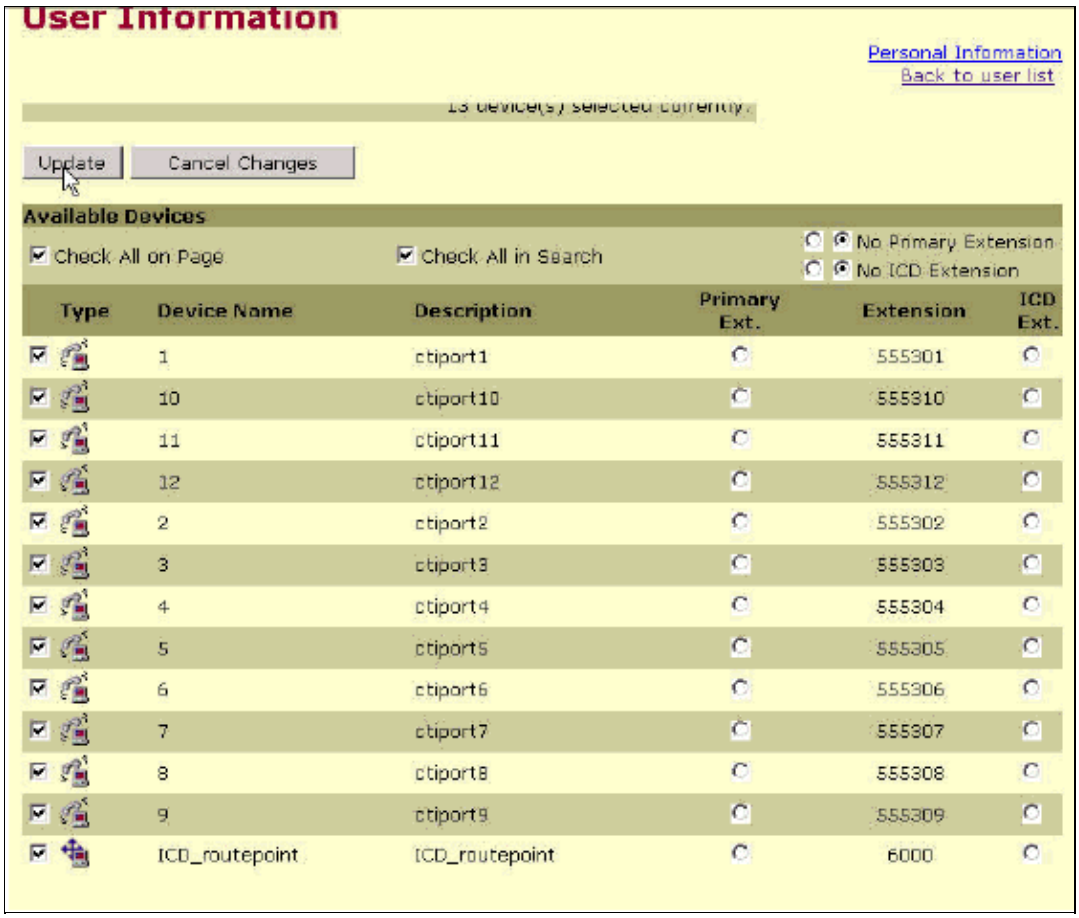


4. Click **Select Devices** to search for your CTI ports.

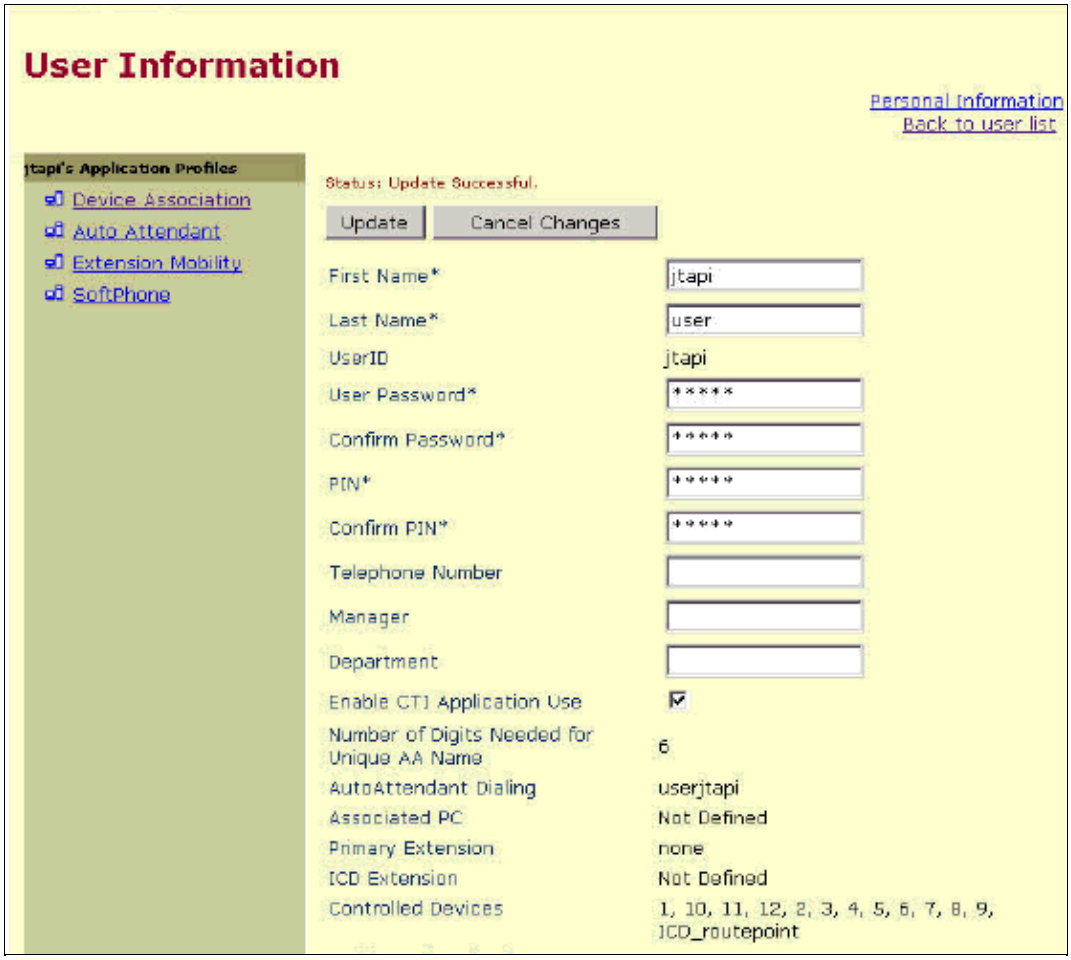


5. Check the boxes next to your CTI ports and CTI route point from the list of devices from your search.

   Note: The **No Primary Extension** and **No ICD Extension** radio buttons should be selected. Click **Update** when you are finished.



After you have associated the CTI ports and route point you then see them listed as "Controlled Devices" on the User Information page.



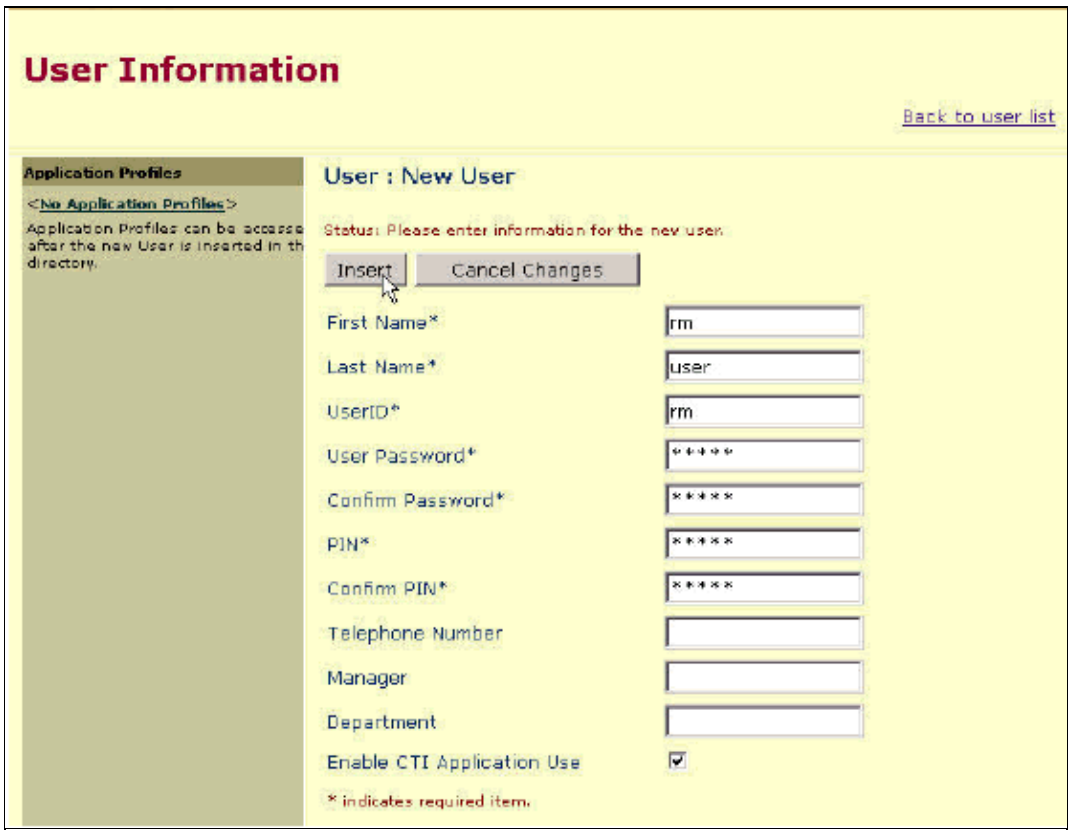
Create a Resource Manager

Complete these steps to create a Resource Manager.

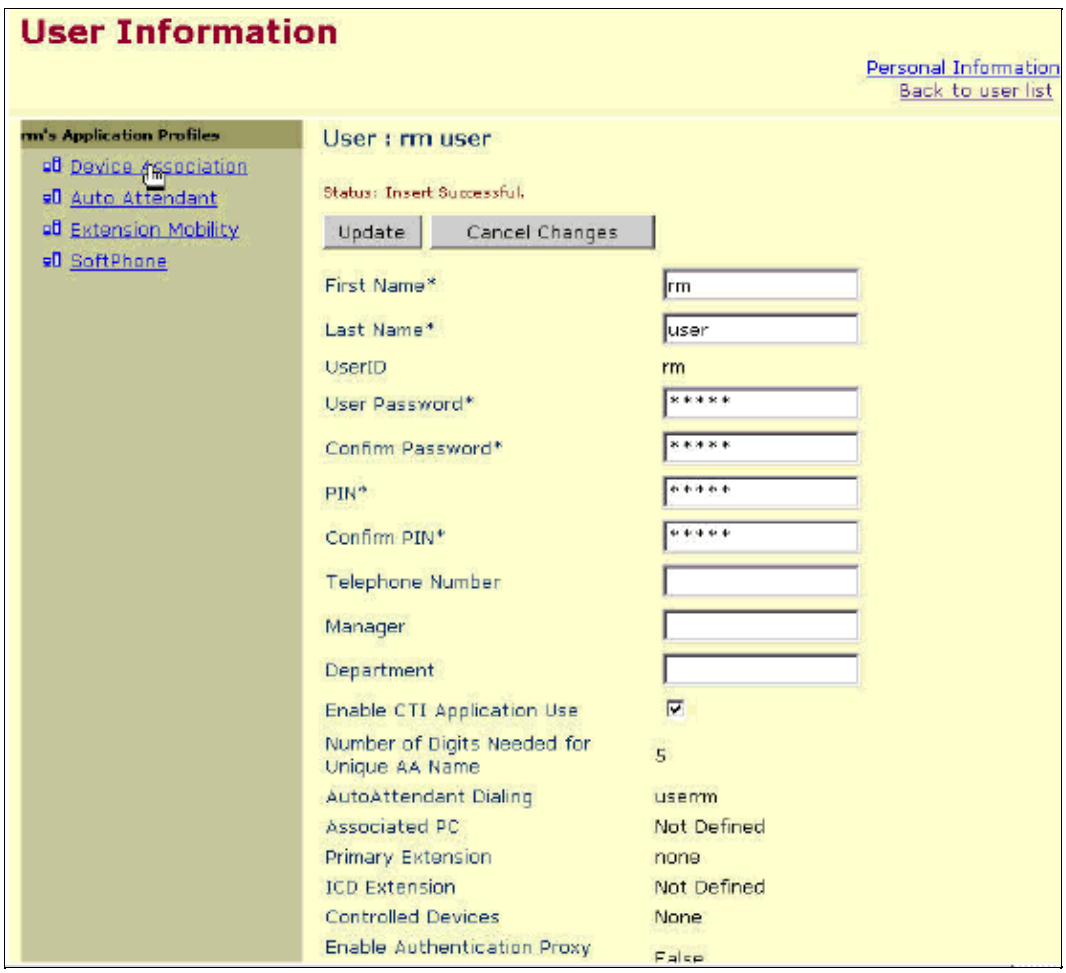
1. Select **User** > **Add a New User** to create the Resource Manager user and associate all of the devices that take ICD calls as defined in step 1 of the previous procedure.

2. Assign a UserID and User password for the RM User.

   Note: Enable CTI Application Use needs to be checked for this user. Click **Insert**.

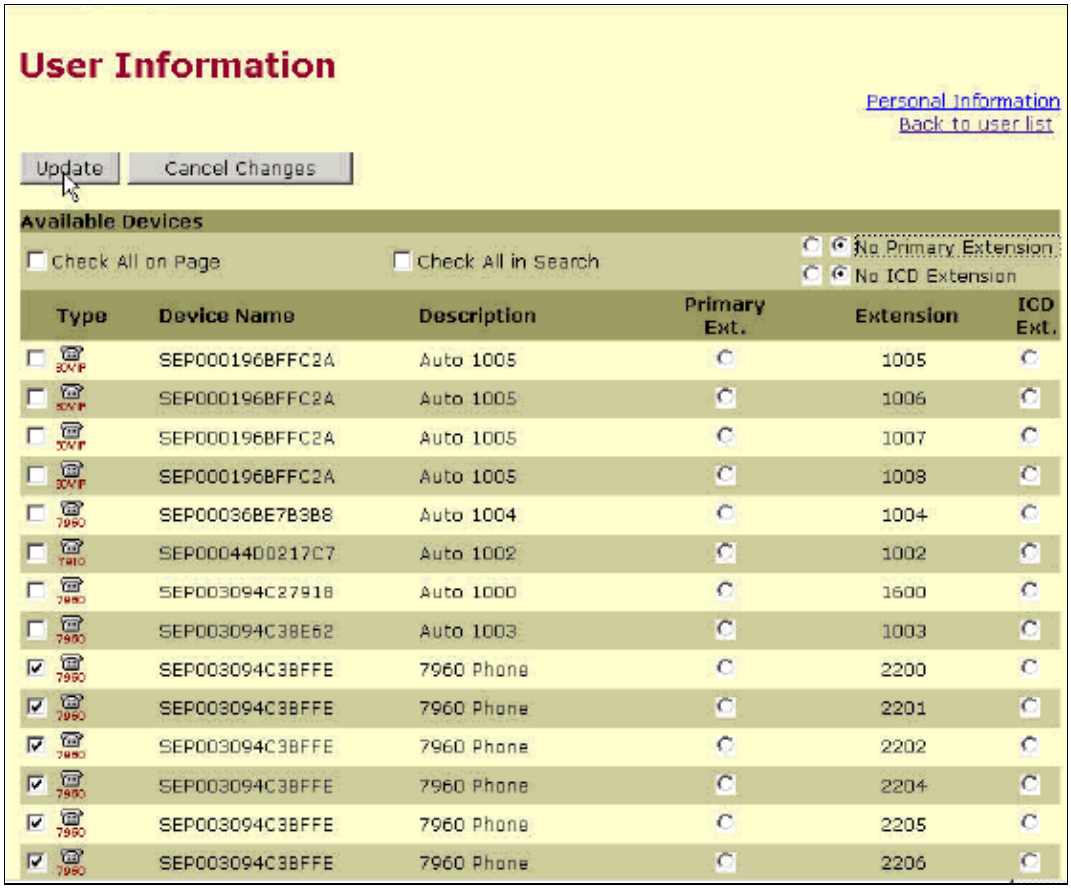


3. Associate all the agents' phones to the RM user and click **Device Association** on the left side of the window.

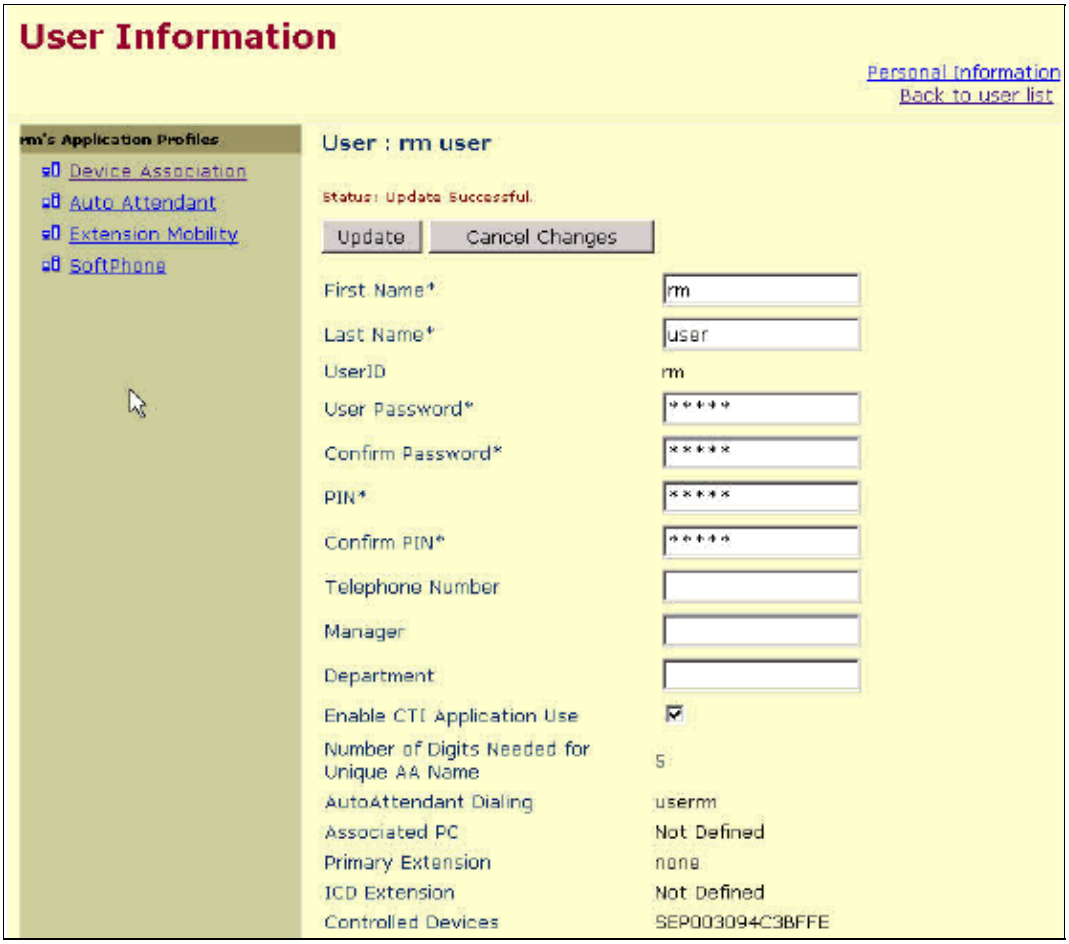


Search for the Agent's phones and check the boxes.

Note: The **No Primary Extension** and **No ICD Extension** radio buttons should be selected. Click **Update**.



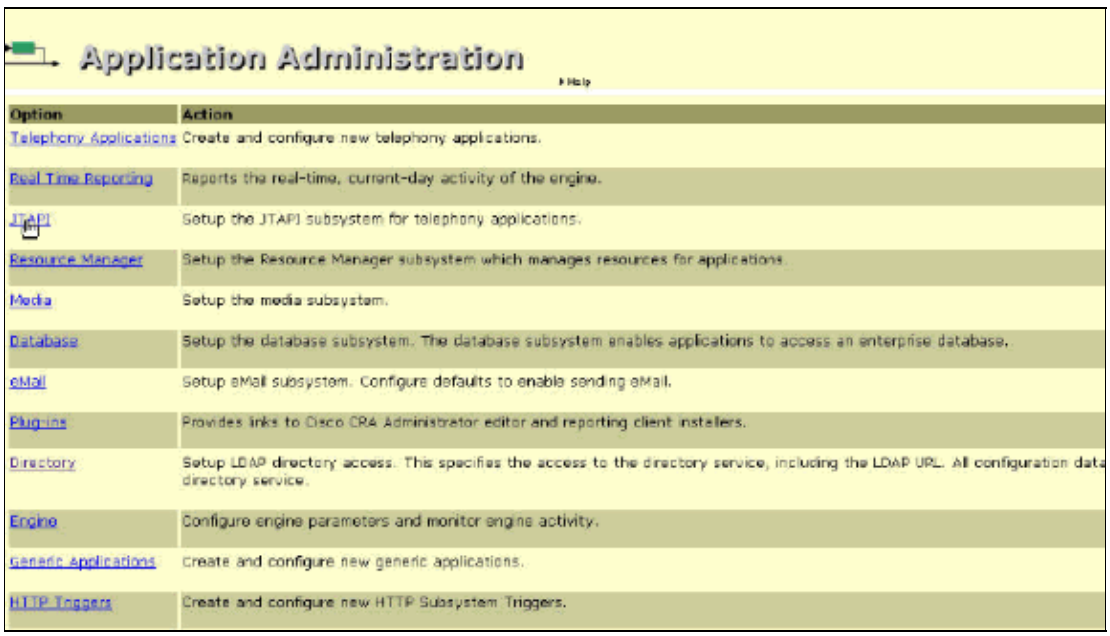
After you associate the phones with your RM user, you see them listed as "Controlled Devices" on the User Information page.

4. 

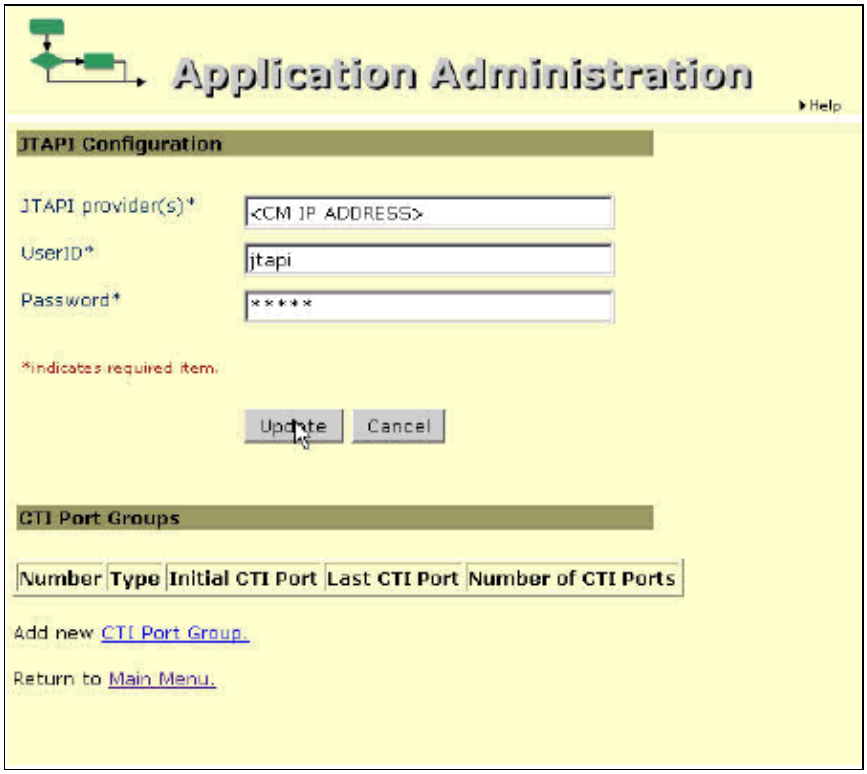
Create the JTAPI User Account

Complete these steps to create the JTAPI user account. Application Administration can be found at **http://<ipaddressofCM>/appadmin/**.

1. Create the JTAPI user. (This matches the user created earlier in Add a JTAPI User for CTI Components.) From the Main Menu click **JTAPI**.



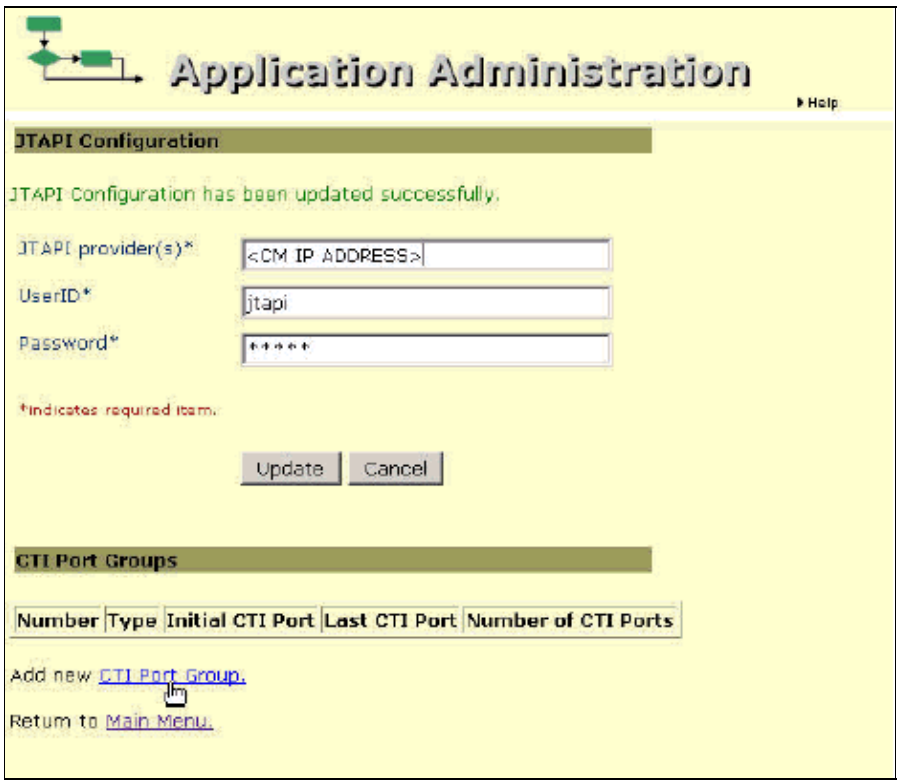
2. Enter the Cisco CallManager's IP address, the JTAPI username and password, and click **Update**.



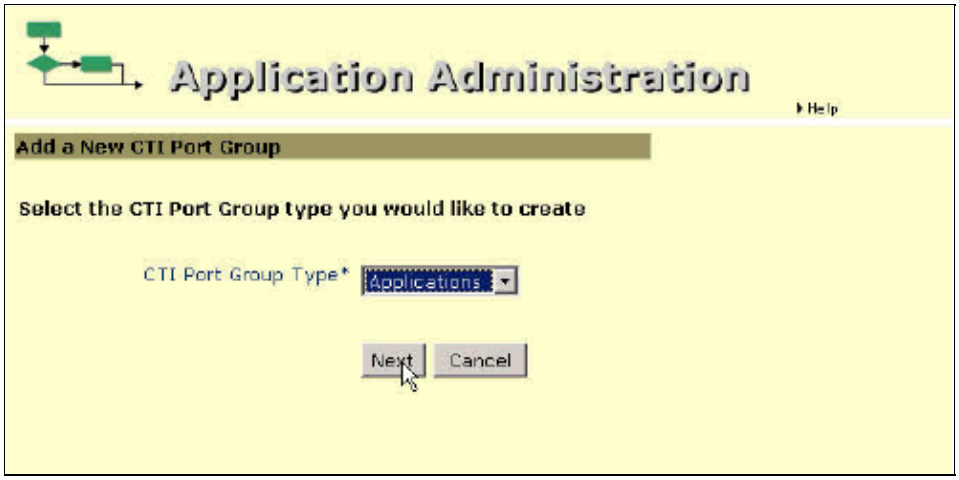
Create the Application's CTI Port Group

Complete these steps to create the application's CTI port group.

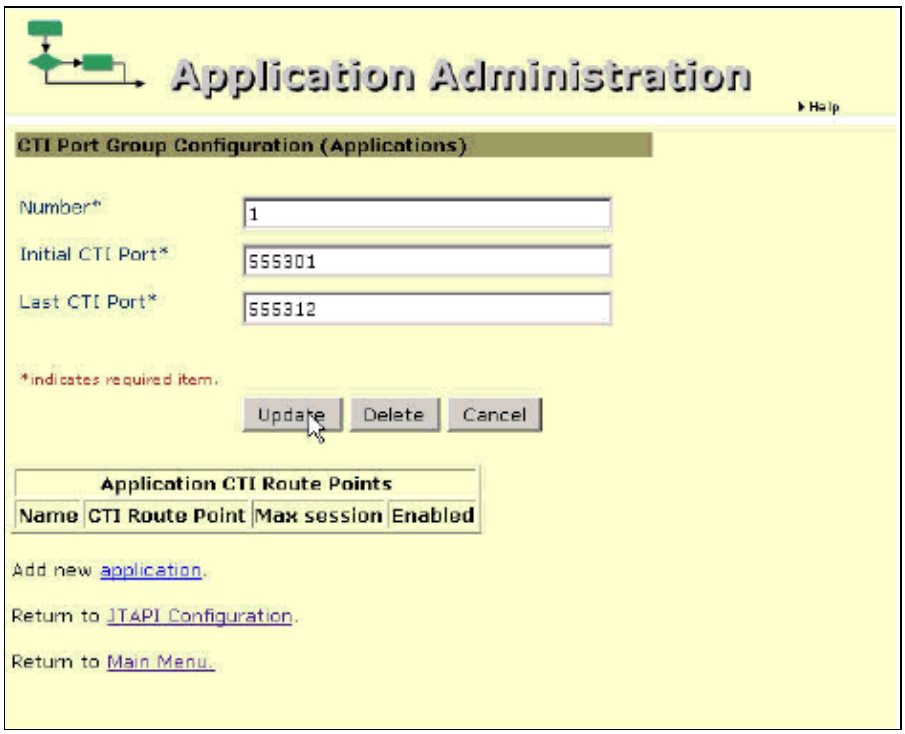
1. Click **CTI Port Group**.



2. Select **Applications** from the pull down menu and click **Next**.



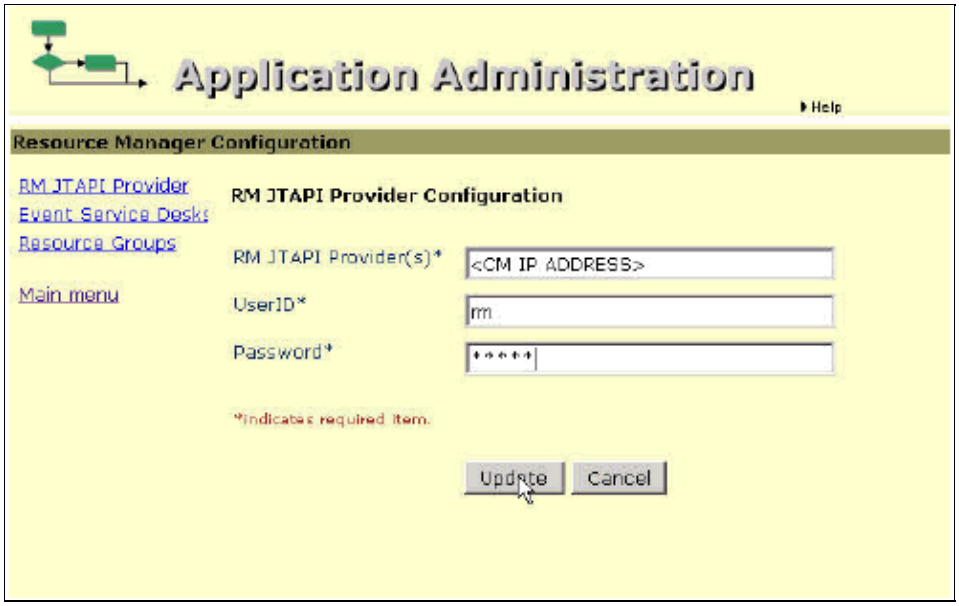
3. Assign a reference number (positive integer) and the initial and last CTI port that you created in Add a CTI Port and click **Update**.



Create the RM User

Complete these steps to create the RM user.

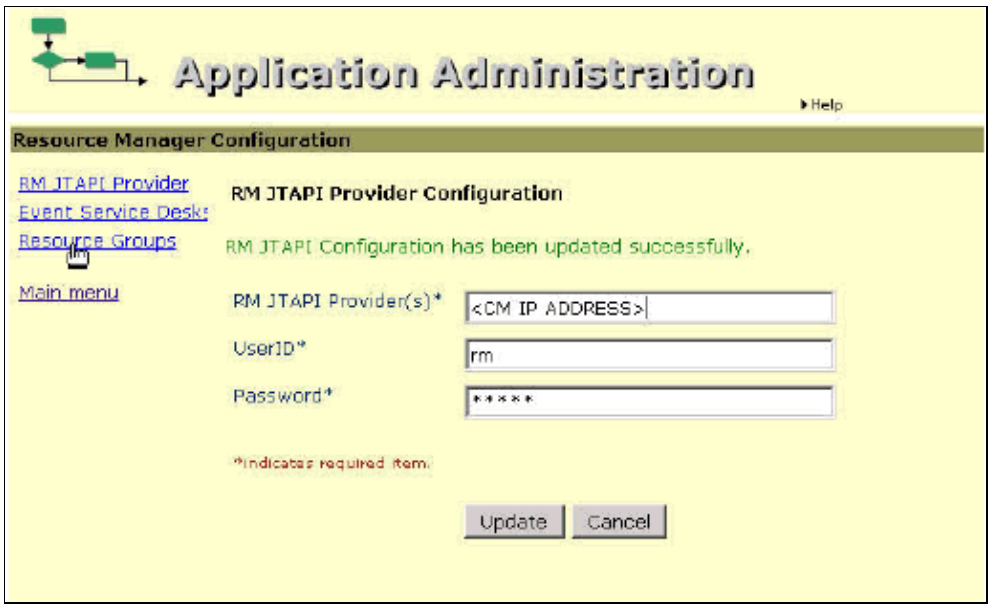
1. From the CTI port group configuration page, click **Main Menu**.
2. From the Main Menu click **Resource Manager**.
3. Enter the IP address of the Cisco CallManager and the RM username and password that you created in Create a Resource Manager. Click **Update** when you are finished.



Add a Resource Group

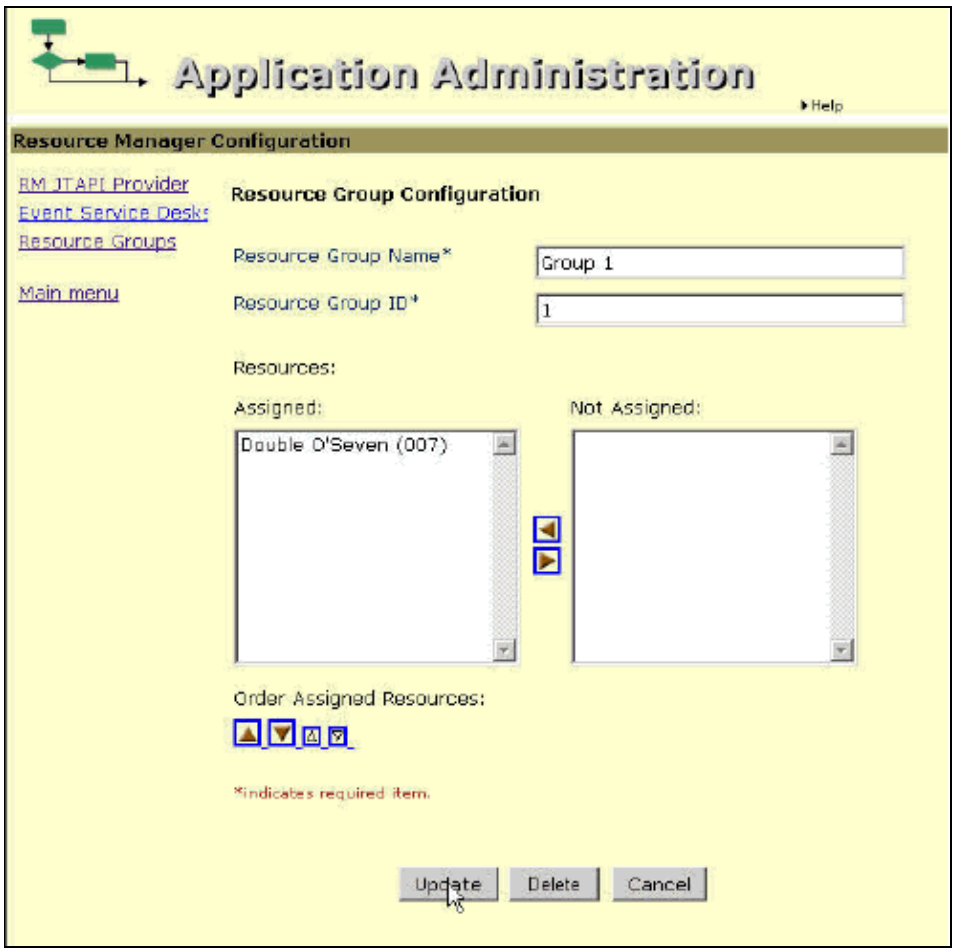
Complete these steps to add a resource group.

1. Click **Resource Groups** from the menu on the left side of the window to add a Resource Group.



2. Click **Resource Group** to add a new Resource Group.

3. Assign a name for the Resource Group, as well as a Resource Group ID (positive integer). Assign agents to the Resource group using the arrows in the middle of the page and click **Update**.

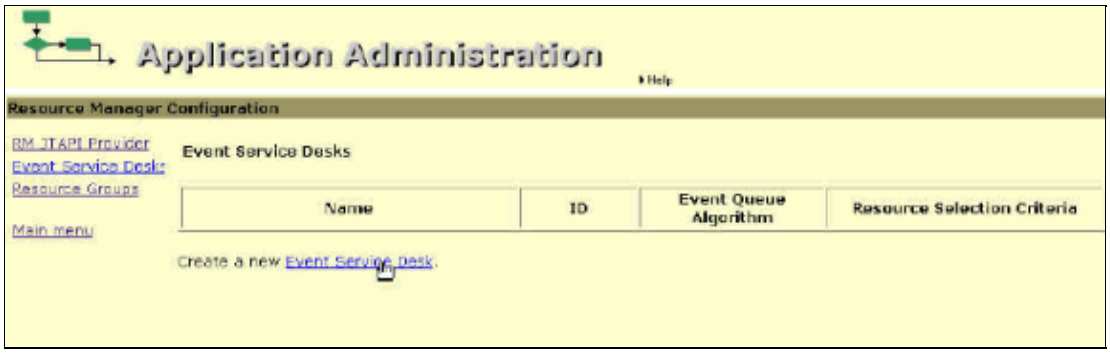


Add an Event Service Desk

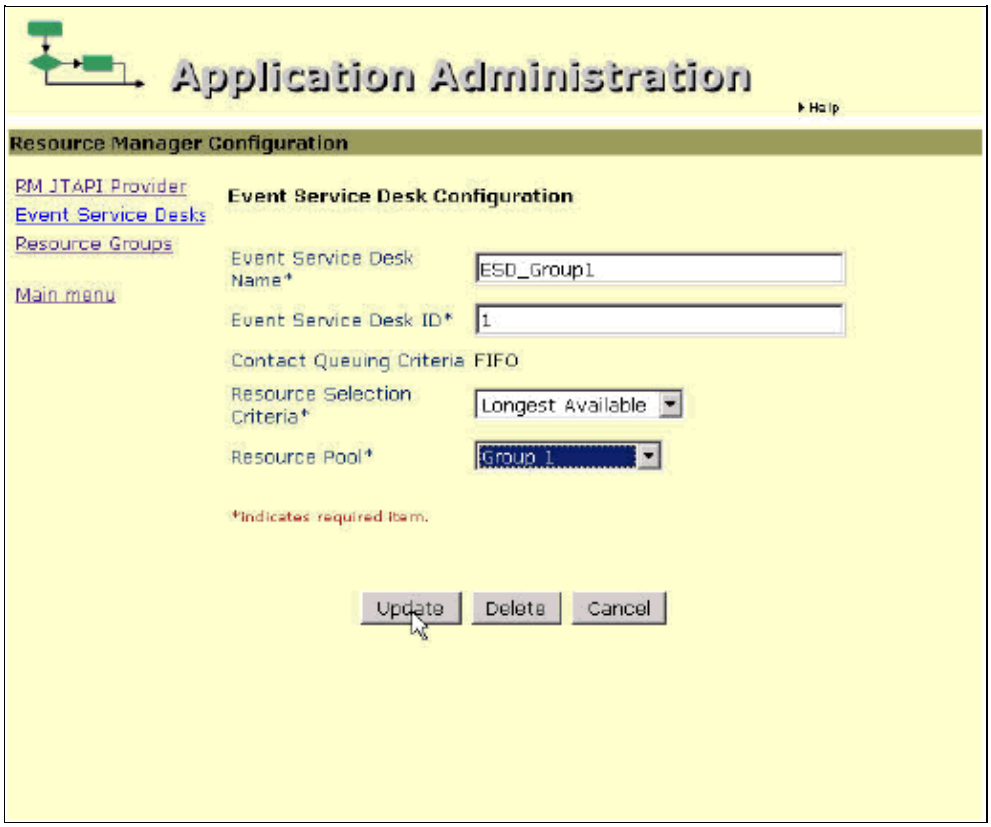
Complete these steps to add an event service desk.

1. Click **Event Service Desk** from the menu on the left hand side of the window.

2. Click **Event Service Desks** to add a new Event Service Desk.



3. Assign a name to the Event Service Desk, as well as an Event Service Desks ID (positive integer) and select a Resource Selection Criteria. Assign the Resource Pool (resource group that you created in Add a Resource Group) to be associated with the Event Service Desk. Click **Update** to complete this step.

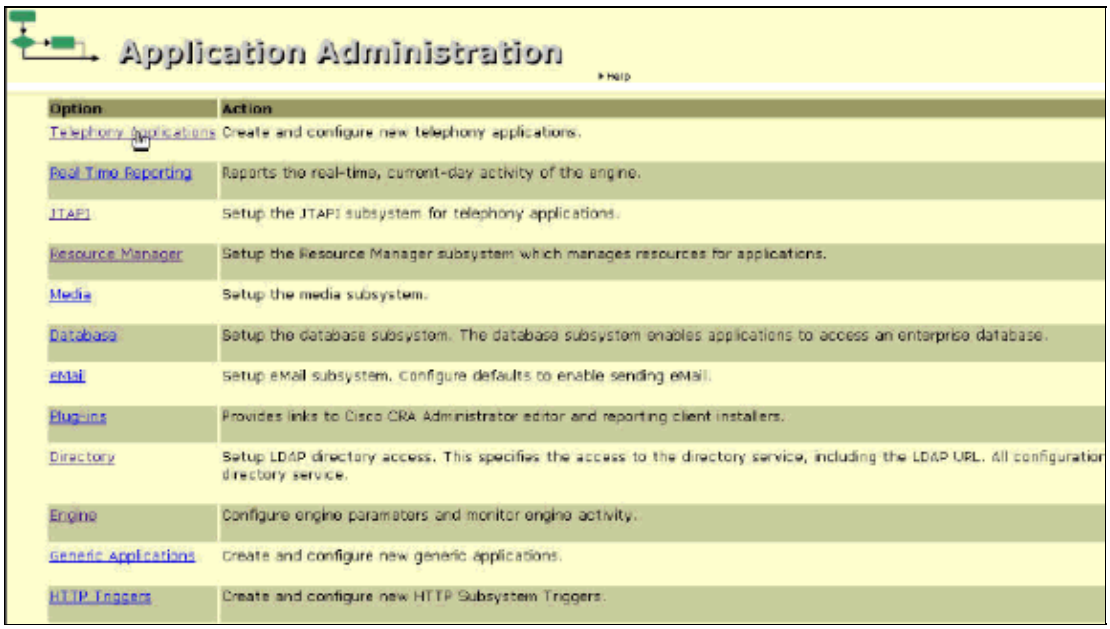


4. You should now see the Event Service Desk that you just created listed on the window. Click **Main Menu** to return to the main menu from the menu on the left hand side of the window.

Assign a Name to the Application

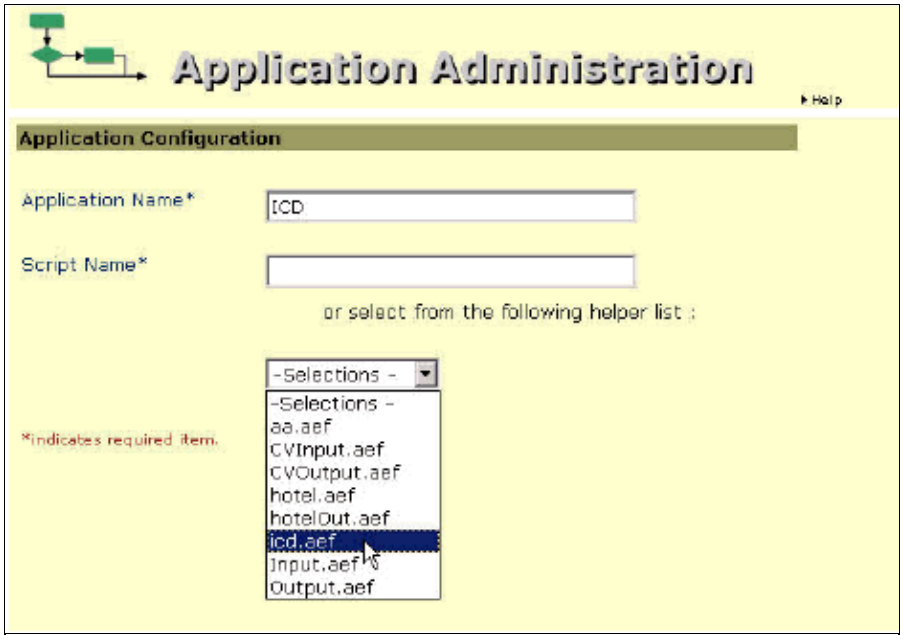
Complete these steps to assign a name to the application.

1. Click **Telephony Applications**.



2. Click **Application** to add a new application.

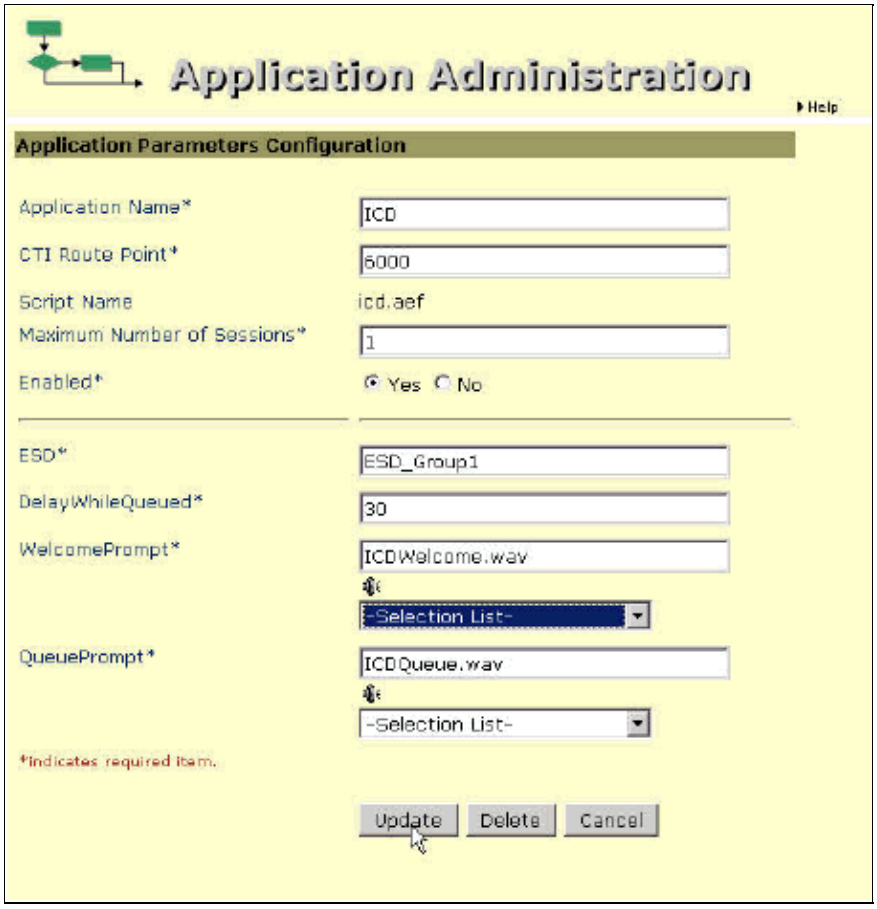
3. Assign a name to your application (for example, ICD). Select the script from the pull down menu for ICS (select icd.aef) and click **Next**.



4. Assign these parameters to the application:

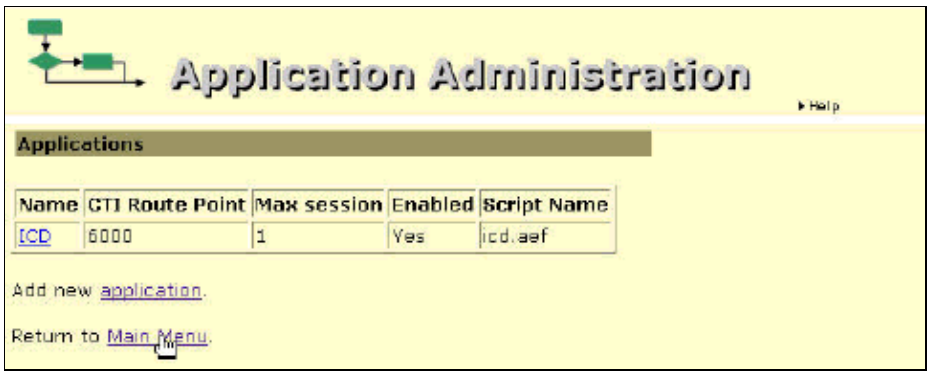
   - **CTI Route Point:** As in Add JTAPI User for CTI Components.
   - **ESD:** As in Add an Event Service Desk.

     Note: This is case sensitive.
   - **Maximum Number of Sessions:** This depends on how many CTI ports you created in Adding a CTI Port. The total maximum number of sessions for all applications is equal to the number of CTI ports in your CTI group.
5. Select **Yes** to enable to application.
6. Select the DelayWhileQueued, WelcomePrompt and QueuePrompt that you would like played during the ICD application and click **Update**.



Note: DelayWhileQueued value delays a queued call within a workflow. Make sure that the value for DelayWhileQueued is not set to zero. If you configure zero for this parameter, the result can be that the calls do not get queued.

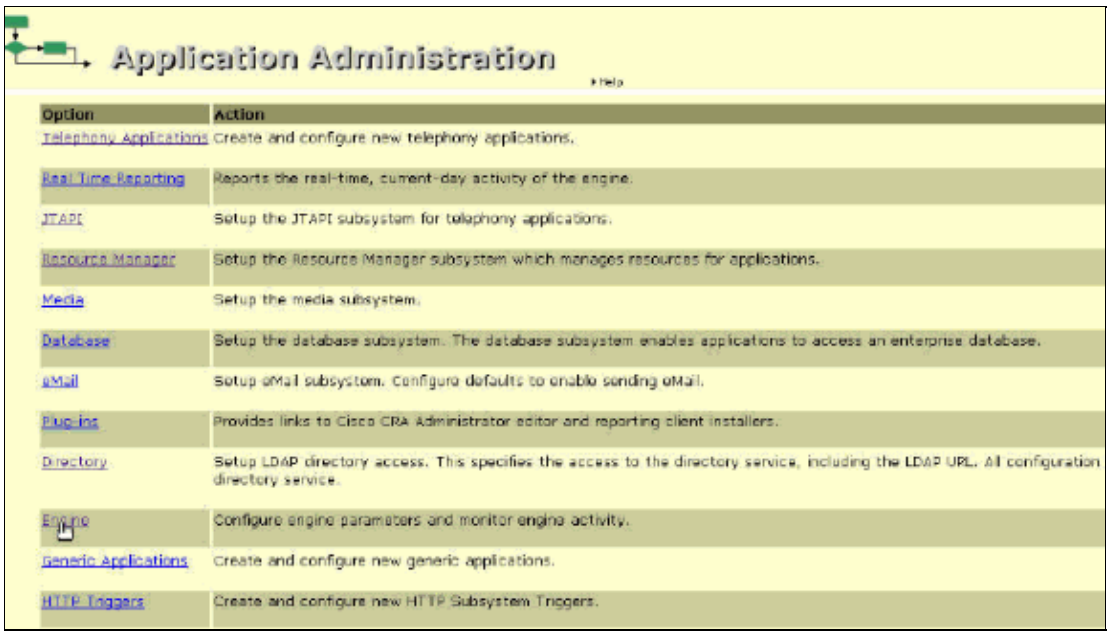
7. Click **Main Menu**.



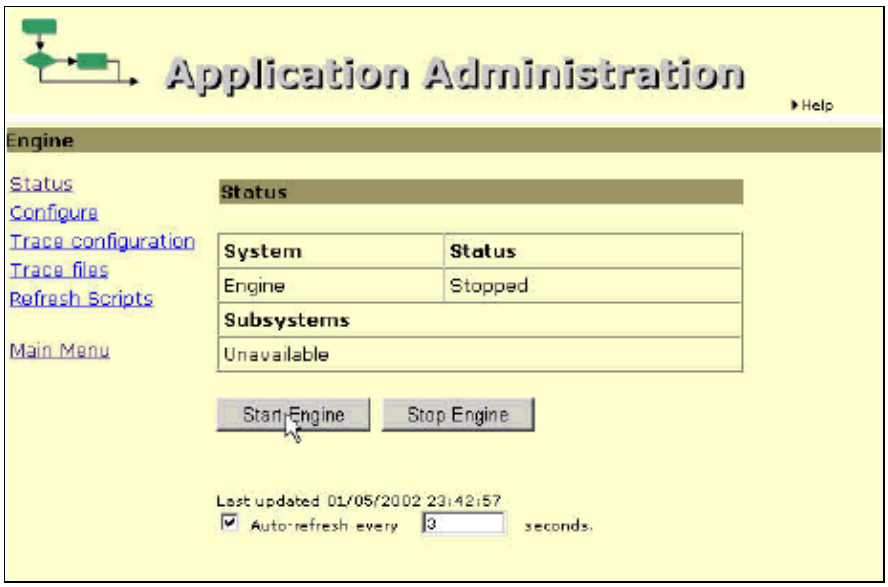
Verify Engine Operation

Complete these steps to verify the engine operation.

1. Click **Engine** from the Main Menu.

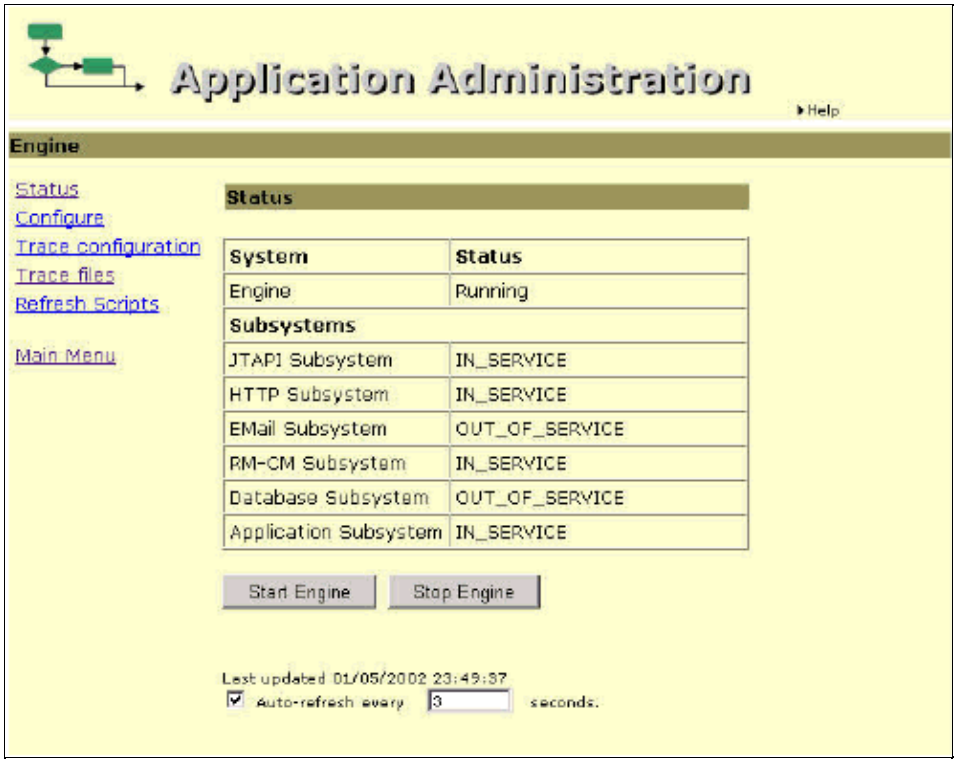


2. Click **Start Engine**. If the engine is already started, click **Stop Engine** and then restart it.



3. Check the **Auto−refresh every 3 seconds** box.

   When all is configured correctly, the Application, RM−CM, HTTP, and JTAPI Subsystems should have IN_SERVICE listed for their status.

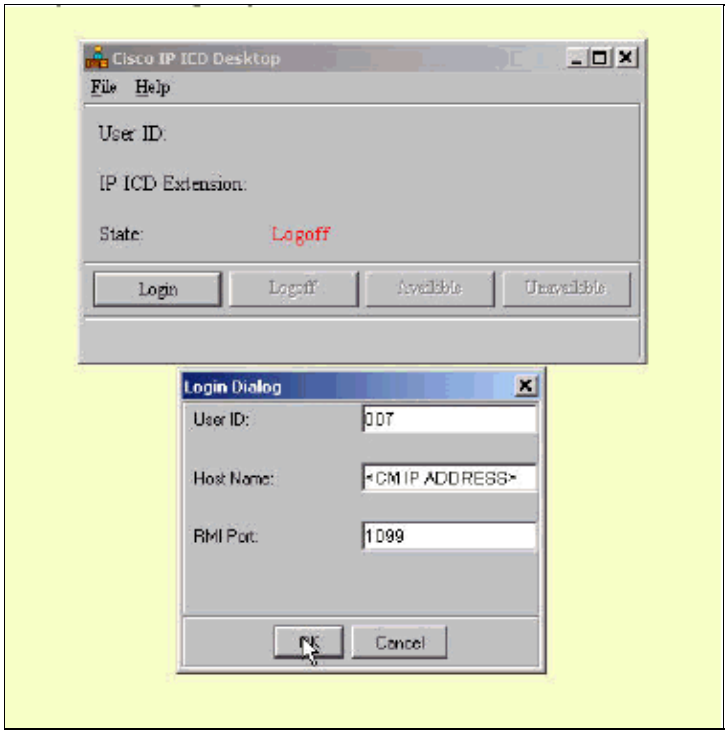


Install the Agent Desktop

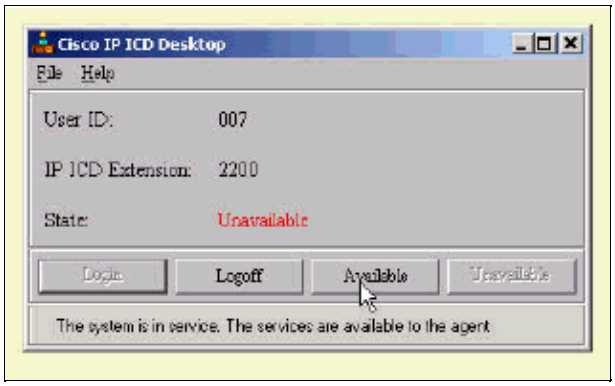
Complete these steps to install the agent desktop.

1. Once you have downloaded and installed the Agent Desktop click the **Agent Desktop** icon to being login.
2. Click **Login** and enter your Agent's userid (for example, 007).

   Note: Do not use upper case characters for this userid, as the agent login only passes lower case characters to Cisco CallManager.
3. Enter your Cisco CallManager's IP address and click **OK**.



4. Click **Available** to allow the agent to start receiving calls from the ICD script.



For problems with agent log in, check the username for upper case characters. If the agent is still unable to log in, open a TAC case and attach the logs on the Agent's PC located at ***C:/program files/wfavvid/AgentDesktop(xx).txt*** .

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- **Voice Technology Support**
- **Voice and Unified Communications Product Support**
- **Troubleshooting Cisco IP Telephony**
- **Technical Support − Cisco Systems**

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