

Cisco CallConnector Quick Start Guide for Installation and Configuration (Draft v 0.01)

- 1 Overview
- 2 CallConnector Client Deployment Models
- 3 Pre-Requisites for Installation
- 4 System Requirements
- 5 Configurations on Cisco Router
- 6 Installing CallConnector Software
- 7 Configuration Steps
- 8 Appendix: Setting up Cisco Router for Configuration Manager Access
- 9 Additional Information

1 Overview

The Cisco CallConnector provides the unified communication solutions for the call handling, user presence monitoring and information access requirements for the organization's employees and the operator positions of the Cisco Unified Communication Manager Express and UC500.

This document provides a quick summary of the steps for installing and configuring the CallConnector solution with a focus on setting up the CallConnector Operator console positions and includes the following:

- The information and system requirements for setting up the CallConnector Server and CallConnector Operator.
- Parameters that have to be configured on the Cisco Router
- Installation of the CallConnector Software
- Configuring the CallConnector software specifically to setup the CallConnector Operator.



Note

For more detailed instructions on the installation and configuration of the Cisco Unified CallConnector Operator and the Cisco CallConnector solution please refer to the Cisco CallConnector Administrators Guide.

2 CallConnector Client Deployment Models

The Cisco CallConnector solution can be deployed in the following configurations:

CallConnector software running on an individual personal computer (no server required):

1. Cisco CallConnector Client – Personal Mode
2. Cisco CallConnector Operator – Standalone

CallConnector Software running in client/server mode and connecting to the CallConnector Server:

3. Cisco CallConnector Client – Server-based
4. Cisco CallConnector Operator Client (Notes: this works with the CallConnector Operator standalone as backup position or with the CallConnector Server for multiple attendant positions)

CallConnector Model	Installation file from CCO	Required CallConnector Server
Cisco CallConnector – Personal Mode Client	CiscoCallconnectorClient-1.6.0.exe or latest version Cisco CallConnector - Personal Edition	No
Cisco CallConnector Operator – Standalone	CiscoCallconnectorAttendantStandalone-1.6.0.exe or latest version. Cisco CallConnector Operator for single position only.	No
Cisco CallConnector Operator – Client	CiscoCallconnectorAttendantClient-1.6.0.exe or latest version. CallConnector Operator for multiple positions and as a backup position for the Standalone.	Yes – requires CallConnector Server or Operator-Standalone
Cisco CallConnector Server	CiscoCallConnectorServer-1.6.0.exe or latest version Cisco CallConnector Server	For CallConnector Clients and Operators

Table 1 CallConnector Installation Files for the Different Deployment Models

3 Pre-Requisites for Installation

The table below describes the information required during the installation process.

Item	Description
Access to Download Site or Installation Software	Download or otherwise obtain the appropriate CallConnector installation program. For client/server deployments, you will need the client and server install programs.
Internet Access to CallConnector License Server	The CallConnector software needs to be registered using the PAK-ID (or Serial Number). This requires Internet access to the CallConnector License server.
PAK ID	The Product Authorization Key (PAK-ID) or Serial Number is a number sent with your purchase to allow you to register the software. (You can get started with an evaluation version if you do not have a license).
IP Address of Cisco Router	IP Address of the Cisco Router to allow the CallConnector software to connect to the Cisco Router
Area Code	The telephone area code of the location in which the router is located
Dial Out Pre-Fix	The digit prefix required to dial an external number.
Length of the Extensions	The length of the internal extension numbers, separated by semi-colons.
Email Profile Name	Profile to be used by the CallConnector Operator to login to the email server.
Email Password	Password used to log into your email service (if default profile is not used).

Table 2 Information Required for Installing the CallConnector Software

Additional information required for installing the CallConnector server-based clients

Item	Description
CallConnector Server or Operator IP Address	IP Address of the server computer running the CallConnector Operator server software.
Login Name	Your CallConnector Operator/User login name as configured in the CallConnector Server.
Login Password	Password used to log into the CallConnector server.

Table 3 Additional Information Required for Installing CallConnector Clients

4 System Requirements

Minimum System Requirements

Your system must meet the minimum system requirements described below. We recommend that your system exceeds the minimum when possible to ensure better performance.

Hardware

CallConnector Standalone Operator requires the following minimum PC hardware configuration:

- 400 MB free hard drive space for Operator Standalone installation
- Reserve additional 150 MB for upgrades
- 3.2-GHz or faster Dual-Core Pentium 4 or compatible processor for workstation
- 2-GB RAM minimum

System Software

CallConnector software also requires the following PC software:

- Microsoft Windows XP Professional (Service Pack 2 or later), Microsoft Windows Vista, or Microsoft Windows 7. Both 32-bit and 64-bit Windows operating systems are supported. (However see .NET framework requirement below)
- The CallConnector Operator Standalone and CallConnector Server require the Microsoft .NET framework version 2.x. The installation program includes only the 32-bit framework. If the Window OS does not have .NET installed, then you will need to obtain and install from the Microsoft site.
- Microsoft Windows 2003 Server for the CallConnector server applications
- Installed and correctly configured Local Area Network with access to the Internet.



Notes

1. CallConnector Client in the personal mode does not work in 64-bit Windows OS environments.
 2. For the CallConnector Server minimum system requirements please refer to the Server datasheet.
-

Download Site

The CallConnector Operator software can be downloaded and installed from the Web. Go to the link below, select the required CallConnector software, and download the installation files.

<http://www.cisco.com/cgi-bin/tablebuild.pl/callconnector-ms>

A valid CCO User ID and Support Contract are required to access the software download center. If you don't have access, please contact your Cisco reseller.

5 Configurations on Cisco Router

The Cisco Router needs to be configured with the operator/user phones, for sending the radius accounting messages and other parameters. These configuration requirements are summarized below. For more details, please refer to the Administrator's Guide.

Router Configuration for Telnet Access

The CallConnector Configuration Manager tool uses telnet to download and make changes to the Cisco Router configuration. The following needs to be access needs to be configured on the router:

- **Configure Telnet Access:** The Configuration Manager uses a local user account with privilege level 15 to make changes to the router configuration.
- **HTTP access:** You also need to enable Cisco web browser user interface on the local Cisco Unified CME router to allow the Configuration Manager to download the router phone configuration information.

Please see Appendix at the end of this document for specific setup details.

Router Configuration for CallConnector Operators

The CallConnector Operator installation requires certain configuration on the CME Router. These include:

- **Configure the Operator's IP Phone(s):** Each operator phone needs to have the username and password configured. In addition, the CallConnector Operator phone needs to be configured with directory numbers and features suitable for the operator call handling functions.
- **Call Routing to the Operator Phones:** There can be several categories of calls received by the operators each requiring a distinct call treatment. Examples of such call categories might include the Main Number calls, Customer Support calls, Sales calls or Internal calls. The routing of these calls to the operator phones needs to be configured in the Cisco Router. Generally these calls will be directed to different numbers on the operator's phone.
- **Multiple Operator Deployments:** If the organization has multiple operators, the calls need to be distributed to the operators. The recommended method is to use a hunt group for each operator call queue.
- **Busy and Night Service Routing:** When the operators are not available during the work day the incoming calls need to be routed either to an alternate number or to voice mail. For off-hour call routing, the Cisco router night service routing can be enabled.
- **Park and Page Numbers:** Park slots or directory numbers need to be configured on the router to allow the operators to park the calls and make overhead announcements.

Router Configuration for CallConnector Users

The CallConnector users require the IP phone to be configured with user name and password.

- **Configure the User's IP Phone(s):** Each user phone needs to have the username and password configured.

Router Configuration for CallConnector Server

The CallConnector users require the IP phone to be configured with user name and password.

- **Configure the CallConnector Users IP Phone(s):** Each user phone needs to have the username and password configured.
- **Setup the Radius Accounting Parameters:** This can be setup from the Configuration Manager program.

6 Installing CallConnector Software

During the installation process, the Cisco CallConnector install program will check your system's components and determines what files need to be copied.

Step 1: Download the Installation Program

- Log in to the Cisco Software Download site for the CallConnector software and download the latest CallConnector installation program. You can also obtain this from your Cisco Reseller.

Step 2: Run the CallConnector Installation

- Launch the CallConnector install program by double-clicking on it. Once the install program is loaded, it will first ask you for your preferred language. (Currently only English is supported)
- Enter the customer contact information and click Next.
- You will be prompted to select one of the three licensing options:
 - Evaluate CallConnector Operator Client for limited time period (45days) – no licensing needed.

- Use PAK-ID or Serial Number for automatic licensing (Internet connection required).
- (Only if other options fail) If you have the license file, you can activate CallConnector Operator client without the need for Internet connection.

Enter the Serial Number or PAK ID or select the 45 day trial mode.

- Enter the user's options for Standalone and Client:

Standalone Mode: In the standalone mode, the following information needs to be entered:

- Local PC IP Address: In case you have multiple network cards on your local computer, you need to specify the IP address you want to use to connect to the router.
- Router IP Address: Enter the IP address of the Cisco Router that is providing the telephony service for the operator.

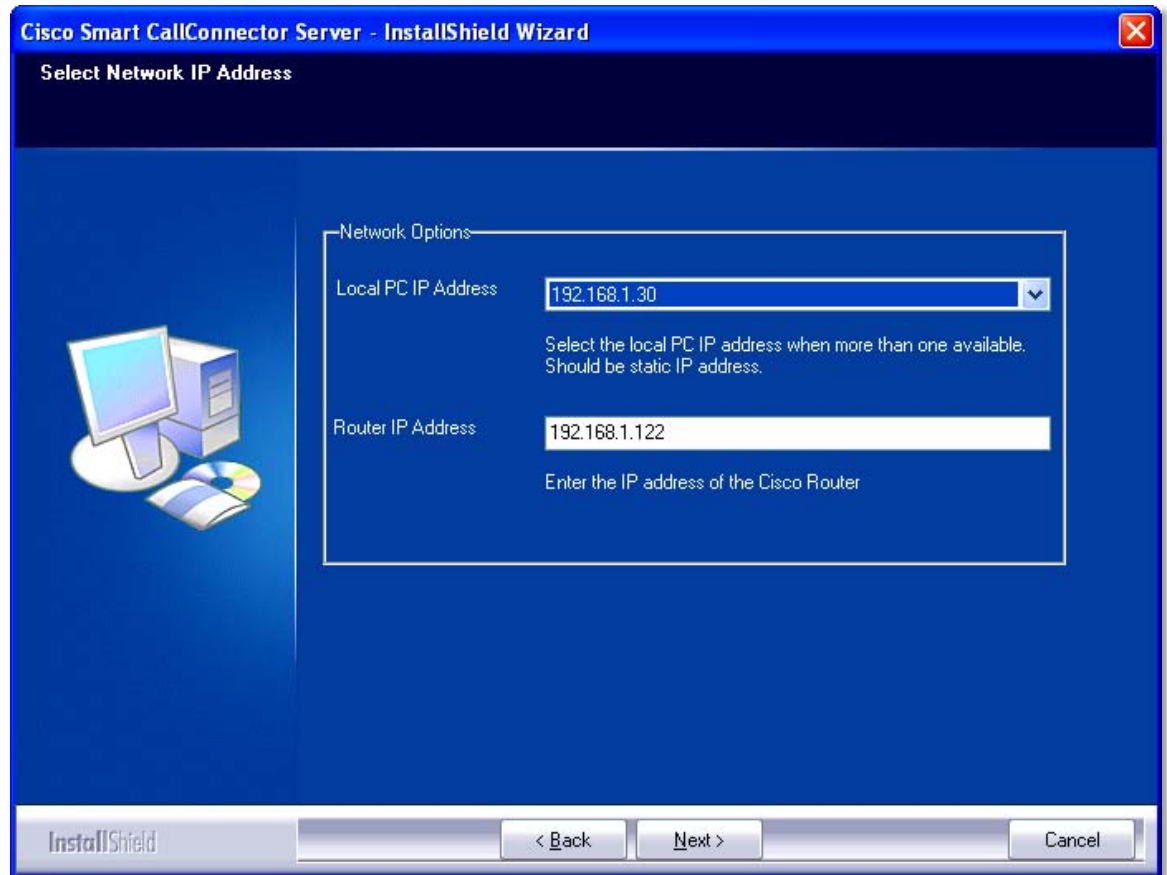


Figure 1 User PC and Cisco Router IP Address

- Country: Verify that the country location of the Cisco Router is correctly displayed; otherwise select the country from the pull-down list.
- Area Code: Enter the area code in which the router is located. In some countries the area code is not required. In this case this field should be blank.
- Number Format: The selection of the country and area code will display the default number pattern.
- Dial Out Prefix: Enter the digit required to dial an outside PSTN number.
- Extension Length: Internal numbers in the router may be three, and/or four digits long. Enter the length of the internal extension numbers. If the internal numbers are of different lengths; then enter each of these lengths, separated by semi-colon.

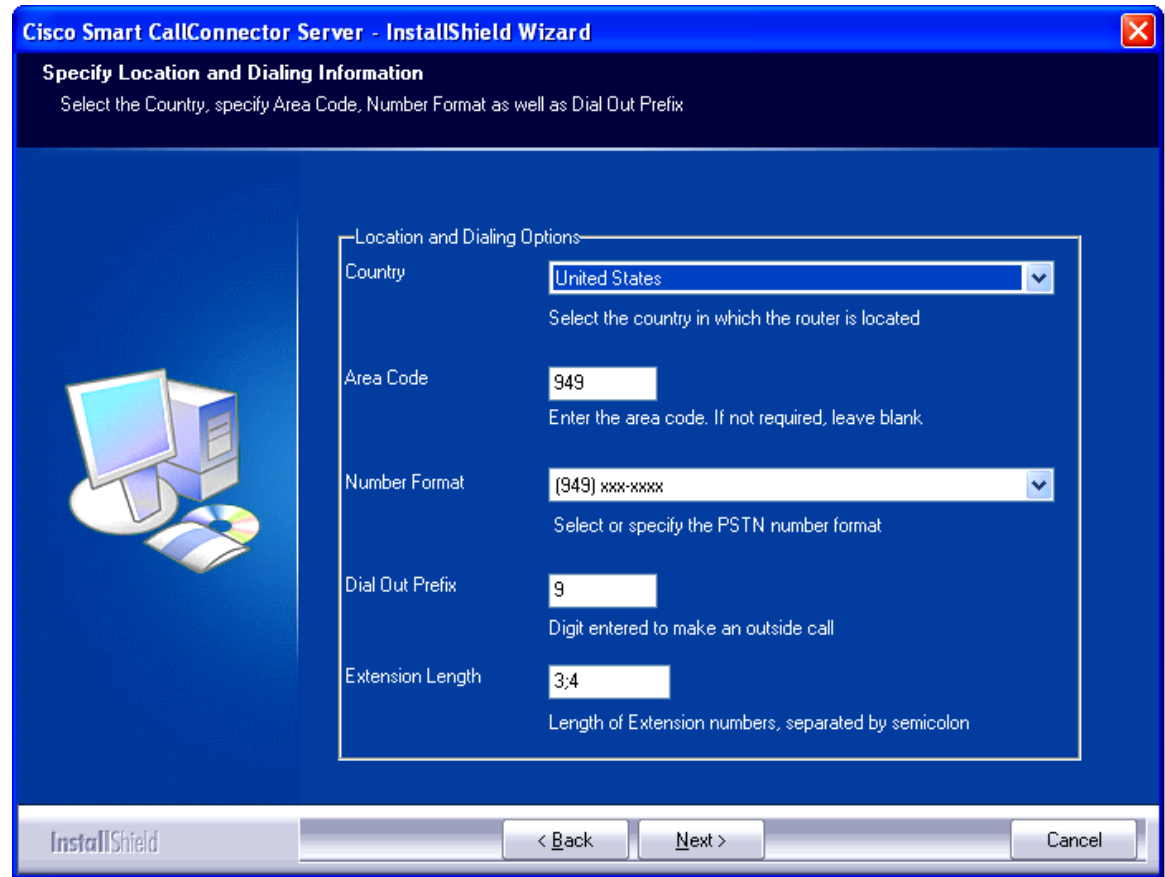


Figure 2 User PC and Cisco Router IP Address and Dial Plan Options

Client Mode: In the client mode, the following information needs to be entered:

- Connect via: Select the IP address you want to use to connect to the router in case you have multiple network cards on your local machine.
- Server IP: Enter the IP Address of the CallConnector Server. (In case of the backup operator, this will be the IP Address of the Primary Operator PC)
- Username: You will need to have a User Account in the CallConnector Server. Enter this User Login Name. (Note: This is not the IP-Phone user name.)
- Password: Enter the password associated with your Cisco CallConnector account.
- Select the email profile to allow the operator to access the Outlook contact information
- Selecting the Operator startup options:
 - Run CallConnector Operator in a Windows user account (No Admin Rights): Check on this option so that the install program will enable the Local SIP Server to start automatically.
 - Automatically start CallConnector Operator when Windows starts up: When selected, this option will allow the CallConnector Operator client run automatically when the Windows system starts up.

Step 3: Restart the PC when Installation has completed

7 Configuration Steps

The Cisco CallConnector Configuration Manager program is launched after restart. Click on the Navigation Wizard to guide you through the configuration steps.

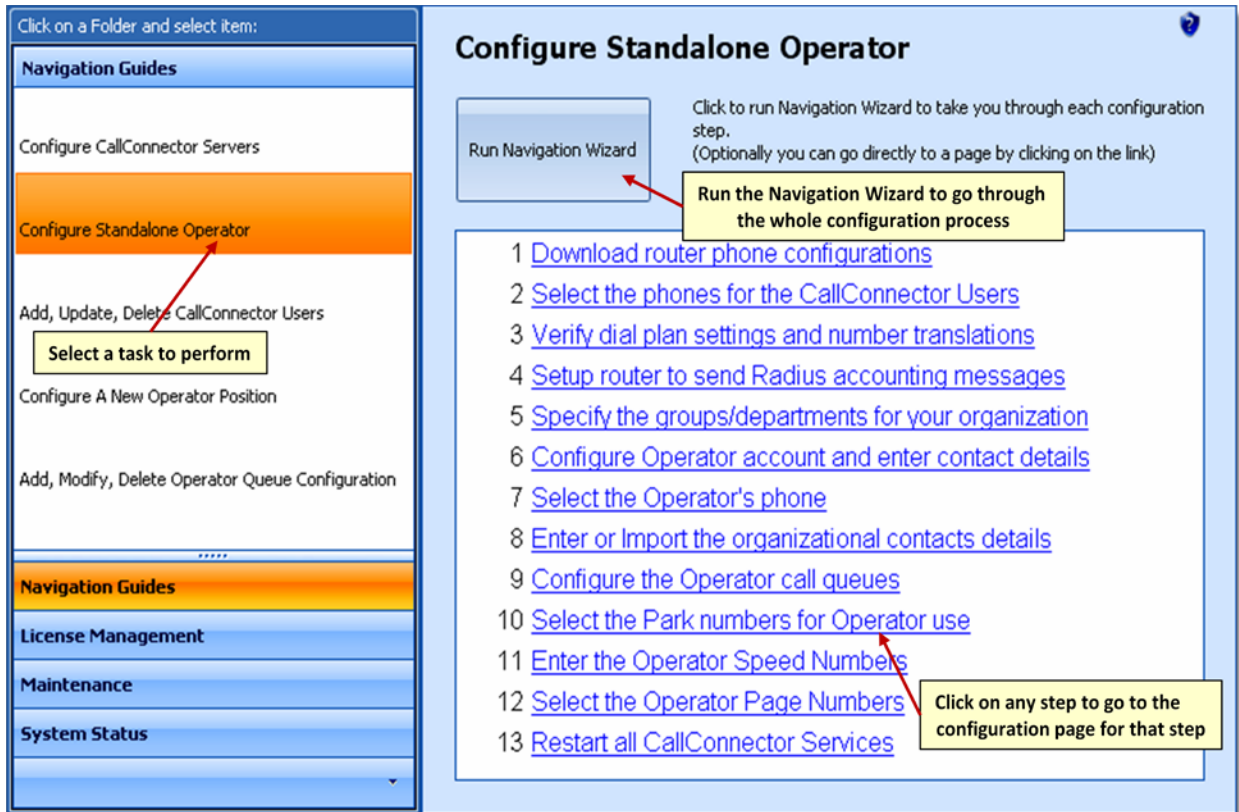


Figure 3 Configuration Manager home page showing the Navigation Guides

The configuration steps for the CallConnector Standalone Operator are described below:

- Step 1. Download router phone configurations
- Step 2. Select the phones for the CallConnector Operators
- Step 3. Verify dial plan settings and number translation rules
- Step 4. Setup router to send Radius accounting messages
- Step 5. Specify the groups/departments for your organization
- Step 6. Configure Operator account and enter their contact details
- Step 7. Select the Operator's phone
- Step 8. Enter or Import contact details for the directories
- Step 9. Configure the Operator call queues
- Step 10. Select the Park numbers for Operator use
- Step 11. Enter the Operator Speed Dial Numbers
- Step 12. Select the Operator Page Numbers
- Step 13. Restart all CallConnector Services

Step 1: Download router phone configurations

The CallConnector solution uses configuration data for ephone, hunt-group, ephone-dn etc on the router. From this window, you can download this information.

- Step 1: Verify the router IP address. If this is incorrect, you will need to delete the router and add a new router.
- Step 2: Enter a descriptive name for the router, the telnet account user name and password. If necessary enter the executive level password (requires privilege level 15 access).
- Step 3: Click on the **Download Router Configuration** button.

This will download and save the router phone configuration for CallConnector use. Click on Next to continue.

Step 2: Select the phones for the CallConnector Users

The phones configured on the router are displayed in the list. Select the phones that will be used by the CallConnector Users and Operators.

- Step 1: Click on the checkbox (in the first column) beside the phone to select that phone. (Click again to de-select)
- Step 2: Select all the phones that will be connected to CallConnector. Phones should be selected for all Users and Operators.
- Step 3: Click on the Save Selected Phones button to save your selection. (You can review and remove the selected phones from the Selected Phones tab)

To continue, click Next.

Step 3: Verify dial plan settings and number translation rules

These parameters determine how a number is dialed or looked up in the directory by the CallConnector.

Step 1: Verify the Country and the Location settings and change if necessary. (If the location is not defined, add or update from the Location Management folder)

Step 2: Enter the number of digits in the Extension Length. If they are of different lengths, then add all the extension lengths separated by semi-colon (without spaces).

Step 3: Specify the digit that has to be dialed for outside numbers in the Dial Out Prefix field. Click on Save Router button.

Step 4: Verify all commonly dialed numbers by entering them in the Input column of the Click to add an input number of the Verify Number Dialing table. You can load the numbers from a text file, one number from each line.

Step 5: If the numbers are processed incorrectly, then add Optional Number Translation Rules to pre-process the number before lookup or dialing.

To continue, click Next

Step 4: Setup router to send Radius accounting messages

The router needs to be setup to send the Radius accounting messages.

Step 1: For each router in the Radius Status table, a check mark indicates that Radius parameters are setup correctly.

Step 2: Select the router that shows error and enter the Authentication Key and port (default port is 1646) and click on the **Update Radius** button.

Step 3: To verify that the CallConnector is able to receive Radius messages, click on **Start Monitor** button and make some calls. Received messages will be displayed in the window. Click on **Stop Monitor** button to stop. If prompted, click Yes to stop the Presence Server.

Step 4: You can check if the router is sending the Radius messages. Click on **Start Capture**, make some calls and then click on **Stop Capture**. The router debug messages are displayed.

To continue, click Next

Step 5: Specify the groups/departments for your organization

The departments/groups in your organization need to be created. You can add new groups, modify, or remove existing groups that are not required.

Step 1: To create a new group, click on the **Add New Group** button in the toolbar. Enter the group name, publishing options, and click **Save**.

Step 2: To modify an existing group, select the group, change the group name and click on the **Save** button.

Step 3: To delete a group, select the group and click on the **Delete** button.

Step 4: If you do not want members from another group to view the presence information of the selected group, then click on that group's checkbox in the **Groups Not Allowed to View** table.

NOTE: Do not remove the Default group.

To continue, click Next

Step 6: Configure Operator account and enter their contact details

The CallConnector Operator account needs to be created.

Step 1: Enter the Operator name and login account/password.

Step 2: Select the group/department and set the user type as **Operator**.

Step 3: Fill in the additional Operator contact information.

Step 4: You can also import user information from the router or CSV file. Click on the **Import Users** button in the guide to run the wizard.

Note: Only one Administrator and two Operator accounts are allowed for Standalone version.

To continue, click Next

Step 7: Select the Operator's phone

The CallConnector Operator needs to have a phone configured.

Step 1: Click on the **Phone** tab to view the list of the selected phones.

Step 2: Find the Operator's phone and click on the checkbox to select it.

Step 3: Click on the **Profile** tab, to verify that the primary phone number has been updated.

Step 4: Click on the **Save** button to save the Operator information.

To continue, click Next

The screenshot displays the CallConnector user configuration interface. On the left, the 'Available Users' list shows a table of users with checkboxes. The user 'Galatea Privette' is selected. On the right, the 'Profile' tab is active, showing account and contact information for the selected user. Red arrows and callout boxes highlight key actions: selecting the user, navigating tabs, and saving changes.

Available Users List:

First name	Last name
<input type="checkbox"/>	Atropos
<input type="checkbox"/>	Bellerophon
<input type="checkbox"/>	Briareus
<input type="checkbox"/>	Cadmus
<input type="checkbox"/>	Castalia
<input type="checkbox"/>	Danae
<input type="checkbox"/>	Dioscuri
<input type="checkbox"/>	Dryope
<input checked="" type="checkbox"/>	Galatea
<input type="checkbox"/>	Hamadryads
<input type="checkbox"/>	Rhadamanthus
<input type="checkbox"/>	Ingrassia
<input type="checkbox"/>	Vanwagoner
<input type="checkbox"/>	Zakrewski
<input type="checkbox"/>	Locascio
<input type="checkbox"/>	Bonomo
<input type="checkbox"/>	Monhollon
<input type="checkbox"/>	Alylward
<input type="checkbox"/>	Stahr
<input type="checkbox"/>	Lage
<input type="checkbox"/>	Trumbauer

Profile Tab (Phone selected):

- Account Information:** First name: Galatea, Last name: Privette, Login name: galatea, Password: [masked]
- Corporate Information:** Company: Greatest Solutions Inc., Department: Customer support, User type: Attendant, Title: Customer Service Representative
- Contact Information:** Room: 502, Business #: 5020, Home #: 325-732-5763, SMS: 2156532217@tmmail.net, Tel PIN: 1234, Email: galatea@somemail.com, Business 2 #: 5024, Mobile #: 215-653-2217, IM: galatea, DISA PIN: 5678

Callout Boxes:

- Top Right:** Tabs to edit profile details, configure user's phone and specify co-workers (points to Profile, Phone, Co-workers tabs)
- Middle Right:** Select user for contact details (points to Galatea Privette in the list)
- Bottom Right:** Add New User from toolbar button, make changes, then click on Save (points to the toolbar)
- Bottom Left:** List of configured CallConnector Users (points to the Available Users list)

Figure 4 Enter Operator Account Information and Select the Operator's phone

Step 8: Enter or Import contact details for the directories

Organizational and external directory contacts can be added or imported.

Step 1: To add organizational contacts, click on the blank row with text "**Click to add new contact**". Enter the information in each field. Click on **More** to add/edit the additional fields. Click on **Save** to write the information to the database.

Step 2: To modify, select an existing contact and click on **More** button, make the changes and click **Save**.

Step 3: To delete contacts, click on the checkboxes on the left column and click **Delete** button.

Step 4: To import the contact information, click on the **Import->Contacts** button in the toolbar or on the button below.

Step 5: Repeat these steps to add external directory contacts.

To continue, click Next.

Step 9: Configure the Operator call queues

A call queue assigns the numbers from the Operator's phone to the queue and sets priority and alternate routing numbers.

To configure a queue: a) setup queue parameters, b) select the Operators and c) the phone numbers.

Step 1: Click on **Add New Queue** button in the toolbar. Enter the following in the configuration parameters:

- 1) Descriptive name for the queue
- 2) Select queue type, Local or Hunt.
- 3) Select priority and timeout.
- 4) Enter the Busy and Night number for local queue only.
- 5) Enter the Greeting Text

NOTE: If you have multiple Operators, the recommended queue type is "Hunt Group". This allows you to select a hunt group that has been configured in the router. The hunt group is required to have at least one Operator extension number.

Step 2: Select the Operators that will belong to this queue. The available directory numbers will be displayed in the table on the right.

Step 3: If the queue type is Local, then select the Operator extension numbers that will belong to this queue. If the queue is hunt-group type, then the available numbers will be automatically selected.

Step 4: Click on Save button to save the queue configuration.

To continue, click Next.

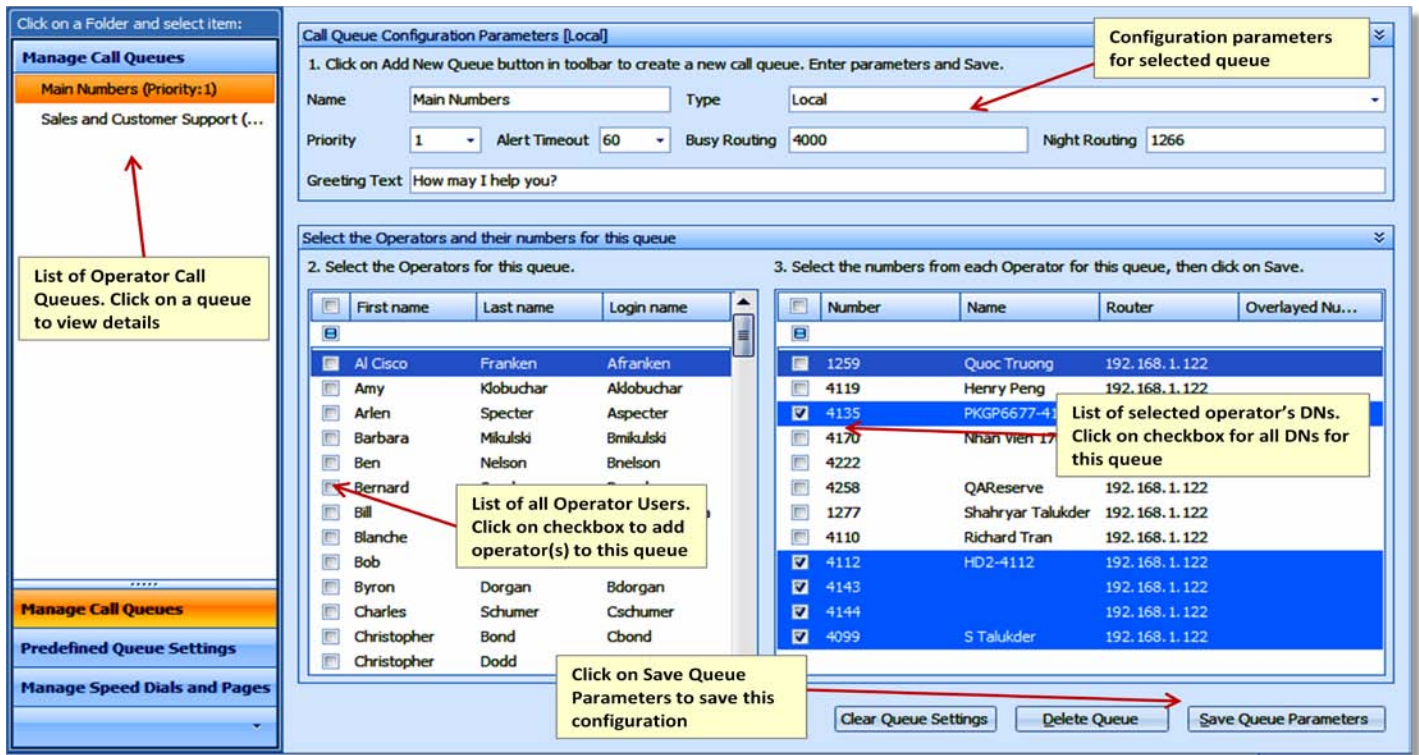


Figure 6 Enter the queue parameters and select the queue type and directory numbers

Step 10: Select the Park numbers for Operator use

You can select the park numbers for use by the Operator.

Step 1: The table lists all the park numbers configured in the router. Click on checkbox beside each park number that you want the Operator to use.

Step 2: Click on the **Save** button to save the park number configuration.

Step 3: Set the Predefined Queue priority (1 being the highest priority) and timeout values.

To continue, click Next.

Step 11: Enter the Operator Speed Dial Numbers

You can setup the Speed Dial numbers for use by the Operator.

Step 1: To add a number, click on **Add New Speed Dial** button in the toolbar. Enter the information in each field. Click on **Save** button to save the Speed Dial number.

Step 2: To update a number, select an existing number, edit the information in each field and click on the **Save** button at the bottom.

Step 3: To delete a number, select the number and click on the **Delete** button at the bottom.

To continue, click Next.

Step 12: Select the Operator Page Numbers

You can select the Page numbers for use by the Operator.

Step 1: To add a Page number, click on **Add New Page** button in the toolbar. Enter the information in each field. Click on **Save** button to save the Page number.

Step 2: To update a Page number, select an existing Page. Enter the information in each field. Click on **Save** button to save the Page number.

Step 3: To delete a number, select the number and click on the **Delete** button at the bottom.

To continue, click Next.

Step 13: Restart all CallConnector Services

You need to restart the CallConnector Services for these changes to become available.

Step 1: Click on the Restart Services button below or the **Restart All Services** button in the toolbar.

To continue, click Next.

8 Appendix: Setting up Cisco Router for Configuration Manager Access

To setup the parameters required for CallConnector Configuration Manager to access the Cisco Router, perform the following steps:

SUMMARY STEPS:

1. `configure terminal`
2. `ip http server`
3. `ip http authentication local`
4. `ip http timeout-policy idle 60 life 86400 requests 86400`
5. `aaa new-model`
6. `username username privilege 15 password 0 password`
7. `line vty 0 4`
8. `end`

DETAILED STEPS:

	Command	Purpose
Step 1	<code>configure terminal</code> Example: Router# <code>configure terminal</code>	Enters global configuration mode.
Step 2	<code>ip http server</code> Example: Router(config)# <code>ip http server</code>	Enables the Cisco web browser user interface on the local Cisco router.
Step 3	<code>ip http authentication local</code> Example: Router(config)# <code>ip http authentication local</code>	Sets http server authentication method to local user authentication.
Step 4	<code>ip http timeout-policy idle 60 life 86400 requests 86400</code> Example: Router(config)# <code>ip http timeout-policy idle 60 life 86400 requests 86400</code>	Sets http server time-out policy parameters.
Step 5	<code>aaa new-model</code> Example: Router(config)# <code>aaa new-model</code>	Enables the AAA access control system.
Step 6	<code>username <i>username</i> privilege 15 password 0 <i>password</i></code> Example: Router(config)# <code>username cisco privilege 15 password 0 cisco</code>	Creates a local user account with enough privilege to be used to access Cisco router http service.
Step 7	<code>line vty 0 4</code> Example: Router(config)# <code>line vty 0 4</code>	Required for Telnet session.
Step 8	<code>end</code> Example: Router(config)# <code>end</code>	Returns to privileged EXEC mode.

9 Additional Information

For more information about Cisco CallConnector Operator, see the Cisco CallConnector Operator User Guide available at

[<insert real link here>](#)



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78-17967-01 DOC-7817967=