



## **Cisco Desktop Administrator User Guide**

Cisco Unified Contact Center Enterprise and Hosted Release 8.5

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# Preface

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## Introduction

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Cisco Desktop Administrator consists of two parts:

- Desktop-based Cisco Desktop Work Flow Administrator
- Web-based Cisco Desktop Administrator

Cisco Desktop Work Flow Administrator enables you to configure the following:

- Dial strings
- Phone book
- Reason codes
- Wrap-up data
- Work flows and agent desktops

Cisco Desktop Administrator enables you to configure the following:

- Services
- Personnel and work flow group assignments
- Cisco Unified Presence Settings

## What's New In This Release

CDA 8.5 includes the following new features:

- Enable integrated browser popups as Internet Explorer popup windows
- Enable effective search response by automatically filtering out MAC phone devices in the VoIP Monitoring Device page
- Set up single-step transfer and single-step conference call control actions
- Desktop-based monitoring and recording on Windows 7 64-bit running WoW64
- HTTPS connection for Desktop Administrator

## Desktop Administrator Feature Levels

There are three feature levels of Cisco Desktop Administrator: Standard, Enhanced, and Premium.

The following table lists the features that are available in each feature level of Desktop Administrator. Features that are not listed here are in all three feature levels.

**Table 1.** Desktop Administrator features

Feature	Standard	Enhanced	Premium
<b>Cisco Desktop Administrator</b>			
Configure enterprise data	●	●	●
Configure desktop and server monitoring		●	●
Configure Cisco Unified Presence	●	●	●
<b>Cisco Work Flow Administrator</b>			
Configure work flows		●	●
Configure CAD interface		●	●
Configure dial strings and phone books		●	●
Configure integrated browser		●*	●
Cisco Outbound Dialer			●

\* CAD-BE only

## Related CAD Documentation

The following documents contain additional information about CAD 8.5:

- *Cisco CAD Installation Guide*
- *Cisco Agent Desktop User Guide*
- *Cisco Agent Desktop—Browser Edition User Guide*
- *Cisco Supervisor Desktop User Guide*
- *Cisco IP Phone Agent User Guide*
- *Mobile Agent Guide for Cisco Unified CC Enterprise*
- *Cisco CAD Service Information*
- *Integrating CAD into a Thin Client Environment*

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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We appreciate your comments.



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# Getting Started with Cisco Desktop Work Flow Administrator

# 1

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## Introduction

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Desktop Work Flow Administrator allows only one person to view and/or edit data in it at any one time. If someone is using Desktop Work Flow Administrator when you try to access it, an error message appears that identifies the IP address of the other user's computer.

For this reason, it is important that you close Desktop Work Flow Administrator completely when you are done using it. As long as the application is running, a license is being used and others are blocked from accessing it.

## **Starting Desktop Work Flow Administrator**

***To start Desktop Work Flow Administrator:***

1. Click Start > Programs > Cisco > Desktop > Admin. Desktop Work Flow Administrator starts.
2. Click the Call Center 1 node to expand the navigation tree. By default, Desktop Work Flow Administrator is not password-protected and the tree will expand. If a password is configured, Desktop Work Flow Administrator will prompt you for it now.

For more information about passwords, see ["Configuring Passwords" on page 21](#).



## Automated Updates

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CAD can be configured during installation so that every time a CAD client application is launched, the software checks to see if there is an updated version available. If there is, the software automatically runs the update process. Automatic software update requires either administrative or elevated (system) privileges.

When the update process runs, a dialog box appears, stating that your copy of Desktop Work Flow Administrator will be updated. Click OK and then follow the instructions in the series of dialog boxes that follows. After the update finishes, a final dialog box appears, stating that your update is complete. Click OK, and restart Desktop Work Flow Administrator.

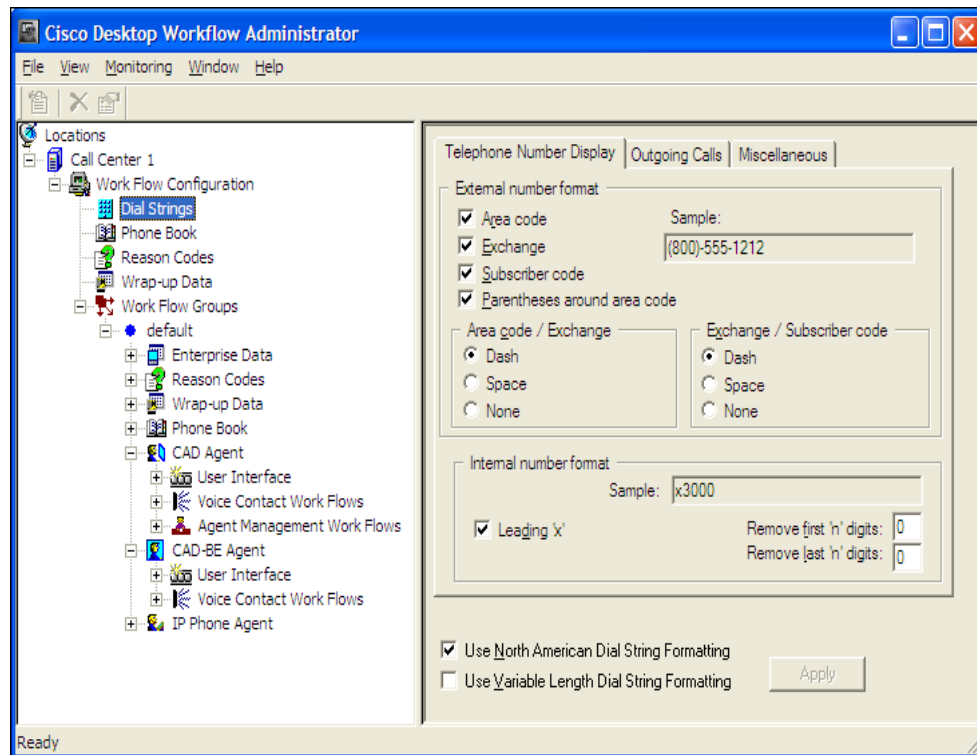
**NOTE:** To ensure that automated updates function correctly, you must configure Internet Explorer so that it checks for newer versions of stored pages. To configure this setting, launch Internet Explorer and choose Tools > Internet Options. In the Browsing history section on the General tab, click Settings. Select the option labeled Every time I visit the web page.

**NOTE:** On a machine where both Supervisor Desktop and Desktop Administrator are installed, if an automated update of one desktop application completes successfully but an automated update of the other desktop application fails to complete for any reason, then automated updates will no longer work. Refer to the *Cisco CAD Troubleshooting Guide* for more information.

## The Desktop Work Flow Administrator Interface

The Desktop Work Flow Administrator interface has two panes. The left pane is a navigation tree similar to that found in Windows Explorer. The right pane displays the application that you choose in the left pane. [Figure 1](#) shows the Desktop Work Flow Administrator interface with the Dial Strings node selected in the left pane and the corresponding information displayed in the right pane.

**Figure 1.** Desktop Work Flow Administrator interface









### Toolbars and Menu Bars

When you select a node on the navigation tree, the Desktop Work Flow Administrator menu bar and toolbar change to reflect the functionality of that node.

The toolbar buttons you see are among those listed in [Table 2](#).

**Table 2.** Desktop Work Flow Administrator toolbar buttons

Icon	Name	Description
	About	Display copyright and version information.
	Delete	Remove the selected work flow group.
	Remove VoIP, Recording/ Playback Services	Remove unneeded services from Directory Services.
	Help	Access Help files.
	New	Add a new work flow group.
	Properties	Display the URL of the selected subnode under the Unified CCE Configuration node.
	Web	Open a browser window and access the Cisco website.

## Navigation Tree Pane

Use the following mouse actions to navigate the left pane.

- Double-click an icon/application name to expand or collapse the tree.
- Click the plus sign (+) to expand the tree.
- Click the minus sign (–) to collapse the tree.
- Right-click to delete a node (not available for all nodes).

Use the following keyboard actions to navigate the left pane. With a node selected:

- Press the up and down arrow keys to move from one node to the next.
- Press the left arrow key to collapse the tree.
- Press the right arrow key to expand the tree.

## Display Pane Navigation

The applications displayed in the right pane are designed to use shortcut keys and the tab key as alternatives to using the mouse to navigate around a window. The shortcut keys that apply to a specific node are discussed in the section devoted to that node's functions.

## **User Privileges in Microsoft Windows**

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Because Desktop Work Flow Administrator users must be able to update registry settings, they must have Administrator or Power User privileges on Microsoft Windows platforms. See your Microsoft Windows documentation for information on managing user privileges.

## Configuring Passwords

You can use a password to protect both Desktop Work Flow Administrator and Desktop Administrator. If you do not want Desktop Work Flow Administrator to be password-protected, do not configure a password.

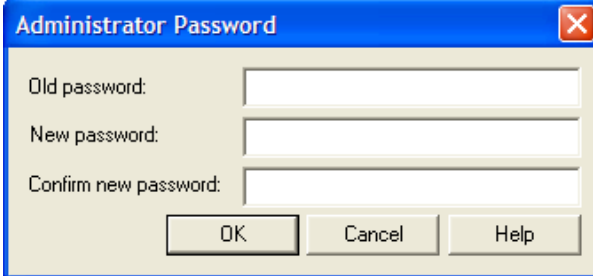
### Configuring a Password in Desktop Work Flow Administrator

A password is optional for Desktop Work Flow Administrator. If a password is configured, when you select the contact center node you will be prompted to provide the password before you can access any of the subnodes.

#### *To set up password protection for Desktop Work Flow Administrator:*

1. In the navigation pane, select the Call Center 1 node.
2. Choose Setup > Change Password. The Administrator Password dialog box appears (Figure 2).

Figure 2. Administrator Password dialog box

The image shows a Windows-style dialog box titled "Administrator Password". It has a blue title bar with a red close button in the top right corner. The dialog box contains three text input fields: "Old password:", "New password:", and "Confirm new password:". Below these fields are three buttons: "OK", "Cancel", and "Help". The "Old password" field is currently empty.

3. Leave the Old password field blank. Type a password in the New password and Confirm new password fields, then click OK. Desktop Work Flow Administrator is now password protected. You must restart the application to make the change go into effect.

**NOTE:** Passwords are case sensitive and must consist of 1 to 32 alphanumeric characters.

#### *To change your password for Desktop Work Flow Administrator:*

1. In the left pane, select the Call Center 1 node.
2. Choose Setup > Change Password. The Change Password dialog box appears (Figure 2).

3. Type your current password in the Old password field. Type a new password in the New password and Confirm new password fields, then click OK. Your Desktop Work Flow Administrator password is now changed. You must restart the application for the change to go into effect.

***To remove password protection from Desktop Work Flow Administrator:***

When you remove password protection from Desktop Work Flow Administrator, you automatically reset the password in Desktop Work Flow Administrator to the default value, which is blank.

1. In the left pane, select the Call Center 1 node.
2. Choose Setup > Change Password. The Change Password dialog box appears (Figure 2).
3. Type your current password in the Old password field. Leave the New password and Confirm password fields blank, then click OK.
4. You are asked to confirm that you want to leave Desktop Work Flow Administrator unprotected. Click Yes. The Desktop Work Flow Administrator password is removed. You must restart the application for the change to go into effect.

You can also reset the password using the Reset Administrator Password option on the File menu in the CAD Configuration Setup window.

## Client Applications

User IDs, login names, and passwords are administered in Unified ICM for the following applications:

- Agent Desktop
- CAD-BE
- IP Phone Agent

A user's password is verified on the CTI server when the user starts an application.

### **Agent Desktop, CAD-BE, and IP Phone Agent User ID, Login Name, and Password**

Agent Desktop, CAD-BE, and IP Phone Agent user IDs, login names, and passwords are set up in Unified ICM and can be administered only through Unified ICM. Use Unified ICM to change a user's Agent Desktop password if necessary.

### **Supervisor Desktop User ID, Login Name, and Password**

A user's Supervisor Desktop user ID and login name are the same as the user's Agent Desktop user ID and login name, and are set up in Unified ICM.

The first time Supervisor Desktop is started, the password is blank. It is up to the supervisor to create a password using the Change Password functionality within Supervisor Desktop.

The Supervisor Desktop password can be changed from within Supervisor Desktop or from the Personnel node in Desktop Administrator (for more information, see “Logging into Supervisor Desktop” in the *Cisco Supervisor Desktop User Guide*).

## Synchronizing Directory Services

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The Directory Services database should be synchronized with the master Unified ICM agent database. You can synchronize the agent database between Unified ICM and Directory Services with the Synchronize Directory Services command.

By default, the database is synchronized once every 10 minutes. You can change the synchronization interval by changing a setting in the DirAccessSynSvr.cfg file or you can synchronize the databases manually.

***To synchronize the databases manually:***

1. In the left pane, select the logical contact center node.
2. Choose Setup > Synchronize Directory Services. When the synchronization is complete, a message appears, stating that the synchronization was successful.

**NOTE:** You can also manually synchronize Directory Services from Desktop Administrator. See ["Synchronizing Directory Services" on page 169](#) for more information.



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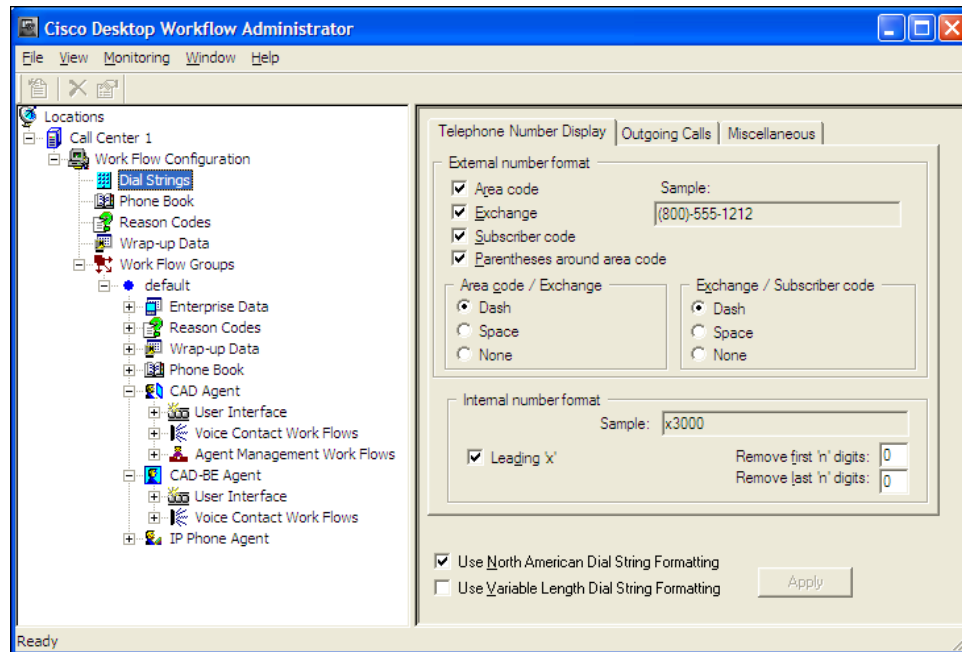
## Introduction

You can use Work Flow Configuration to configure and manage the appearance and behavior of Agent Desktop, CAD-BE, and IP Phone Agent. Work Flow Configuration has the following functions:

- [Dial Strings \(page 27\)](#)
- [Phone Books \(page 39\)](#)
- [Reason Codes \(page 46\)](#)
- [Wrap-up Data \(page 50\)](#)
- [Work Flow Groups \(page 58\)](#)

To use a Work Flow Configuration function, select the corresponding node in the left navigation pane in the Desktop Work Flow Administrator window (Figure 3). The right pane displays the options that can be configured for the selected node.

Figure 3. Work Flow Configuration — Dial Strings node



The CAD client applications must be restarted for any configuration changes you make to go into effect.

**NOTE:** When configuring the name or ID of objects (examples are work flow groups, work flows, agent login names, server names, and macro names), do not use the “=” character. This can cause problems when backing up and restoring data.

## Dial Strings

---

Use the Dial Strings function to configure the way desktop applications display and dial phone numbers.

**NOTE:** CAD-BE dial strings are not configurable.

First, select the appropriate check box at the bottom of the Dial Strings pane to choose the dial string format you will use. You must select one check box. The following formats are available.

- [North American Dial String Formatting \(page 27\)](#)
- [Variable Length Dial String Formatting \(page 35\)](#)

Different tabs are available, depending on the check box you select.

### North American Dial String Formatting

If you choose North American dial string formatting, the following tabs are available.

- [Telephone Number Display \(page 28\)](#)
- [Outgoing Calls \(page 29\)](#)
- [Miscellaneous \(page 34\)](#)

## Telephone Number Display

Use the Telephone Number Display tab (Figure 4) to configure the format that Agent Desktop uses to display phone numbers. The selections you make are illustrated in the sample fields, with the exception of the “Remove first ‘n’ digits” and “Remove last ‘n’ digits” fields. If you type non-zero values in one or both of these fields, the sample does not change.

Figure 4. Telephone Number Display tab

Telephone Number Display | Outgoing Calls | Miscellaneous

External number format

☒ Area code      Sample: (800)-555-1212

☒ Exchange

☒ Subscriber code

☒ Parentheses around area code

Area code / Exchange      Exchange / Subscriber code

☒ Dash      ☒ Dash

☐ Space      ☐ Space

☐ None      ☐ None

Internal number format

Sample: x3000

☒ Leading 'x'

Remove first 'n' digits: 0

Remove last 'n' digits: 0

Table 3 describes the sections on the Telephone Number Display tab.

Table 3. Telephone Number Display tab — description

Section	Description
External number format	The format of the calling number and called number.
Area code/Exchange	The separator between area code and exchange.
Exchange/Subscriber code	The separator between exchange and subscriber code.
Internal number format	The number of digits displayed for internal phone numbers. You can also add a leading 'x' (extension).

### To configure the telephone number display:

- Select or clear the check boxes and radio buttons on the Telephone Number Display tab as desired, then click Apply to save your changes.

## Outgoing Calls

Use the Outgoing Calls tab (Figure 5) to configure local area codes and exchanges.

Figure 5. Outgoing Calls tab

Telephone Number Display | **Outgoing Calls** | Miscellaneous

Local area code:  [Advanced Dialing...](#)

Prefixes

Local line access code:

Long distance line access code:

☒ Ensure a 1 on long distance calls

☐ Use area code for toll calls within the area code

☒ Use area code for local calls

Local exchanges

☐ All exchanges are local

520  
612  
651

Table 4 describes the sections and options on the Outgoing Calls tab.

Table 4. Outgoing Calls tab — description

Section/option	Description
Local area code	The local 3-digit area code. <b>NOTE:</b> If you must dial the area code for local calls, leave this field blank.
Advanced Dialing...	Configure <a href="#">Advanced Internal Dialing</a> and <a href="#">Advanced External Dialing</a> .
Prefixes	
Local line access code	The number needed to access an outside local line.
Long distance line access code	The number needed to access an outside long distance line.
Ensure a 1 on long distance calls	Automatically dial a “1” before dialing a long distance phone number.

Table 4. Outgoing Calls tab — description (cont'd)

Section/option	Description
Use area code for toll calls within the area code	Automatically dial the local area code before dialing any numbers that are not in the local exchange list.
Use area code for local calls	Automatically dial the local area code before dialing any numbers in the local exchange list.
Local exchanges	To create a list of exchanges for which it is NOT necessary to dial "1" first, click Add. Alternatively, select the All exchanges are local check box.

**To configure outgoing calls:**

- Enter information and select or clear the appropriate check boxes on the Outgoing Calls tab as desired, then click Apply to save your changes.

**Advanced Internal Dialing**

Use the Advanced Internal Dialing tab on the Advanced Dialing Plan window (Figure 6) to configure additional internal dialing options. To access this window, click Advanced Dialing on the Outgoing Calls tab.

Figure 6. Advanced Dialing Plan — Advanced Internal Dialing tab

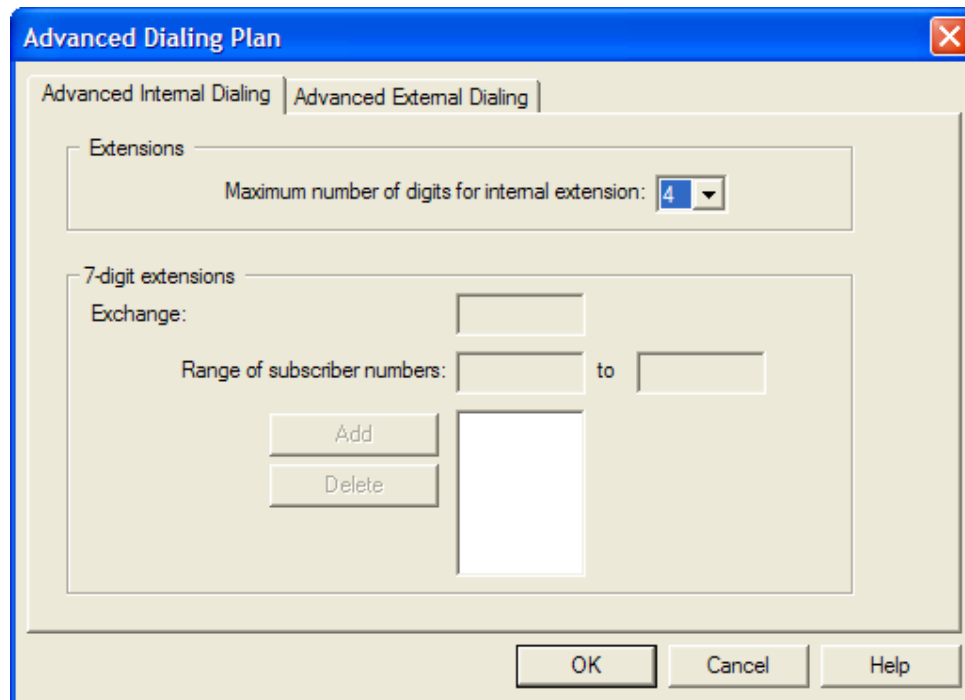


Table 5 describes the sections on the Advanced Internal Dialing tab.

Table 5. Advanced Internal Dialing tab — description

Section	Description
Extensions	The maximum number of digits in an internal extension number, from 1–12.  <b>NOTE:</b> If you select 7, you must specify the internal exchange and the corresponding range of subscriber numbers, so that the application can distinguish between a 7-digit internal phone number and a 7-digit outgoing call.
7-digit extensions:	(Available only if you select 7 or more as the maximum number of digits for internal extensions.)
Exchange	The internal exchange.
Range of subscriber numbers	The range of subscriber numbers from low to high that correspond to the selected exchange.

**To configure advanced internal dialing options:**

1. Select the maximum number of digits used for internal extensions.
2. If you select 7 or more as the maximum number of digits for internal extensions, complete the following steps.
  - a. Type a number in the Exchange field.
  - b. Type the first number in the Range of subscriber numbers field.
  - c. Type the last number in the To field.
  - d. Click Add.
  - e. Repeat steps a through d for each additional exchange used.
3. Click OK to save your changes and close the Advanced Dialing Plan window.

## Advanced External Dialing

Use the Advanced External Dialing tab on the Advanced Dialing Plan window to configure additional external dialing options (Figure 7). To access this window, click Advanced Dialing on the Outgoing Calls tab.

Figure 7. Advanced External Dialing tab

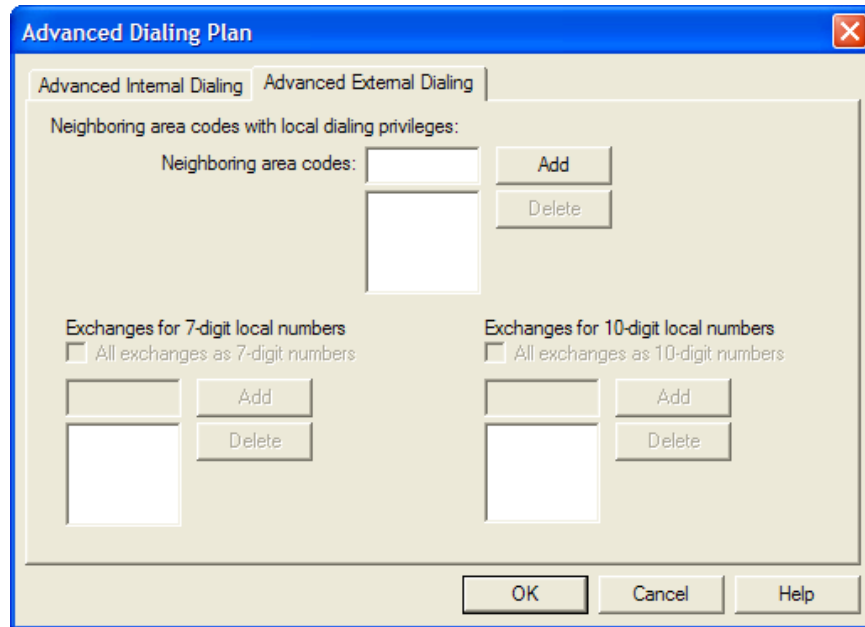


Table 6 describes the sections on the Advanced External Dialing tab.

Table 6. Advanced External Dialing tab — description

Section	Description
Neighboring area codes with local dialing privileges	The area codes to which you can place toll-free calls.
Exchanges for 7-digit local numbers	The exchanges within a selected area code that do not require '1' or an area code. Available only if you enter one or more neighboring area codes.
Exchanges for 10-digit local numbers	The exchanges within a selected area code that require an area code but not '1'. Available only if you enter one or more neighboring area codes.



***To configure advanced external dialing options:***

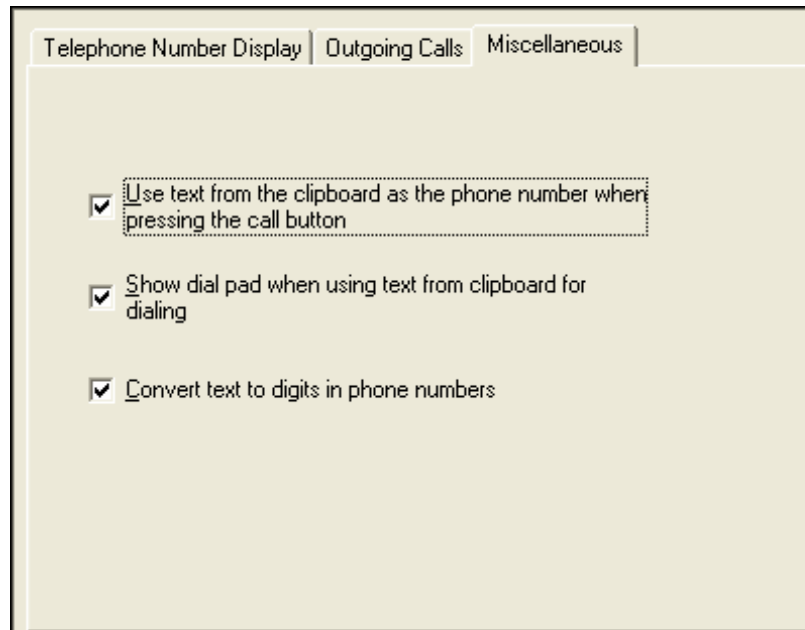
1. Type a number in the Neighboring area codes field, then click Add.
2. If appropriate, complete one of the following steps.
  - If there are no exchanges within the neighboring area code that you entered in step 1 that require '1' or an area code, select the All exchanges as 7-digit numbers check box.
  - If all exchanges within the neighboring area code that you entered in step 1 require an area code but not '1', select the All exchanges as 10-digit numbers check box.
3. If the neighboring area code that you entered in step 1 has one or more exchanges that do not require '1' or an area code, type the numbers in the Exchanges for 7-digit local numbers field, then click Add.
4. If the neighboring area code that you entered in step 1 has one or more exchanges that require an area code but not '1', type the numbers in the Exchanges for 7-digit local numbers field, then click Add.
5. Repeat step 1 through step 4 for each neighboring area code that you wish to configure.
6. Click OK to save your changes and close the Advanced Dialing Plan window.

## Miscellaneous

Use the Miscellaneous tab to set up additional dialing properties ([Figure 8](#)).

**NOTE:** This tab is the same for North American and variable length dial string formatting.

Figure 8. Miscellaneous tab



[Table 7](#) describes the options on the Miscellaneous tab.

Table 7. Miscellaneous tab — description

Options	Description
Use text from the clipboard as the phone number when pressing the call button	Enable Agent Desktop to use clipboard text as the dialed number when the Call button is pressed, as long as the clipboard text is a valid text string.
Show the dial pad when using text from the clipboard for dialing.	Display the dial pad before dialing a number from the clipboard. If unselected, Agent Desktop dials the number without displaying the dial pad. Available only if “Use text from the clipboard...” is selected.

Table 7. Miscellaneous tab — description (cont'd)

Options	Description
Convert text to digits in phone numbers	Converts phone numbers expressed in alphabetic characters (for example, 1-800-ANYWORD) to their numeric equivalents before dialing.

*To configure the miscellaneous options:*

- Select or clear the appropriate check boxes on the Miscellaneous tab as desired, and then click Apply to save your changes.

## Variable Length Dial String Formatting

If you choose variable length dial string formatting, the following tabs are available.

- [Telephone Number Display \(page 28\)](#)
- [Phone Number Format \(page 37\)](#)
- [Advanced Internal Dialing \(page 30\)](#)

### Telephone Number Display

Use the Telephone Number Display tab to configure the way Agent Desktop displays phone numbers ([Figure 9](#)).

The selections you make are illustrated in the sample fields, with the exception of the “Remove first ‘n’ digits” and “Remove last ‘n’ digits” fields. If you type non-zero values in one or both of these fields, the sample does not change.)

**NOTE:** The number of digits displayed in each section of the sample phone number is for illustration only. The samples do not reflect the number format you set up on the Phone Number Format tab.

Figure 9. Telephone Number Display tab

The screenshot shows the 'Telephone Number Display' tab with three sub-sections: 'External number format', 'Internal number format', and 'Miscellaneous'. The 'External number format' section includes a 'Sample' field showing '(1234)-56789', three checked checkboxes for 'City Code', 'Subscriber code', and 'Parentheses around city code', and a 'City / Subscriber code' section with radio buttons for 'Dash' (selected), 'Space', and 'None'. The 'Internal number format' section includes a 'Sample' field showing 'x2000', a checked checkbox for 'Leading x', and two input fields for 'Remove first 'n' digits' and 'Remove last 'n' digits', both set to '0'.

Table 8 describes the sections on the Telephone Number Display tab.

Table 8. Telephone Number Display tab — description

Section	Description
External number format	The format of the calling and called numbers.
City/subscriber code	The separator between the city and subscriber codes.
Internal number format	The number of digits displayed for internal phone numbers. You can also add a leading 'x' (extension).

**To configure the telephone number display:**

- Enter data and select or clear the appropriate check boxes and radio buttons as desired, then click Apply to save your changes.

### Phone Number Format

Use the Phone Number Format tab (Figure 10) to configure the format for phone numbers that do not use North American dial string formatting. You can also set the maximum number of digits in an internal phone extension. You can establish as many formats as you want, as long as each format has a unique total length.

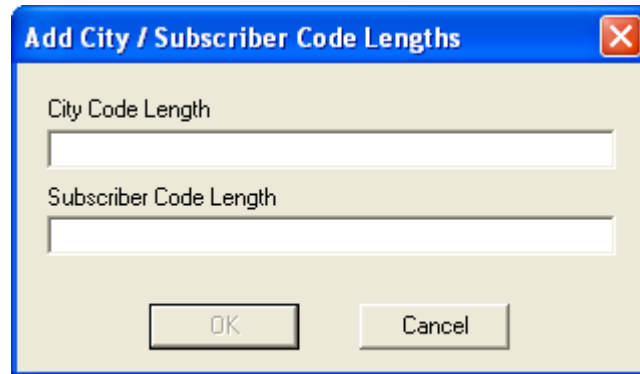
Figure 10. Phone Number Format tab

The screenshot shows a window titled 'Telephone Number Display' with three tabs: 'Telephone Number Display', 'Phone Number Format' (which is selected), and 'Miscellaneous'. Inside the 'Phone Number Format' tab, there is a label 'Maximum number of digits for internal extension:' followed by a text box containing the number '4'. Below this is a table with three columns: 'Maximum Length', 'City Code Length', and 'Subscriber Code Length'. The table contains two rows of data. At the bottom of the window, there are three buttons: 'Add', 'Edit', and 'Delete'.

Maximum Length	City Code Length	Subscriber Code Length
10	3	7
9	4	5

**To add a new phone number format:**

1. Click Add. The Add City/Subscriber Code Lengths dialog box appears.

**Figure 11.** Add City/Subscriber Code Lengths dialog box

2. Type the number of digits for city codes and subscriber codes, then click OK. The numbers you entered are displayed in the phone number format pane, with the calculated total length of the format.

**NOTE:** You cannot enter another format with the same total length.

3. When you are finished adding formats, click Apply. The new phone number format is saved.

**To edit a phone number format:**

1. Select a number format, then click Edit. The Edit City/Subscriber Code Lengths dialog box appears.
2. Make your changes, then click OK.
3. Click Apply to save your changes. The phone number format is changed.

**To delete a phone number format:**

1. Select a number format, then click Delete.
2. Click Apply to save your changes. The phone number format is deleted.

**Miscellaneous**

The Miscellaneous tab for variable length dial string formatting is the same as the Miscellaneous tab for North American dial string formatting.

See ["Miscellaneous" on page 34](#) for a description of the Miscellaneous tab.

## Phone Books

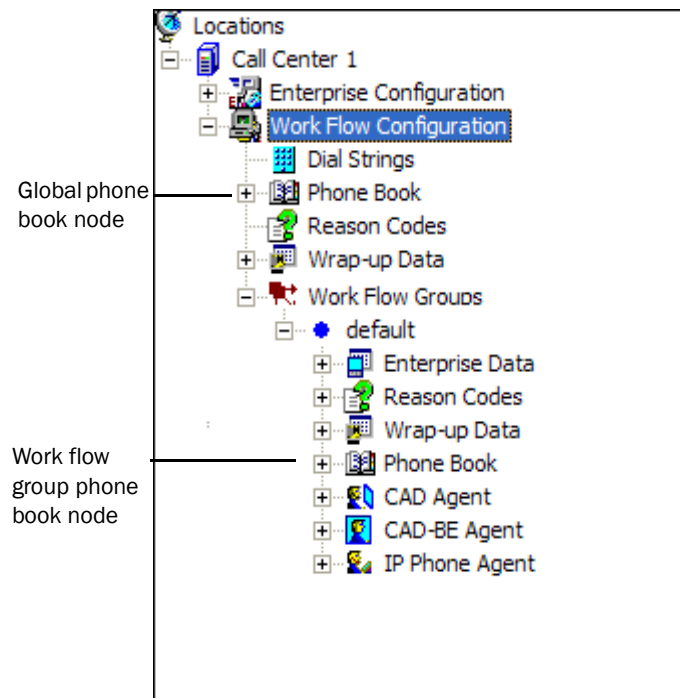
Agents have the following types of phone lists available to them.

- The Recent Call List, a dynamic list of up to 100 recently called phone numbers kept by Agent Desktop
- A personal phone book with a maximum of 3,000 entries, created and maintained by the agent (and enabled/disabled by the administrator)
- Global phone books, each with a maximum of 3,000 entries, created by the administrator with the global Phone Book function
- Work flow group phone books, each with a maximum of 3,000 entries, created by the administrator with the work flow group Phone Book function

The maximum number of phone books (global and work flow group) is 256. The system can support no more than 10,000 total phone book entries (global, personal, and work flow group phone books).

Global phone books are created and maintained using the Phone Book node under the Work Flow Configuration application. Work flow group phone books are created and maintained using the Phone Book node under the specific work flow group node (Figure 12).

**Figure 12.** Global and work flow phone book nodes

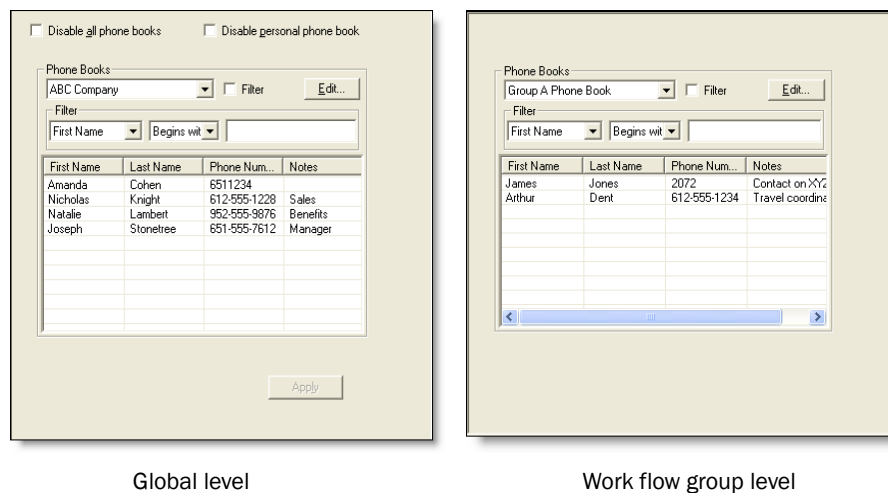


Use the global phone book (Figure 13, left) to create and manage the global phone books that are shared by all agents.

Use the work flow group phone book (Figure 13, right) to create and manage the work flow group phone books that are shared by agents in specific work flow groups.

Phone books and phone book entries are created and maintained in the Phone Book Editor dialog box (see ["Creating Phone Books" on page 41](#)).

**Figure 13. Phone Book window**



## Using the Phone Book Filter

You can use the phone book filter to find phone book entries more easily. The filter enables you to limit the entries listed in the phone book window. You can use any of the four phone book fields to filter the entries.

### *To use the phone book filter:*

1. In the Phone Book window, select the Filter check box.
2. From the Filter drop-down lists, select how you want to filter the entries. In the first two drop-down lists, select your filter criteria: the field to filter by, and the filter method. In the third field, enter the filter string.

For example, if you want to see all phone book entries for persons whose last name begins with "J", select "Last Name" from the first drop-down list, "Begins with" from the second drop-down list, and enter J in the third field.

The filter operates as soon as you enter your filter string in the third field.

3. To stop filtering the phone book, clear the Filter check box or delete the filter string in the third field. The entire phone book will once again be visible.



## Creating Phone Books

### To set up a new phone book:

1. In the global or work flow group phone book window, click Edit. The Phone Book Editor window appears (Figure 14).

Figure 14. Phone Book Editor window

First Name	Last Name	Phone Num...	Notes
Amanda	Cohen	6511234	
Nicholas	Knight	612-555-1228	Sales
Natalie	Lambert	952-555-9876	Benefits
Joseph	Stonetree	651-555-7612	Manager

2. Type a name for the new phone book in the Phone Books field, then click Add. The new phone book is added to the list of phone books.
3. Click OK. The new phone book is saved and the Phone Book Editor window closes.

### To add phone book entries:

1. In the Phone Book window, select a phone book from the drop-down list, then click Edit. The Phone Book Editor window appears.
2. Enter a first and last name, phone number, and optional note for a person or company, then click Add to add the information to the phone book.

**NOTE:** The Phone Number field allows only numbers (0-9), letters (aA-zZ), spaces, and the characters ' ( ) + ; / : . = ?.

If you enter any other character you are advised you used a disallowed character. The disallowed character will be replaced by a question mark so you can change it to an allowed character.

3. Repeat Step 2 as needed to enter all entries to the phone book. When you are done adding entries, click OK. Your entries are saved and the Phone Book Editor window closes.

***To edit phone book entries:***

1. Navigate to the global or work flow group phone book node.
2. Select a phone book from the drop-down list, then click Edit. The Phone Book Editor window appears.
3. Select an entry in the phone book, then complete one of the following steps.
  - To modify the entry, click Edit.
  - To delete the entry, click Delete.
4. When you are done editing entries, click OK. Your changes are saved and the Phone Book Editor window closes.

## Enabling or Disabling Phone Books

Phone books can be enabled or disabled only on the global level.

***To disable phone books:***

1. Navigate to the global phone book node.
2. If you wish to remove agent access to all global and work flow group phone books, select the Disable all phone books check box.
3. If you wish to remove agent access to all personal phone books, select the Disable personal phone book check box.

**NOTE:** All agents must log out and close Agent Desktop in order for the disabling of phone books to take effect.

4. Click Apply.

***To enable phone books:***

1. Navigate to the global phone book node.
2. If you wish to add agent access to all global and work flow group phone books, clear the Disable all phone books check box.

3. If you wish to add agent access to all personal phone books, clear the Disable personal phone book check box.
4. Click Apply.

## Importing and Exporting Phone Books

Importing and exporting phone books makes creating and maintaining large phone books (up to 3000 entries) easier than with the Phone Book Editor window. Phone books can be created and edited in any third-party application that accepts comma-separated value (CSV) files, such as a text editor or spreadsheet. Using the third-party application, you can edit exported phone books—make bulk changes (for example, changing an area code), and adding and deleting phone numbers. The updated file can then be imported into Desktop Work Flow Administrator to replace the previous version.

**NOTE:** Phone books for double-byte languages must use UTF-8 character format in order for the double-byte characters to be imported successfully.

### CSV File Format

The phone book CSV file contains the fields shown in [Table 9](#).

**Table 9.** Phone book CSV file details

Field	Max Length	Permitted Characters	Can Be Blank?
First Name	100	Any printable	No
Last Name	100	Any printable	No
Phone Number	40	0–9, aA–zZ, ' ( ) + / : . = ?	No
Notes	256	Any printable	Yes

An example of a phone book CSV file is shown below.

```
"First Name","Last Name","Phone Number","Notes"
"Amanda","Cohen","6511234",""
"Nicholas","Knight","612-555-1228","Sales"
"Natalie","Lambert","952-555-9876","Benefits"
"Joseph","Stonetree","651-555-7612","Manager"
```

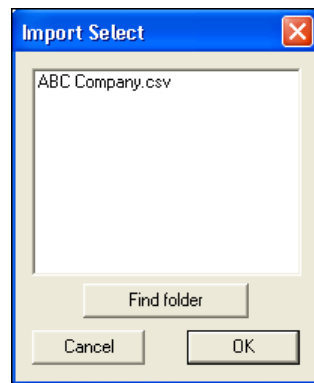
A phone book CSV files must conform to this format and include the headers in the first line. During import the file is scanned for illegal characters. If any are found, they are replaced with question marks.

**NOTE:** Exported CSV files will always show each field enclosed in double quotes, as in the example above. This is to ensure that any commas or double quotes that are part of the actual field data are not mistaken for field delimiters. If your data does not include these characters, you can omit the double quotes in files you prepare for importing.

**To import a phone book:**

1. Make sure the phone book CSV file is formatted correctly, as specified in the section, ["CSV File Format" on page 43](#).
2. In the Phone Book window, click Edit. The Phone Book Editor window appears ([Figure 14 on page 41](#)).
3. Click Import. The Import Select dialog box appears ([Figure 15](#)).

**Figure 15.** Import Select dialog box



Any CSV files located in the default folder  
C:\Program Files\Cisco\Desktop\config are listed. If your file is located  
somewhere else, click Find folder to browse to its location.

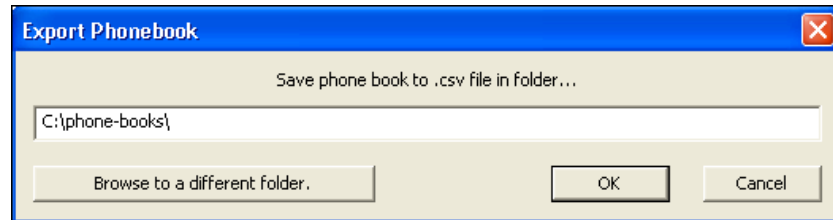
4. Select the file you want to import and then click OK. The phone book is imported and is added to the list of available phone books in the Current List pane.

The CSV file name (without the CSV suffix) becomes the phone book name. If that name is already in use, you will be asked if you want to replace the existing phone book with the imported phone book. If you do not want to replace the existing phone book, cancel the import, rename the CSV file, and try again.

5. Click OK to close the Phone Book Editor window.

**To export a phone book:**

1. In the Phone Book window, click Edit. The Phone Book Editor window appears ([Figure 14 on page 41](#)).
2. In the Current list pane, select the phone book you want to export, and then click Export. The Export Phone Book dialog box appears ([Figure 16](#)).

**Figure 16. Export Phone Book dialog box**

3. The default export location is the C:\Program Files\Cisco\Desktop\config folder. If you have imported or exported a phone book previously, the location you chose then is shown. If you want to export the phone book to a different location, click Browse to a different folder and navigate to that location.
4. Click OK. The phone book is exported to the selected location. The file name is the name of the phone book with the CSV file extension.

## Reason Codes

Reason codes describe why an agent has changed to the Not Ready agent state or has logged out.

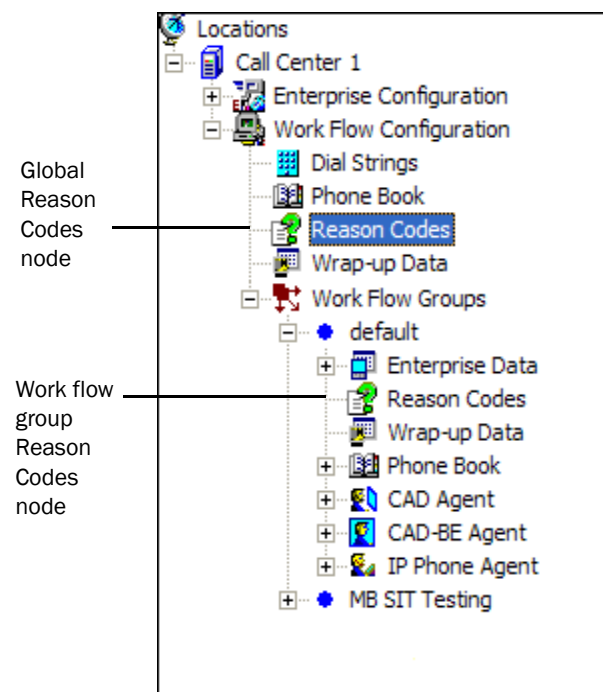
There is no limit on how many reason codes can be configured and displayed in Agent Desktop and CAD-BE. There is no limit to how many reason codes can be configured for IP Phone Agent, but IP Phone Agent can display only 100 reason codes.

**NOTE:** It is recommended as a best practice that you configure no more than 20 reason codes for agents to use.

Reason codes are set up and maintained in Unified ICM using the Cisco Unified Contact Center Enterprise Web Administration Tool (if you use System IPCC) or Unified ICM Configuration Manager (if you use anything other than System IPCC, for example, Unified ICM Enterprise/Hosted or Unified CC Enterprise/Hosted). You use Desktop Work Flow Administrator to assign reason codes to agents on both a global and work flow group level.

Global reason codes are assigned using the Reason Codes node under the Work Flow Configuration node. Work flow group reason codes are assigned using the Reason Codes node under the specific work flow group node ([Figure 17](#)).

**Figure 17.** Global and work flow reason code nodes



Global reason codes are available for use by all agents. Work flow group reason codes are available only to those agents in that specific work flow group.

Reserved reason codes are predefined in LDAP and cannot be created or deleted. These reason codes are automatically applied to events over which agents have no control, such as being logged out by a supervisor or because of a system failure. They are not visible to the agent, but appear only in reports and in the global Reason Codes window.

**NOTE:** It is recommended that reason codes created in Unified ICM do not use the same reason code numbers as the reserved reason codes. If there are duplicated reason code numbers, errors in reporting and other problems might result.

Table 10 lists the reserved reason codes.

**Table 10. Reserved reason codes**

Reason Code	Description
-3	Extension modified while logged in
-2	PG failure
-1	Peripheral restarted
22	Supervisor logout
33	Supervisor not ready
20001	Not Ready for force logout
20002	Force logout
20003	Not Ready for logout
32767	Ring no answer
50001	CTI OS disconnect
50002	CTI OS component disconnect
50003	Device out of service
50004	Agent inactivity
50010	Routed call NOT delivered
50020	Agent Re-skill

Not Ready and Logout reason codes are enabled or disabled on the work flow group level.

**NOTE:** You can configure reason codes within the Cisco Unified Contact Center Enterprise Web Administration Tool (if you use System IPCC) or the Unified ICM Configuration Manager (if you use anything other than System IPCC) so that they are required when logging out or going to the Not Ready state. However, Agent Desktop cannot detect these settings. It is recommended that the enterprise desk settings “Idle reason required” and “Logout reason required” be left unselected and that the enabling or disabling of reason codes be done within Desktop Work Flow Administrator.

**NOTE:** Agents must restart Agent Desktop, CAD-BE, and IP Phone Agent to see any changes you make to reason codes.

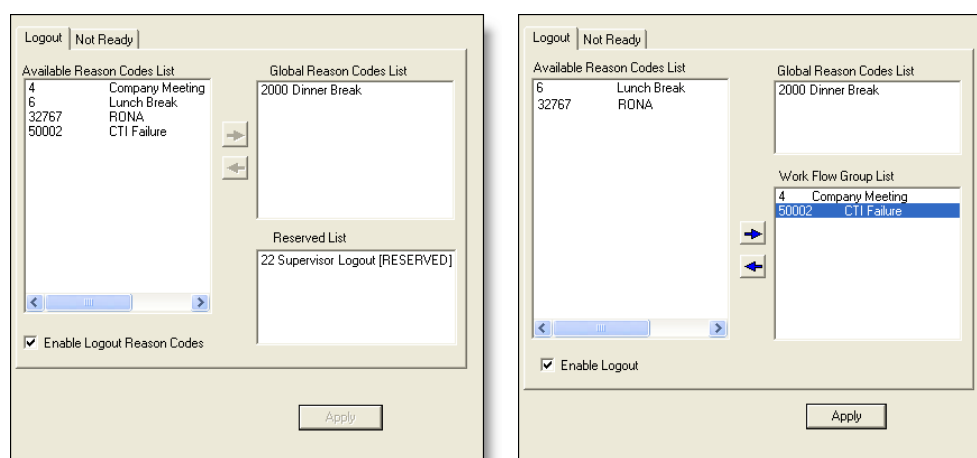
**NOTE:** Depending on whether the agent’s IP phone has UTF-8 support for double-byte languages, reason codes in IP Phone Agent might not display correctly. See the *Cisco CAD Installation Guide* for more information on language support for IP Phone Agent.

## Assigning Reason Codes

*To assign global reason codes:*

1. Select the global Reason Codes node in the navigation tree to display the Reason Codes window (Figure 18, left).

**Figure 18.** Reason Code window — global (left) and work flow group (right)



2. Select the appropriate tab for the type of reason codes you want to assign: Logout or Not Ready.



3. From the Available Reason Codes List, select the reason codes you want available to all agents, and then click the right arrow button to move them to the Global Reason Codes List.
4. Click Apply.

***To assign work flow reason codes:***

1. Select the Reason Codes node under the desired work flow group in the navigation pane to display the Reason Codes window ([Figure 18, right](#)).
2. Select the appropriate tab for the type of reason codes you want to assign, Logout or Not Ready.
3. From the Available Reason Codes List, select the reason codes you want available to agents in that work flow group, and then click the right arrow button to move them to the Work Flow Group List.
4. Select the Enable Logout Reason Codes or Enable Not Ready Reason Codes check box to enable that type of reason code for the agents in that work flow group. This includes any global reason codes set up.
5. Click Apply.

## **Enabling or Disabling Reason Codes**

Reason codes can be enabled or disabled only on the work flow group level. This must be done individually for every work flow group.

***To enable or disable reason codes:***

1. Select the Reason Codes node under the work flow group whose reason codes you want to enable or disable.
2. Select the appropriate tab and then select or clear the Enable Logout Reason Codes or Enable Not Ready Reason Codes check box.
3. Click Apply.

## Wrap-up Data

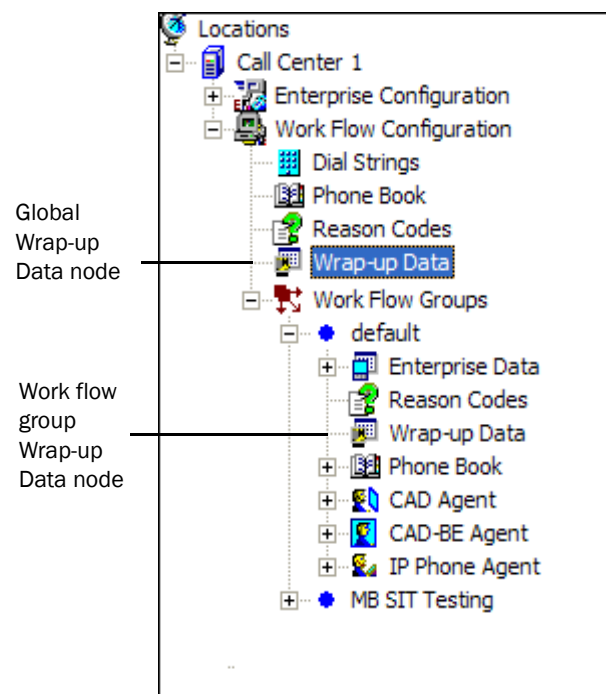
Wrap-up data descriptions are used by contact centers for purposes such as tracking the frequency of different activities and identifying the account to which to charge a call. Wrap-up data is set up and maintained and automated state changes are enabled using the Wrap-up Data window.

There is no limit on how many wrap-up descriptions can be configured and displayed in Agent Desktop and CAD-BE. There is no limit to how many wrap-up descriptions can be configured for IP Phone Agent, but IP Phone Agent can display only 100 wrap-up descriptions.

**NOTE:** Agent Desktop and CAD-BE agents must log out, exit, and restart the application for changes to take effect.

Global wrap-up data descriptions are created and assigned using the Wrap-up Data under the Work Flow Configuration node. Work flow group wrap-up data descriptions are created and assigned using the Wrap-up Data node under the specific work flow group node (Figure 19).

**Figure 19.** Global and work flow group wrap-up data



In Agent Desktop, CAD-BE, and IP Phone Agent, the agent selects the appropriate wrap-up data description at the beginning of the wrap-up work time following a call.

The value that the agent selects appears in the Termination\_Call\_Detail record for the call in the Unified ICM database.

**NOTE:** Wrap-up data entered by an agent after transferring a call is written only to the Recording and Statistics database and not to the Unified ICM database, and appears in the standard real time displays (reports) in Cisco Agent Desktop and Cisco Supervisor Desktop. In all other cases where wrap-up data is entered, the wrap-up data is written to both databases and appears in any reports that include wrap-up data.

### Relationship between Unified ICM and Desktop Administrator Regarding Wrap-up Data

You can configure Unified ICM alone or in conjunction with Desktop Administrator to manage after-call work with or without prompting the agent to enter wrap-up data.

The configuration scenarios in [Table 11](#) through [Table 16](#) have been tested.

**Table 11. Scenario 1**

ICM Agent Desk Setting	<ul style="list-style-type: none"> <li>• Work mode on Incoming is set to Required<sup>*</sup></li> <li>• Wrap up time is configured</li> </ul>
Desktop Administrator Settings	<ul style="list-style-type: none"> <li>• No settings are configured</li> </ul>
Result	The agent automatically enters a wrap-up state for the configured wrap-up time after the call is terminated. When the wrap-up time is over, the agent transitions to the state in which he or she was before the call arrived.

<sup>\*</sup> Do not use the Required with Data option in this scenario. If no wrap-up data is configured in Desktop Administrator, Agent Desktop will not function properly because the required wrap-up data is not available.

**Table 12. Scenario 2**

ICM Agent Desk Setting	<ul style="list-style-type: none"> <li>• Work mode on Outgoing is set to Required<sup>*</sup></li> <li>• Wrap up time is configured</li> </ul>
Desktop Administrator Settings	<ul style="list-style-type: none"> <li>• No settings are configured</li> </ul>

**Table 12. Scenario 2 (cont'd)**

Result	The agent automatically enters a wrap-up state for the configured wrap-up time after the call is terminated. When the wrap-up time is over, the agent transitions to the state in which he or she was before the call arrived.
--------	--

\* Do not use the Required with Data option in this scenario. If no wrap-up data is configured in Desktop Administrator, Agent Desktop will not function properly because the required wrap-up data is not available.

**Table 13. Scenario 3**

ICM Agent Desk Setting	<ul style="list-style-type: none"><li>• Work mode on Incoming is set to Optional, Required, or Required with Data</li><li>• Wrap up time is configured</li></ul>
Desktop Administrator Settings	<ul style="list-style-type: none"><li>• Wrap-up data is configured</li><li>• Wrap-up data is enabled</li><li>• A work flow is configured so that for inbound calls, when the Answered event occurs the agent transitions to the Work Ready or Work Not Ready state</li></ul>
Result	The agent automatically enters Work Ready or Work Not Ready state while on the call, and on completing the call, is automatically prompted to enter wrap-up data.

**Table 14. Scenario 4**

ICM Agent Desk Setting	<ul style="list-style-type: none"><li>• Work mode on Incoming is set to Optional, Required, or Required with Data</li><li>• Wrap up time is configured</li></ul>
Desktop Administrator Settings	<ul style="list-style-type: none"><li>• Wrap-up data is configured</li><li>• Wrap-up data is enabled</li><li>• No work flow that includes an agent state change is configured</li></ul>
Result	Agents must manually select Work Ready or Work Not Ready state before the call is completed in order to enter wrap-up data.

Table 15. Scenario 5

ICM Agent Desk Setting	<ul style="list-style-type: none"> <li>• Work mode on Incoming is set to Not Allowed</li> </ul>
Desktop Administrator Settings	<ul style="list-style-type: none"> <li>• Wrap-up data is configured</li> <li>• Wrap-up data is enabled</li> <li>• A work flow is configured so that for inbound calls, when the Answered event occurs the agent transitions to the Work Ready or Work Not Ready state</li> </ul>
Result	Unified ICM overrides the Desktop Administrator settings. The agent sees the Work Ready or Work Not Ready button on the Agent Desktop toolbar appear to be pressed, but the agent does not enter Work Ready or Work Not Ready state on the completion of the inbound call.

Table 16. Scenario 6

ICM Agent Desk Setting	<ul style="list-style-type: none"> <li>• Work mode on Outgoing is set to Optional, Required, Required with Data, or Not Allowed</li> <li>• Wrap up time is configured</li> </ul>
Desktop Administrator Settings	<ul style="list-style-type: none"> <li>• Wrap-up data is configured</li> <li>• Wrap-up data is enabled</li> <li>• A work flow is configured so that for outbound calls, when the Answered event occurs the agent transitions to the Work Ready or Work Not Ready state</li> </ul>
Result	The agent automatically enters Work Ready or Work Not Ready state while on the call, and on completing the call, is automatically prompted to enter wrap-up data.

## Creating Wrap-up Data Descriptions

Contact centers use wrap-up data for numerous reasons, such as tracking the frequency of specific activities or identifying accounts to which calls should be charged. If wrap-up data is enabled, whenever an agent changes agent state to Work Ready or Work Not Ready immediately after a call terminates, the agent chooses the appropriate wrap-up data description from a popup dialog box.

You can create and modify wrap-up data descriptions on both the global and work flow group level.

When creating wrap-up data descriptions, follow these guidelines:

- Descriptions can consist of up to 39 alphanumeric characters. No punctuation or other characters are allowed.

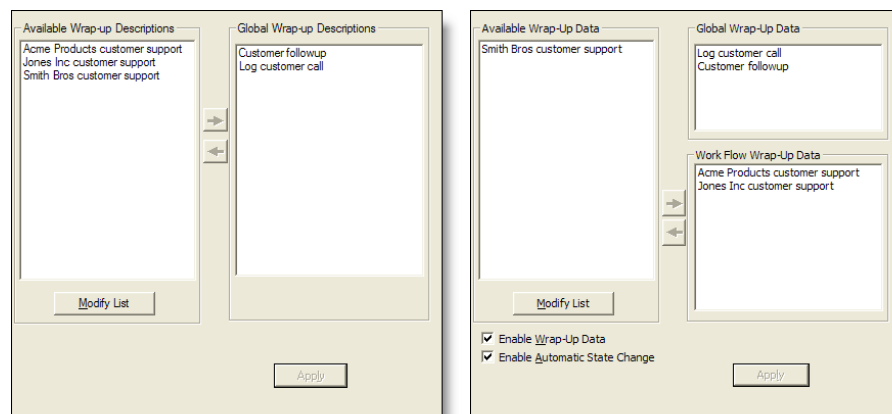
**NOTE:** Depending on whether the agent's IP phone has UTF-8 support for double-byte languages, wrap-up descriptions in IP Phone Agent might not display correctly. See the *Cisco CAD Installation Guide* for more information on language support for IP Phone Agent.

- Duplicate descriptions are not allowed.

**To create a wrap-up data description:**

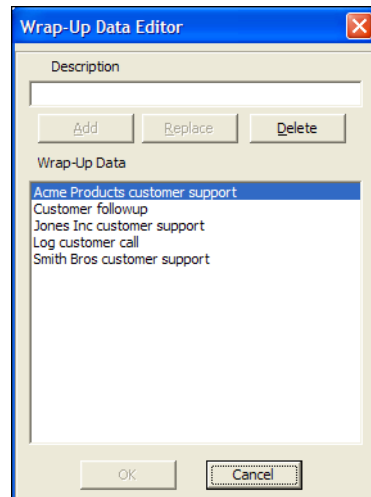
1. Select the global or work flow group Wrap-up Codes node in the navigation tree to display the Wrap-up Codes window (Figure 20).

**Figure 20.** Wrap-up Data window — global (left) and work flow group (right)



2. Click Modify List to display the Wrap-up Data Editor dialog box ([Figure 21](#)).

**Figure 21. Wrap-up Data Editor dialog box**



3. Type the new wrap-up data description in the Description field, then click Add. The wrap-up data description is added to the Wrap-up Data list.
4. Click OK close the dialog box, then click Apply to save your changes.

**To edit a wrap-up data description:**

1. Select the global or work flow group Wrap-up Data node in the navigation tree to display the Wrap-up Data window ([Figure 20](#)).
2. Click Modify List to display the Wrap-up Data Editor dialog box ([Figure 21](#)).
3. Double-click the wrap-up data description you want to edit.
4. In the popup dialog box, edit the description as desired and then click OK.
5. Click OK to close the Wrap-up Data Editor dialog box, then click Apply to save your changes.

**To delete a wrap-up data description:**

1. Select the global or work flow group Wrap-up Data node in the navigation tree to display the Wrap-up Data window ([Figure 20](#)).
2. Click Modify List to display the Wrap-up Data Editor dialog box ([Figure 21](#)).
3. Select the wrap-up data description you want to delete, then click Delete.
4. Click OK to close the dialog box, then click Apply to save your changes.

## Assigning Wrap-up Data Descriptions

Wrap-up data descriptions can be assigned at the global and at the work flow group level. Global wrap-up data descriptions are available to all agents. Work flow group level wrap-up data descriptions are available only to the agents in that specific work flow group.

### *To assign global wrap-up data descriptions:*

1. Select the global Wrap-up Data node in the navigation tree to display the Wrap-up Data window ([Figure 20, left](#)).
2. From the Available Wrap-up Descriptions list, select the descriptions you want available to all agents, then click the right arrow button to move them to the Global Wrap-up Descriptions list.
3. Click Apply.

### *To assign work flow wrap-up data descriptions:*

1. Select the Wrap-up Data node under the desired work flow group in the navigation pane to display the Wrap-up Data window ([Figure 20, right](#)).
2. From the Available Wrap-up Data list, select the descriptions you want available to agents in that work flow group, and then click the right arrow button to move them to the Work Flow Wrap-up Data list.
3. Select the Enable Wrap-up Data check box to enable wrap-up data for the agents in that work flow group. This includes any global wrap-up data descriptions set up.
4. Click Apply.

## Enabling or Disabling Wrap-up Data

Wrap-up data can be enabled or disabled only on the work flow group level.

### *To enable or disable wrap-up data:*

1. Select the Wrap-up Data node under the work flow group whose wrap-up data descriptions you want to enable or disable.
2. Select or clear the Enable Wrap-up Data check box.
3. Click Apply.

## Automatic State Changes

If automatic state changes are enabled, agents are automatically changed from the Work Not Ready state to the Not Ready state, and from the Work Ready state to the Ready state, when they enter wrap-up data.



Automatic state changes can be enabled or disabled only on the work flow group level.

**NOTE:** It is possible to set a timer in Unified ICM that will override the automatic state change. If an agent doesn't enter wrap-up data within the time set by the timer, the system will change the agent's state to the next state (Not Ready or Ready) and close the Wrap-up Data dialog box without anything being entered.

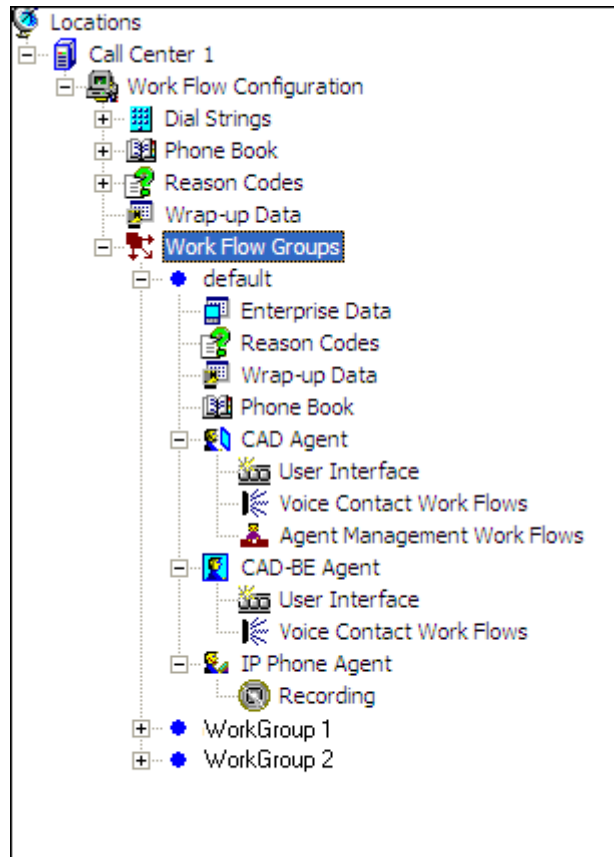
***To enable or disable automatic state changes:***

1. Select the Wrap-up Data node under the work flow group whose automatic state changes you want to enable or disable.
2. Select or clear the Enable Automatic State Change check box.
3. Click Apply.

## Work Flow Groups

Use the Work Flow Groups function to create and configure agent work flow groups.

Figure 22. Accessing Work Flow Group functions in the navigation tree



Under the Work Flow Groups node are individual work flow groups. Initially there is a default work group, which can be edited, renamed, or deleted. You can also create additional work flow groups.

When you click on a work flow group, the elements that make up that work flow group appear as subnodes:

- **Enterprise Data.** Configure enterprise data on the agent desktop for the selected work flow group.
- **Reason Codes.** Assign reason codes for the selected work flow group.
- **Wrap-up Data.** Create and edit wrap-up data for the selected work flow group.
- **Phone Book.** Create and edit phone books for the selected work flow group.

- **CAD Agent.** Configure the user interface, voice contact work flows, and agent management work flows for agents who use Agent Desktop.
- **CAD-BE Agent.** Configure the user interface and voice contact work flows for agents who use CAD-BE.
- **IP Phone Agent.** Enable agent-initiated recording for agents who use the IP Phone Agent service.

## Maintaining Work Flow Groups

You can add, delete, or edit work flow groups under the Work Flow Groups node.

**NOTE:** If you choose to delete the default work flow group, make sure that all agents are assigned to a custom work flow group you have set up. If an agent is not assigned to a work flow group, and there is no default work flow group, that agent will not be able to start Agent Desktop.

### *To add a new work flow group:*

1. In the Navigation tree, select the Work Flow Groups node.
2. Choose File > New, or click New on the toolbar. The Work Flow Group Name Editor dialog box appears.

**Figure 23.** Work Flow Group Name Editor dialog box



3. Enter a new work flow group name. If you want to copy an existing work flow group, select the Copy the following work flow group check box and choose a work flow group from the drop-down list.
4. Click OK. The new work flow group appears in the Navigation pane under the Agents node.

***To delete an existing work flow group:***

1. In the Navigation pane, select the work flow group you want to delete.
2. Choose File > Delete, or click Delete on the toolbar. A message appears, stating that all agents who belong to the work flow group you want to delete must be reassigned to other work flow groups. Click Yes to confirm the deletion, or No to cancel it. If you do not reassign the agents, you will not be able to delete the work flow group.
3. Click OK to close the dialog box.

You cannot rename an existing work flow group directly. Instead, you must set up a new work flow group and copy the existing work flow group's settings to the new work flow group.

***To rename a work flow group:***

1. Add a new work flow group, giving it the name you want to change the existing work flow group's name to.
2. Select the Copy the following work flow group check box and select the existing work flow group from the drop-down list, and then click OK. The copy process can take some time.
3. Delete the old work flow group.

## Enterprise Data

The Enterprise Data window enables you to complete the following tasks.

- Configure Agent Desktop so that agents in the selected work flow group can edit enterprise data
- Set thresholds for call duration at a particular type of device while a call is in the contact center

### Data

The Data tab controls whether or not an agent in the work flow group is allowed to edit the enterprise data displayed in Agent Desktop ([Figure 24](#)).

Figure 24. Data tab



**To enable enterprise data editing:**

- Select the Allow agent to edit Enterprise Data check box, and then click Apply.



## Call Activity

The Call Activity tab (Figure 25) enables you to set the thresholds for the selected work flow group for call duration at a particular type of device (Route Point and Agent) while a call is in the contact center.

**NOTE:** The Agent Desktop call activity pane does not include settings for Cisco Unified Customer Voice Portal (CVP).

If a call remains at a device longer than the defined Caution or Warning threshold, a Caution or Warning icon is displayed next to the device name in the Agent Desktop call activity pane.

Figure 25. Call Activity tab

Device Type	Caution 		Warning 	
	Min	Sec	Min	Sec
Route Point:	4	59	5	0
Agent:	4	59	5	0
Total:	4	59	5	0

Enter a Warning threshold before entering a Caution threshold.  
The Warning threshold must be greater than the Caution threshold.

Apply

### To set up call activity thresholds:

1. On the Call Activity tab, enter the threshold times as desired. The maximum value for Warning is 59 minutes, 59 seconds. The maximum value for Caution is 59 minutes, 58 seconds.

**NOTE:** Enter values in the Warning fields before entering values in the Caution fields. Desktop Work Flow Administrator will not accept data entered in the Caution fields if no data appears in the Warning fields.

**NOTE:** The Warning threshold value must be greater than the Caution threshold value. If you enter a greater value in the Caution field, Desktop Work Flow Administrator automatically changes it so that it is one second less than the Warning value.

2. Click Apply to save your changes.

## **CAD, CAD-BE, and IP Phone Agent Nodes**

The CAD Agent, CAD-BE Agent, and IP Phone Agent nodes enable you to configure various functions for each type of agent within the selected work flow group.

### **CAD Agent Node**

You can configure the following elements for agents who use Agent Desktop.

- [User Interface \(page 65\)](#)
- [Voice Contact Work Flows \(page 82\)](#)
- [Agent Management Work Flows \(page 92\)](#)

### **CAD-BE Agent Node**

You can configure the following elements for agents who use CAD-BE.

- [User Interface \(page 65\)](#)
- [Voice Contact Work Flows \(page 82\)](#)

### **IP Phone Agent Node**

The Recording node under the IP Phone Agent node enables agent-initiated recording for agents who use the IP Phone Agent service.

**NOTE:** If your CAD system is configured to use Cisco Unified Communications Manager-based monitoring, the IP Phone Agent node is not available.

When enabled, the IP Phone Agent service has soft key options for starting and stopping recording. The IPPA agent can then record his or her own phone conversations, and these recordings can be reviewed by the supervisor using Supervisor Record Viewer.

See the *Cisco IP Phone Agent User Guide* and the *Cisco Supervisor Desktop User Guide* for more information.

#### **To enable IPPA agent-initiated recording:**

1. Select the Enable IPPA Recording check box.
2. Click Apply to save your changes.



## User Interface

The User Interface window enables you to configure the appearance and behavior of Agent Desktop (when accessed under the CAD Agent node) and CAD-BE (when accessed under the CAD-BE Agent node).

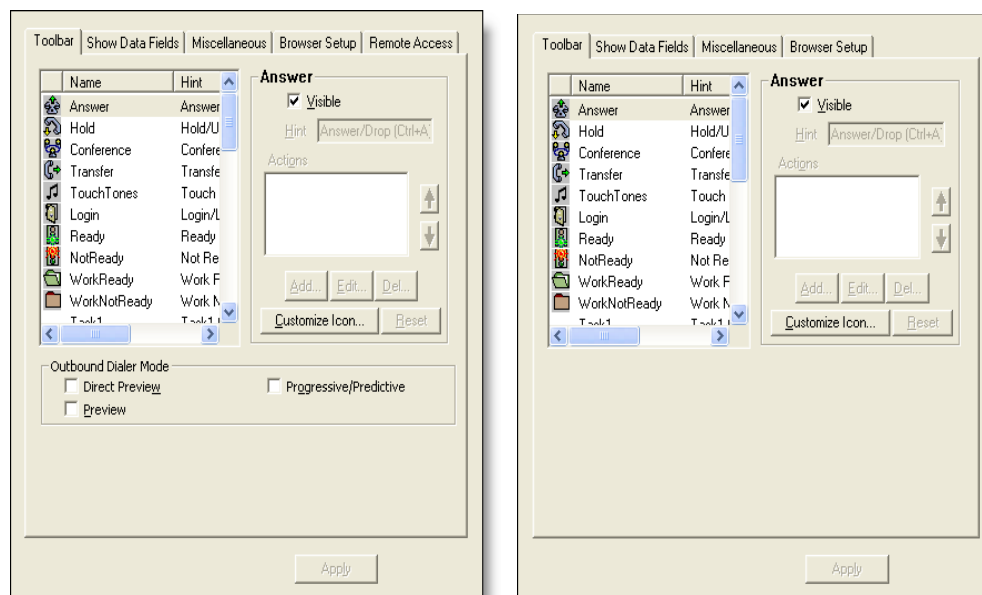
**NOTE:** The User Interface windows for the CAD Agent and CAD-BE Agent nodes are slightly different to allow for the differences in the two applications. The following section discusses the CAD Agent node and notes differences for the CAD-BE Agent node.

### Toolbar

The Toolbar tab (Figure 26) enables you to complete the following tasks.

- [Adding and Removing Toolbar Buttons \(page 66\)](#)
- [Associating Actions with Task Buttons \(page 66\)](#)
- [Changing a Task Button's Hint \(page 67\)](#)
- [Customizing Button Icons \(page 67\)](#)
- [Show Data Fields \(page 69\)](#)

Figure 26. Toolbar tab — CAD Agent node (left) and CAD-BE Agent node (right)



## Adding and Removing Toolbar Buttons

The pane on the left of the Toolbar tab displays the buttons that are available to be used on the Agent Desktop or CAD-BE toolbar. Buttons that are assigned show an icon next to them; unassigned buttons do not show an icon.

You cannot change the hint or the shortcut key combination on any of the standard buttons, or assign an additional action to them. You can, however, customize the icon displayed on the button (see ["Customizing Button Icons" on page 67](#)).

### *To add a button to the toolbar:*

1. In the list of buttons, select the available button you want to add.
2. Select the Visible check box, and then click Apply.

### *Removing a button from the toolbar:*

1. In the list of buttons, select the button you want to remove.
2. Clear the Visible check box, and then click Apply.

## Adding the Cisco Unified Outbound Dialer Toolbar

The Cisco Unified Outbound Dialer feature is available only for Agent Desktop users. You cannot add the Outbound Dialer toolbar to CAD-BE.

For more information, see ["Cisco Unified Outbound Dialer" on page 138](#).

### *To add the Outbound Dialer toolbar to Agent Desktop:*

- In the Outbound Dialer Mode section, check the type of dialing mode your calling campaign will use, and then click Apply. You can select more than one dialing mode check box. The appropriate buttons for that type of calling campaign are added to the Agent Desktop toolbar.

**NOTE:** The Outbound Dialer Mode section appears on the Toolbar tab only if Outbound Dialer is enabled in Unified ICM. If it is not enabled, this section is blank.

## Associating Actions with Task Buttons

You can associate as many actions with a task button as you wish. The actions are executed sequentially in the order they are listed in the Actions window.

**NOTE:** Consider the length of time it takes to execute actions. A maximum of two or three actions per task button is recommended.

The default task buttons display icons of the numbers 1 through 10. You can customize these icons if you wish.

***To associate an action with a task button:***

1. Select a task button from the list of available buttons.
2. Select the Visible check box. The Actions pane and associated buttons are enabled.
3. Under the Actions pane, Click Add. The Select Action window appears.
4. Select the action you want to associate with the button. You can select an existing action or set up a new action. For more information on setting up new actions, see ["Creating Actions" on page 96](#).
5. Click OK. The Toolbar tab is displayed.
6. Type a short description of the action in the Hint field. You can replace only the hint; you cannot change the shortcut key combination.
7. Repeat Steps 3–6 if you want to add other actions to the same task button.
8. Click Apply to save your changes.

**Changing a Task Button's Hint**

You can change the hint (the text an agent sees when the mouse hovers over a button) associated with a task button. You cannot change the hint associated with a standard button, or change the shortcut key combination of any button.

***To change a task button's hint:***

1. Select the button whose hint you want to change.
2. In the Hint field, type the hint you want displayed to the agent.
3. Click Apply to save your changes.

**Customizing Button Icons**

Buttons can be customized by applying different icons to them. A library of available icons is supplied with Desktop Work Flow Administrator, or you can use icons of your own.

If you use your own icons, when an icon file is applied to a button it is written to Directory Services so that it is available to all instances of Agent Desktop and CAD-BE.

Custom icons must meet the following specifications.

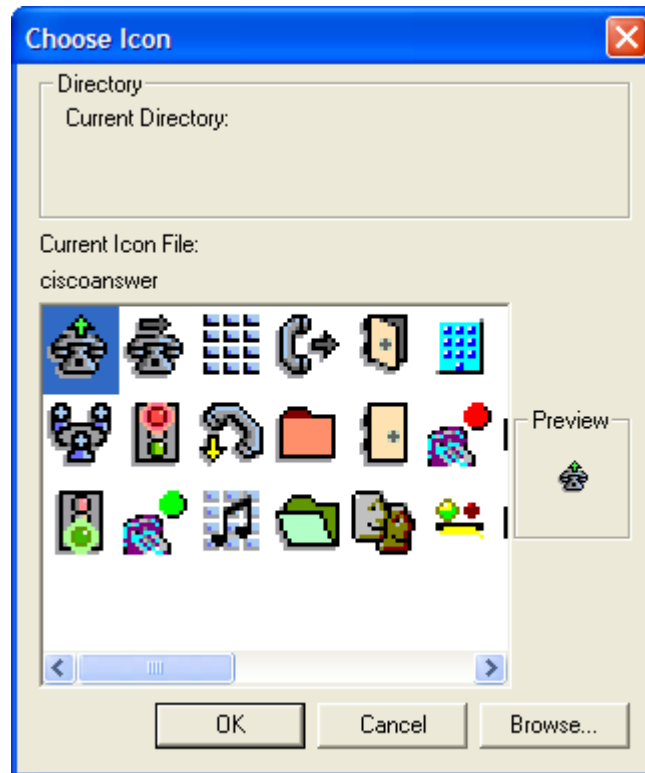
- ICO format
- 16 × 16 pixels or 32 × 32 pixels
- Up to 256 colors

- File size no more than 50,000 bytes

**To customize a button icon:**

1. Select the button that has an icon you want to customize.
2. Click Customize Icon. The Choose Icon dialog box appears (Figure 27).

Figure 27. Choose Icon dialog box



3. Select an icon. The icon is displayed in the Preview area. You can also click Browse to navigate to another folder if you want to use your own icon.
4. Click OK. The new icon is displayed in the button list.
5. When you are finished, click Apply to save your changes.

**To reset a button icon:**

1. Select the button that has the icon that you previously customized. The Reset button becomes enabled.
2. Click Reset. The original icon is displayed in the button list.
3. When you are finished, click Apply to save your changes.

## Show Data Fields

The Show Data Fields tab ([Figure 28](#)) allows you to rename and configure the data fields that appear in the contact appearance pane in Agent Desktop and CAD-BE, and enable/disable incrementing duration fields in CAD-BE.

**NOTE:** CAD-BE agents must log out, exit CAD-BE, and log in again for changes to take effect.

### Configuring and Renaming Data Fields

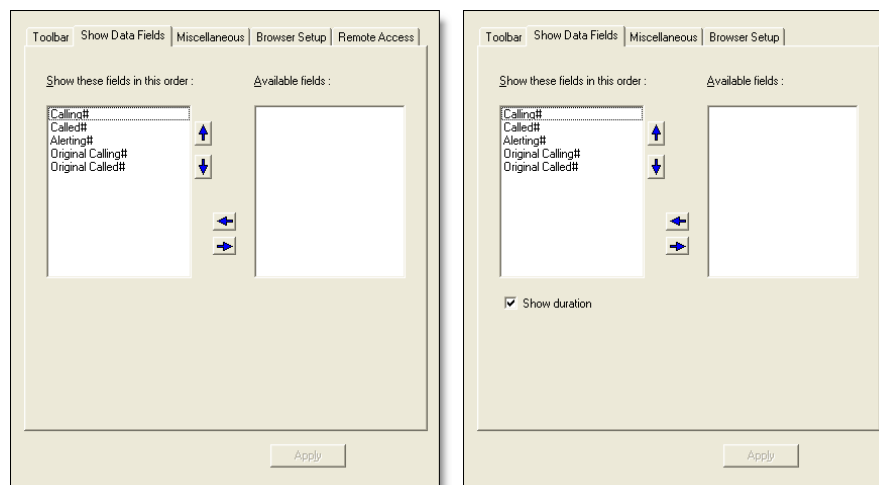
The left pane displays the fields that appear in Agent Desktop and CAD-BE. The right pane displays the available fields.

**NOTE:** The left pane must contain at least one field.

*To configure the data fields that appear:*

1. Use the left and right arrows to move the available fields between the left and right panes, and the up and down arrows to set the left-to-right order in which the fields will appear.
2. Click Apply to save your changes.

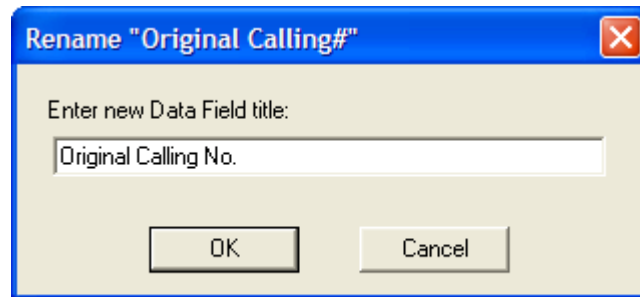
**Figure 28.** Show Data Fields tab — CAD Agent (left) and CAD-BE Agent (right)



**To rename a data field:**

1. Double-click the field you want to rename. The Rename dialog box appears (Figure 29).

**Figure 29.** Rename dialog box



2. Enter a new name, then click OK.

**Show Duration**

For CAD-BE agents, select the Show Duration check box to enable the Duration field in CAD-BE to increment during a call. By default this option is enabled. However, a continually changing field can cause difficulties for screen readers, so this field might be disabled for agents who are visually impaired.

For Agent Desktop, the Show Duration feature is enabled/disabled on the Accessibility Options tab in the Preferences window.

## Miscellaneous

Use the Miscellaneous tab (Figure 30) to configure other user interface options. Select or check your desired settings, and then click Apply to save your changes.

**Figure 30.** Miscellaneous tab — CAD Agent (left) and CAD-BE Agent (right)

The figure displays two side-by-side screenshots of the 'Miscellaneous' tab in a software configuration window. Both windows have a tab bar at the top with 'Toolbar', 'Show Data Fields', 'Miscellaneous', 'Browser Setup', and 'Remote Access'. The left window, for the CAD Agent, features a 'Window Behavior' section with radio buttons for 'Normal' (selected), 'Keep Open', 'Always on Top', 'Stealth', and 'Agent Choice'. It also has a 'Macro Hot Key' section with radio buttons for 'F2' (selected), 'F6', 'F11', and 'Pause'. Below these are 'Window Options' with checkboxes for 'Real time displays always on to' and 'Dial pad always on top'. At the bottom, there is a checked checkbox for 'Rules and Actions only apply to the first call appearance' and an 'Apply' button. The right window, for the CAD-BE Agent, shows a single checked checkbox for 'Rules and Actions only apply to the first call appearance' and an 'Apply' button at the bottom.

Table 17 describes the options on the Miscellaneous tab.

Table 17. Miscellaneous Tab options

Option	Description
Window Behavior	<p>Specify how you want the Agent Desktop window to behave. The default setting is Agent's Choice.</p> <ul style="list-style-type: none"> <li>• Normal. The window appears when calls are present and minimizes when idle.</li> <li>• Keep Open. The window is always visible, but can be hidden by other open applications.</li> <li>• Always on Top. The window is always visible and on top of other open applications.</li> </ul> <p><b>NOTE:</b> When you select the Always on top window behavior, you cannot select the real time displays and dial pad always on top options.</p> <ul style="list-style-type: none"> <li>• Stealth. The window appears as an icon in the system tray.</li> <li>• Agent's Choice. Behavior is set locally by the agent. The local setting persists until reset or until you choose something other than Agent's Choice. On the agent's desktop, the default setting is Normal.</li> </ul>
Window Options <sup>*</sup>	Select to keep the Real time displays and dial pad always on top. The window remains open when idle and on top of all other open applications.
Macro Hot Key	Specify the key you want to use to pause macro recording and display the Suspend Macro Recording dialog. The default is F2.
Rules and Actions only apply to the first call appearance	Select to invoke rules processing only for the oldest (top) call appearance. If the check box is not selected, rules processing is invoked for all inbound calls.

\* If both real time displays and dial pad options are selected to be always on top, the most recent of the two windows an agent open will be on top.

## Browser Setup

Use the Browser Setup tab (Figure 31) to configure the Integrated Browser portion of Agent Desktop. On this tab you can:



- Enable/disable the integrated browser window
- Set the default web page displayed by the browser
- Enable up to 10 browser tabs
- Enable/disable popups to be displayed as a regular Internet Explorer popup window instead of a new tab in the integrated browser
- Enable/disable agents' access to other websites
- Add work sites (or "favorites") so agents can quickly access frequently-used websites

Some of the features listed above do not apply to CAD-BE.

**Figure 31. Browser Setup tab — CAD Agent (left) and CAD-BE Agent (right)**

### Enabling the Integrated Browser

Enable or disable the integrated browser in Agent Desktop/CAD-BE by selecting or clearing the Enable Integrated Browser check box.

### Enabling Access to Other Websites

Enable or disable an agent's access to other websites by selecting or clearing the Allow Address Editing check box. When selected, the Address field appears in the integrated browser window, and agents can enter the URL of a website they wish to view. When deselected, the Address field does not appear in the integrated browser window.

### Enabling Hyperlink Dialing

Select the Enable Hyperlink Dialing check box to enable Agent Desktop to dial phone numbers on websites displayed in the integrated browser when clicked (“click to dial”). The phone numbers that can be dialed in this manner must conform to the following rules:

- The phone number must be 10 digits long and use the North American dial string format:  
  
    <3-digit area code><3-digit exchange number><4-digit subscriber number>  
  
    Shorter numbers, such as local numbers without area codes or phone extensions, cannot be dialed.
- The phone number can have parentheses around the area code, and use any combination of space, hyphen, and period in the phone number.
- The phone number cannot contain alpha characters. For instance, the phone number 800-GET-PZZA cannot be dialed.

**NOTE:** Hyperlink dialing is not available for CAD-BE.

### Configuring the Number of Browser Tabs

Choose 0 to 10 in the Number of Workflow Browsers field to set how many browser tabs appear in Agent Desktop (this feature is not available in CAD-BE). If you choose 0, only the supervisor push page tab appears—it is always enabled. If you choose 1 to 10, that many tabs in addition to the supervisor push page tab appear.

Work flow HTTP actions can be set up to display web pages in a specific browser tab. See ["Creating HTTP Actions" on page 109](#) for more information.

### Enabling popups to be displayed in a new window

You can enable/disable popups to be displayed as regular Internet Explorer popup windows in Agent Desktop by selecting or clearing the Popups In New Windows check box. When enabled, popups are displayed as regular Internet Explorer popup windows. When disabled, popups are displayed as new tabs in the integrated browser.

**NOTE:** If popups are enabled, an administrator cannot control the resulting Internet Explorer window. The agent might be able to gain full navigational control of the resulting browser window, including the address bar.

### Setting Up the Home Page

A home page is the website that appears in an integrated browser tab when Agent Desktop is started. The default home page is [www.cisco.com](http://www.cisco.com). If no home page is configured (the default is deleted), the integrated browser tab is blank.

Each browser tab can have its own home page.

***To configure a home page:***

1. From the Browser Tab drop-down list, select the tab on which you want the home page to appear.
2. In the Home Page field, type the web address (URL) of the website you want to appear by default in the integrated browser.
3. Click Update.
4. Repeat steps 1 through 3 for each tab as desired.
5. Click Apply to save your changes. The home page is set.

**Setting Up Work Sites**

A work site is a website that is frequently accessed by agents to assist them in their jobs. They are similar to the “favorites” you can set up in a web browser.

Work sites you set up appear in a drop-down list in the agent’s integrated browser, and are available no matter which tab is displayed. When the agent selects a work site from the list, it appears in the integrated browser window. This gives the agent quick access to the site without having to type its address in the (optional) Address field.

***To add a work site:***

1. In the Site Name field, type the name of the website you wish to add as a work site.
2. In the URL field, enter the web address of the website.
3. Click Add. The work site is added to the list in the Work Sites pane.
4. Click Apply to save your changes.

***To update a work site:***

1. In the Work Sites field, select the work site you wish to update. The information for the website appears in the Site Name and URL fields.
2. Edit the information as needed, and then click Update. The updated information appears in the Work Sites pane.
3. Click Apply to save your changes.

***To delete a work site:***

1. In the Work Sites pane, select the work site you wish to delete. The information for the website appears in the Site Name and URL fields.
2. Click Delete. The work site is deleted from the Work Sites pane.
3. Click Apply to save your changes.

## Remote Access

The Remote Access tab (Figure 32) is used to enable the IPC Receive Event feature and configure the port used by the feature. This action is available to agents using Agent Desktop at the Premium level only.

**NOTE:** The Remote Access feature is not available for CAD-BE.

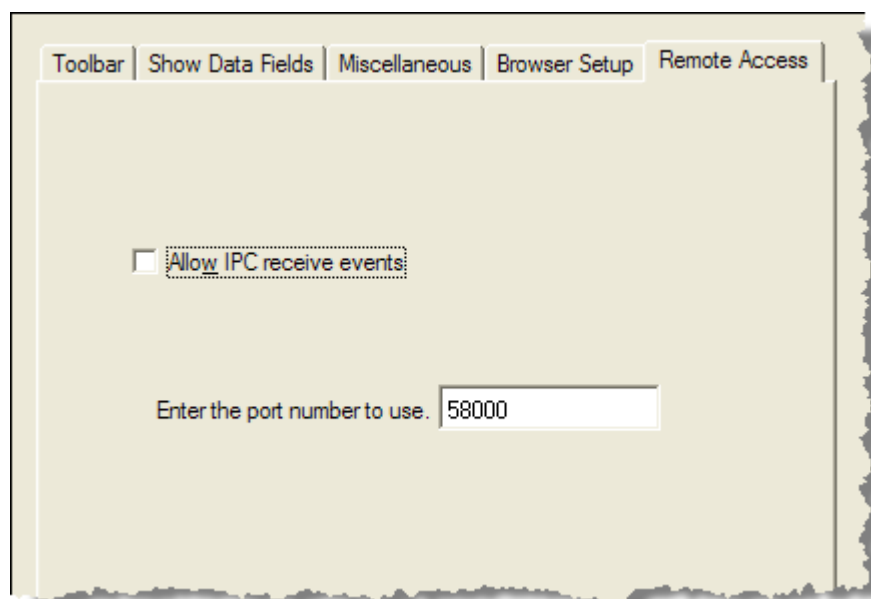
An IPC Receive Event occurs when a third party application sends a message to Agent Desktop over a UDP socket. All attributes that IPC Receive Event actions require in order to execute are a part of the IPC Receive Event message content. These messages must adhere to a predefined XML schema (see examples below) and cannot exceed 4000 bytes. Unlike work flow actions, IPC Receive Event actions do not require configuration or setup in Desktop Work Flow Administrator.

When Agent Desktop receives an IPC Receive Event message, it does not send a reply back. IPC Receive Events are queued so no messages are lost.

By default, IPC Receive Events are disabled. The default port number is Port 58000.

**NOTE:** The Remote Access action provides for receiving an asynchronous event. Even if the event is solicited by an IPC Action request being sent out, the request might never be delivered, and there is no assurance that a response will arrive because of the nature of UDP.

Figure 32. Remote Access tab



The screenshot shows the 'Remote Access' tab selected in a window with tabs: 'Toolbar', 'Show Data Fields', 'Miscellaneous', 'Browser Setup', and 'Remote Access'. The main area contains a checkbox labeled 'Allow IPC receive events' which is currently unchecked. Below this is a text label 'Enter the port number to use.' followed by a text input field containing the value '58000'.

Nine actions are supported by the IPC Receive Event:

- [IPC Make Call \(page 77\)](#)
- [IPC Blind Transfer \(page 77\)](#)
- [IPC Supervised Transfer \(page 78\)](#)
- [IPC Blind Conference \(page 79\)](#)
- [IPC Supervised Conference \(page 79\)](#)
- [IPC High Priority Chat \(page 80\)](#)
- [IPC Record \(page 80\)](#)
- [IPC Agent Notification \(page 81\)](#)
- [IPC Set Variable \(page 81\)](#)

### IPC Make Call

For the IPC Make Call action to be successful:

- The agent must be in the Not Ready state
- There can be no call appearance present in Agent Desktop
- The Make Call dialog box must be closed (if it is open, the action will close it)

The message sent to Agent Desktop must conform to this XML format. **Bold** text indicates a variable that must be replaced with your own values.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCMakeCallAction>
    <ActionName>IPC Make Call Action</ActionName>
    <PhoneNumber>2961</PhoneNumber>
    <DisplayError>true</DisplayError>
  </IPCMakeCallAction>
</IPCActions>
```

### IPC Blind Transfer

The IPC Blind Transfer action transfers the active call directly to the phone number defined in the IPC message string. The call is transferred to the defined number and the agent is no longer connected to the call. The Dial Pad is not presented to the agent.

For the IPC Blind Transfer action to be successful:

- The agent must be on an active call appearance in Agent Desktop
- The agent must be in a Talking state. The agent can not have the active call in a Hold state.

- If the IPC message string is submitted to Agent Desktop when these conditions are not met, Agent Desktop will present a generic error message stating that the agent requested action failed.

The IPC Blind Transfer message sent to Agent Desktop must conform to the following XML format. **Bold** text indicates a variable that must be replaced with the telephone number to be dialed and the delay value. The delay value is expressed in milliseconds.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
<IPCBlindTransferAction>
<ActionName>IPC Blind Transfer Action</ActionName>
<PhoneNumber>7865551234</PhoneNumber>
<Delay>0</Delay>
<DisplayError>true</DisplayError>
</IPCBlindTransferAction>
</IPCActions>
```

### IPC Supervised Transfer

The IPC Supervised Transfer action initiates a transfer of the active call to the phone number defined in the IPC message string and presents the Transfer Dial Pad to the agent for all further call control. The agent can use the Transfer Dial Pad to alternate between parties, cancel, or complete the call transfer.

For the IPC Supervised Transfer action to be successful:

- The agent must be on an active call appearance in Agent Desktop
- The agent must be in a Talking state. The agent can not have the active call in a Hold state.
- If the IPC message string is submitted to Agent Desktop when these conditions are not met, Agent Desktop will present a generic error message stating that the agent requested action failed.

The IPC Supervised Transfer message sent to Agent Desktop must conform to the following XML format. **Bold** text indicates a variable that must be replaced with the telephone number to be dialed.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
<IPCSupervisedTransferAction>
<ActionName>IPC Supervised Transfer Action</ActionName>
<PhoneNumber>7865551234</PhoneNumber>
<DisplayError>true</DisplayError>
</IPCSupervisedTransferAction>
</IPCActions>
```

### IPC Blind Conference

The IPC Blind Conference action conferences the active call directly to the phone number defined in the IPC message string. The call is conferenced directly with the defined number and the agent remains connected to the call. The Conference Dial Pad is not presented to the agent.

For the IPC Blind Conference action to be successful:

- The agent must be on an active call appearance in Agent Desktop
- The agent must be in a Talking state. The agent can not have the active call in a Hold state.
- If the IPC message string is submitted to Agent Desktop when these conditions are not met, Agent Desktop will present a generic error message stating that the agent requested action failed.

The IPC Blind Conference message sent to Agent Desktop must conform to the following XML format. **Blue** text indicates a variable that must be replaced with the telephone number to be dialed.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
<IPCBlindConferenceAction>
<ActionName>IPC Blind Conference Action</ActionName>
<PhoneNumber>7865551234</PhoneNumber>
<DisplayError>true</DisplayError>
</IPCBlindConferenceAction>
</IPCActions>
```

### IPC Supervised Conference

The IPC Supervised Conference action initiates a supervised conference of the active call to the phone number defined in the IPC message string and presents the Conference Dial Pad to the agent for all further call control. The agent can use the Conference Dial Pad to alternate between parties, cancel or complete the conference transfer.

For the IPC Supervised Conference action to be successful:

- The agent must be on an active call appearance in Agent Desktop
- The agent must be in a Talking state. The agent can not have the active call in a Hold state.
- If the IPC message string is submitted to Agent Desktop when these conditions are not met, Agent Desktop will present a generic error message stating that the agent requested action failed.

The IPC Supervised Conference message sent to Agent Desktop must conform to the following XML format. **Bold** text indicates a variable that must be replaced with the telephone number to be dialed.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCSupervisedConferenceAction>
    <ActionName>IPC Supervised Conference Action</ActionName>
    <PhoneNumber>7865551234</PhoneNumber>
    <DisplayError>true</DisplayError>
  </IPCSupervisedConferenceAction>
</IPCActions>
```

### IPC High Priority Chat

For the IPC High Priority Chat action to be successful, the agent must be logged in.

The message sent to Agent Desktop must conform to this XML format. **Bold** text indicates a variable that must be replaced with your own values.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCHighPriorityChatAction>
    <ActionName>IPC High Priority Chat Action</ActionName>
    <MessageText>Need help from supervisor</MessageText>
  </IPCHighPriorityChatAction>
</IPCActions>
```

### IPC Record

For the IPC Record action to be successful:

- A call appearance must be present in Agent Desktop
- The call must be connected, on hold, or conferenced
- The call must be the first call appearance listed in Agent Desktop

The message sent to Agent Desktop must conform to this XML format. The action supports two commands: start and stop.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCRecordAction>
    <ActionName>IPC Record Action</ActionName>
    <Command>start</Command>
    <DisplayError>true</DisplayError>
  </IPCRecordAction>
</IPCActions>
```



## IPC Agent Notification

For the IPC Agent Notification action to be successful, the agent must be logged in.

The message sent to Agent Desktop must conform to this XML format. **Bold** text indicates a variable that must be replaced with your own values.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCAgentNotificationAction>
    <ActionName>IPC Agent Notification Action</ActionName>
    <MessageText>Go to Not Ready state!</MessageText>
  </IPCAgentNotificationAction>
</IPCActions>
```

## IPC Set Variable

For the IPC Set Variable action to be successful, the agent must be logged in.

The IPC Set Variable action receives data values (for example, Cisco Outbound Dialer variables prefixed with "BA") from a third party application in UDP format. The action sends these data values to the CTI server.

All variables (ECC variables, call variables, and Outbound Dialer variables) can be set with this action.

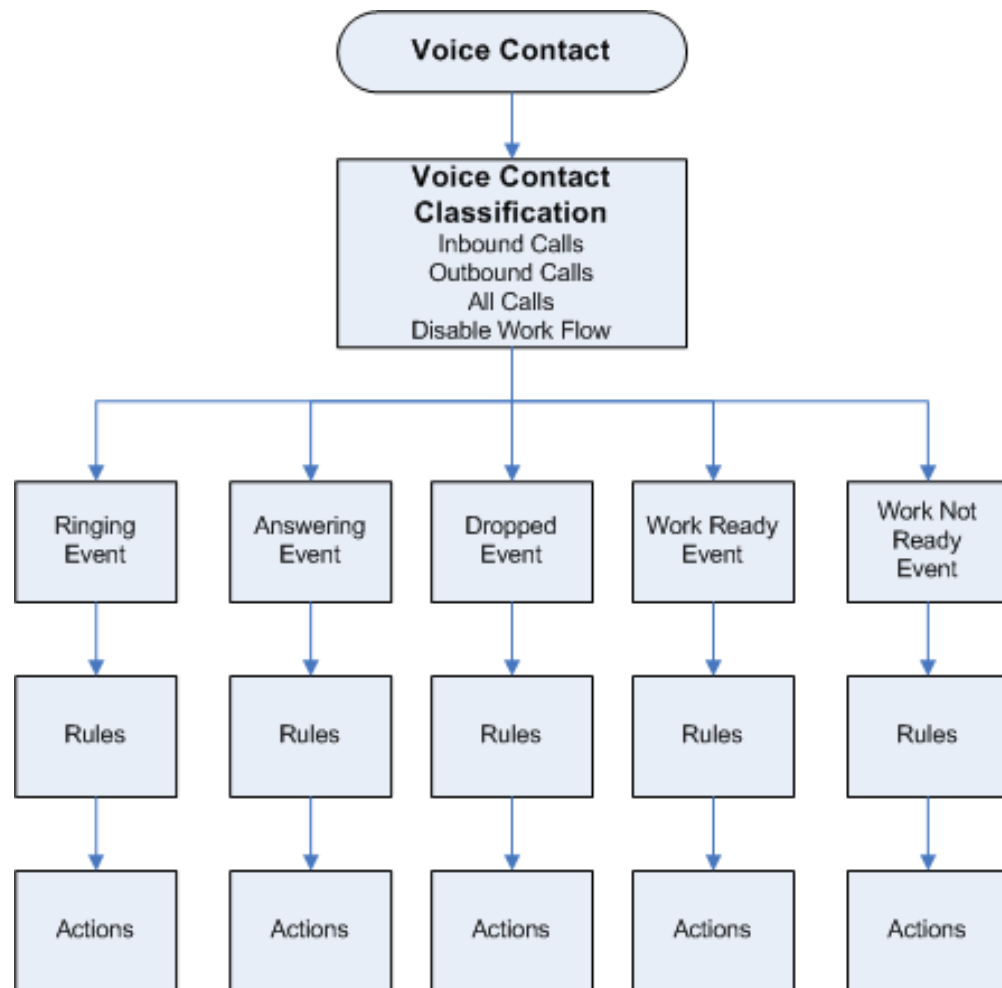
The message sent to Agent Desktop must conform to this XML format. **Bold** text indicates a variable that must be replaced with your own values.

```
<?xml version="1.0"?>
<!-- IPC Receive Event Message -->
<IPCActions>
  <IPCSetVariableAction>
    <ActionName>IPC Set Variable Action</ActionName>
    <Variable>BAResponse</Variable>
    <DataValue>03/05/2011 05:45</DataValue>
  </IPCSetVariableAction>
</IPCActions>
```

## Voice Contact Work Flows

Voice contact work flows manage agent activity based on voice call events. Once a call is classified it is further filtered according to events, rules, and actions. Voice contact work flows are available to agents who use Agent Desktop and CAD-BE.

Figure 33. Voice Contact Work Flows flow chart



For example, a voice contact work flow could be set up as follows:

1. A call comes into the contact center and is routed to an agent in the Ready state.
2. The Voice Contact Classification filter determines which work flow to select. It examines the inbound call's enterprise data (original dialed number) and determines that it is a call for Product A technical support and thus meets the data conditions of Work Flow 1. The call is now subject to the second layer of filtering set up in Work Flow 1.

3. Work Flow 1 says that any ringing event on the Product A support line triggers an HTTP action. This action takes the customer-entered account information from the IVR (part of the call's enterprise data) and pops a web page in the Agent Desktop or CAD-BE integrated browser that displays the customer's account information to the agent.
4. The agent answers the phone call and is ready to assist the customer.

## Creating a Voice Contact Work Flow

The general procedure for creating a voice contact work flow is as follows:

1. Set up a new voice contact classification filter:
  - a. Select the type of call the work flow applies to—inbound, outbound, or all calls.

**NOTE:** Depending on which Outbound Dialer dialing mode you are using, a customer call can appear as inbound or outbound. See ["Voice Contact Work Flows and Outbound Dialer" on page 89](#) for assistance in choosing the appropriate call type and event for your work flow.

- b. If required, further classify the call by specifying it must meet various data field conditions.
2. Set up the second level of filtering:
  - a. Select the call or agent state event—Ringing, Answered, Dropped, Work Ready, or Work Not Ready.
  - b. If required, set up one or more rules with data field conditions that the call must meet.
  - c. Set up one or more actions that will take place if the call or agent event meets the rules' data field conditions.
3. Set up as many second level filters as needed for calls selected by the first level filter. You can set up rules and actions for each of the filtered call's call or agent events.

**NOTE:** It is possible to set rules and conditions that are contradictory so that a work flow cannot function. Desktop Work Flow Administrator does not check a work flow's logic and validity. If a work flow fails to operate as expected, make sure that the rules and conditions you set up are logically valid.

## Setting Up a New Voice Contact Classification

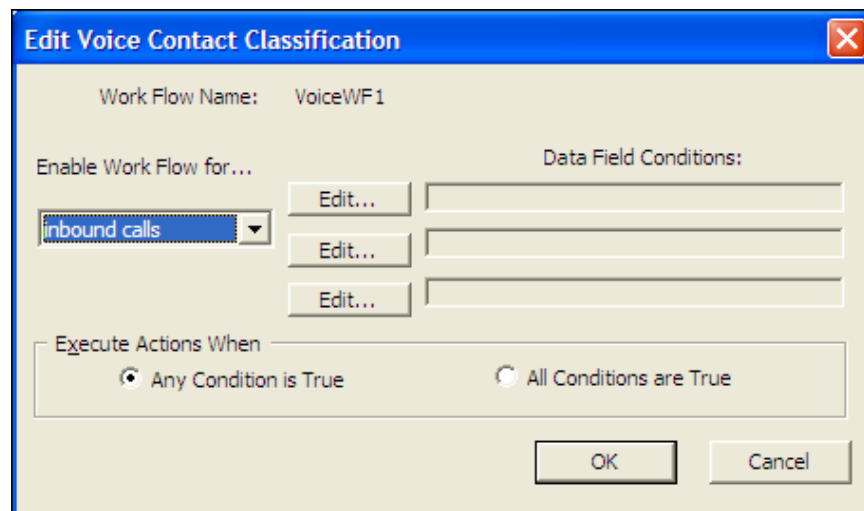
When you select the Voice Contact Work Flow node in the navigation tree, the Voice Contact Work Flow List window is displayed. This window shows all the existing voice contact work flows, and enables you to edit them or to set up new ones.

The Voice Contact Classification is the first level of filtering in a voice contact work flow.

### To set up a new voice contact classification:

1. In the Voice Contact Work Flow List window, click Add. The New Work Flow Name dialog box is displayed.
2. Enter a name for your new voice contact work flow, and then click OK. The Edit Voice Contact Classification dialog box appears with the work flow name you just created ([Figure 34](#)).

**Figure 34.** Edit Voice Contact Classification dialog box



3. Set up the criteria for the first level filter in this dialog box.
  - a. Select the type of call you want the filter to apply to from the drop-down list: inbound calls, outbound calls, or all calls.

Note that there is also the option to disable the work flow. You can select this option later on if and when you want to disable the work flow, but want to keep the work flow on file for enabling at a later date.
  - b. Apply up to three data field conditions. Click Edit to display the Data Field Condition dialog box. For information on setting up a data field condition, see ["Data Field Conditions" on page 87](#).

- c. Select if you want the filter to apply when ALL conditions are true, or if ANY conditions are true.
4. Click OK to complete setting up the first level filter in the new voice contact work flow.

### Setting Up a New Work Flow

After a new voice contact classification is created, Desktop Work Flow Administrator takes you to the Voice Contact Work Flow window (Figure 35). In this window you set up the second level of filtering, consisting of events and rules, and the resulting actions for your new voice contact work flow.

Figure 35. Voice Contact Work Flow window

The screenshot shows the 'Voice Contact Work Flow - MyVC' window. It has three main panels at the top: 'Events', 'Rules (of current Event)', and 'Actions (of current Rule)'. The 'Events' panel lists 'Ringing', 'Answered', 'Dropped', 'Work Ready', and 'Work Not Ready', with 'Ringing' selected. The 'Rules' panel shows '<Default>' and is empty. The 'Actions' panel shows 'go\_ready3' and is empty. Below these panels are buttons for 'New...', 'Del...', 'Add...', 'Edit...', and 'Del...'. The 'Current Rule Conditions' section shows '<Default>' with a checked 'Enable Rule' checkbox and three 'Edit...' buttons. To the right are three empty 'Data Field Conditions' input fields. At the bottom, the 'Execute Actions When' section has two radio buttons: 'Any Condition is True' (selected) and 'All Conditions are True'. At the very bottom are 'Edit Classification', 'Cancel', and 'Apply' buttons.

When an event occurs, the rules associated with the event are evaluated in the order they are listed in the Rules pane. When a rule is met, the actions associated with that rule are executed in the order they are listed in the Actions pane. Subsequent rules are not evaluated.

If no rules are met, the default rule governs, and all actions associated with the default rule are executed. Default rules cannot be changed or deleted. The default action might be <no action>.

**To set up a new work flow:**

1. Select the event that triggers the work flow from the Event pane. The available events are:
  - **Ringling.** The agent's phone rings.
  - **Answered.** The agent answers the phone.
  - **Dropped.** The call terminates.
  - **Work Ready.** The agent transitions to the Work Ready agent state.
  - **Work Not Ready.** The agent transitions to the Work Not Ready agent state.
2. Under the Rules pane, click New to set up a new rule. The New Rule Name dialog box appears.
3. Enter the name of the new rule, and then click OK. The fields in the Current Rule Conditions section of the window are enabled.
4. Add up to 3 data field conditions (see ["Data Field Conditions" on page 87](#) for more information) and specify when the actions should be executed—when any one of the data field conditions is met, or when all of the data field conditions are met. When a data field condition is established, the Enable Rule check box is automatically selected.

**NOTE:** You cannot use a route point phone number when configuring a rule for inbound ACD calls.

5. Under the Actions pane, click Add to choose one or more actions to run when the event occurs and the rules are met. You can select an existing action, or create a new action.

**NOTE:** If the action you select cannot be associated with the event, you will receive an error message. See ["Creating Actions" on page 96](#) for more information.

**NOTE:** Enterprise data cannot be used in actions once the call appearance is gone. The data is still displayed but all internal caching of that data is cleared so it is not inadvertently used on the next call. An alternative is to perform the action on the Dropped event.

6. Repeat steps 1 through 5 for as many events as desired.
7. When you are finished associating events with rules and actions, click Apply to save the new voice contact work flow.

## Data Field Conditions

Data field conditions are criteria that a call's selected enterprise data fields must meet in order for a work flow rule or a voice contact classification filter to be enforced.

You can configure up to 3 data field conditions for a work flow rule and for a voice contact classification filter. You specify if all the data field conditions must be met (an AND statement) or if any of the data field conditions must be met (an OR statement).

To configure data field conditions for a work flow rule, use the Current Rule Conditions section of the Voice Contact Work Flow window. To configure data field conditions for a voice contact classification, use the Data Field Condition dialog box (Figure 36).

Figure 36. Data Field Condition dialog box

### To set up data field conditions:

1. In the Voice Contact Classification dialog box, click Edit. In the Voice Contact Work Flow window, add a new rule and then click Edit in the Current Rule Conditions section of the window.
2. Select a data field from the Data Field drop-down list.

The Data Field lists all the enterprise data fields used in your system.

Not all data fields are available for all events, for instance, Calling# and Called# are not available for the Ringing event.

3. Specify one of the data field filters:
  - **Is Empty.** The data field is empty.
  - **Is Not Empty.** The data field is not empty.
  - **Is In the List.** The data field is compared to the list you set up in the List pane to determine if it is in that list. Click Add to add an item to the list of strings. Strings are not case sensitive. You can use wild cards (\* and ?) to simplify your list. See ["Wild Card Searches" on page 88](#).
  - **Is Not in the List.** The data field is compared to the list you set up in the List pane to determine if it is not in that list. Click Add to add an item to the list of strings. Strings are not case sensitive. You can use wild cards (\* and ?) to simplify your list. See ["Wild Card Searches" on page 88](#).
  - **Length of Data.** The length of the data field is between a minimum and maximum number of characters that you set.
4. Ensure that the Enable Condition check box is selected, then click OK.

### Wild Card Searches

You can use wild cards when entering strings in the data field conditions list pane. This enables you to avoid having to enter many strings if the strings you want to list have common elements.

Wild card characters used are the asterisk (\*) and the question mark (?).

An asterisk in a string replaces any quantity of characters, as long as the other characters in the string match. For instance, ABC\* matches strings that begin with ABC but end in any quantity of any characters.

A question mark in a string replaces any character, but the length of the string must be exactly as represented. For instance, ABC?? matches strings that begin with ABC and end in two other characters.

Double quotes around a string searches for the exact characters within the double quotes, including the wild card characters (\*) and (?). For instance, "123\*ABC" matches only the string 123\*ABC, and does not allow the asterisk to act as a wild card.

## Modifying a Voice Contact Work Flow

You can modify the default work flow and any custom work flows you create.

**NOTE:** The classification filter for the Default work flow is Inbound Calls. This cannot be changed.



**To modify a voice contact work flow:**

1. From the Voice Contact Work Flow List, select the work flow you want to modify, and then click Edit.
  - If you selected a custom work flow, the Edit Voice Contact Classification dialog box appears.
  - If you select the default work flow, the Voice Contact Work Flow window appears. The default work flow does not classify voice contacts, and so bypasses the Edit Voice contact Classification dialog box.
2. Modify the voice contact classification if desired, and then click OK to proceed to the Voice Contact Work Flow window.
3. Modify the work flow as desired, and then click Apply to save your changes.

**Voice Contact Work Flows and Outbound Dialer**

Cisco Unified Outbound Dialer has four dialing modes. These dialing modes include events that do not always map to work flow events. [Table 18](#) displays how the Outbound Dialer events map to voice work flow events to assist you in creating work flows for Outbound Dialer campaigns.

**Table 18. Outbound Dialer events and CAD Work Flow events**

Dialing Mode	Voice Contact	Outbound Dialer Event	Work Flow Event
Direct Preview	Outbound	Reserved/Offered	None
		Accept	Ringing
		Connected	Answered
		Dropped	Dropped
	Inbound & Outbound	Reserved/Offered	Ringing & Answered
		Accept	Dropped & Ringing
		Connected	Answered
		Dropped	Dropped
	Inbound	Reserved/Offered	Ringing & Answered
		Accept	Dropped
		Connected	None
		Dropped	None

Table 18. Outbound Dialer events and CAD Work Flow events (cont'd)

Dialing Mode	Voice Contact	Outbound Dialer Event	Work Flow Event
Preview	Outbound	Reserved/Offered	None
		Accept	None
		Connected	None
		Dropped	None
	Inbound & Outbound	Reserved/Offered	Ringing & Answered
		Accept	None
		Connected	Dropped & Answered
		Dropped	Dropped
	Inbound	Reserved/Offered	Ringing & Answered
		Accept	None
		Connected	Dropped & Answered
		Dropped	Dropped
Predictive	Outbound	Ringing (customer's phone)	None
		Connected	None
		Dropped	None
	Inbound/Outbound	Ringing (customer's phone)	Ringing & Answered
		Connected	Dropped, Ringing, & Answered
		Dropped	Dropped
	Inbound	Ringing (customer's phone)	Ringing & Answered
		Connected	Dropped, Ringing, & Answered
		Dropped	Dropped

Table 18. Outbound Dialer events and CAD Work Flow events (cont'd)

Dialing Mode	Voice Contact	Outbound Dialer Event	Work Flow Event
Progressive	Outbound	Ringing (customer's phone)	None
		Connected	None
		Dropped	None
	Inbound/Outbound	Ringing (customer's phone)	Ringing & Answered
		Connected	Dropped, Ringing, & Answered
		Dropped	Dropped
	Inbound	Ringing (customer's phone)	Ringing & Answered
		Connected	Dropped, Ringing, & Answered
		Dropped	Dropped

### Deleting a Voice Contact Work Flow

You can delete any custom work flow you create. You cannot delete the default work flow.

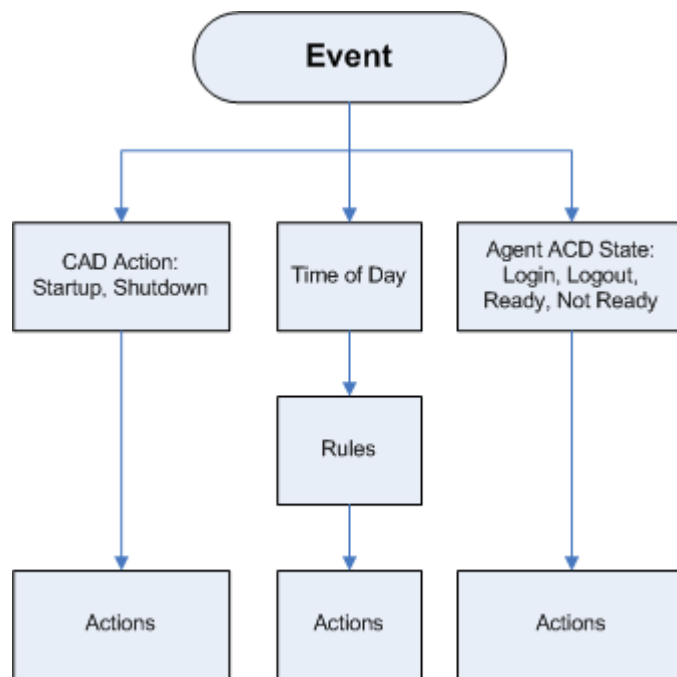
**To delete a voice contact work flow:**

1. From the Voice Contact Work Flow List, select the work flow you want to delete, and then click Delete. A popup window appears asking you to confirm you want to delete the work flow.
2. Click OK to confirm the deletion.

## Agent Management Work Flows

Agent management work flows manage agent activity based on Agent Desktop and CAD-BE activity, agent ACD states, and time of day. The work flows follow the event—rule—action behavior used by voice contact work flows. One important difference is that there is no initial filtering similar to the voice contact classification applied to voice contacts.

Figure 37. Agent Management Work Flows flow chart



For example, agent management work flows could be set up as follows:

- Every work day at 4:30, agents receive a popup message reminding them to complete their time cards.
- Whenever Agent Desktop starts up, Notepad is launched on the agent's desktop.
- Whenever an agent logs in, the customer database is launched.

### Creating an Agent Management Work Flow

The general procedure for creating an agent management work flow is as follows:

1. Select the event that triggers the work flow.

2. If the event is time of day, set up a rule with one or more data conditions that the event must meet.

**NOTE:** It is possible to set rules and conditions that are contradictory so that a work flow cannot function. Desktop Work Flow Administrator does not check a work flow's logic and validity. If a work flow fails to operate as expected, make sure that the rules and conditions you set up are logically valid.

3. Set up one or more actions that will take place whenever the event occurs, or, if a time of day event, whenever the rule is met.

When you select the Agent Management Work Flow node, the Work Flow window appears (Figure 38).

Figure 38. Work Flow window

The screenshot shows the 'Work Flow' window with the following details:

- Events:** A list box containing 'Startup', 'Shutdown', 'Logged in', 'Logged out', 'Ready', 'Not ready', and 'Time of day' (highlighted).
- Rules (of current Event):** A list box containing 'EndOfShift' (highlighted) and '<Default>'. Below it are 'New...' and 'Del...' buttons.
- Actions (of current Rule):** A list box containing 'TimeCardReminder'. Below it are 'Add...', 'Edit...', and 'Del...' buttons.
- Current Rule Conditions:**
  - EndOfShift:**
    - ☒ **Enable Rule** with an 'Edit...' button.
    - Data Field Conditions:** Three text boxes containing '04:30 PM Monday,Tuesday,Wednesday,Thur', 'Hook state On hook', and an empty box. Each has an 'Edit...' button.
  - Execute Actions When:** Two radio buttons: 'Any Condition is True' (unselected) and 'All Conditions are True' (selected).
- Apply:** A button at the bottom center.

Unlike rules in voice contact work flows, rules in agent management work flows can be applied only to a time of day event, not to all events.

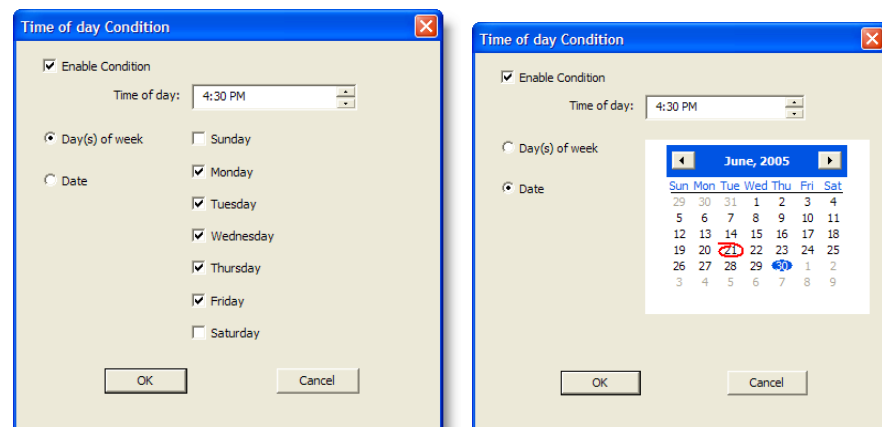
Not all actions are available for agent management work flows. See ["Action Availability" on page 97](#) for more information.

**To set up a CAD Agent activity or agent state work flow:**

1. Select the event that triggers the work flow from the Event pane. The available events are:
  - **Startup.** Agent Desktop/CAD-BE starts.
  - **Shutdown.** Agent Desktop/CAD-BE closes.
  - **Logged in.** The agent logs into Agent Desktop/CAD-BE.
  - **Logged out.** The agent logs out of Agent Desktop/CAD-BE.
  - **Ready.** The agent transitions to the Ready state.
  - **Not Ready.** The agent transitions to the Not Ready state.
2. Under the Actions pane, click Add to choose one or more actions to run when the selected event occurs. You can select an existing action, or create a new action. See ["Creating Actions" on page 96](#) for more information.
3. Repeat steps 1 and 2 for as many events as desired.
4. When you are finished associating events with actions, click Apply to save the agent management work flow.

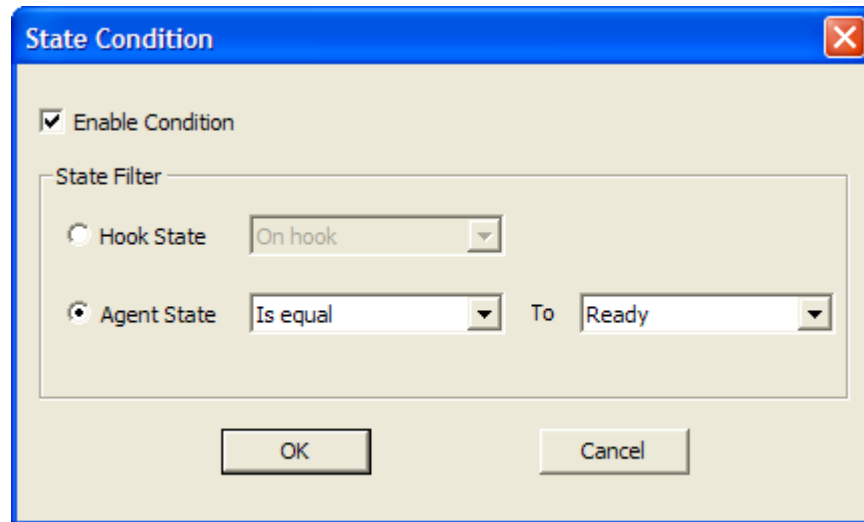
**To set up a time of day work flow:**

1. Select the Time of day event from the Event pane.
2. Under the Rules pane, click New to set up a new rule. The New Rule Name dialog box appears.
3. Enter the name of the new rule, then click OK. The fields in the Current Rule Conditions section of the window are enabled, and the Time of Day Condition dialog box appears ([Figure 39](#)).

**Figure 39. Time of Day Conditions — Days of the week (left) and Date (right)**

4. Set up the day or date conditions for the rule, then click OK. The condition you set up is automatically entered in the first Data Field Conditions line in the Current Rule Conditions section of the Work Flow window, and the Enable Rule check box is automatically selected.
  - a. To specify that an action takes place every week on certain days or at a certain time, select Day(s) of the week and then check the desired days. You must specify a time of day as well.
  - b. To specify that an action takes place on a specific date, select Date, and then select the desired date from the calendar. Today's date is circled in red. You must specify a time of day as well.
5. Click Edit next to the 2 remaining Data Field Conditions fields to further define the rule, if desired:
  - Specify if the agent is on hook or off hook
  - Specify if the agent state is or is not equal to Ready or Not Ready

Figure 40. State Condition dialog box



6. Under the Actions pane, click Add to choose one or more actions to run when the event occurs and the rules are met.

You can select an existing action, or create a new action. See ["Creating Actions" on page 96](#) for more information.
7. Click Apply to save the new time of day work flow.

## Creating Actions

Actions are stored independently of events and rules. You can use an action in more than one event, and you can assign actions to more than one task button in Agent Desktop and CAD-BE.

While actions are processed, events are queued. It is generally a good idea to avoid long actions. [Table 19](#) summarizes the availability of each action for agents who use Agent Desktop and agents who use CAD-BE. The symbol “x” indicates the action is available, and the symbol “—” indicates the action is not available.

**Table 19.** Actions and their availability to agents who use Agent Desktop and CAD-BE

Action Type and Description	Agent Desktop	CAD-BE
<a href="#">Creating Agent Notification Actions (page 104)</a> . Displays a popup message on the agent’s desktop.	x	—
<a href="#">Creating Agent State Actions (page 105)</a> . Sets an agent state.	x	—
<a href="#">Creating Call Control Actions (page 107)</a> . Answers, drops, conferences, transfers, or makes a call, or inputs touch tones during a call.	x	—
<a href="#">Creating Delay Actions (page 108)</a> . Adds delay time between actions in a series of actions.	x	—
<a href="#">Creating HTTP Actions (page 109)</a> . Enables the Agent Desktop integrated browser to interact with a web application.	x	x
<a href="#">Creating Agent Notification Actions (page 104)</a> . Displays a custom message on the agent’s desktop when a certain event occurs	x	—
<a href="#">Creating IPC Actions (page 116)</a> . Passes enterprise data or user-defined data from the agent desktop to a custom third-party application.	x	—
<a href="#">Creating Launch External Application Actions (page 118)</a> . Starts a third-party application.	x	—
<a href="#">Creating Run Macro Actions (page 119)</a> . Plays back a recorded sequence of keystrokes.	x	—
<a href="#">Creating Set Enterprise Data Actions (page 128)</a> . Automatically changes an enterprise data field in Agent Desktop to a selected desktop variable or static text.	x	—



Table 19. Actions and their availability to agents who use Agent Desktop and CAD-BE (cont'd)

Action Type and Description	Agent Desktop	CAD-BE
<a href="#">Creating Timer Actions (page 130)</a> . Triggers actions after a specified time has elapsed.	x	—
<a href="#">Utility Action (page 131)</a> . Run a utility, such as start and stop recording or sending a predefined, high-priority chat message to a supervisor.	x	x

## Action Availability

Not all actions are available for all events or for all types of agents. [Table 20](#) shows which actions are available for the three types of work flows and for each type of agent (Agent Desktop agents and CAD-BE agents). The symbol “x” indicates the action is available, and the symbol “—” indicates the action is not available.

Table 20. Action availability per work flow type and agent type

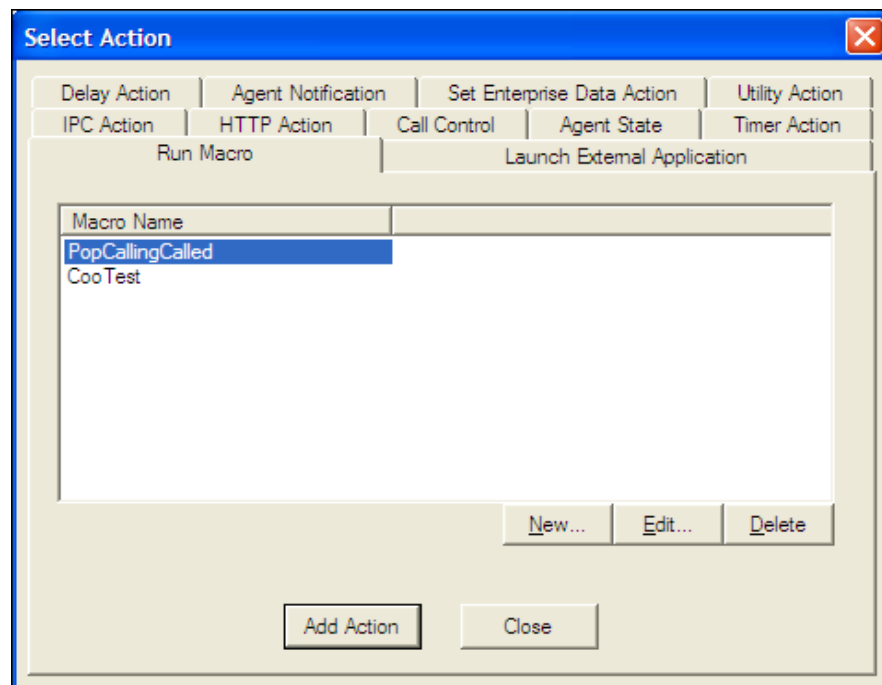
Action Type	Voice Contact		Agent Management		Time of Day	
	Agent Desktop	CAD-BE	Agent Desktop	CAD-BE	Agent Desktop	CAD-BE
Agent Notification	x	—	x	—	x	—
Agent State	x	—	—	—	x	—
Call Control	x	—	—	—	—	—
Delay	x	—	x	—	—	—
HTTP	x	x	x	—	x	—
IPC	x	—	x	—	—	—
Launch External Application	x	—	x	—	—	—
Run Macro	x	—	x	—	—	—
Set Enterprise Data	x	—	—	—	—	—
Timer	x	—	—	—	—	—
Utility	x	x	—	—	—	—

## Adding a New Action

*To add a new action:*

1. Access the Voice Contact Work Flow or Agent Management Work Flow window.
2. Select the event to be associated with the new action.
3. Under the Actions pane, click Add. The Select Action dialog box appears (Figure 41).

**Figure 41.** Select Action dialog box



4. Choose the tab for the type of action you want to associate with the event.
5. If the action already exists, select it, then click OK. If the action does not yet exist, click New, then follow the instructions for setting up that type of action as outlined below.
6. Click OK. The Select Action dialog box closes and you return to the Work Flow window. The new action is listed in the Actions pane.

## Editing an Action

### *To edit an action:*

1. In the Work Flow window, select the appropriate event, and then select the action you want to edit from the Actions pane.
2. Click Edit. The edit dialog box for that action appears.
3. Make your changes, and then click OK. The action is now changed.

## Deleting an Action

To permanently delete an action, you must first delete it from any event it is associated with, and then delete the action itself.

### *To permanently delete an action:*

1. In the Work Flow window, select an event.
2. If the action you want to delete is associated with the event, select the action in the Action pane, then click Delete to remove the action from the event.
3. Repeat steps 1 and 2 for all of the other events. The action is now removed from all events.
4. Under the Actions pane, click Add. The Select Actions window appears.
5. Choose the appropriate tab, and then select the action you want to delete.
6. Click Delete. The action is deleted.
7. Click Cancel. The Select Action window closes, returning you to the Work Flow window.

## Importing and Exporting Actions

You can export actions associated with a specific work flow group and import them to other work flow groups. The actions are exported to any location you choose, locally or on a network drive.

**NOTE:** If you export actions to the default location on your PC, which is C:\Program Files\Cisco\Desktop\config\Action, the actions will be lost if a client desktop is reinstalled. To avoid this issue, export actions to a folder that is not in the CAD installation directory (which is C:\Program Files\Cisco\Desktop).

The actions you export can be imported by other instances of Desktop Work Flow Administrator, belonging to your system or any other system, as long as those

instances are the same version of Desktop Work Flow Administrator and can access the file storage folder.

Types of actions that can be exported and imported are:

- Run Macro action
- HTTP action
- IPC action
- Launch External Application action

The rules and events associated with the actions are not part of this function and cannot be exported or imported.

You can export only one action at a time. For example, if there are five actions you want to export from a work flow group, you must export each action individually.

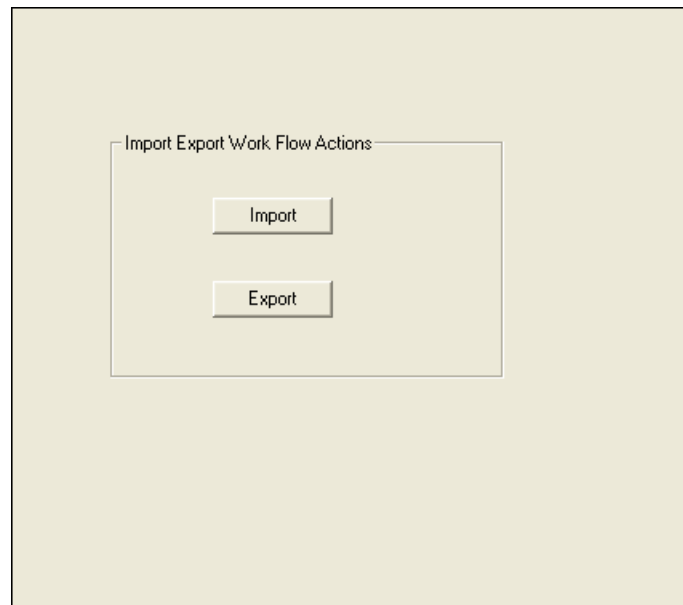
You can add a description (limited to 255 characters) to the exported action for easier identification when importing to another work flow group.

If an imported action has the same name as an action already present in the work flow group, you will be prompted to rename the imported action.

**To export a work flow action:**

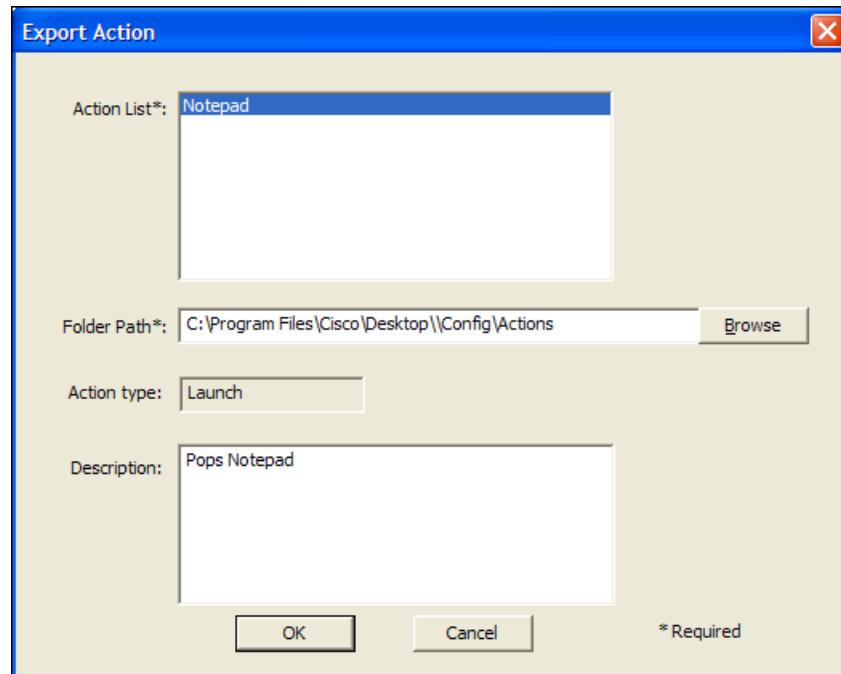
1. Select the work flow group whose action you want to export. The Import Export Work Flow Actions window appears ([Figure 42](#)). The Import and/or Export buttons are enabled only if there are actions available for import/export.

**Figure 42.** Import Export Work Flow Actions window



2. Click Export. The Export Action dialog box appears (Figure 43).

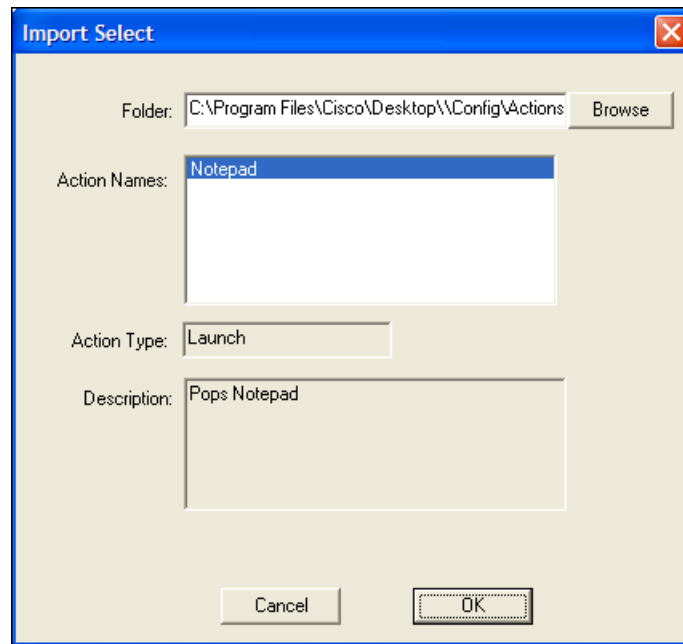
Figure 43. Export Action dialog box



3. Select the action you want to export from the Action List, then complete the fields in the dialog box.
  - **Folder Path.** Select the default path shown or browse to any other local or network folder location.
  - **Description** (optional). Enter a description of the action. Maximum length of the description is 255 characters.
4. Click OK.

**To import a work flow action:**

1. Select the work flow group to which you want to import an action. The Import Export Work Flow Actions window appears (Figure 42).
2. Click Import. The Import Select dialog box appears (Figure 44).

**Figure 44.** Import Select dialog box

3. Navigate to the folder where actions are stored. The field is autofilled with the default path.
4. From the Action Names list, select the action you want to import to the work flow group. You can import only one action at a time.
5. Click OK.

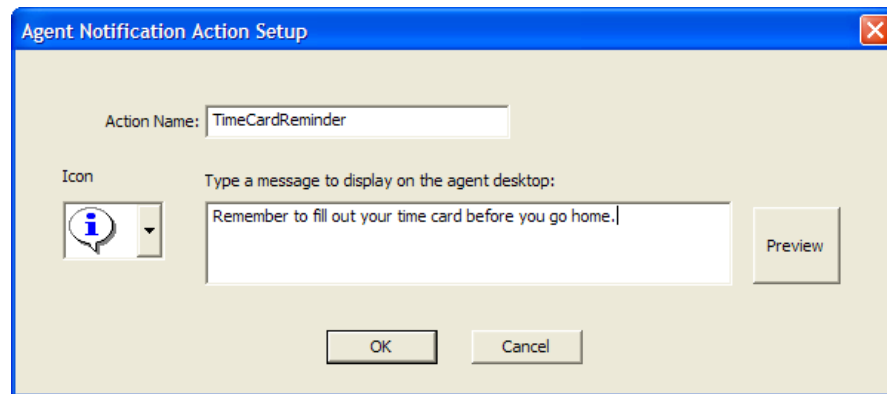
## Creating Agent Notification Actions

An Agent Notification action displays a custom message popup window on the agent's desktop when a certain event occurs. For instance, when an agent logs out, a popup window reminding the agent to complete his time card could pop up on his desktop.

### To set up an Agent Notification action:

1. Set up a new action. (For instructions, see ["Adding a New Action" on page 98.](#)) The Select Action window appears.
2. Select the Agent Notification tab, and then click New. The Agent Notification Action Setup dialog box appears ([Figure 45](#)).

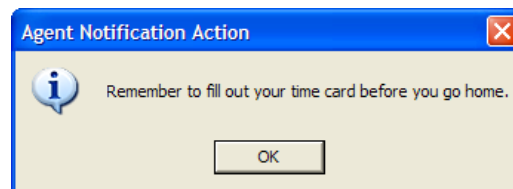
Figure 45. Agent Notification Action Setup dialog box



3. Type an action name, select an icon for the popup window, type a message, then click Preview ([Figure 46](#)). A preview of your popup window appears.

**NOTE:** The title bar on the actual popup window might contain truncated text, because Windows automatically adds "Cisco Agent Desktop" to the beginning of the title bar text and the popup window does not resize.

Figure 46. Preview of an Agent Notification popup window



4. Click OK.



## Creating Agent State Actions

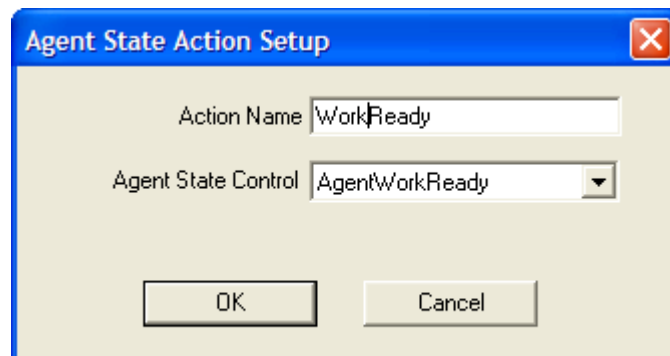
An Agent State action enables you to select an agent state to associate with an event. Agent State actions can be associated only with Answered and Dropped events. The only valid agent states are Ready, Not Ready, Work Ready, and Work Not Ready.

**NOTE:** You can associate agent states with the Dropped event, but any agent state transitions configured in Unified ICM might take precedence over the agent state action you configure here. For more information on configuring agent state settings in Unified ICM, refer to the About Agent Desk Settings section of the *Installation and Configuration Guide Cisco Unified Contact Center Enterprise*.

### To set up an Agent State action:

1. Set up a new action. See ["Adding a New Action" on page 98](#). The Select Action window appears.
2. Select the Agent State tab, then click New. The Agent State Action Setup box appears ([Figure 47](#)).

Figure 47. Agent State Action Setup dialog box



3. Enter a name for the action, select the agent state control from the drop-down list, then click OK.

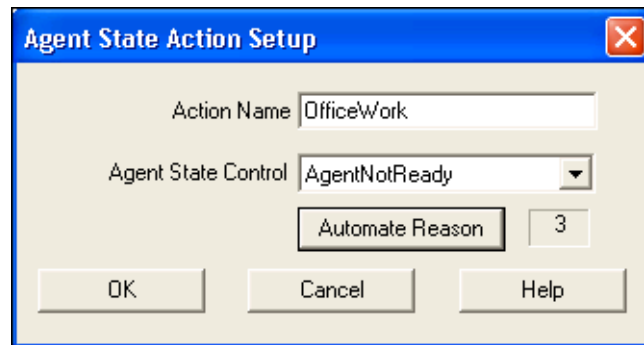
## Automated Reason Codes for Agent State Changes

You can enable automated reason codes when you set up an agent state action for transitioning to Logout or Not Ready.

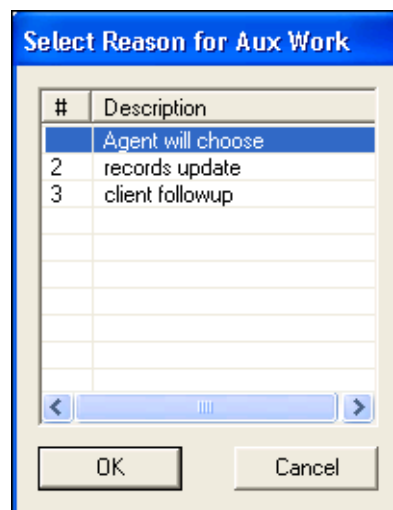
If you enable automated reason codes, the agent does not have to choose the appropriate reason code when an agent state action to transition to Logout or Not Ready is triggered.

**To enable automated reason codes**

1. Set up a new Agent State action ("[Creating Agent State Actions](#)" on page 105) or edit an existing Agent State action ("[Editing an Action](#)" on page 99).
2. In the Agent State Action Setup dialog box, type a name for the action and select AgentNotReady or AgentLogout from the Agent State Control drop-down list. The Automate Reason button appears in the dialog box ([Figure 48](#)).

**Figure 48.** Agent State Action dialog box with Automate Reason button

3. Click Automate Reason. The Select Reason dialog box appears ([Figure 49](#)).

**Figure 49.** Select Reason dialog box

4. Select a reason code to be entered automatically when the action is triggered, then click OK. The Select Reason window closes and the Agent State Action Setup window displays the number of the selected reason code next to the Automate Reason button.

**NOTE:** Selecting “Agent will choose” forces the agent to enter a reason code.

5. Click OK.

## Creating Call Control Actions

You can associate an event, a rule, or a task button with a call control action, such as blind transferring a call to an agent’s supervisor. Call control actions include:

- **Answer.** The Answer action answers an inbound call.
- **Blind conference.** The Blind conference action conferences the active call with a predefined phone number.  
The Blind conference action requires one or more rules that define when the action should be executed (for example, incoming calls from a route point). If the action does not have any rules, it will be executed every time the event with which it is associated occurs. For example, if you create a blind conference action on an answered event without any rules, the action will be executed for every answered call.
- **Blind transfer.** The Blind transfer action transfers the active call directly to a predefined phone number. The call is transferred to that number and the agent is no longer connected to the call.  
The Blind Transfer call control action includes a configurable delay time, if one is needed. The Transfer Delay field is not enabled for any other call control action.
- **Call.** The Call action calls a predefined phone number.
- **Drop.** The Drop action disconnects an active call.
- **Single-step conference.** The Single-step conference action conferences the active call by specifying the number with which the agent wants to conference the call. The call is conferenced directly with the third party.
- **Single-step transfer.** The Single-step transfer action transfers the active call by specifying the number to which the agent wants to transfer the call. The call is transferred directly to the third party and the agent is disconnected from the call.
- **Supervised conference.** The Supervised conference action conferences the active call by specifying the number with which the agent wants to conference the call. The agent can either add the third party to the call without first speaking to him or her, or speak to the third party before actually completing the conference call. The agent can alternate between parties or complete the conference call.

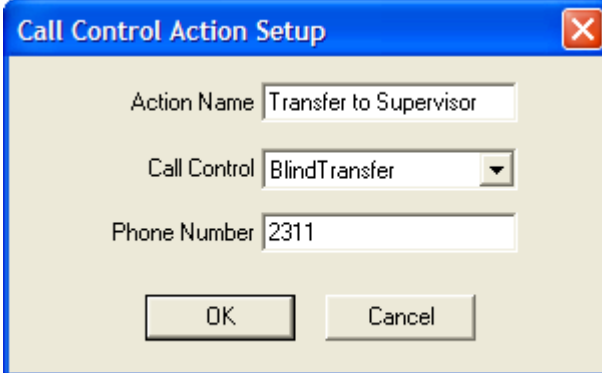
- Supervised transfer. The Supervised transfer action transfers the active call by specifying the number to which the agent wants to transfer the call. The agent can either hang up before the third party answers, or stay on the line and speak to the third party before actually transferring the call. The agent can switch between parties or complete the call transfer.
- Touch tones. The Touch tones action enters numbers or symbols on the number pad during an active call.

**NOTE:** A work flow to answer calls on a Ringing event cannot be used by mobile agents in Call-by-Call mode, as they answer calls manually.

**To set up a Call Control action:**

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the Call Control tab, then click New. The Call Control Action Setup window appears ([Figure 50](#)).

**Figure 50.** Call Control Action Setup window

The image shows a Windows-style dialog box titled "Call Control Action Setup". It has a blue title bar with a red close button in the top right corner. The main area is light beige and contains three input fields: "Action Name" with the text "Transfer to Supervisor", "Call Control" with a dropdown menu showing "BlindTransfer", and "Phone Number" with the text "2311". At the bottom, there are two buttons: "OK" and "Cancel".

3. Type a name for the call control action, select an action from the Call Control drop-down list, then type a phone number, if required. For example, for a Blind Transfer, type a phone number to which the call is transferred.
4. Click OK.

## Creating Delay Actions

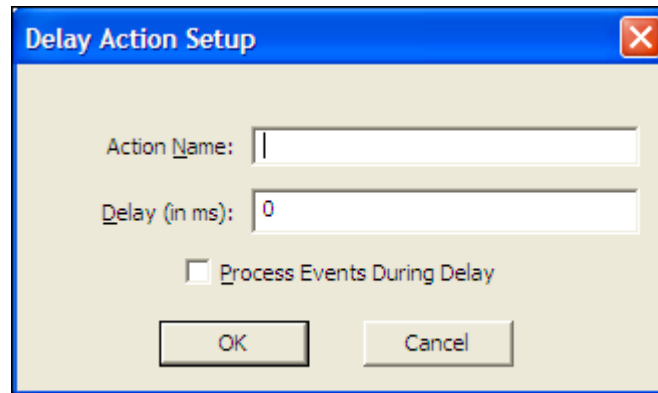
Delay actions are used to add delay time between actions in a series of actions. For example, you can add a delay action between two macros in a work flow.

**To set up a Delay action:**

1. Set up a new action (see [page 98](#)). The Select Action window appears.

2. Select the Delay Action tab, then click New. The Delay Action Setup window appears (Figure 51).

Figure 51. Delay Action Setup window



3. Type a name for the delay action and the length of delay time in milliseconds. If you want events to be processed in the background during the delay, select the Process Events During Delay check box. Click OK.

## Creating HTTP Actions

HTTP actions enable an agent to use call-based data to interact with a website or a web application in the Integrated Browser window. For example, an HTTP action can be set up so the enterprise data of an incoming call is used to retrieve a customer record and display it in the Integrated Browser.

**NOTE:** For more information about HTTP requests and the HTTP protocol, see the World Wide Web Consortium website, [www.w3.org](http://www.w3.org).

The Post and Get HTTP actions are available to agents who use Agent Desktop at the Premium level. The Get HTTP action is available to agents who use CAD-BE at the Enhanced and Premium levels.

**NOTE:** A URL with arguments is limited by the HTTP service to a maximum of 2075 characters. If you create an HTTP action that results in a longer URL, the action will not work correctly.

### *To set up an HTTP action:*

1. Set up a new action (see [page 98](#)). The Select Action window appears.

2. Select the HTTP Action tab, then click New. The HTTP Actions Setup window appears (Figure 52).

Figure 52. HTTP Action Setup window

The screenshot shows the 'HTTP Action Setup' dialog box. It is divided into three main sections: 'URL', 'Request Data', and 'Preview'. The 'URL' section contains fields for 'Action Name', 'Protocol' (set to 'http'), 'Method' (set to 'GET'), 'Host', 'Port' (set to '80'), 'Path', and 'Browser Tab'. The 'Request Data' section contains a table with columns 'Name', 'Value', 'Value Type', and 'Test Data', and buttons 'Add...', 'Edit...', and 'Delete'. The 'Preview' section contains a large text area and buttons 'Preview...' and 'Test'. At the bottom are 'OK' and 'Cancel' buttons.

3. Complete the HTTP Actions Setup dialog box as follows:

Field	Description
Action Name	The new action name.
Protocol	The protocol to be used: http (default) or https.
Method	The http method to be used: GET (default, Agent Desktop and CAD-BE) or POST (available in Agent Desktop only).

Field	Description
Host	The website host name or IP address. Omit the protocol.
Port	The port (0–65535) that the host is listening on. The default for http is 80. The default is 443 for https.
Path	Optional. The path portion of the URL. Default is blank. Do not include a leading slash.
Browser Tab	The browser tab in which you want the action results to be displayed. If the tab you select is removed later, the action will be displayed in the first tab (ordinarily reserved for supervisor page push). This field is not present in CAD-BE, since CAD-BE only has 1 tab.

- Click Add to display the HTTP Request Data dialog box (Figure 53).

The fields added with this dialog box make up the query or post data portion of the request. The fields are optional and are blank by default.

**Figure 53.** HTTP Request Data dialog box

- Complete the HTTP Request Data dialog box as follows:

Field	Description
Value Name	Enter the name of the field in the web application.

Field	Description
Value Type	One of the following: <ul style="list-style-type: none"><li>• DataField: An enterprise data variable is the source of the data. Uses the format &lt;name&gt;=&lt;value&gt;.</li><li>• UserDefined: A specific string entered in the Value field. Uses the format &lt;name&gt;=&lt;value&gt;.</li><li>• DataFieldOnly: Any value from the Value drop-down list. Does not use the format &lt;name&gt;=&lt;value&gt;.</li></ul>
Value	If Value Type is UserDefined, the actual value. If Value Type is DataField or DataFieldOnly, the enterprise data variable.
Test Data	A string to simulate DataField or DataFieldOnly data. Enabled only if Value Type is DataField or DataFieldOnly.

6. Continue to build your request using the Add, Edit, and Delete buttons.
7. When you have completed building the request, click Preview to view the request. Note that Desktop Administrator has added the special characters needed for a valid HTTP request. Supported formats are as follows:
  - If a path is specified and there is request data, there will be a “/” after the port and a “?” after the path.  
Example: `http://www.site.com:80/index.jsp?name=value`
  - If a path is not specified, there is request data, and the first request data is *not* DataFieldOnly, there will be a “?” after the port and no “/”.  
Example: `http://site.com:80?name=value`
  - If a path is not specified, there is request data, and the first request data is DataFieldOnly, there will be a “/” after the port and no “?”.  
Example: `http://www.site.com:80/value`
  - If a path is not specified, there are several request data, and the first request data is DataFieldOnly, there will be a “/” after the port and no “?”.  
Example: `http://www.site.com:80/value&value&value...`
8. When you are satisfied your request is correctly formatted, click Test to test it using the test data you entered when adding the request data.



## Reserved Characters

[Table 21](#) lists the reserved characters. Reserved characters must not be used in an HTTP request.

**Table 21.** Reserved characters

Symbol	Name	Symbol	Name	Symbol	Name
&	Ampersand	“	Double quote	#	Pound sign
@	At sign	=	Equal sign	?	Question mark
\	Back slash	!	Exclamation point	>	Right angle bracket
^	Carat	<	Left angle bracket	]	Right square bracket
:	Colon	[	Left square bracket	;	Semi-colon
,	Comma	%	Percent	'	Single quote
\$	Dollar sign	+	Plus	/	Slash

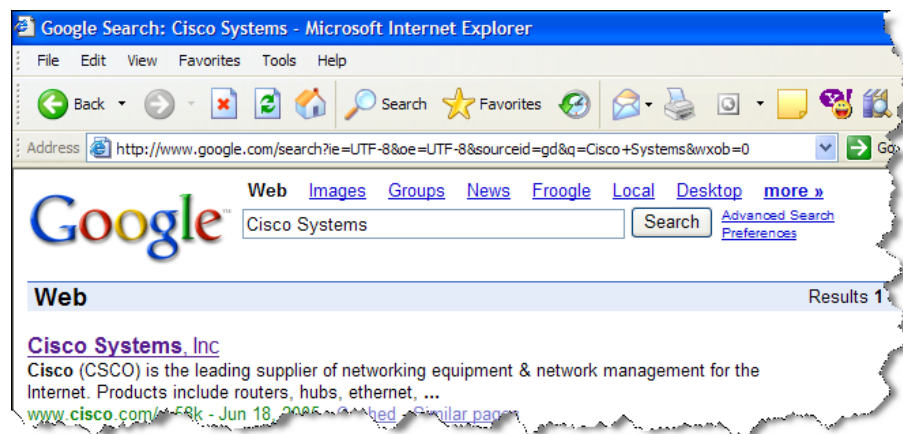
## Example of an HTTP Request

The following procedure shows how to create an HTTP request using Google search engine to search for “Cisco Systems.”

*To learn what value names and values go into the Google search:*

1. Open your web browser and navigate to [www.google.com](http://www.google.com).
2. Type **Cisco Systems** in the search field, then click Google Search. The address bar shows the HTTP request that we will create (Figure 54).

**Figure 54.** Google Search results page



3. The Address bar displays the following string, containing the host and path, then a question mark, then the request data, separated by ampersands (&). The request data and values are user defined. The value name is on the left side of the equal sign, and the value is on the right side of the equal sign.

`www.google.com/search?ie=UTF-8&oe=UTF-8&sourceid=gd&q=Cisco+Systems&wxob=0`

Name	Value
Host	www.google.com
Path	search
Browser Tab	HTTP Web Browser Tab 1
Request Data	ie=UTF-8 oe=UTF-8 sourceid=gd q=Cisco+Systems wxob=0

**To create the HTTP request:**

1. Complete the HTTP Actions Setup dialog box with the information you gathered from the manual Google search (Figure 54).

**NOTE:** Google inserted a plus sign (+) between the words “Cisco” and “Systems” in the request string. When you enter the request data, you can omit that character. Desktop Administrator will automatically add the characters that indicate a space.

2. After you enter the request data, click Preview to view the resulting string. It should be identical to the string displayed in the Google search results address bar. If you typed a plus sign between the words Cisco and Systems, the string will contain “%2B” instead of a plus sign. If you typed a space, the string will contain “%20”. Both strings indicate a space and are acceptable substitutes for the plus sign.
3. Click Test to test your HTTP request. The request should open your browser, navigate to the Google Search page, and run a search for “Cisco Systems”.

**Figure 55. Google Search HTTP Action Setup dialog box**

**HTTP Action Setup**

Action Name: GoogleSearch

URL

Protocol: http

Method: GET

Host: www.google.com

Port: 80

Path:

Browser Tab: HTTP Web Browser Tab 1

Request Data

Name	Value	Value Type	Test Data
ie	UTF-8	UserDefined	
oe	UTF-8	UserDefined	
sourceid	gd	UserDefined	
q	Cisco+Systems	UserDefined	
wxob	0	UserDefined	

Add... Edit... Delete

Preview

http://www.google.com:80/search?ie=UTF-8&oe=UTF-8&sourceid=gd&q=Cisco%2BSystems&wxob=0

Preview... Test

OK Cancel

## Creating IPC Actions

This action is available to agents using Agent Desktop at the Premium level.

IPC actions pass information in the form of UDP (user datagram protocol) messages from Agent Desktop to a third-party application using IPC (interprocess communication) methods. The third-party application can be located on the agent's PC or anywhere on the network.

**NOTE:** The third-party application must be coded specifically to listen for data sent to a specific IP address and port.

An IPC action is one-way—that is, when Agent Desktop sends data using an IPC action, it does not receive a response or any acknowledgement that the message was received by the recipient third-party application.

The data sent is enterprise data or user-defined data. It is sent in the format:

valuenam=value&name=value&name=value...

### *To set up an IPC action:*

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the IPC Action tab, then click New. The IPC Action Setup window appears ([Figure 56](#)).

**Figure 56.** IPC Action Setup window

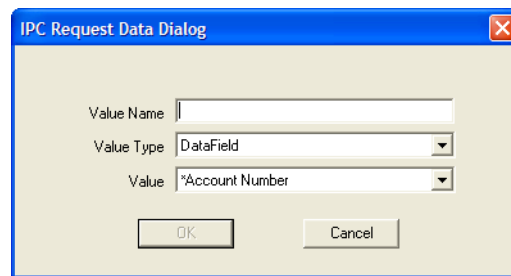
The screenshot shows the 'IPC Action Setup' dialog box. It has a title bar with the text 'IPC Action Setup' and a standard Windows close button. The main area contains several input fields: 'Action Name' (a text box), 'Protocol' (a dropdown menu currently showing 'UDP'), 'IP Address' (a text box with '0 . 0 . 0 . 0'), and 'Port' (a text box with '80'). Below these fields is a section titled 'Data' which contains a table with three columns: 'Name', 'Value', and 'Value Type'. The table is currently empty. At the bottom of the dialog are five buttons: 'Add...', 'Edit...', 'Del...', 'OK', and 'Cancel'.

3. Complete the fields in the IPC Action Setup window as follows:

Field	Description
Action Name	The name for the new action.
Protocol	The default (and only) protocol is UDP.
IP Address	The IP address of the third-party application that listens.
Port	The port on which the third-party application listens.

4. Click Add to display the IPC Request Data dialog box (Figure 57). The fields added with this dialog box make up the query portion of the request.

**Figure 57. IPC Request Data dialog box**



5. Complete the IPC Request Data dialog box as follows:

Field	Description
Value Name	The name of the field.
Value Type	The source of the data. DataField indicates an enterprise data variable. UserDefined indicates a specific string entered in the Value field.
Value	If the Value Type is DataField, the enterprise data variable. If the Value Type is UserDefined, the value to be used.

6. Continue to build your request using Add, Edit, and Delete as needed.
7. When you have completed building the request, click OK.

## Creating Launch External Application Actions

Launch External Application actions start a third-party application in a new window.

To ensure applications are running before macros attempt to use them, start them with launch actions assigned to the Startup event.

**NOTE:** An application started by a launch action must use the same path on the agent's PC as it does on the administrator's PC or it must be on a network drive, or the launch action will not be successful.

When using launch actions, Agent Desktop can pass parameters such as command line arguments in two ways.

The first method is to add parameters after the application path name. For example, the command to start Microsoft Excel and open a spreadsheet named mrmtest.xls is:

`"c:\program files\excel.exe" "c:\my documents\mrmtest.xls"`

**NOTE:** Program names and command line arguments that contain spaces must be in quotes so that they appear as one argument rather than as multiple arguments.

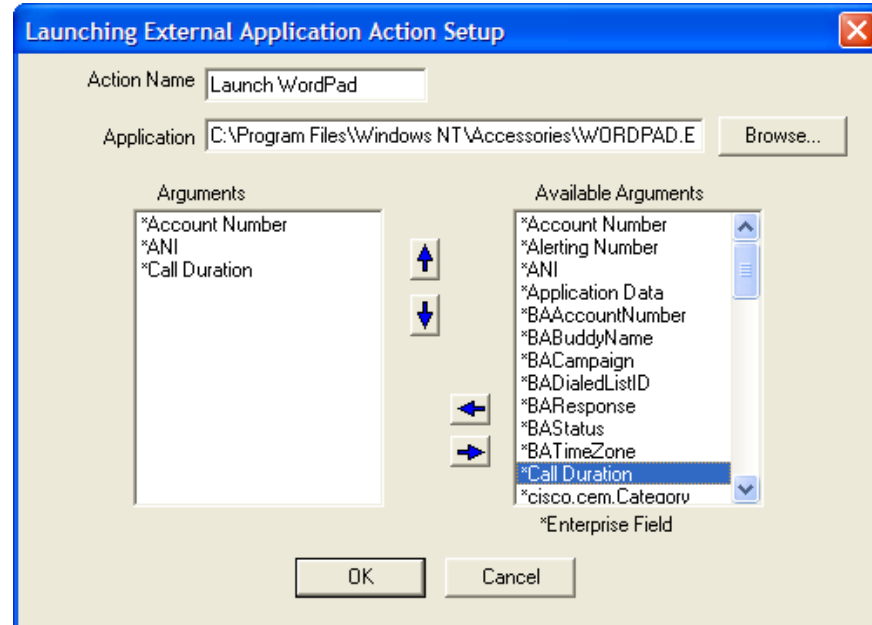
The second method involves passing data fields as arguments. You can pass any valid data field while launching an application.

**NOTE:** If a launch action takes place on the Startup event, call data might not be present. Empty data fields will contain the string <NULL>.

**To set up a Launch External Application action:**

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the Launch External Application Action tab, then click New. The Launching External Application Action Setup window appears ([Figure 58](#)).

**Figure 58. Launching External Application Action Setup window**



3. Type an action name and the path to the location of the desired application. Ensure that the application is in a location that is available to Agent Desktop at runtime.
4. Add any arguments you wish to pass to the application. Choose the desired argument in the Available Arguments list, and use the left arrow to add it to the Argument list. Use the up and down arrows to reorder the Argument list.
5. When you have finished entering information, click OK.

## Creating Run Macro Actions

A macro is a shortcut for a sequence of keystrokes. For example, you might record a macro that performs the following tasks with each incoming call:

1. Copy the ANI (Automatic Number Identification) from Agent Desktop to Microsoft Outlook.
2. Open a contact list.

3. Find the ANI in a database or spreadsheet.
4. Display a screen containing the caller's account information.

**NOTE:** Do not use a Run Macro action for tasks that can be done with another action type. For example, use a Call Control action to transfer a call, and an Agent State action to change agent states.

**NOTE:** Run Macro actions do not work correctly when using Chinese and Korean characters (and potentially any multi-byte characters).

### Macro Recording Tips

If your macro accesses a third-party application, make sure that the application is open. If the macro enters text into the third-party application, make sure that application has Windows focus.

Keystroke macros play back to the top level window they were recorded in. If you are running a keystroke macro to a Terminal Services window, you must make sure that the appropriate application in that Terminal Services window always has focus, otherwise the keystrokes will be sent to the wrong application.

Before you begin to record the macro, make a test run with the third-party application, writing down all of the keystrokes required for the tasks you wish to perform.

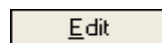
Use keyboard shortcut keys to perform actions in the application. Avoid using the following actions in a macro.

- Tab or arrow keys, because the cursor might not be in the same place every time a window opens
- Mouse clicks and movements, because they are not recorded

**NOTE:** The execution of a macro can be affected by the client PC keyboard settings. Ensure that keyboard settings, such as Caps Lock, are not inadvertently left on. Warn agents not to enter keystrokes while a macro is running, since that can affect the macro.

Shortcut keys are indicated by an underlined letter in the button name, field name, or description. To perform the action, press Alt, Ctrl, or Shift plus the underlined letter. Pressing Alt+E clicks the Edit button ([Figure 59](#)).

**Figure 59.** Letter E is the shortcut key for Edit.





The exact keystrokes for a keyboard shortcut are listed in the application's menu. For instance, in Microsoft Word, to find out what the shortcut is to save a document, choose File from the menu bar. On the drop-down menu the Save option is followed by its shortcut, Ctrl+S.

[Table 22](#) lists common Windows shortcuts.

**Table 22.** Windows shortcuts

Shortcut	Description
Esc	Cancels an action.
Enter	Clicks OK or the default button in a dialog box. (Default buttons are surrounded by a heavier border.)
Ctrl+A	Selects all text.
Ctrl+C	Copies selected text to the clipboard.
Ctrl+P	Prints the document.
Ctrl+S	Saves the document.
Ctrl+V	Pastes text into the window at the cursor position.
Ctrl+X	Cuts selected text to the clipboard.

A macro can include keystrokes for multiple applications. For example, one macro can include keystrokes for word processing, spreadsheet, and database applications. To switch between applications when recording a macro, use the mouse to select the application. Do not press Alt+Tab. If you do, these keystrokes are recorded and might not select the correct application when you play back the macro.

**NOTE:** Do not press Ctrl+Esc to click the Microsoft Windows Start button, or the Macro Recorder stops recording without providing a message showing that recording has stopped. All keystrokes recorded up to this point are deleted. To click Start without causing an error or stopping recording, use your mouse.

## Allowed Macro Keystrokes

Table 23 lists the keystrokes that are allowed in macros.

**Table 23. Allowed Macro Keystrokes—Keys**

Key Type	Key	Macro Notation
Character	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z * + ; = , - . / ` [ \ ] '	
Non-Character	Tab	[TAB]
	Backspace	[BACKSPACE]
	Enter/Return	[ENTER]
	Shift	[SHIFT]
	Control/Ctrl	[CONTROL]
	Alt	[ALT]
	Pause/Break	[PAUSE]
	Caps Lock	[CAPSLOCK]
	Esc	[ESC]
	Space/Space Bar	[SPACE]
	Page Up/PgUp	[PAGE-UP]
	Page Down/PgDn	[PAGE-DOWN]
	End	[END]
	Home	[HOME]
	Left Arrow	[LEFT-ARROW]
	Up Arrow	[UP-ARROW]
	Right Arrow	[RIGHT-ARROW]
	Down Arrow	[DOWN-ARROW]
	Print Scrn	[PRINTSCREEN]
	Insert	[INSERT]
	Delete	[DELETE]
	F1 through F24	[F1] ... [F24]

Table 24 lists the special commands that are allowed in macros.

Table 24. Allowed Macro Special Commands

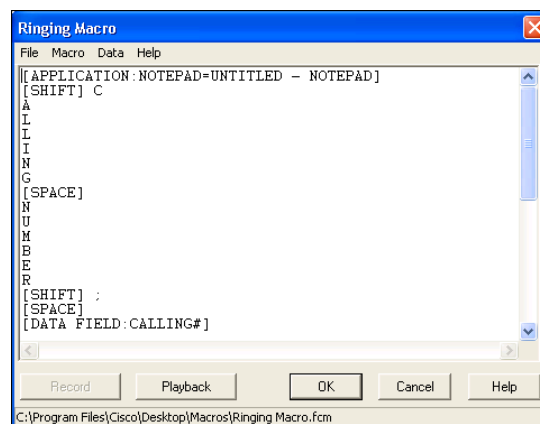
Special Command	Description
[ENTERPRISE FIELD:]	Inserts an Enterprise Data field.
[DATA FIELD:]	Inserts data from Agent Desktop.
[SYSTEM FIELD:]	Inserts data from Agent Desktop system fields.
[APPLICATION:=]	Changes focus to an application window. The equals sign (=) separates the application name and window title. If either the application name or window title is missing, Agent Desktop attempts to find the correct application and window to play the macro to, based on the parameters.
[DELAY]	Time, in milliseconds, to wait before performing the next macro command. For example: <b>[DELAY] 1000</b> delays the next macro key or command by 1 second.

## Recording Macros

### To record a macro:

1. Start and minimize any third-party applications you want in the macro.
2. Set up a new action. For instructions, see ["Adding a New Action" on page 98](#). The Select Action window appears.
3. Select the Run Macro tab, then click New. The New Macro dialog box appears.
4. Enter a name, then click OK. The Macro Editor window appears. [Figure 60](#) shows the Macro Editor window with a macro named "Ringing Macro."

Figure 60. Macro Editor window



5. Click Record. The Macro Editor window minimizes and the macro recorder starts. Anything you type from now on is entered in the new macro.
6. Maximize the third-party application and begin typing.
7. If you want to insert a data field, press the Pause Macro hot key (the default is F2). The Macro Recorder Suspended dialog box appears (Figure 61).

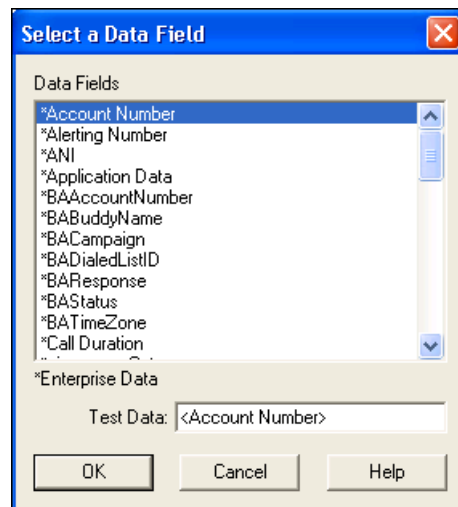
**NOTE:** Do not change the focus from the third-party application to the macro recorder before pressing the Pause Macro hot key. If you do, an error message will appear, interrupting your macro recording.

Figure 61. Macro Recorder Suspended dialog box



8. Click Insert Data. The Select a Data Field dialog box appears (Figure 62). For more information, see "Data Fields" on page 125.

Figure 62. Select a Data Field dialog box



9. Choose the desired data field from the list, enter test data if desired, then click OK. The test data you enter is displayed in the application only when the macro is tested using the Playback function. The Macro Recording Suspended dialog box appears.
10. Click Resume Recording to continue recording the macro.
11. Once you have finished recording the macro, press the macro hot key. The Macro Recording Suspended dialog box appears.
12. Click End Recording. You are returned to the Macro Editor window.
13. You can take any of the following actions:
  - To save the macro as recorded, click OK.
    - If the macro has no errors, the macro is saved and you are returned to the Select Action dialog box.
    - If the macro has errors, the macro editor displays the line and highlights the text in question. Correct it and click OK again.
  - To test the macro, click Playback.
    - If the macro has errors, the macro editor displays the line and highlights the text in question. Correct it and click Playback again.
    - If the macro has no errors, the macro is played back. If it works as you intend, click OK to save it and return to the Select Action dialog box.
  - To change test data, choose Data > Change Test Data in the macro editor and enter new test data.
  - To cancel the macro, click Cancel. The macro is canceled and the Select Action dialog box appears.

### Data Fields

The Select a Data Field dialog box ([Figure 62](#)) enables you to select and insert a Agent Desktop data field into a macro. Access this dialog box either through the Suspend Macro Recording dialog box or from the Data menu in the Macro Editor window.

There are three types of data fields, which can be included in the Run Macro and Launch External Application work flow actions.

- Standard. Data from the switch.
- System. For example, the date and time. Enclosed in square brackets [ ].
- Enterprise. From the Enterprise service. Marked with an asterisk (\*).

**NOTE:** Not every data field is available for every event. For example, the calling number is not available during a startup event. If a macro uses an unavailable field to pop an application, the application displays <N/A>.

Table 25 lists the available data fields.

**Table 25. Enterprise Data Fields**

Data Field	Description
*Account Number	Customer's account number.
*Alerting Number	Number of ringing device.
*ANI	Number of the phone that made a call.
*Application Data	ISDN user-to-user information element.
*BAAccountNumber	Outbound Dialer: Customer's account number.
*BABuddyName	Outbound Dialer: Customer's first and last name, separated by a comma.
*BACampaign	Outbound Dialer: Name of campaign to which the call belongs.
*BADialedListID	Outbound Dialer: Unique key identifying a specific customer record in the Dialing_List table in the BA private database.
*BAResponse	Outbound Dialer: Multi-purpose variable that sends data from Agent Desktop to the BA Dialer. Variable responds to the reservation call, schedule and cancel callbacks, and changes to the callback number.
*BASTatus	<p>Outbound Dialer: Two characters indicating mode and direction of the BA Dialer-initiated call. The first character identifies the call mode:</p> <ul style="list-style-type: none"> <li>• R: Reservation call, Predictive or Progressive mode</li> <li>• P: Reservation call, Preview mode</li> <li>• C: Customer call</li> <li>• A: Reservation call, personal callback</li> </ul> <p>During a reservation call, the first character is P, R, or A. When a customer call is transferred to an agent, the first character is C.</p> <p>The second character of BASTatus indicates call direction:</p> <ul style="list-style-type: none"> <li>• O: Outbound</li> <li>• I: Inbound</li> <li>• B: Blended</li> </ul>

Table 25. Enterprise Data Fields (cont'd)

Data Field	Description
*BATimeZone	Outbound Dialer: Indicates the GMT offset, in minutes, for the customer's time zone and obtains the customer's local time. The format is either a positive or negative sign, followed by 5 digits (+/-#####). For example: <ul style="list-style-type: none"> <li>If customer is one hour behind GMT: BATimeZone = -00060</li> <li>If customer is two hours ahead of GMT: BATimeZone = +00120</li> </ul>
*Call Duration	Difference between the call's end time and start time. The time is read from the Enterprise server clock.
*cisco.com.Category	Reserved for future use.
*cisco.com.MessageKey	Reserved for future use.
*cisco.com.Priority	Reserved for future use.
*Collected Digits	Digits entered by the caller in response to IVR prompting.
*DNIS	Number of the phone that received a call.
*ICM Call Variable 1... *ICM Call Variable 10	Call-related variable data. Ten variables are available.
*Last Called Number	Last number dialed.
*Last Calling Number	Last device that made a call.
*Last Connected Number	Last monitored device that joined the call.
*Last Redirection Number	Last number from which the call was redirected.
*Layout	Name of the enterprise data layout.
*Trunk ID	Device ID of the trunk.
*UCID	Not applicable.
[AGENT_ID]	Agent's identification.
[CALL_DURATION]	Difference between the call's end time and start time. The time is read from the agent's PC's clock.

Table 25. Enterprise Data Fields (cont'd)

Data Field	Description
[CALL_END_TIME]	End time of the current call. If the call has not yet ended, it is the current time. The time is read from the agent's PC clock.
[CALL_START_TIME]	Start time of the current call. If no call exists, this field is empty. The time is read from the agent's PC clock.
[COMPUTER_NAME]	Name of computer the agent is currently logged on to.
[LOCAL_PHONE_EXT]	Agent's extension.
Alerting#	Number of the ringing phone.
Called#	Number of the phone that received a call.
Calling#	Number of the phone that made a call.
Original Called#	Original number that received a call.
Original Calling#	Original number that made a call.

## Creating Set Enterprise Data Actions

This action enables you to set an enterprise data field variable in the Agent Desktop enterprise data pane to a desktop variable or static text of your choosing.

The action is available only for the Ringing and Answered events.

**NOTE:** Do not include a Set Enterprise Data action in the same work flow as the following Call Control actions: supervised transfer, blind transfer, conference, or blind conference. This can cause a critical race condition that results in the enterprise data not being available.



**To set up a Set Enterprise Data action:**

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the Set Enterprise Data tab, then click New. The Set Enterprise Data Action Setup Editor window appears ([Figure 63](#)).

**Figure 63. Set Enterprise Data Action Editor window**

3. Complete the fields as follows:

Field	Description
Action Name	Name for the new action.
Enterprise Data Field to Set	Enterprise variable that you want to set. Only Unified ICM call variables and user-created ECC variables are available for selection from the drop-down list.
Source for the Data (choose one)	
Desktop Variable	Name of desktop variable to use for the value of the enterprise data field. Choices are Agent ID, System Name, System Time, and Skill Group.
Static Text	Static text to use for the value of the enterprise data field. Maximum length is 210 characters.

4. Click OK.

## Creating Timer Actions

The timer action triggers Agent State, HTTP, or Agent Notification actions after a given amount of time has elapsed under certain circumstances. For instance, you can configure the Timer action to change an agent's state to Ready if the agent's state has been Work Ready state for 3 minutes. This action is available to agents using Agent Desktop at the Enhanced and Premium levels.

### To set up a timer action:

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the Timer Action tab, then click New. The Timer Action Setup window appears ([Figure 64](#)).

Figure 64. Timer Action Setup window

Timer Action Setup

Action Name: After Call Work

Timer Duration (minutes:seconds) 02:00

Timer expiration work flow setup

When the timer duration has expired while the phone is ringing,

☒ AND the agent state is equal to Not Ready

then execute the following actions:

Ready

Add... Edit... Del...

OK Cancel

3. Complete the Timer Action Setup window as follows:

Field	Description
Action Name	Name for the new action.

Field	Description
Timer Duration	Amount of time the agent must spend in the selected agent state before the action executes.
Timer expiration work flow setup	
Check box	(optional) Select the check box to enable a condition regarding the agent state to the work flow setup.
Agent state is	(optional) Agent state must be equal to/not equal to Ready/Not Ready. <b>Note:</b> If you enable this condition, the agent state field must not be empty. You must select Ready or Not Ready.
Actions	Actions that will execute after timer duration expires.

4. Click Add to select the actions to be executed when the timer has expired.
5. When you are finished configuring the Timer Expiration Work Flow, click OK.

## Utility Action

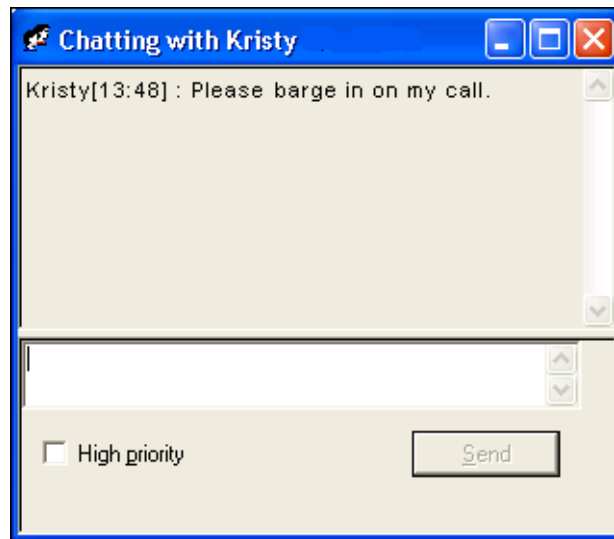
There are three utility actions:

- Start recording
- Stop recording
- Send a predefined, high-priority chat message to the agent's supervisor

## High Priority Chat Messages

A high priority chat message is a predefined message that appears in a supervisor's Chat window (Figure 65). The message behaves just like a regular chat message that is tagged as high priority—it pops up on the supervisor's screen on top of all other windows to attract the supervisor's attention.

Figure 65. Sample high-priority chat message



You can configure a task button on the Agent Desktop toolbar to send such a message from an agent to the agent's supervisor(s).

**NOTE:** Agents who use CAD-BE can send a high priority chat message to their supervisor, but the supervisor cannot reply to the message, because CAD-BE does not have chat capability.

**To set up a utility action:**

1. Set up a new action (see [page 98](#)). The Select Action window appears.
2. Select the Utility Action tab, then click New. The Utility Action Setup window appears ([Figure 66](#)).

**Figure 66.** Utility Action Setup window

3. Type a name for the new action, select an action type from the drop-down list, then click OK.
  - If you select Record as the action type, select Start or Stop from the Action field.
  - If you select HighPriorityChat, type the message you want to send as the predefined, high-priority chat message in the Message field.

**NOTE:** When the dialog box initially opens, only the Action Name and Action Type fields are visible. When you choose the Record action type, the Action field appears. When you choose the High Priority Message action type, the Message field appears.

**NOTE:** If a Record action is part of a voice contact work flow, the agent being recorded will see a recording icon in the contact appearance pane even if notification is turned off.

**NOTE:** When configuring a work flow that includes a recording action, you must consider the bandwidth and storage capacity of your system. For more information on recording bandwidth and storage requirements, see Cisco Unified Contact Center Enterprise 8.5 Solution Reference Network Design (SRND), available at: [http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products\\_implementation\\_design\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_implementation_design_guides_list.html)

## Agent's State Change Notification and Announcement

Agent Desktop can be configured so that agents who are vision-impaired are notified of agent state changes. This is accomplished by creating work flows that either pop agent notifications that can be read by a screen reader, or that launch an appropriate recorded message that is played through the agent's computer speakers.

The type of work flow you create depends on which agent state change you want to announce.

- Use a voice contact work flow to announce transition to the Work state.
- Use an agent management work flow to announce transition to the Ready and Not Ready state.

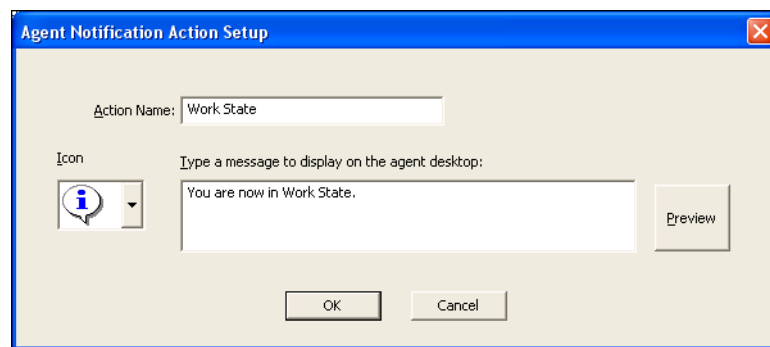
Use either of the following actions with the work flow.

- Agent Notification action. A custom message is popped on the agent's desktop when the agent changes agent state. This notification can then be read by a screen reader.
- Launch External Application action. A sound file is played when the agent changes agent state.

**To announce the agent state changes verbally using the Agent Notification action:**

1. Create a new Agent Notification action (See ["Creating Agent Notification Actions" on page 104](#)).
2. When configuring the action, complete the Agent Notification dialog box with relevant custom message as shown in the example in [Figure 67](#).

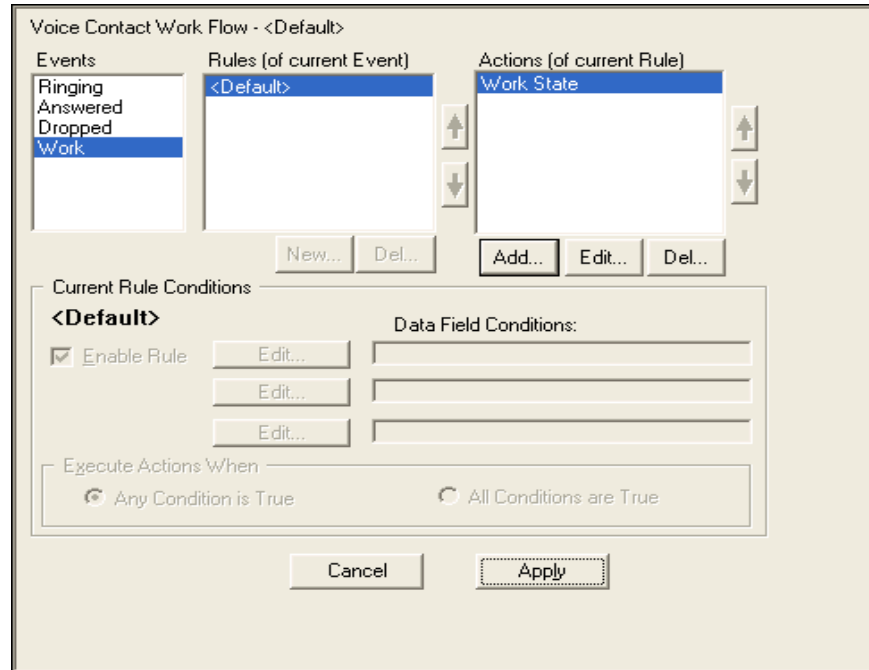
**Figure 67. Agent Notification Action Setup dialog box**



3. Associate the new action with a work flow so that it is launched when the agent state changes. For example, if you are configuring the Work event in the Voice Contact Work Flows node, apply an agent notification action as shown

in [Figure 68](#).

**Figure 68.** Agent Notification action on the Work event



4. Click Apply. The configuration applies to Agent Desktop after the agent re-launches it.

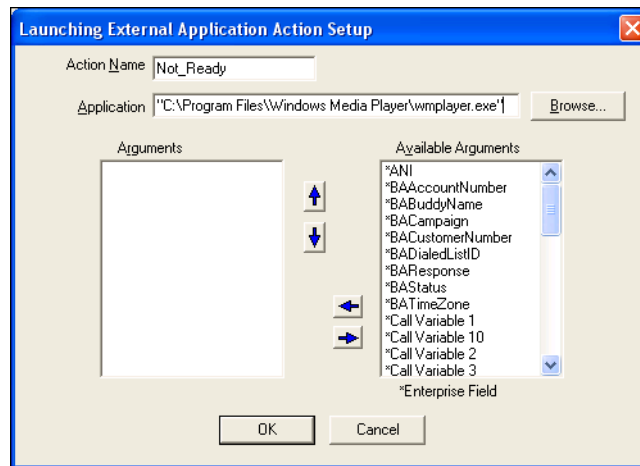
***To announce agent state changes verbally using the Launch External Application action:***

1. Create a new Launch External Application action (See ["Creating Launch External Application Actions"](#) on page 118).
2. When configuring the action, complete the Launch External Application dialog box as shown in the example in [Figure 69](#). To play a WAV file, enter the path of the pre-recorded sound file. For example, the command to open a WAV file named Not\_Ready.wav is:

"D:\Recorded Files\State Changes\Not\_Ready.wav"

To play a sound file other than WAV file, enter the path of a sound player application that is available on the agent desktop, and append the argument with the path of the pre-recorded sound file. The format of the sound file should be supported by the sound player application that you want to launch.

**Figure 69. Launching External Application Action Setup dialog box**

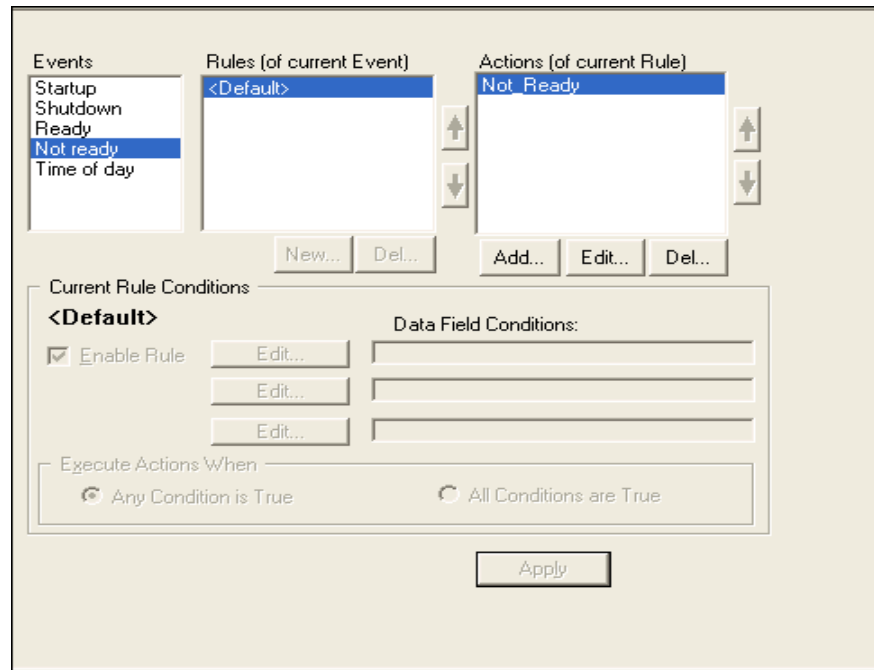


3. Associate the new action with a work flow so that it is launched when the agent state changes. For example, if you are configuring the Not Ready event in the Agent Management Work Flows node, apply the external application



launching action as shown in [Figure 70](#).

**Figure 70.** Launch External Application action on the Not ready event



4. Click Apply. The configuration applies to Agent Desktop after the agent re-launches it.

## Cisco Unified Outbound Dialer

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Cisco Unified Outbound Dialer is a Unified ICM/Unified Contact Center Enterprise feature that enables automated outbound dialing to customers. These outbound calls appear as inbound calls to the agent, and information about the call appears in the Enterprise Data pane.

**NOTE:** Unified Outbound Dialer is available only for Agent Desktop.

**NOTE:** Cisco Unified Mobile Agent call-by-call mode does not support Outbound Dialer. Nailed mode does support Outbound Dialer.

A supervisor or administrator sets up a calling campaign in Unified ICM that consists of various elements that will present calls to agents and provide information so the agent can handle the call successfully. (See the *Cisco ICM/IP Contact Center Enterprise Edition Setup and Configuration Guide* for information on setting up calling campaigns.)

Outbound Dialer has four modes that determine what type of dialing is done to make the outbound calls:

- **Predictive Dialing Mode.** In this mode, agents are reserved and a number of customers are dialed simultaneously. When a customer is contacted, the call is transferred to an available reserved agent. The customer's data is displayed in the agent's Enterprise Data window. Predictive dialing mode optimizes agent usage by calculating the average time an agent waits to receive a call and their average call handling time to determine the number of lines to dial per agent so that wait time is kept to a minimum.
- **Progressive Dialing Mode.** This mode is similar to Predictive Dialing mode, except that the system does not calculate the number of lines to dial per agent. Rather, the user configures a fixed number of lines to be dialed per agent.
- **Preview Dialing Mode.** In this mode, an agent is reserved and then presented with a call along with customer information in the Enterprise Data window. Based on this information, the agent can accept, skip, or reject the call.
- **Direct Preview Dialing Mode.** This mode is similar to Preview Dialing mode, except that the agent can categorize the phone call presented as Voice, Answering Machine, Invalid, and Fax Modem.

**NOTE:** For information on how Outbound Dialer dialing modes work with Voice Contact work flows, see ["Voice Contact Work Flows and Outbound Dialer" on page 89](#).

All four dialing modes use the personal callback feature. This feature enables an agent to reschedule a customer call at the customer's request for a more convenient time. Callbacks can be configured so that, when the call is redialed, the call is directed to any agent (regular callback) or the call is directed to the agent who made the callback reservation (personal callback). The callback type is configured at the campaign level and is not controlled by the agent.

## Outbound Dialer Actions

Based on the enterprise data information, the agent selects the appropriate Outbound Dialer action button on the Outbound Dialer toolbar.










The available Outbound Dialer actions are:

- **Accept.** The system dials the customer and connects the call to the agent.
- **Reject.** The system rejects the current call and releases the agent from the outbound calling reservation. At this point, the system can deliver to the agent either another outbound call or a new inbound call.
- **Reject Close.** The system rejects the current call and closes the record so the customer will not be called again.
- **Skip.** The system skips the current call and presents the agent with another customer call.
- **Skip Close.** The system skips the current call and closes the record so the customer will not be called again.
- **Skip Next.** The system skips the call and displays a menu of these options:
  - **Wrong Number.** The agent is informed that the number called is a wrong number. After the call terminates, the system calls other customer phone numbers.
  - **Not Home.** The agent is informed that the customer is not home. After the call terminates, the system calls other customer phone numbers.
- **Callback.** Displays the Callback Properties dialog box, which the agent uses to set a time and date to call back the customer. This action is enabled only if the agent is in the talking or wrap-up agent state. The agent also uses this dialog box to cancel a previously-scheduled callback of the current customer. This action works only if the agent is in a talking or wrap-up state during a call generated by Unified ICM.
- **Reclassify.** Displays a menu that enables the agent to reclassify a customer phone number as voice, answering machine, fax/modem, or an invalid number.
- **Cancel Reservation.** The system releases the agent from the calling campaign and places the agent in the Not Ready state. To resume participating in the calling campaign, the agent must change the agent state to Ready.

## Outbound Dialer Toolbar

In order for the Outbound Dialer actions to be available for agents to use, you must configure the agent interface to include the Outbound Dialer toolbar. The dialing mode used in the calling campaign determines which buttons appear in the toolbar ([Table 26](#)).

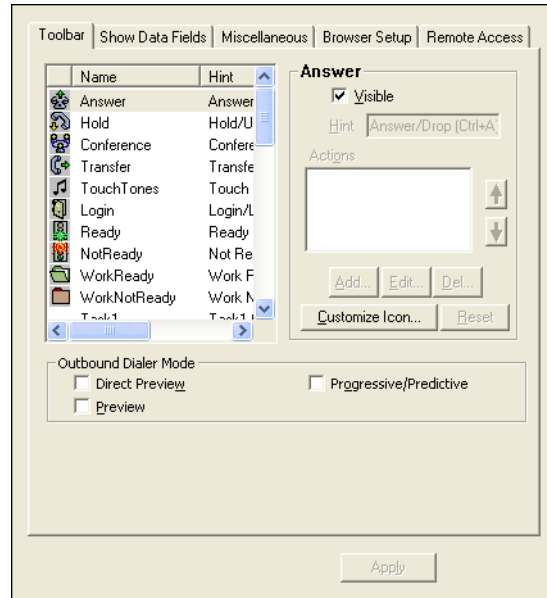
**Table 26.** Outbound Dialer toolbar buttons and dialing mode in which they appear

Icon	Name	Dir. Preview	Predictive	Preview	Progressive
	Accept	x	x	x	x
	Reject	x		x	
	Reject Close	x		x	
	Skip	x		x	
	Skip Close	x		x	
	Skip-Next	x	x	x	x
	Callback	x	x	x	x
	Reclassify	x			
	Cancel Reservation	x	x	x	x

**To configure the Outbound Dialer toolbar to display in Agent Desktop:**

1. In the User Interface window, select the Toolbar tab.
2. In the Outbound Dialer Mode section, select the check box next to the dialing mode used by your calling campaign ([Figure 71](#)). The appropriate buttons are enabled in the button selection pane.

**Figure 71.** Toolbar tab of the User Interface window



3. Click Apply to save your changes. The Outbound Dialer toolbar will now appear on the Agent Desktop interface.

## Outbound Dialer Enterprise Data

In order for Outbound Dialer enterprise data to appear in the Enterprise Data window, you must edit the Default layout to include some or all Outbound Dialer fields ([Table 27](#)). All Outbound Dialer fields are prefixed with the letters “BA”.

For information about editing the Default layout, see ["Layouts" on page 153](#).

**Table 27.** Cisco Outbound Dialer enterprise data fields

Variable	Comment
BAAccountNumber [200]	
BABuddyName [201]	

Table 27. Cisco Outbound Dialer enterprise data fields (cont'd)

Variable	Comment
BACampaign [202]	
BADialedListID [203]	Required for Preview and Direct Preview dialing modes in order for the Skip function to work
BAResponse [204]	
BAStatus [205]	<p>Required for all dialing modes. If this field is not included in the layout, no other Outbound Dialer fields will be displayed.</p> <p>If a call is part of a Preview dialing mode campaign, the first letter in the BAStatus field entry is a P. If a call is part of a Direct Preview dialing mode campaign, the first letter is a D.</p>
BATimeZone [206]	Required for all dialing modes in order for the Callback function to work.

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# Getting Started with Desktop Administrator

# 3

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## Introduction

Desktop Administrator is the web-based portion of Cisco Desktop Administrator. It enables you to perform the following tasks:

- [Configuring Enterprise Data \(page 148\)](#)
- [Configuring Display Settings \(page 158\)](#)
- [Configuring Desktop and Server Monitoring and Recording \(page 162\)](#)
- [Synchronizing Directory Services \(page 169\)](#)
- [Configuring Agents \(page 176\)](#)
- [Configuring Supervisors \(page 178\)](#)
- [Configuring the Cisco Unified Presence Server \(page 182\)](#)
- [Configuring the Cisco Unified Presence Cluster \(page 186\)](#)
- [Configuring Contact Lists \(page 188\)](#)
- [Configuring External Contacts \(page 197\)](#)
- [Configuring Work Flow Groups \(page 202\)](#)

## Accessing Desktop Administrator

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You can access Desktop Administrator by either of two methods:

- From the Desktop Work Flow Administrator menu bar
- From your web browser

Only one person at a time can make changes in Desktop Administrator. Until a user logs out or until that user's login times out after 15 minutes of inactivity, other users can only view information.

**NOTE:** If you close the browser or browser tab without first logging out of Desktop Administrator, you will remain logged in an additional 15 minutes, when your login times out. For this reason it is important that you log out before you close the browser or browser tab when you are done using Desktop Administrator.

### *To log in to Desktop Administrator:*

1. Access the Desktop Administrator login window by either of these two methods:
  - From the Work Flow Administrator menu bar, choose Desktop Administrator > Side A. If your system includes redundancy, you can also choose Side B.
  - In your web browser, go to the following URL:  
`http://<CAD server>:8088/teamadmin/main.cda`

**NOTE:** Desktop Administrator can support either a secured (HTTPS) or unsecured (HTTP) connection, depending on how the CAD servers are configured. All the URLs in this document assume that CAD servers are configured with an unsecured connection.

The Desktop Administrator login window appears.

2. Enter your user name and password, and then click Login. The Desktop Administrator home page appears.



## Using the Search Function

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Most pages in Desktop Administrator include a search feature to help you find the records you want to view or edit by filtering the displayed records according to criteria you enter.

Searches are not case sensitive. For example, if you type a lowercase letter “s” in a search field, the results will include all items that begin with the lowercase letter “s” and the uppercase letter “S.”

### ***To search for one or more records:***

1. In the Search for field, enter your search criteria:
  - If you are searching for a text string, select the field name from the first drop-down list box, a search pattern from the second drop-down list box, and enter a text string in the third box.
  - If you are searching for a checked or cleared check box, select the check box name in the first drop-down list box, and True (checked) or False (cleared) in the second list box.
2. If necessary, complete any of the following actions.
  - If you want to add another criterion to the search query, click +. A new row appears. Repeat step [1](#) for the new row.
  - If you want to remove the last criterion from the search query, click —. The bottom row is deleted. If you click — and the search query only contains one criterion, no change occurs.
  - If you want to remove all of the criteria from the search query, click Clear Filter. All of the rows except the first row are deleted, and the first row is reset to the default value.
3. When you are done creating your search query, click Find. A list of results that match all of the criteria appears.



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## Introduction

You can perform the following tasks in the Services Configuration node:

- [Configuring Enterprise Data \(page 148\)](#)
- [Configuring Display Settings \(page 158\)](#)
- [Configuring Desktop and Server Monitoring and Recording \(page 162\)](#)
- [Synchronizing Directory Services \(page 169\)](#)
- [Releasing the Desktop Administrator Lock \(page 170\)](#)

## Configuring Enterprise Data

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The Enterprise Data node has two pages, the Fields page and the Layout List page.

You can perform the following tasks on the Fields page:

- [Creating a Custom Field \(page 149\)](#)
- [Editing a Field \(page 151\)](#)
- [Deleting a Field \(page 152\)](#)

You can perform the following tasks on the Layout List page:

- [Creating a Custom Layout \(page 153\)](#)
- [Copying a Layout \(page 156\)](#)
- [Editing a Layout \(page 157\)](#)
- [Deleting a Layout \(page 157\)](#)

Enterprise data is information associated with an incoming call. It is displayed in the Contact Management pane of Agent Desktop and CAD-BE, and on the Caller Data screen in IP Phone Agent.

## Fields

Enterprise data fields and layouts are configured under the Enterprise Data node.

**NOTE:** The agent applications must be restarted for any enterprise data variable or layout changes you make to go into effect.

The Field List displays both the predefined fields available for your switch type and the custom fields you create.

- Predefined fields have index numbers of 200–255. These fields are not editable, with the exception of field 252, whose field name can be edited. Note that when you click the Select All button, these fields are not selected.
- Custom fields have index numbers of 0–199, and are editable.

**NOTE:** If you edited default Enterprise data fields or layouts, then your changes will be lost after an upgrade. The default fields will revert back and must be re-configured after an upgrade. However, any custom fields that you created will remain after an upgrade.

## Creating a Custom Field

*To create a custom field:*

1. Choose Services Configuration > Enterprise Data > Fields. The Field List page appears (Figure 72).

Figure 72. Field List page

Selected	Field Name	Display Name	Expanded Call Context (ECC)	Field Index
<input type="checkbox"/>	BA Time Zone	BA Time Zone	Scalar	206
<input type="checkbox"/>	Caller Entered Digits	Caller Entered Di	No	222
<input type="checkbox"/>	cisco.com.Category	cisco.com.Category	Scalar	210
<input type="checkbox"/>	cisco.com.MessageKey	cisco.com.MessageKey	Scalar	211
<input type="checkbox"/>	cisco.com.Priority	cisco.com.Priority	Scalar	212
<input type="checkbox"/>	Collected Digits	Collected Digits	No	242
<input type="checkbox"/>	DNIS	DNIS	No	254
<input type="checkbox"/>	ICM Call Variable 1	ICM Call Variable 1	No	240
<input type="checkbox"/>	ICM Call Variable 10	ICM Call Variable	No	231
<input type="checkbox"/>	ICM Call Variable 2	ICM Call Variable 2	No	239

2. Click Add New. The Add New page appears(Figure 73).

**Figure 73. Add New page**

The screenshot shows the 'Add New' page in the Cisco Desktop Administrator interface. The breadcrumb trail is 'Settings: Services Configuration > Enterprise Data > Fields > Add New'. The 'Field Information' section contains the following fields:

- Field Name:** A text input field.
- Display Name:** A text input field.
- Expanded Call Context (ECC):** A dropdown menu with 'No' selected.
- Field Index:** A dropdown menu with '0' selected.

At the bottom of the form are two buttons: 'Save' and 'Return to Field List'.

3. Complete the fields as described below.

Field	Description
Field Name	<p>The variable's field name. The field name and value can be up to 29 characters long and can contain any character except:</p> <p>- ` ~ ! @ # \$ % ^ &amp; * ( ) - + = [ ] { &lt; &gt; , / ?   \ \ : ; ' " and space</p> <p>If you use disallowed characters in the field name or value, the enterprise data field might not display in the IP Phone Agent service.</p> <p><b>NOTE:</b> If you are configuring an ECC variable, the variable name must be prepended with a period (.).</p>
Display Name	<p>The name that appears in desktop applications. The display name can be up to 29 characters long and contain any character except:</p> <p>- ` ~ ! @ # \$ % ^ &amp; * ( ) - + = [ ] { &lt; &gt; , / ?   \ \ : ; ' "</p>

Field	Description
Expanded Call Context (ECC)	<p>Select the appropriate variable type from the drop-down list:</p> <ul style="list-style-type: none"> <li>• No: The field is not an ECC variable</li> <li>• Scalar: A scalar ECC variable is one that stores a single piece of data</li> <li>• Array: An array ECC variable is one that stores multiple pieces of data</li> </ul> <p>If you selected array, choose the number of elements in the array from the number field drop-down list.</p>
Field Index	<p>Choose a field index number from the drop-down list. The field automatically shows the next available number.</p> <p>If you selected Array in the ECC field, the Field Index field is automatically disabled. The system will assign indexes to each element in the array.</p>

4. Click Save to save your changes. The field is added.
5. When you are finished adding fields, click Return to Field list.

## Editing a Field

### *To edit a field:*

1. Choose Services Configuration > Enterprise Data > Fields. The Field List page appears ([Figure 72](#)).
2. If necessary, search for the field you want to edit. For instructions, see ["Using the Search Function" on page 145](#).
3. Select the field by clicking its name. The Field Information page for that field appears.
4. Edit the field information as desired.
  - For predefined fields, you can edit only the display name.
  - For custom fields, you can edit all field information.
  - If you are editing an array field, the field index numbers assigned to the array elements are listed, separated by commas.
5. When you are finished making changes, click Save, then click Return to Field list.

## Deleting a Field

You cannot delete a predefined field. You can delete only custom fields.

If the field selected for deletion is the only field associated with a custom layout, you cannot delete it until another field is added to the custom layout, or the layout itself will be deleted. Either delete the custom layout, or add another field to it and then delete the field you originally intended to delete.

If the field selected for deletion is the only field associated with a default layout, you cannot delete it until another field is added to the default layout. Default layouts cannot be deleted, and must always contain at least one field.

### *To delete a custom field:*

1. Choose Services Configuration > Enterprise Data > Fields. The Field List page appears ([Figure 72](#)).
2. If necessary, search for the field you want to delete. For instructions, see ["Using the Search Function" on page 145](#).
3. Select the check box corresponding to one or more custom fields, then click Delete Selected. The selected fields are no longer displayed in the Field list.
4. You must click Save in order for the deletion to take effect.



## Layouts

The Layout List displays the field layouts available for use in the agent applications. Each layout can contain up to 16 fields chosen from the Field List.

Cisco Agent Desktop automatically uses the default layout for call activity unless a custom layout has been defined. See ["Using a Custom Layout" on page 154](#) for more information on what needs to be done to use a custom layout.

You cannot delete the default layout, but it can be edited to add or remove enterprise data variables.

You can create up to 14 custom layouts in addition to the default layouts. Once the limit of custom layouts is reached, the Add New and Copy buttons are disabled.

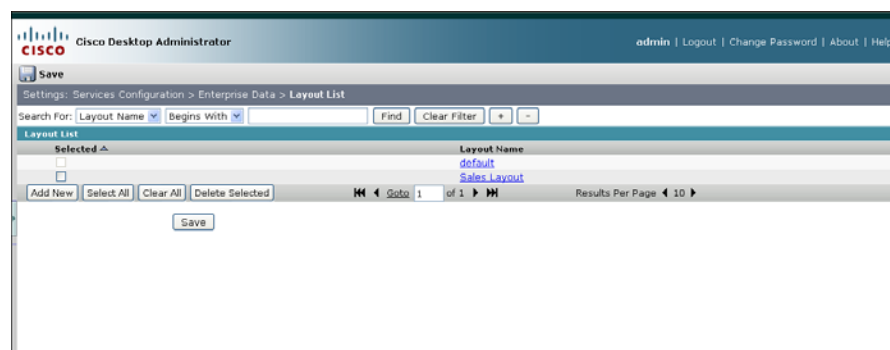
**NOTE:** If you edited default Enterprise data fields or layouts, then your changes will be lost after an upgrade. The default fields will revert back and must be re-configured after an upgrade. However, any custom fields that you created will remain after an upgrade.

## Creating a Custom Layout

*To create a custom layout:*

1. Choose Services Configuration > Enterprise Data > Layouts. The Layout List page appears ([Figure 74](#)).

**Figure 74.** Layout List page



2. Click Add New. The Add New page appears (Figure 73).

**Figure 75. Add New page**

3. Enter a name for the layout. It must be unique and no longer than 16 characters, and it must be prepended with a period (.).
4. Use the arrow buttons to move selected fields between the Available and Selected panes. Use the double arrow buttons to move all fields from one pane to the other. Use the Up and Down buttons to change the order of the fields in the Selected pane.
5. Click Save to save the custom layout. The layout is added to the Layouts list page.
6. Repeat steps 3–5 to add another custom layout, if desired.
7. When you are finished adding custom layouts, click Return to Layout list.

### Using a Custom Layout

If you want to use a custom layout, you must modify the .Layout field (field 252). This defines the field as an ECC variable in Desktop Administrator. You must also create an identical ECC variable in ICM Configuration Manager. The value of that ECC variable can then be set in an ICM routing script to match the name of a layout created in Desktop Administrator.

ECC variable values can also be set in an IP IVR script. Similarly, a local variable within CVP Studio can be set with the layout name and that value passed back to the ICM routing script and set equal to the layout ECC variable.

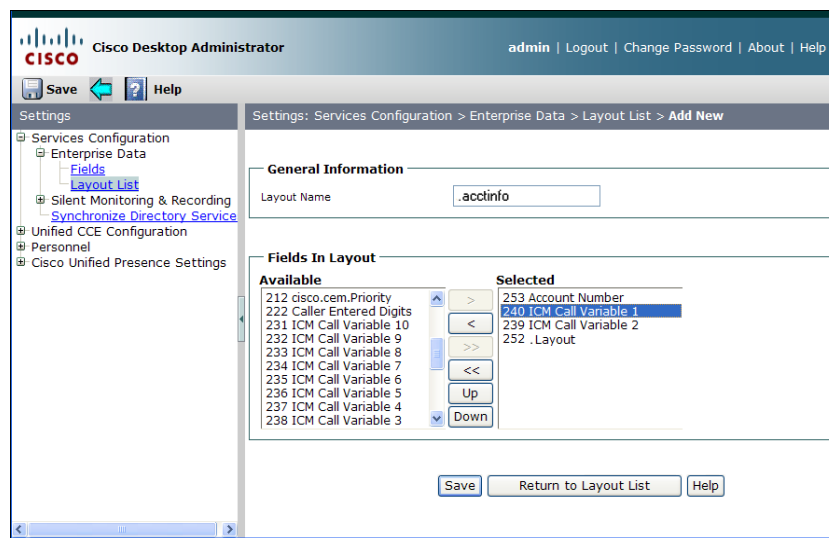
### Example

This example illustrates how an ECC variable is used to specify a custom layout in an ICM script to call a custom layout.

1. In Desktop Administrator, add a new field with the following attributes:
  - **Field Name**—Choose a name for the field. In this example, we use “.Layout”

- Expanded Call Context (ECC)—Select scalar ECC variable
  - Field Index—Select 252 from the list of available index numbers
2. Create a new custom layout. In this example, we have named the custom layout “.acctinfo.” Note that the custom layout includes the ECC variable 252.

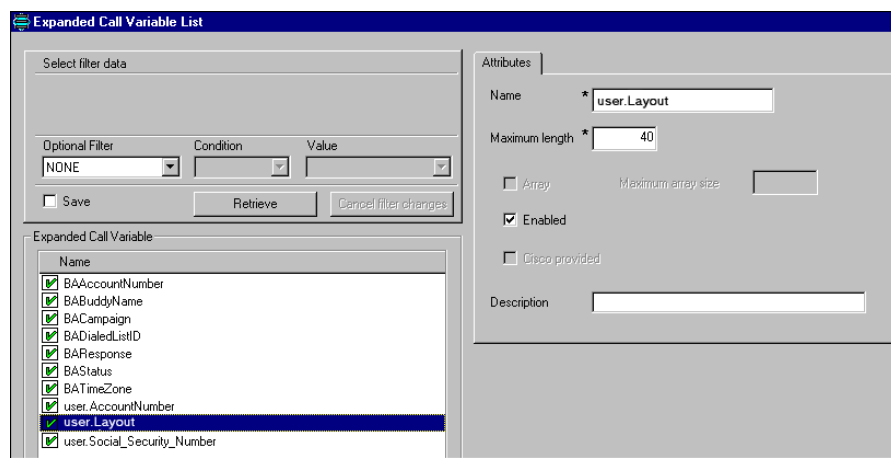
Figure 76. New custom layout “acctinfo”



3. In ICM Configuration Manager, define the ECC variable in the Expanded Call Variable List. It must match what you defined in Desktop Administrator.

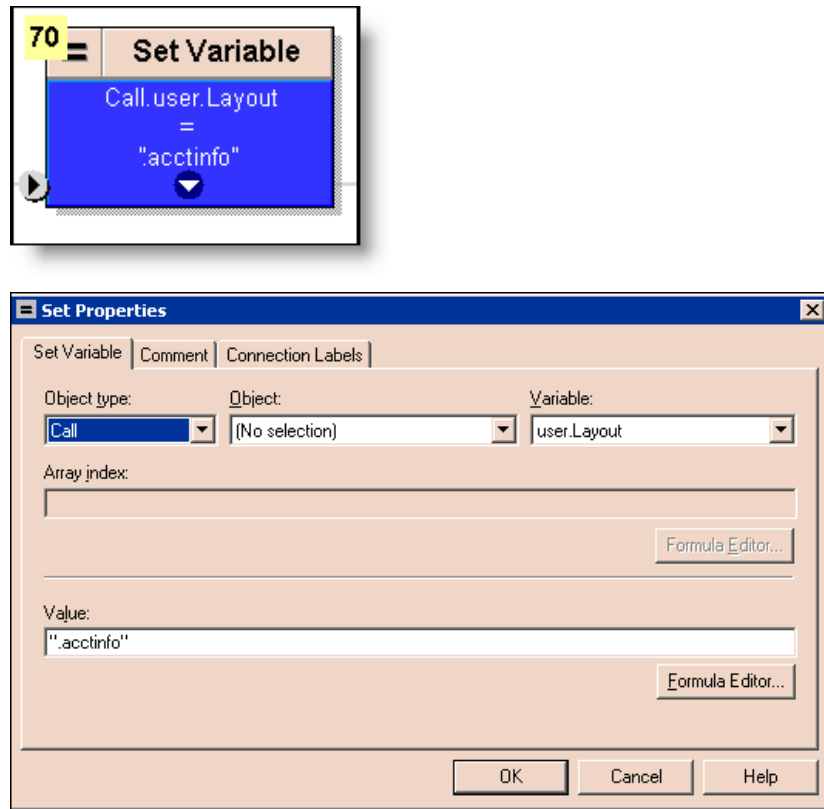
**NOTE:** ICM requires the word “user” before the field name (so in this example, the Layout field name becomes “user.Layout.”)

Figure 77. ICM Configuration Manager Expanded Call Variable List window



4. Add the ECC variable to an ICM routing script. Use a Set Variable node in an appropriate place in the ICM script to set the .Layout ECC variable to the digit string corresponding to the layout name in Desktop Administrator.

Figure 78. Set Variable node in an ICM script that calls the custom layout “.acctinfo”



## Copying a Layout

1. Choose Services Configuration > Enterprise Data > Layouts. The Layout List page appears (Figure 74).
2. Select the layout you want to copy. The selected layout list page appears.
3. Click Copy.
4. Enter a name for the new layout and edit the fields as needed.
5. Click Save to save the copied layout. The layout is added to the Layouts list page.
6. If desired, repeat steps 4 and 5 to create more new layouts.
7. When you are finished, click Return to Layout list.

## Editing a Layout

1. Choose Services Configuration > Enterprise Data > Layouts. The Layout List page appears ([Figure 74](#)).
2. Select the layout you want to edit. The selected layout list page appears.
3. Edit the layout as needed.
4. Click Save to save the edited layout.
5. Click Return to Layout list.

## Deleting a Layout

You cannot delete a default layout. You can delete only custom layouts.

### *To delete a custom layout:*

1. Choose Services Configuration > Enterprise Data > Layouts. The Layout List page appears ([Figure 74](#)).
2. Select the check box corresponding to one or more custom layouts, then click Delete Selected. The selected layouts are no longer displayed in the Layout list. However, the actual deletion is not performed until you click Save.

## Configuring Display Settings

---

You can perform the following tasks on the Display Settings page of the Multiline, Monitoring & Recording node:

- Enable supervisor to barge in or intercept agents' ACD calls
- Enable supervisor to barge in or intercept agents' non-ACD calls
- Enable agent notification messages for monitoring and recording

**NOTE:** If an agent's phone has multiple lines, you can configure the Agent Multiline Control Peripheral Gateway setting in the Unified ICM Control Manager so that the calls delivered to non-ACD extensions are also displayed in Agent Desktop and CAD-BE. See the *Unified ICM Configuration Manager User Guide* for details.

By default, supervisors can monitor or record agents' ACD calls.

**NOTE:** If you want to prevent a specific agent from being monitored and recorded, you must disable Desktop Monitoring and remove any assigned Monitor service from the agent's extension on the VoIP Monitoring Device page. See [Configuring Desktop and Server Monitoring and Recording \(page 162\)](#) for more information.

**To configure Display Settings:**

1. Choose Services Configuration > Multiline, Monitoring & Recording > Display Settings. The Display Settings page appears (Figure 79).

**Figure 79. Display Settings page**

The screenshot shows the Cisco Desktop Administrator interface. At the top, there's a header with the Cisco logo and 'Cisco Desktop Administrator' text, along with user links: 'admin | Logout | Change Password | About | Help'. Below the header is a 'Save' button. The main content area has a breadcrumb trail: 'Settings: Services Configuration > Multiline, Monitoring & Recording > Display Settings'. The settings are organized into two sections: 'Supervisor Features' and 'Enable Notification Messages'. In 'Supervisor Features', 'Enable Barge In / Intercept' is checked (indicated by a checked checkbox), and 'Non-ACD Calls' is unchecked (indicated by an unchecked checkbox). In 'Enable Notification Messages', both 'Notify Monitoring' and 'Notify Recording' are unchecked. A 'Save' button is located at the bottom center of the form.

2. Complete the fields as described below:

Field	Description
Supervisor Features	
Enable Barge In/Intercept	Select this check box to enable supervisor to barge in and intercept agents' ACD calls.
Non-ACD Calls	Select this check box to enable supervisors to barge in and intercept agent's non-ACD calls.
Enable Notification Messages	
Notify Monitoring	<p>Select this check box to enable agent notification for monitoring.</p> <p>If enabled, the agents get notification messages stating that the supervisor is monitoring their ACD calls (and if configured, non-ACD calls).</p>

Field	Description
Notify Recording	Select this check box to enable agent notification for recording.  If enabled, the agents get notification messages stating that the supervisor is recording their ACD calls (and if configured, non-ACD calls).

3. Click Save to save the changes.

## Configuring Non-ACD Calls (Multiline) Settings

A call is defined as an ACD call if it meets one or more of the following criteria:

- The call is assigned to an agent from a voice CSQ
- At least one of the participants of the call is using an ACD line
- The call is transferred from an ACD line
- The call is conferenced with an ACD call to any other line

All other calls are considered non-ACD calls by the system and appear in Agent Desktop and CAD-BE if your system is configured to display them.

With multi-line settings enabled, an agent's phone supports one ACD line and up to three non-ACD lines. You can configure the non-ACD calls settings so that agents and supervisors can perform all general operations with the non-ACD calls (for example, answering, transferring, and conferencing).

You can enable or disable the following functions on inbound non-ACD calls:

- Agent and supervisor call display and call control actions
- Supervisor call monitoring and recording
- Supervisor call barge-in and intercept

Non-ACD call settings should be configured in all the three locations: Unified CCE Configuration Manager PG Explorer, on the CTI OS server, and Cisco Desktop Administrator.

### Call Display

The non-ACD call display setting is configured in Unified CCE Configuration Manager Peripheral Gateway Explorer. The default setting is to display only ACD calls in Agent Desktop, Supervisor Desktop, and CAD-BE.

If you want to display non-ACD calls in these applications and allow agents and supervisors to perform call control actions on them, you need to change the value of



the Agent Phone Line Control parameter in PG Explorer. For information about configuring this parameter, see “How to Configure the IPCC System PG Peripheral” in the *Installation and Configuration Guide for Cisco Unified Contact Center Enterprise* available at the following URL:

[http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/cust\\_contact/contact\\_center/ipcc\\_enterprise/ipccenterprise8\\_0\\_1/installation/guide/ipcc80iugcfg.pdf](http://www.cisco.com/en/US/docs/voice_ip_comm/cust_contact/contact_center/ipcc_enterprise/ipccenterprise8_0_1/installation/guide/ipcc80iugcfg.pdf)

### **Call Monitoring and Recording**

Non-ACD call monitoring and recording settings are configured on the CTI OS server. If non-ACD calls are displayed, the ability for supervisors to monitor and record agents' non-ACD calls is enabled by default.

If you want to disable non-ACD call monitoring and recording, you need to change the value of the StopSMNonACDCall registry subkey on the CTI OS server. Then, after you restart the CTI OS server, you must restart the Cisco Sync Service to make the change take effect in CAD. For detailed information about configuring this parameter, see “Configuring IPCC Silent Monitor” in the *CTI OS System Manager's Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted* available at the following URL:

[http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/cust\\_contact/contact\\_center/ipcc\\_enterprise/ipccenterprise8\\_0\\_1/installation/guide/cti80smg.pdf](http://www.cisco.com/en/US/docs/voice_ip_comm/cust_contact/contact_center/ipcc_enterprise/ipccenterprise8_0_1/installation/guide/cti80smg.pdf)

### **Call Barge-in and Intercept**

If you want to allow supervisors to barge in and intercept agents' non-ACD calls, you need to check the Non-ACD Calls check box in the Display Settings page in Desktop Administrator. This option is disabled by default.

## Configuring Desktop and Server Monitoring and Recording

---

You can perform the following tasks on the VoIP Monitoring Device page of the Silent Monitoring & Recording node:

- [Enabling Mobile Agent Monitoring \(page 163\)](#)
- [Enabling Desktop Monitoring \(page 164\)](#)
- [Configuring a Default Monitor Service \(page 165\)](#)
- [Assigning Phone Devices to a Specific VoIP Monitor Service \(page 166\)](#)
- [Removing a VoIP Monitor or Recording & Playback Service from Directory Services \(page 166\)](#)

The VoIP Monitoring Device page does not display all phone devices configured in Unified CM. It displays the devices associated with the peripheral gateway. It automatically filters out the devices assigned to specified JTAPI users to enable effective search responses. You can specify JTAPI user for a peripheral gateway by launching Postinstall.exe.

If a phone is configured for extension mobility and a static extension is set up, the Extension field displays the static extension assigned to the device's MAC address. If no static extension is set up, the Extension field is blank.

**NOTE:** Assign a static extension to an extension mobility device to make administration easier.

### Unified CM-based Monitoring and Recording

Unified CM-based monitoring and recording is a feature that uses an IP phone's built-in bridge to monitor and record calls.

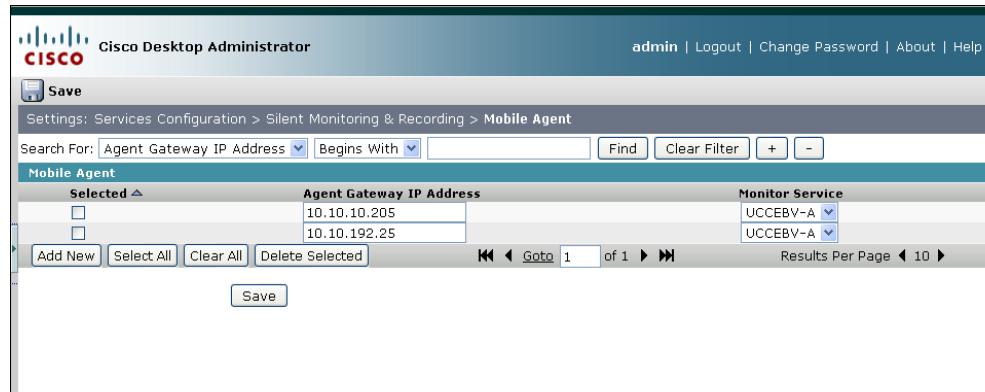
To enable Unified CM-based monitoring and recording, consult the *CTI OS System Manager's Guide for Cisco ICM/IPCC Enterprise & Hosted Editions*. No configuration in CAD is required.

**NOTE:** When Unified CM-based monitoring and recording is enabled on the CTI OS server, desktop-based and server (SPAN)-based monitoring and recording are no longer available.

## Enabling Mobile Agent Monitoring

Mobile agents can connect to the system through any one of a number of agent gateways. The Mobile Agent Monitor page (Figure 80) enables you to assign one Cisco VoIP Monitor Service to each agent gateway. Only one Cisco VoIP Monitor Service per agent gateway is supported. One Cisco VoIP Monitor Service can be assigned to multiple agent gateways as well as to regular agent phones.

Figure 80. Mobile Agent page



For mobile agent monitoring to work, the caller and agent voice gateways must be separate. In addition, the VoIP Monitor server must be located in the network where it can see the traffic flowing between the agents and customers. If the customer and agent are speaking to each other over the same voice gateway, then that voice stream will remain local to the gateway and not be exposed to the Cisco VoIP Monitor Service. SPAN will not send those packets to the Cisco VoIP Monitor Service, and the conversation will not be heard. For this reason, monitoring and recording of Agent-to-Agent calls is not supported.

One additional limitation of mobile agent monitoring is that if a mobile agent logs in while on a call or is on a call during a CAD services or CRI server failover, the agent cannot be monitored until the call state changes or the agent makes a new call.

### To enable mobile agent monitoring:

1. Choose Services Configuration > Multiline, Monitoring & Recording > Mobile Agent. The Mobile Agent page appears.
2. Click Add New. A new row appears at the top of the list of existing mobile agents.
3. Enter the agent gateway IP address to be monitored in the Agent Gateway IP Address field, and then select the Cisco VoIP Monitor Service that will monitor the agent gateway from the Monitor Service drop-down list.
4. Repeat steps 2 and 3 to add another mobile agent, if desired.

5. Click Save.

**To disable mobile agent monitoring:**

1. Choose Services Configuration > Multiline, Monitoring & Recording > Mobile Agent. The Mobile Agent page appears.
2. Select the check box corresponding to one or more mobile agent gateways, then click Delete Selected. The selected mobile agents will no longer be displayed in the Mobile Agent list. However, the actual deletion is not performed until you click Save.

## Enabling Desktop Monitoring

When desktop monitoring is enabled, software on the agent desktop handles recording and monitoring requests for that agent. This is possible only on desktops that are physically connected to the network through a hard IP phone or through a soft phone.

By default, desktop monitoring is enabled for all phone devices.

**NOTE:** Desktop monitoring does not function with some NIC cards that are unable to detect both voice packets and data packets in a multiple VLAN environment. For more information on this issue, and suggested work-arounds, see the *Cisco CAD Installation Guide*.

A phone is monitored either through desktop monitoring or a VoIP Monitor service—it cannot be monitored by both. However, a VoIP Monitor service can be a backup if the agent's desktop monitoring module fails to register with Directory Services when Agent Desktop is started.

**To enable desktop monitoring:**

1. Choose Services Configuration > Multiline, Monitoring & Recording > VoIP Monitoring Device. The VoIP Monitoring Device page appears ([Figure 81](#)).

**Figure 81. VoIP Monitoring Device page**

**Cisco Desktop Administrator** admin | Logout | Change Password | About | Help

**Save**

Settings: Services Configuration > Multiline, Monitoring & Recording > VoIP Monitoring Device

**General Settings**

Default VOIP Monitor Service: UCCEBV-A

Search For: Extension Begins With Find Clear Filter + -

Set Monitor Service for selected rows to: - Select - Modify

Selected	Extension	MAC Address	Monitor Service	Desktop Monitoring
<input type="checkbox"/>	6004	SEP0001023E68D0	- Select -	Enabled
<input type="checkbox"/>	6001	SEP0001025FD2FA	- Select -	Enabled
<input type="checkbox"/>	6003	SEP0001031C0BA8	- Select -	Enabled
<input type="checkbox"/>	6002	SEP0001031DA5A8	- Select -	Enabled
<input type="checkbox"/>	7812	SEP0002FD6595E1	- Select -	Enabled
<input type="checkbox"/>	2051	SEP0002FD659EB8	- Select -	Enabled
<input type="checkbox"/>	2031	SEP00036B095B3A	- Select -	Enabled
<input type="checkbox"/>	2052	SEP00036B3C2F8E	- Select -	Enabled
<input type="checkbox"/>	2281	SEP0003E3698C75	- Select -	Enabled
<input type="checkbox"/>	2962	SEP0003E3698CEE	- Select -	Enabled

Select All Clear All Goto 1 of 62 Results Per Page 10

**Save**

2. If necessary, search for the phone device for which you want to enable desktop monitoring. For instructions, see ["Using the Search Function" on page 145](#).
3. Select Enable from the Desktop Monitoring drop-down list.
4. Click Save. Desktop monitoring is enabled for that device.

**Configuring a Default Monitor Service**

Select a default monitor service to avoid the possibility of having devices unassigned to any monitor service. This situation can arise when there is more than one VoIP Monitor service in the system.

**NOTE:** If your system has only one VoIP Monitor service, it is not necessary to set a default monitor service or to manually assign each device to that single monitor service. The VoIP Monitor service

assumes that each device is assigned to it as the only available monitor service.

Modifications you make on the VoIP Monitoring Device page go into effect immediately after you save your changes.

***To configure a default VoIP Monitor service:***

1. Choose Services Configuration > Multiline, Monitoring & Recording > VoIP Monitoring Device. The VoIP Monitoring Device page appears ([Figure 81](#)).
2. From the Default VoIP Monitor Service drop-down list, select the VoIP Monitor service you want to be the default service.
3. Click Save.

## **Assigning Phone Devices to a Specific VoIP Monitor Service**

***To assign a phone device to a specific VoIP Monitor service:***

1. Choose Services Configuration > Multiline, Monitoring & Recording > VoIP Monitoring Device. The VoIP Monitoring Device page appears ([Figure 81](#)).
2. If necessary, search for the phone device you want to assign to a VoIP Monitor server. For instructions, see "[Using the Search Function](#)" on page 145.
3. Select the Selected check box for the device, then select the desired VoIP Monitor service from the Monitor Service drop-down list.
  - To assign multiple devices, select the Selected check boxes for each device, then select the desired VoIP Monitor service from the drop-down list field above the list of devices, and then click Modify.
4. Click Save. The device or devices are now assigned to the specific VoIP Monitor service.

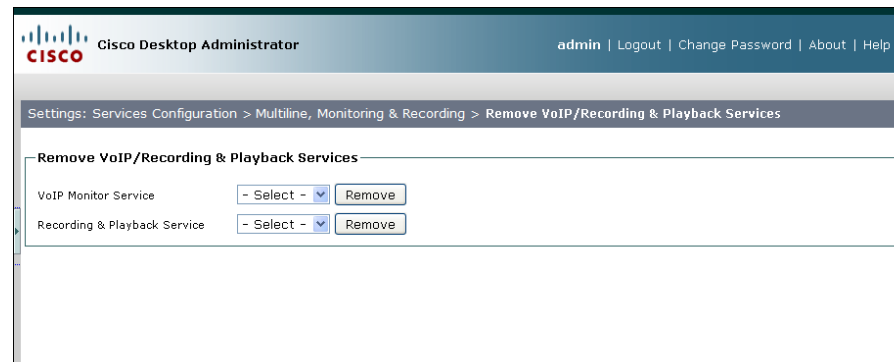
## **Removing a VoIP Monitor or Recording & Playback Service from Directory Services**

The Remove VoIP/Recording/Playback Services page enables you to remove a VoIP Monitor service or Recording & Playback service from Directory Services and unregister it from the LRM service.

Remove these services only if you intend to uninstall (or already have uninstalled) the VoIP Monitor service or Recording & Playback service permanently. The Remove option enables you to clean up Directory Services.

**To remove a VoIP Monitor or Recording & Playback service from Directory Services:**

1. Choose Services Configuration > Multiline, Monitoring & Recording > Remove VoIP/Recording & Playback Services. The Remove VoIP/Recording & Playback Services page appears ([Figure 82](#)).

**Figure 82. Remove VoIP/Recording & Playback Services page**

2. From the appropriate drop-down list, select the service to be removed, and then click Remove. The service is removed from Directory Services.

When you remove a VoIP Monitor service from Directory Services, it also removes that service from the list of available VoIP Monitor services on the VoIP Monitoring Device page as well ([Figure 81](#)). This can result in devices becoming unmonitored.

If the selected VoIP Monitor service has been set as the default service, you are notified that this situation exists when you click Remove. When you click OK to confirm that you want to remove the default VoIP Monitor service, any device that was monitored by the default service will now be unmonitored. It is recommended that you select another VoIP Monitor service to be the default. See ["Configuring a Default Monitor Service" on page 165](#) for more information.

If the VoIP Monitor service was selected to monitor specific devices, when you click OK the following can occur:

- The devices will be monitored by the default VoIP Monitor service (if one is configured)
- The devices will be monitored by desktop monitoring if Enable is selected in the Desktop Monitoring drop-down list for each device
- The devices will be unmonitored

If devices become unmonitored, search for them on the VoIP Monitor Devices page and reassign them to the default monitor, a specific monitor, or enable desktop monitoring.

**To restore a removed service to Directory Services:**

1. Start the removed service.
  - If you uninstalled the service, reinstall it. See the *Cisco CAD Installation Guide* for information on installing CAD services.
  - If you have not uninstalled the service, stop the service and then restart it, using the Windows Services utility in Control Panel.
2. In Desktop Administrator, click the VoIP Monitoring Device node again. The refreshed page shows that the service is restored to the list of available services.



## Synchronizing Directory Services

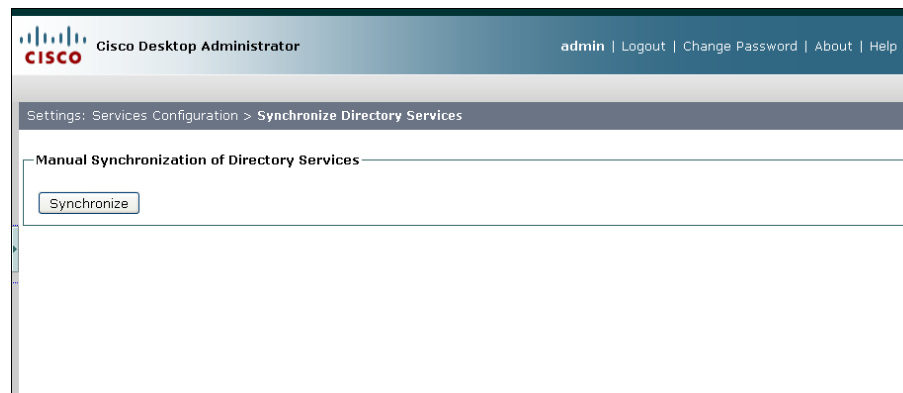
The Directory Services database should be synchronized with the master Unified CCX agent database. The databases are synced automatically whenever the master Unified CCX database changes. However, you can manually sync them with the Synchronize Directory Services command.

**NOTE:** You can also synchronize Directory Services manually from Work Flow Administrator. See ["Synchronizing Directory Services" on page 169](#) for more information.

*To synchronize the databases manually:*

1. Choose Services Configuration > Synchronize Directory Services. The Synchronize Directory Services page appears ([Figure 83](#)).

**Figure 83.** Synchronize Directory Services page



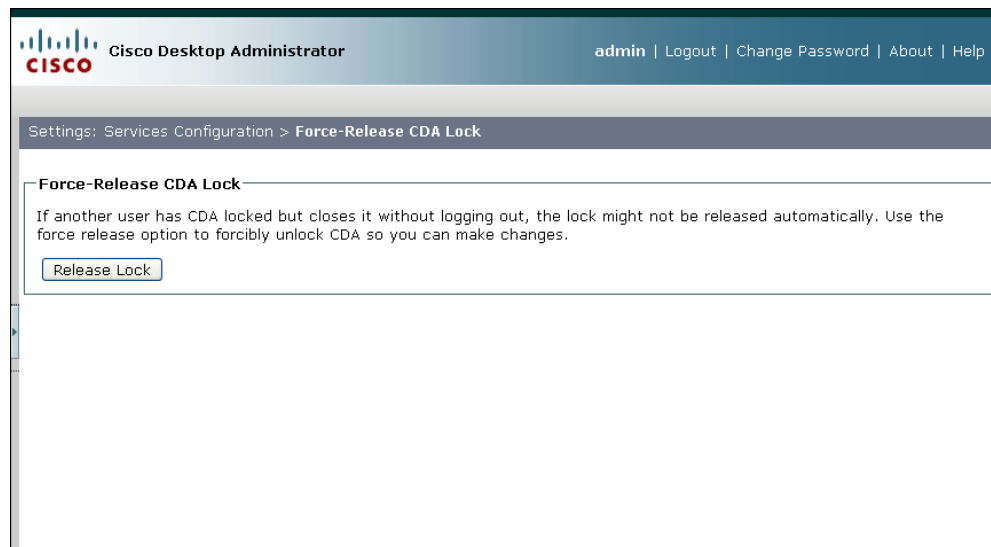
2. Click Synchronize. The databases are synchronized, and you will see the message, "Transaction successful" when the process is complete.

## Releasing the Desktop Administrator Lock

Use the Force-release CDA Lock page to forcibly unlock Desktop Administrator in the event it remains locked even though no one is currently using it. This can occur if a user closes the browser without logging out of Desktop Administrator, and the lock does not automatically release after 15 minutes of inactivity.

It is recommended that you do not use the force-release option to lock out another user. However, if this happens, the other user will be able to save anything currently being modified. After the user has clicked Save, he or she will be locked out and will be unable to make any more modifications until you have logged out.

Figure 84. Force-release CDA Lock page



### To forcibly unlock Desktop Administrator:

1. Choose System Configuration > Force-Release CDA Lock. The Force-Release CDA Lock page appears (Figure 84).
2. Click Release Lock. The lock on the application is released and you can now view and modify data.

**NOTE:** In a High Availability system, you must be logged in to the side on which Desktop Administrator was locked. If Desktop Administrator was locked by someone who logged in on Side A, you cannot unlock it if you are logged in on Side B.

## Introduction

The Agent Re-skilling page under the Unified CCE Configuration node ([Figure 85](#)) enables you to configure the web sites that supervisors use to dynamically re-skill the agents on their teams.

By default, no web sites are configured and supervisors use the Cisco Unified Contact Center Enterprise Web Administration Agent Re-skilling website. However, you can specify alternate web sites to be used to re-skill agents on the Agent Re-skilling page.

Figure 85. Agent Re-skilling page

The screenshot displays the 'Agent Re-skilling' configuration page in the Cisco Desktop Administrator interface. The page header includes the Cisco logo and navigation links. The main content area features a table titled 'Agent Re-skilling List' with the following structure:

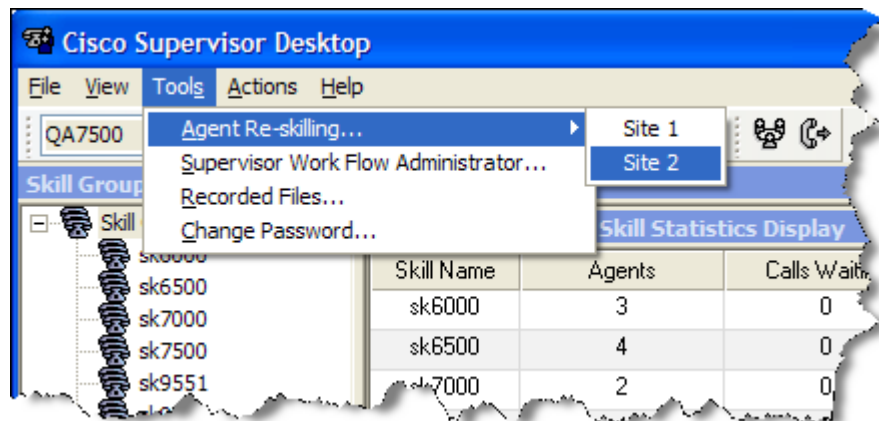
Display Name	Use Cisco's Re-skilling tool	URL
Site1	<input checked="" type="checkbox"/>	<input type="text"/>
Site2	<input checked="" type="checkbox"/>	<input type="text"/>

Below the table, there is a pagination control showing 'Goto 1 of 1' and 'Results Per Page 10'. A 'Save' button is located at the bottom of the page.

## Alternate Agent Re-skilling Websites

You can specify two alternate agent re-skilling web sites to appear in the Tools menu of Cisco Supervisor Desktop (Figure 86).

Figure 86. Agent Re-skilling in the Cisco Supervisor Desktop Tools menu



By default, these menu options both lead to the Cisco Unified Contact Center Enterprise Web Administration Agent Re-skilling website on Unified ICM.

### To set up an alternate agent re-skilling website:

1. Choose Unified CCE Configuration > Agent Re-skilling. The Agent Re-skilling page appears (Figure 85).
2. For the desired site (Site1 and/or Site2), clear the Use Cisco's Re-skilling Tool check box and then type the URL of the alternate re-skilling website in the URL field.
3. Click Save.

### To remove an alternate agent re-skilling website:

1. Choose Unified CCE Configuration > Agent Re-skilling. The Agent Re-skilling page appears (Figure 85).
2. Select the Use Cisco's Re-skilling Tool check box for the desired site.
3. Click Save.

**NOTE:** When you select the check box, the URL field is disabled. When you click Save, the URL field is cleared.

**Agent Re-skilling Notes**

- Website changes do not take effect until Supervisor Desktop is restarted.
- Any URL you enter is not checked by the system for accuracy.
- You can enter up to 256 characters in the URL field.
- You can enter any type of URL (for example, http, https, file, or ftp).



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# Personnel Configuration

# 6

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## Introduction

You can use Personnel Configuration to view information about agents and supervisors within a logical contact center. You can also use Personnel Configuration to change supervisor passwords and to assign agents to work flow groups.

**NOTE:** Some agent, supervisor, and team properties are configured in Cisco Unified Intelligent Contact Management (Unified ICM) and are only viewable, not editable, from within Desktop Administrator.

The Personnel Configuration node allows you do to the following tasks:

- [Configuring Agents \(page 176\)](#)
- [Configuring Supervisors \(page 178\)](#)

## Configuring Agents

The Agents window displays a list of all agents configured in Unified ICM. You can view an agent's name, login ID, login name, team, and work flow group assignment on this page.

An agent can belong to only one work flow group at a time. By default, all agents are assigned to the Default work flow group. You can do the following in the Agents List page:

- Change the login method for agents
- Change the agent's work flow group assignment

### Changing the Login Method for Agents

Depending on your configuration, agents can log in to Agent Desktop using either their login ID or their login name.

*To change the login method for agents:*

1. Choose Personnel > Agents. The Agents page appears (Figure 87).

Figure 87. Agents List page

**General Settings**  
 IMPORTANT: The Agent Login By option you choose applies to every agent in the contact center.  
 Agent Login By: ☐ Login ID ☒ Login Name

Search For: Last Name Begins With Find Clear Filter + -

**Agent List**  
 Set Work Flow Group for selected rows to: default Modify

Selected	Last Name	First Name	Login ID	Team	Work Flow Group
<input type="checkbox"/>	Allen	John	2098	Team03	default
<input type="checkbox"/>	Almquist	Mike	2268	Team01	default
<input type="checkbox"/>	Antonio	Neil	2128	Team03	default
<input type="checkbox"/>	Arbique	Claude	3233	Team03	default
<input type="checkbox"/>	Auger	Alexandre	3201	Team03	default
<input type="checkbox"/>	Barnes	Charlie	2352	Team03	default
<input type="checkbox"/>	Barnish	David	2175	Team03	default
<input type="checkbox"/>	Bauer	Andy	2146	Team03	default
<input type="checkbox"/>	Bendickson	Mike	2274	Team01	default
<input type="checkbox"/>	Bohemier	Mariette	3225	Team03	default

Select All Clear All Goto 1 of 54 Results Per Page 10 Save

2. Under General Settings, do one of the following:



- Select the Login ID radio button to enable agents to use their login ID for logging in.
- Select the Login Name radio button to enable agents to use their login name for logging in.

**NOTE:** The login method you choose applies to all the agents in the contact center.

3. Click Save. This does not impact the agents who are already logged in to their applications. The change will go into effect the next time an agent logs in to Agent Desktop.

## Changing an Agent's Work Flow Group Assignment

*To change an agent's work flow group assignment:*

1. Choose Personnel > Agents. The Agents page appears ([Figure 87](#)).
2. If necessary, search for the agent whose work flow group assignment you want to change. For instructions, see ["Using the Search Function" on page 145](#).
3. Select the desired work flow group from the Work Flow Group drop-down list field in the agent's row.
  - To assign multiple agents to a work flow group, select the Selected check boxes for each agent, then select the desired work flow group from the drop-down list field above the list of agents, and then click Modify.
4. Click Save. The agent or agents are now assigned to the specified work flow group.

**NOTE:** If a recently-added work flow group does not appear in the drop-down list, or a recently-deleted work flow group does appear in the drop-down list, refresh the page by clicking the Personnel > Agents link again.

## Configuring Supervisors

The Supervisors page (Figure 88) displays a list of all supervisors configured in Unified ICM. You can view the supervisor's name, ID, and login name on this page.

You can do the following in the Supervisors page:

- Enable supervisors to log in using Agent Desktop password
- View a supervisor's properties
- Reset the supervisor's password

Figure 88. Supervisors window

**Supervisor Settings**

Enable Supervisor Login via CTIOS ☐

Search For: Last Name Begins With Find Clear Filter + -

Last Name	First Name	ID	Login Name	Password
<a href="#">Kendall</a>	Lori	2113	kendall	
<a href="#">Lathrop</a>	Al	2130	lathroa	*****
<a href="#">Le</a>	Thanh	2081	lett	
<a href="#">Mahle</a>	Gary	2193	mahleg	
<a href="#">Misra</a>	Sharmista	2203	misras	
<a href="#">Mohamed</a>	Ashraf	2166	mohamea	
<a href="#">Mosesov</a>	Igor	2216	mosesoi	
<a href="#">Shako</a>	Nicholas	2109	shakon	
<a href="#">Sheldon</a>	Amos	2289	sheldoa	
<a href="#">SimAgent</a>	11000	11000	11000	

Results Per Page 10

### Enabling Supervisors to Log In Using Agent Desktop Password

By default, supervisors use their own passwords set either by you or the supervisor. In the Supervisors page, you can enable supervisor to log in to Supervisor Desktop using Computer Telephony Integration Object Server (CTIOS) authentication. In this case, supervisors use their Agent Desktop passwords set up in the Unified CM.

When you select this option, you cannot reset the supervisor's password in the Supervisors page. In addition, the Change Password option in the Supervisor Desktop is disabled when you select this check box.

***To enable supervisors to log in using Agent Desktop password:***

1. Choose Personnel > Supervisors. The Supervisors page appears ([Figure 88](#)).
2. Select the Enable Supervisor Login via CTIOS check box under Supervisor Settings to enable supervisors to log in using Agent Desktop password.

**NOTE:** The login method you choose applies to all the supervisors in the contact center.

3. Click Save. This does not impact the supervisors who are already logged in to their applications. The change will go into effect the next time a supervisor logs in to Supervisor Desktop.

**NOTE:** If a supervisor logs into Supervisor Desktop before logging in to Agent Desktop using Agent Desktop password, the historical agent state reports will show the Supervisor Desktop login and logout and then Agent Desktop login records. Whereas, if a supervisor logs into Agent Desktop before logging in to Supervisor Desktop, the historical agent state reports will show the user logging in to Agent Desktop and staying logged in as an agent. The report will not display the Supervisor Desktop login.

## Viewing a Supervisor's Properties

You can view a supervisor's properties as set up in Unified ICM.

***To view a supervisor's properties:***

1. Choose Personnel > Supervisors. The Supervisors list page appears ([Figure 88](#)).

2. If necessary, search for the supervisor whose properties you want to view. For instructions, see ["Using the Search Function" on page 145](#). The supervisor's properties appears ([Figure 89](#)).

**Figure 89. Supervisor Properties window**

The screenshot shows the Cisco Desktop Administrator interface. At the top, the Cisco logo and "Cisco Desktop Administrator" are on the left, and "admin | Logout | Change Password | About | Help" are on the right. Below the header is a breadcrumb trail: "Settings: Personnel > Supervisors > Eiler". A blue arrow points left. The main content area is titled "Supervisor Information" and contains the following details:

ID	2294
Last Name	Eiler
First Name	Craig
Login Name	eilerc

Below this is a "Team List" section with a table:

Team Name	Supervisor Type
Team02	Secondary
Team03	Primary

At the bottom of the table is a pagination control: "Goto 1 of 1" and "Results Per Page 10". A button labeled "Return to Supervisor List" is at the bottom of the page.

3. To return to the Supervisors list page, click Return to Supervisor List or the blue arrow at the top of the page.

## Resetting a Supervisor's Password

By default, supervisors set their own passwords the first time they access Cisco Supervisor Desktop. If a supervisor forgets the password, you can reset the password so that the supervisor can log in and set up a new password.

If a password has been set up by either you or a supervisor, it appears as a string of placeholder symbols in the Password field. If the field is blank, no password has been set up for that supervisor.

**NOTE:** You cannot reset the supervisor's password if the Enable Supervisor Login via CTIOS check box is selected.

### *To reset a supervisor's password:*

1. Choose Personnel > Supervisors. The Supervisors list page appears ([Figure 88](#)).
2. If necessary, search for the supervisor whose password you want to reset. For instructions, see ["Using the Search Function" on page 145](#).
3. In the password field, type a new password and then click Save. The supervisor's password is reset to the string you entered.

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## Introduction

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The Cisco Unified Presence Settings node in Desktop Administrator gives administrators the ability to integrate Cisco Unified Presence with CAD.

Integrating Unified Presence with CAD makes it possible for supervisors using Supervisor Desktop and agents using Agent Desktop to view the availability of non-agents using Unified Presence Client or Microsoft Office Communications Server (MOCS). This feature enables supervisors and agents to initiate chat sessions with subject matter experts (SMEs) who can provide information that can help agents assist customers more quickly and effectively.

For more information about Cisco Unified Presence, see the description at the following URL:

<http://www.cisco.com/en/US/products/ps6837/index.html>

Integrating a Unified Presence cluster with CAD consists of the following tasks.

- [Configuring the Cisco Unified Presence Server \(page 182\)](#)
- [Configuring the Cisco Unified Presence Cluster \(page 186\)](#)
- [Configuring Contact Lists \(page 188\)](#)
- [Configuring External Contacts \(page 197\)](#)
- [Configuring Work Flow Groups \(page 202\)](#)

## Configuring the Cisco Unified Presence Server

Several settings (an inbound access control list and the CAD client type) must be configured in the Unified Presence server in order for CAD agents to log in.

For more detailed information on configuring the Unified Presence server, consult the Cisco Unified Presence documentation available on [www.cisco.com](http://www.cisco.com).

### Configuring an Inbound Access Control List

The Cisco Unified Presence server must be configured to accept inbound requests from agent devices so that, when an agent logs into Cisco Agent Desktop, the agent's computer will be able to connect to the Unified Presence server.

To enable this connection, an inbound Access Control List (ACL) must be configured to allow inbound messages from the agent computer's IP address or to allow all inbound messages.

#### *To configure the inbound ACL:*

1. In Cisco Unified Presence Administration, navigate to System > Security > Incoming ACL.
2. Create an incoming ACL with the address pattern set to either the agent PC's IP address or to ALL.

### Configuring the CAD Client Type

This setting must be configured only if your system uses Unified Presence version 8.6 or newer. In order for CAD agents to be able to log into Unified Presence, the CAD client type must be added to Unified Presence Administration.

#### *To add the CAD client type:*

1. In Cisco Unified Presence Administration, navigate to Application > Client Types.
2. Click Add New.
3. Complete the Client Type page as follows:
  - Type: CAD
  - Description: CAD
  - Minimum Version: 0.0.0.0
  - Group: Standard CCM End Users
4. You must clear the Version Check Required checkbox.

5. Click Save.
6. You must restart the Cisco UP Client Profile Agent services (in Network Services).

## Configuring Unified Presence Users

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In order to use Unified Presence from within Agent Desktop, all agents must be Unified Presence users who have the following attributes:

- An end user, not an application user
- Licensed as CUP (Cisco Unified Presence) Enabled
- Licensed as CUPC (Cisco Unified Personal Communicator) Enabled
- Associated with the same LDAP profile with which SMEs are associated

### ***To enable a Unified Presence user for CUP and CUPC:***

1. In Cisco Unified CM Administration, navigate to System > Licensing > Capabilities Assignment.
2. Search for the Unified Presence user.
3. On the Unified Presence user's Capabilities Assignment Configuration page, select the Enable CUP and Enable CUPC check boxes in the Capabilities Assignment Information section of the page.
4. Click Save.

### ***To associate the Unified Presence user with the LDAP profile:***

1. In Cisco Unified CM Administration, navigate to Application > Cisco Unified Personal Communicator > User Settings.
2. Search for the Unified Presence user.
3. On the Unified Personal Communicator User Settings page, ensure that the LDAP profile assignment is the same as that for SMEs.

The LDAP profile cannot have anonymous bind enabled. If it is, it results in partial data when searching for SMEs.

If the LDAP profile is configured by host name, make sure you can ping it from the CAD Base services server or the Unified CCE server.

If the CUP server is configured by host name, make sure you can ping it from the Unified CCE server, CAD base services server, or agent desktop machine.

### ***To ensure that the LDAP profile is not configured with anonymous bind:***

1. In Cisco Unified Presence Administration, navigate to Application > Cisco Unified Personal Communicator > LDAP Profile.
2. Search for the appropriate LDAP profile (the profile to which all the SMEs are assigned).



3. On the LDAP Profile Configuration page, ensure that the Anonymous Bind check box on the right side of the page is cleared.
4. Click Save.

## Configuring the Cisco Unified Presence Cluster

The first task in integrating CAD with a Unified Presence cluster is configuring the cluster by specifying the connection information.

**NOTE:** It is assumed that all of the agents are managed in one Unified Presence cluster.

*To configure the Unified Presence cluster:*

1. Choose Cisco Unified Presence Settings > Cisco Unified Presence Cluster Settings. The Cisco Unified Presence Cluster Settings page appears (Figure 90).

Figure 90. Cisco Unified Presence Cluster Settings page

The screenshot shows the Cisco Desktop Administrator web interface. The top header includes the Cisco logo, the text "Cisco Desktop Administrator", and user information "admin | Logout | Change Password | About | Help". Below the header is a navigation bar with "Save" and "Help" buttons. The main content area has a breadcrumb trail "Settings: Cisco Unified Presence Settings > Cisco Unified Presence Cluster Settings". The configuration section is titled "Cisco Unified Presence Cluster Configuration" and contains the following fields:

- Enable Cisco Unified Presence Integration:** A checkbox.
- Version:** A dropdown menu with "- Select -" as the current selection.
- Publisher Host/IP Address:** A text input field with a "Verify" button next to it.
- Presence User Login ID:** A text input field.
- Password:** A text input field.

Below these fields is a section titled "Subscriber Host/IP Addresses" with a table for adding and managing addresses. At the bottom of the configuration section are "Save" and "Help" buttons.

2. Complete the fields as described below.

Field	Description
Enable Cisco Unified Presence Integration	Select to enable communication between supervisors and agents and non-agents.
Version	Version of Cisco Unified Presence.
Publisher Host/IP Address	Hostname or IP address of Unified Presence server (the publisher if you have a Unified Presence cluster).

Field	Description
Presence User Login ID	The login ID of a Unified Presence end user. This user must be: <ul style="list-style-type: none"><li>• An “end user,” not an “application user”</li><li>• CUP-enabled</li><li>• CUPC-enabled</li><li>• Associated with the same LDAP profile that SMEs are associated with</li></ul>
Password	Password for the Presence User Login ID user.
Subscriber Host/IP Addresses	If you have a Unified Presence cluster, the hostname or IP address of the Unified Presence subscriber(s).

3. Click Verify to confirm that the information you entered is correct. Desktop Administrator connects to the Unified Presence server using the hostname or IP address, login ID, and password you entered.
4. Click Save to save your changes.

If you make changes to Service Profile settings in Cisco Unified CM Administration or LDAP related settings in Cisco Unified CM IM and Presence Administration, then you must re-establish the connection between CAD and the CUP server in Desktop Administrator to refresh these settings.

***To re-establish the connection between CAD and the CUP server:***

1. Choose Cisco Unified Presence Settings > Cisco Unified Presence Cluster Settings. The Cisco Unified Presence Cluster Settings page appears ([Figure 90](#)).
2. Clear the Enable Cisco Unified Presence Integration check box and click Save.
3. Re-select the Enable Cisco Unified Presence Integration check box and click Save again.

## Configuring Contact Lists

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A contact list consists of the SMEs that you want to make available to agents who use Agent Desktop. Agents and supervisors see the SMEs in the Contact Selection window after clicking the Chat button when the Presence feature is enabled. An agent only sees the SMEs who are assigned to the agent's work flow group. A supervisor, however, sees all of the SMEs in all of the work flow groups that are associated with the supervisor's teams.

**NOTE:** Agents and supervisors must restart Agent Desktop and Supervisor Desktop to see any changes you make to contact lists.

Unified Presence can be configured to allow you to assign up to 100 SMEs to a contact list in Unified Presence 6.0, and up to 200 SMEs to a contact list in Unified Presence 7.0 or higher.

Use the Contact Lists node to complete the following tasks.

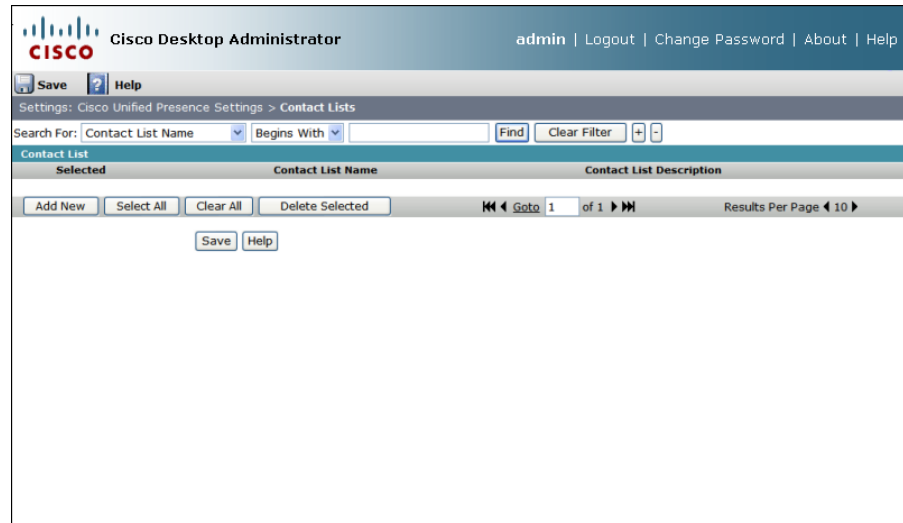
- [Creating a Contact List \(page 189\)](#)
- [Finding a Contact List \(page 190\)](#)
- [Deleting a Contact List \(page 190\)](#)
- [Editing a Contact List \(page 191\)](#)
- [Adding SMEs to a Contact List \(page 192\)](#)

## Creating a Contact List

*To create a contact list:*

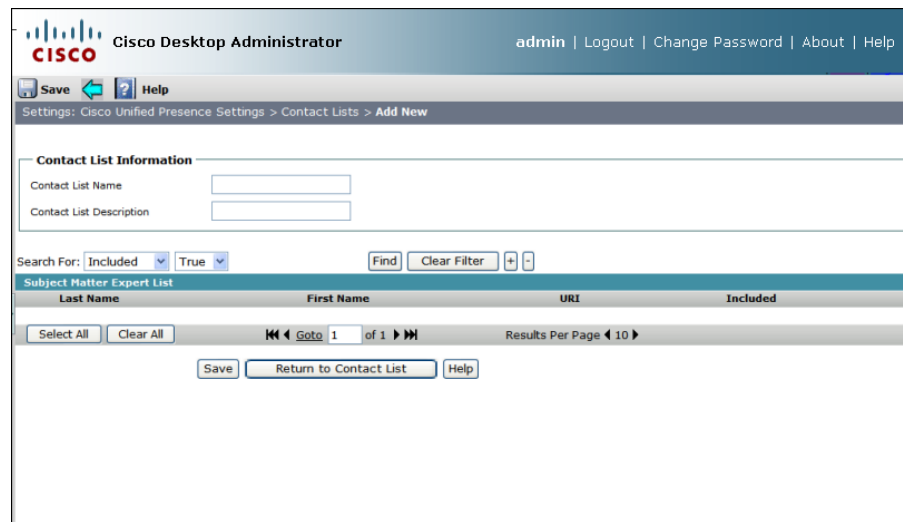
1. Choose Cisco Unified Presence Settings > Contact Lists. The Contact Lists page appears (Figure 91).

**Figure 91.** Contacts Lists page



2. Create a new contact list by clicking Add New. The Add New page appears (Figure 92).

**Figure 92.** Add New page



3. Type a name in the Contact List Name field and a description in Contact List Description.
4. Click Save, then click Return to Contact list. The Contact Lists page reappears with the new contact list.

**NOTE:** A contact list name has a maximum of 64 characters.

## Finding a Contact List

You can search for a contact list from any of the following pages.

- Contact Lists page. Navigate to this page by choosing Cisco Unified Presence Settings > Contact Lists.
- Work Flow Groups page. Navigate to this page by choosing Cisco Unified Presence Settings > Work Flow Groups, then selecting a work flow group.

**NOTE:** Searches are not case sensitive. For example, if you type a lowercase letter “s” in a search field, the results will include all items that begin with the lowercase letter “s” and the uppercase letter “S.”

### *To find a contact list:*

1. Select a descriptor from the Search for drop-down list, then type one or more characters in the text field.
2. If necessary, complete any of the following actions.
  - If you want to add another condition to the search query, click +. A new row containing a field drop-down list, a descriptor drop-down list, and a text field appears. Repeat step 1 for the new row.
  - If you want to remove the last condition from the search query, click —. The bottom row is deleted. If you click — and the search query only contains one condition, no change occurs.
  - If you want to remove all of the conditions from the search query, click Clear Filter. All of the rows except the first row are deleted, and the first row is reset to the default value.
3. When you are done creating your search query, click Find. A list of contact lists that match all of the conditions appears.

## Deleting a Contact List

### *To delete a contact list:*

1. Choose Cisco Unified Presence Settings > Contact Lists. The Contact Lists page appears ([Figure 91](#)).

2. If necessary, search for the contact list you want to delete. For instructions, see ["Finding a Contact List" on page 190](#).
3. Select the check box that corresponds to the contact list you want to delete, then click Delete Selected. The selected contact list is no longer displayed in the list of contacts. However, the actual deletion is not performed until you click Save.

## Editing a Contact List

### To edit a contact list:

1. Choose Cisco Unified Presence Settings > Contact Lists. The Contact Lists page appears ([Figure 91](#)).
2. If necessary, search for the contact list you want to edit. For instructions, see ["Finding a Contact List" on page 190](#).
3. Select the contact list by clicking its name. The page for that specific contact list appears ([Figure 93](#)).

**Figure 93. Contacts List page — specific list**

**Contact List Information**

Contact List Name: Shipping

Contact List Description: Shipping

Search For: Included True Find Clear Filter

Last Name	First Name	URI	Included
Emmanuel	Jacobs	2073@P1.RD.LD	<input checked="" type="checkbox"/>
Gary	Mahle	mahleg@p1.rd.id	<input checked="" type="checkbox"/>

Save Copy Return to Contact List Help

4. Complete one or both of the following operations.
  - If you want to remove one or more SMEs from the contact list, clear the corresponding check boxes in the Included column.
  - If you want to change the description of the contact list, type the new description in the Contact List Description field.
5. When you are finished making changes, click Save, then click Return to Contact list.

## Adding SMEs to a Contact List

Desktop Administrator searches the Unified Presence LDAP server for SMEs, and when found, saves them to the CAD LDAP server.

**NOTE:** If you want to provide access to users in an external environment who are not managed by the Unified Presence LDAP server, you can add them manually as external contacts. For instructions, see ["Adding External Contacts" on page 197](#).

### To add SMEs to a contact list:

1. Choose Cisco Unified Presence Settings > Contact Lists. The Contact Lists page appears ([Figure 91](#)).
2. Select a contact list by clicking its name. The page for that specific contact list appears. If the contact list you selected does not include any SMEs, the Subject Matter Expert List will be empty ([Figure 94](#)).

**Figure 94.** Specific contact list page with no SMEs

The screenshot shows the Cisco Desktop Administrator web interface. At the top, the Cisco logo and 'Cisco Desktop Administrator' text are visible, along with user links: 'admin | Logout | Change Password | About | Help'. Below the header, there are navigation tabs: 'Save', 'Copy', and 'Help'. The breadcrumb trail indicates the current location: 'Settings: Cisco Unified Presence Settings > Contact Lists > Marketing - West'.

The main content area is titled 'Contact List Information' and contains two fields: 'Contact List Name' with the value 'Marketing' and 'Contact List Description' with the value 'Marketing - West'.

Below this, there is a search section with 'Search For:' set to 'Included' and a 'True' checkbox. There are 'Find' and 'Clear Filter' buttons, along with '+' and '-' icons.

The 'Subject Matter Expert List' section features a table with the following headers: 'Last Name', 'First Name', 'URI', and 'Included'. Below the table, there are 'Select All' and 'Clear All' buttons. The pagination shows 'Goto 1 of 1' and 'Results Per Page 10'. At the bottom of the section, there are 'Save', 'Copy', 'Return to Contact List', and 'Help' buttons.



- Find the SME you want to add using the Search function. For instructions about finding SMEs, see ["Finding SMEs" on page 193](#). Figure 95 shows the SMEs whose last name begins with the letter “s” and also contains the letter “c.”

Figure 95. Specific contact list page with SMEs

**Contact List Information**

Contact List Name: Marketing  
 Contact List Description: Marketing - West

Search For: Last Name Begins With s  
 Last Name Begins With c [Find] [Clear Filter] [+]

Last Name	First Name	URI	Included
Sanchez	Ali	sancheali@p1.rd.id	<input type="checkbox"/>
Schultz	Hannah	schulth@p1.rd.id	<input type="checkbox"/>
Schultz	Justin	schultj@p1.rd.id	<input type="checkbox"/>
Schwartz	Brent	schwarb@p1.rd.id	<input type="checkbox"/>
Stuck	Elizabeth	stucke@p1.rd.id	<input type="checkbox"/>

[Select All] [Clear All] Goto 1 of 1 Results Per Page 10

[Save] [Copy] [Return to Contact List] [Help]

- Select the SMEs you want to add to the contact list.
  - To add all of the SMEs that are displayed, click Select All.
  - To add SMEs individually, select the corresponding check box in the Included column.
- If you want to find and add other SMEs, repeat steps 3 and 4.
- When you are done adding SMES, click Save, then click Return to Contact list.

## Finding SMEs

**NOTE:** Searches are not case sensitive. For example, if you type a lowercase letter “s” in a search field, the results will include all items that begin with the lowercase letter “s” and the uppercase letter “S.”

**NOTE:** You can only search for SMEs from the page of a specific contact list.

### To find SMEs:

- Choose Cisco Unified Presence Settings > Contact Lists. The Contact Lists page appears.

2. Select a contact list by clicking its name. The page for that specific contact list appears.
3. If you do not want the search results to include SMEs who are already in the current contact list, select Included from the Search for field drop-down list and False from the criterion drop-down list, then click +. A new condition with default values (Included and True) is added to the search query (Figure 96).

**NOTE:** If you use the Included field in a search condition, you must add a second condition that uses the Last Name or First Name field. You cannot search using the Included field alone.

Figure 96. Search query with two conditions (default)

The screenshot displays the Cisco Desktop Administrator web interface. At the top, the Cisco logo is on the left, and the user 'admin' is logged in with links for Logout, Change Password, About, and Help. Below the header, there are navigation tabs: Save, Copy, and Help. The main content area shows the 'Contact List Information' for a contact list named 'Marketing' with the description 'Marketing - West'. Below this, the 'Search For' section shows two conditions: 'Included' (selected from a dropdown) and 'True' (selected from a dropdown). There are buttons for 'Find', 'Clear Filter', and a plus/minus icon. Below the search section, there is a table titled 'Subject Matter Expert List' with columns: Last Name, First Name, URI, and Included. The table is currently empty. At the bottom, there are buttons for 'Select All', 'Clear All', 'Goto 1 of 1', 'Results Per Page 10', 'Save', 'Copy', 'Return to Contact List', and 'Help'.

4. Select either Last Name or First Name from the field drop-down list and a descriptor from the drop-down list, then type one or more characters in the search field (Figure 97).

**Figure 97. Search query with two conditions**

The screenshot shows the Cisco Desktop Administrator interface. At the top, there's a header with the Cisco logo, the text "Cisco Desktop Administrator", and user information "admin | Logout | Change Password | About | Help". Below the header is a breadcrumb trail: "Settings: Cisco Unified Presence Settings > Contact Lists > Marketing - West". The main content area is titled "Contact List Information" and contains two fields: "Contact List Name" with the value "Marketing" and "Contact List Description" with the value "Marketing - West". Below this is a search section with two dropdowns: "Search For" set to "Included" and "Last Name" set to "False". There's also a dropdown for "Begins With" set to "car" and a text input field. Buttons for "Find", "Clear Filter", and "+" are present. Below the search section is a table titled "Subject Matter Expert List" with columns: "Last Name", "First Name", "URI", and "Included". The table has one row with the values "Marketing", "Marketing", "Marketing - West", and "Included". At the bottom of the table, there are buttons for "Select All", "Clear All", "Goto 1 of 1", "Results Per Page 10", "Save", "Copy", "Return to Contact List", and "Help".

**NOTE:** You can also leave the Last Name and First Name fields blank in order to find all SMEs, or all SMEs who fit your other search criteria. If the search returns more than 500 results, only the first 500 will be displayed.

5. If necessary, complete any of the following actions.
  - If you want to add another condition to the search query, click +. A new row containing a field drop-down list, a descriptor drop-down list, and a text field appears. Repeat step 4 for the new row.
  - If you want to remove the last condition from the search query, click —. The bottom row is deleted. If you click — and the search query only contains one condition, no change occurs.
  - If you want to remove all of the conditions from the search query, click Clear Filter. All of the rows except the first row are deleted, and the first row is reset to the default value.

6. When you are done creating your search query, click Find. A list of SMEs that match all of the conditions appears (Figure 98).

Figure 98. Search query with results

The screenshot shows the Cisco Desktop Administrator interface. At the top, there is a header with the Cisco logo, the title 'Cisco Desktop Administrator', and user information 'admin | Logout | Change Password | About | Help'. Below the header is a navigation bar with 'Save', 'Copy', and 'Help' buttons. The main content area is titled 'Contact List Information' and shows the 'Marketing - West' contact list. Below this, there is a search section with 'Search For:' and 'Last Name' dropdowns, and a 'Find' button. The search results are displayed in a table with columns 'Last Name', 'First Name', 'URI', and 'Included'. The table lists six SMEs: Sanchez, Alessandra; Sanchez, Alexandra; Sanchez, Ali; Schultz, Hannah; Schultz, Justin; and Schwartz, Brent. Each row has a checkbox in the 'Included' column.

Last Name	First Name	URI	Included
Sanchez	Alessandra	sanchea@p1.rd.id	<input type="checkbox"/>
Sanchez	Alexandra	sancheal@p1.rd.id	<input type="checkbox"/>
Sanchez	Ali	sancheali@p1.rd.id	<input type="checkbox"/>
Schultz	Hannah	schulth@p1.rd.id	<input type="checkbox"/>
Schultz	Justin	schultj@p1.rd.id	<input type="checkbox"/>
Schwartz	Brent	schwarb@p1.rd.id	<input type="checkbox"/>

## Configuring External Contacts

If you have an external environment with subject matter experts who do not use Cisco Unified Personal Communicator but who do use Microsoft Office Communicator (MOC), you can use the External Contacts feature to provide access to those additional users.

Use the External Contacts node to complete the following tasks.

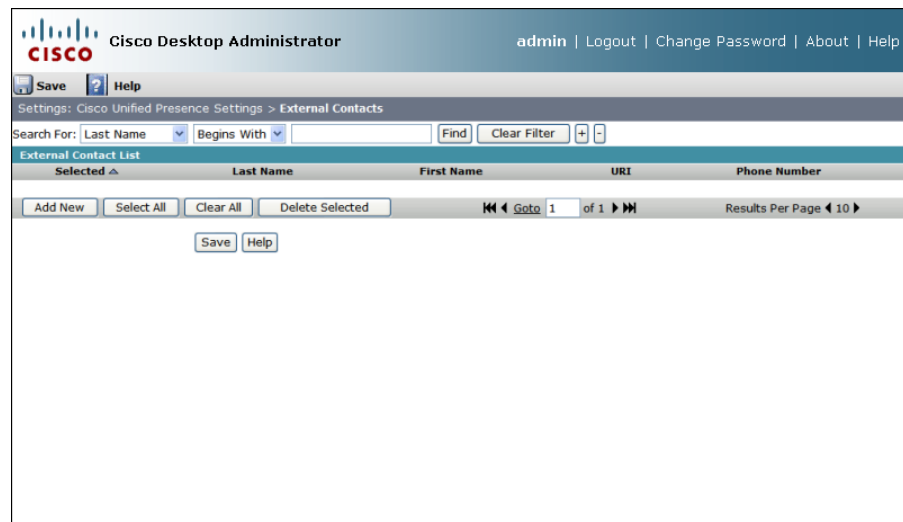
- [Adding External Contacts \(page 197\)](#)
- [Finding an External Contact \(page 199\)](#)
- [Editing an External Contact \(page 200\)](#)
- [Deleting an External Contact \(page 200\)](#)

## Adding External Contacts

*To add an external contact:*

1. Choose Cisco Unified Presence Settings > External Contacts. The External Contacts page appears ([Figure 99](#)).

**Figure 99.** External Contacts page



2. Click Add New. The Add New page appears (Figure 100).

Figure 100. Add New page

The screenshot shows the 'Add New' page in the Cisco Desktop Administrator interface. The page title is 'Cisco Desktop Administrator' with a user 'admin' logged in. The breadcrumb trail is 'Settings: Cisco Unified Presence Settings > External Contacts > Add New'. The main section is 'External Contact Information' with four input fields: 'Last Name' (Schmidt), 'First Name' (Carly), 'URI' (schmic@p1.rd.id), and 'Phone Number' (555-555-555). At the bottom, there are three buttons: 'Save', 'Return to External Contact List', and 'Help'.

3. Complete the fields as described below.

Field	Description
Last Name	Optional. Maximum of 128 characters. No restrictions on the characters that can be entered.
First Name	Optional. Maximum of 128 characters. No restrictions on the characters that can be entered.
URI	Uniform Resource Indicator. Required. No restrictions on the length or characters that can be entered.
Phone Number	Optional. No restrictions on the length or characters that can be entered.

4. Click Save to save your changes. The external contact is added.

**NOTE:** After you click Save, you cannot edit the URI field. If you want to change the URI of an existing external contact, you must delete the external contact and create a new external contact with the new URI.

5. If you want to create additional external contacts who have similar information, click Copy, edit the fields as needed, then click Save.
6. When you are finished adding an external contact, click Return to External contact list.

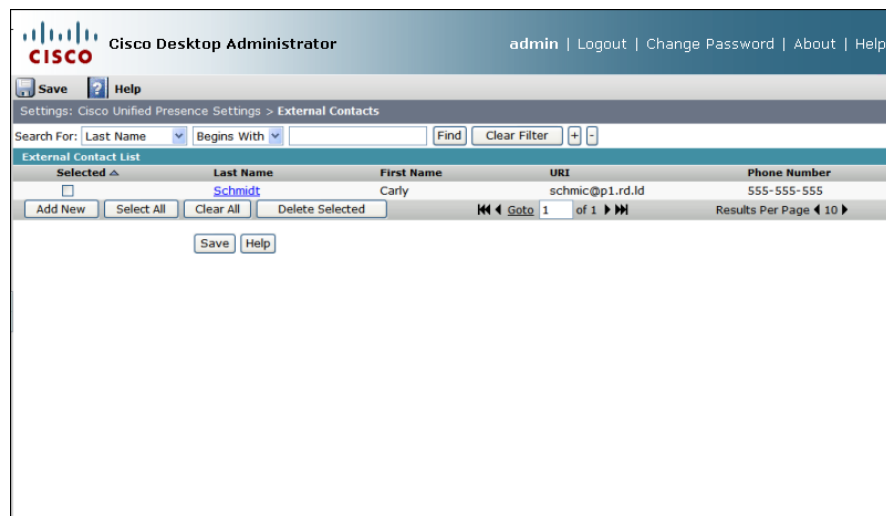
## Finding an External Contact

**NOTE:** Searches are not case sensitive. For example, if you type a lowercase letter “s” in a search field, the results will include all items that begin with the lowercase letter “s” and the uppercase letter “S.”

### To find an external contact user:

1. Choose Cisco Unified Presence Settings > External Contacts. The External Contacts page appears (Figure 99).
2. Select a field (for instance, Last Name) and a descriptor (for instance, Begins With), then type one or more characters in the text field.
3. If necessary, complete any of the following actions.
  - If you want to add another condition to the search query, click +. A new row containing a field drop-down list, a descriptor drop-down list, and a text field appears. Repeat step 2 for the new condition.
  - If you want to remove the last condition from the search query, click -. The bottom row is deleted. If you click - and the search query only contains one condition, no change occurs.
  - If you want to remove all of the conditions from the search query, click Clear Filter. All of the rows except the first row are deleted, and the first row is reset to the default value.
4. When you are done creating your search query, click Find. A list of external contacts that match all of the conditions appears (Figure 101).

Figure 101. External Contact— search query and results

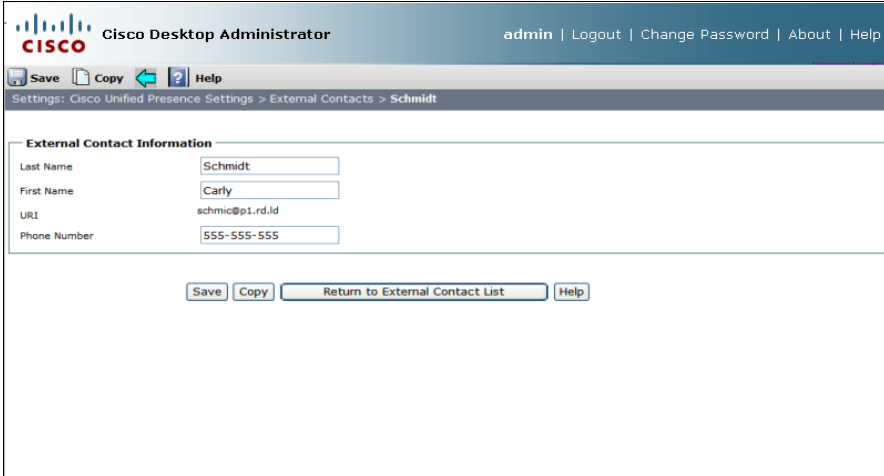


## Editing an External Contact

### *To edit an external contact:*

1. Choose Cisco Unified Presence Settings > External Contacts. The External Contacts page appears ([Figure 99](#)).
2. If you do not see the external contact you want to edit, use the search function to find the contact. For instructions, see ["Finding an External Contact" on page 199](#).
3. Select an external contact by clicking the user's last name. The page for the specific external contact ([Figure 102](#)).

**Figure 102.** External Contact page — specific user



The screenshot shows the Cisco Desktop Administrator interface. At the top, the Cisco logo is on the left, and the text "Cisco Desktop Administrator" is in the center. On the right, there are links: "admin | Logout | Change Password | About | Help". Below this is a navigation bar with "Save", "Copy", and "Help" buttons. The breadcrumb trail reads "Settings: Cisco Unified Presence Settings > External Contacts > Schmidt". The main content area is titled "External Contact Information" and contains a form with the following fields: "Last Name" (Schmidt), "First Name" (Carly), "URI" (schmic@p1.rd.id), and "Phone Number" (555-555-555). At the bottom of the form are buttons for "Save", "Copy", "Return to External Contact List", and "Help".

4. Change the user's last name, first name, or phone number by typing new information in the corresponding field.
5. When you are finished making changes, click Save, then click Return to External Contacts list.

## Deleting an External Contact

### *To delete an external contact:*

1. Choose Cisco Unified Presence Settings > External Contacts. The External Contacts page appears ([Figure 99](#)).
2. If necessary, search for the external contacts that you want to delete. For instructions, see ["Finding an External Contact" on page 199](#).



3. Select the check box corresponding to one or more external contacts, then click Delete Selected. The selected external contacts are no longer displayed in the list of external contacts. However, the actual deletion is not performed until you click Save.

## Configuring Work Flow Groups

Use the Work Flow Groups node to add the contact lists that you create to work flow groups. You can assign up to 25 contact lists to a work flow group. For the limits on the number of SMEs in a contact list, see ["Configuring Contact Lists" on page 188](#).

**NOTE:** You cannot create work flow groups or assign work flow groups to agents in Desktop Administrator. You must create and assign work flow groups in Desktop Work Flow Administrator.

Use the Work Flow Groups node to complete the following tasks.

- [Finding a Work Flow Group \(page 202\)](#)
- [Adding a Contact List to a Work Flow Group \(page 203\)](#)
- [Selecting Agents to Appear Offline \(page 205\)](#)

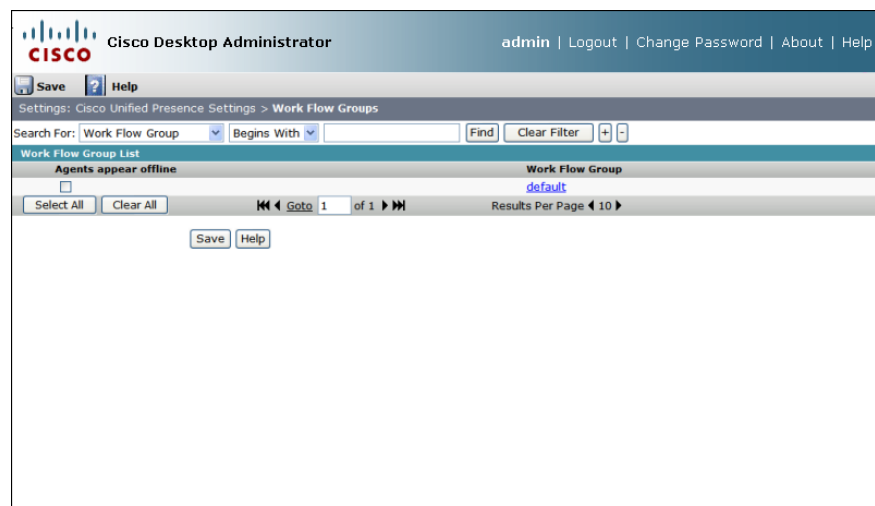
### Finding a Work Flow Group

**NOTE:** Searches are not case sensitive. For example, if you type a lowercase letter “s” in a search field, the results will include all items that begin with the lowercase letter “s” and the uppercase letter “S.”

*To find a work flow group:*

1. Choose Cisco Unified Presence Settings > Work Flow Groups. The Work Flow Groups page appears ([Figure 103](#)).

Figure 103. Work Flow Groups page



2. Create a search query using one or more conditions as described below.
  - If you want to search for work flow groups by name, select Work Flow Group from the field drop-down list and any item from the criterion drop-down list, then type one or more characters in the text field.
  - If you want to search for work flow groups for which agents appear offline, select Agents appear offline from the field drop-down list and True from the criterion drop-down list.
  - If you want to add another condition to the search query, click +. A new row containing the field drop-down list, the descriptor drop-down list, and the text field appears. Define the new condition as described above.
  - If you want to remove the last condition from the search query, click -. The bottom row is deleted. If you click - and the search query only contains one condition, no change will occur.
  - If you want to remove all of the conditions from the search query, click Clear Filter. All of the rows except the first row are deleted, and the first row is reset to the default value.
3. When you are finished creating your search query, click Find. A list of work flow groups that match all of the conditions appears.


## Adding a Contact List to a Work Flow Group

### *To add a contact list to a work flow group:*

1. Choose Cisco Unified Presence Settings > Work Flow Groups. The Work Flow Groups page appears ([Figure 103](#)).
2. If necessary, search for the work flow group to which you want to add a contact list. For instructions, see ["Finding a Work Flow Group" on page 202](#).

3. Select a work flow group by clicking the name of the group. The page for the selected work flow group appears([Figure 104](#)).

**Figure 104. Specific work flow group page**


Cisco Desktop Administrator
admin | Logout | Change Password | About | Help

Save
Help

Settings: Cisco Unified Presence Settings > Work Flow Groups > default

Search For: Contact List Name Begins With  Find Clear Filter + -

Contact List Name	Included
Manufacturing	<input type="checkbox"/>
Marketing	<input type="checkbox"/>
Operations	<input type="checkbox"/>
R&D	<input type="checkbox"/>
Sales	<input type="checkbox"/>
Shipping	<input type="checkbox"/>
Team 01	<input type="checkbox"/>
Team 02	<input type="checkbox"/>

Select All Clear All

⏮
⏪
Goto


⏩
⏭
Results Per Page
⏮

⏭

Save
Return to Work Flow Group List
Help

4. If necessary, search for the contact lists you want to add to the selected work flow group. For instructions, see ["Finding a Contact List" on page 190](#).
5. Add up to 25 contact lists by selecting the corresponding check boxes in the Included column ([Figure 105](#)). To select all of the contact lists, click Select All.

**Figure 105. Specific work flow group page — several contact lists selected**


Cisco Desktop Administrator
admin | Logout | Change Password | About | Help

Save
Help

Settings: Cisco Unified Presence Settings > Work Flow Groups > default

Search For: Contact List Name Begins With Find Clear Filter + -

Contact List Name	Included
Manufacturing	<input checked="" type="checkbox"/>
Marketing	<input checked="" type="checkbox"/>
Operations	<input checked="" type="checkbox"/>
R&D	<input type="checkbox"/>
Sales	<input type="checkbox"/>
Shipping	<input type="checkbox"/>
Team 01	<input type="checkbox"/>
Team 02	<input checked="" type="checkbox"/>

Select All Clear All 1 of 1 Results Per Page 10

Save Return to Work Flow Group List Help

6. Repeat step 4 and step 5 if you want to find and add additional contact lists to the selected work flow group.

7. When you are finished adding contact lists, click Save, then click Return to Work Flow Group list.

## Selecting Agents to Appear Offline

You can configure agents within a work flow group to appear as offline to SMEs in the Contact Selection window.

***To select agents within a work flow group to appear offline:***

1. Choose Cisco Unified Presence Settings > Work Flow Groups. The Work Flow Groups page appears ([Figure 103](#)).
2. Select the Agents appear offline check box that corresponds to the work flow group that contains the agents you want to appear as offline in the Chat Selection window.
3. Click Save when finished.

## Configuring Supervisor Chat and Team Messages

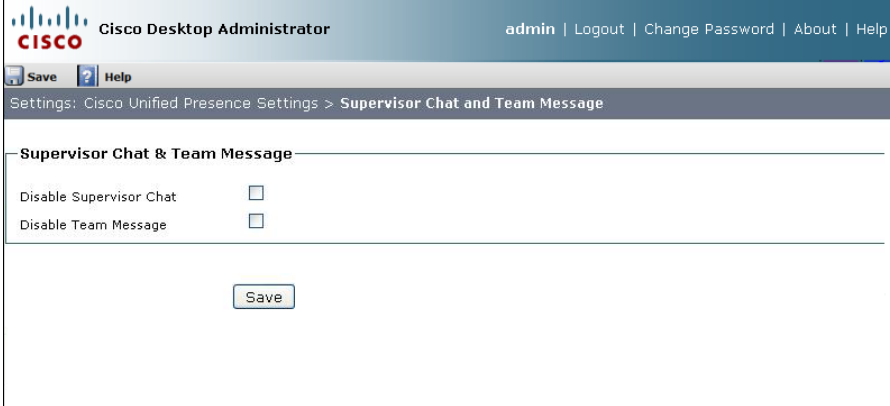
Use the Supervisor Chat and Team Messages node to configure whether or not supervisors can send chat messages and/or team messages to agents on their team. This setting is global, and cannot be limited to specific teams or work flow groups.

Changes take effect the next time the supervisor starts Supervisor Desktop.

*To enable or disable supervisor chat and/or team messages:*

1. Choose Cisco Unified Presence Settings > Supervisor Chat and Team Messages. The Supervisor Chat and Team Messages page appears (Figure 106).

**Figure 106. Supervisor Chat and Team Messages page**



The screenshot shows the Cisco Desktop Administrator interface. The top header includes the Cisco logo, the text "Cisco Desktop Administrator", and user links: "admin | Logout | Change Password | About | Help". Below the header is a navigation bar with "Save" and "Help" buttons. The main content area shows the breadcrumb "Settings: Cisco Unified Presence Settings > Supervisor Chat and Team Message". The configuration section is titled "Supervisor Chat & Team Message" and contains two settings: "Disable Supervisor Chat" and "Disable Team Message", each with an unchecked checkbox. At the bottom of the configuration area is a "Save" button.

2. By default, both supervisor chat and team messages are enabled. To disable one or both, select the associated check box.
3. Click Save.

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## Global Phone Book FAQ



- 
- |                 |   |
|-----------------|---|
| <b>Question</b> | Where are global phone books stored?  |
| <b>Answer</b>   | They are stored in the Directory Services (LDAP) database.  |
| <b>Question</b> | How are phone books synchronized between the active and standby Directory Services in a redundant system?   |
| <b>Answer</b>   | Whenever an entry is made in the active Directory Services, it is immediately replicated on the standby system so that they remain synchronized.  |
| <b>Question</b> | Which logs should be collected to troubleshoot issues with global phone books?  |
| <b>Answer</b>   | The Cisco Agent Desktop and Cisco Desktop Administrator logs (agent.log and administrator.log) and debug traces, set to the DEBUG level, (agent.dbg and administrator.dbg) are used to troubleshoot phone book issues.  |
| <b>Question</b> | Where are global phone books configured?  |
| <b>Answer</b>   | <p>Global phone books are created and populated by the administrator using Cisco Desktop Work Flow Administrator. Agents cannot edit global phone books. They can edit their own employee phone books using Cisco Agent Desktop.</p> <p>The administrator can enable and disable all phone books, or just employee phone books. See <a href="#">"Phone Books" on page 39</a> for instructions on administering phone books.</p> |
| <b>Question</b> | Do phone books run from the Directory Services database?  |
| <b>Answer</b>   | Earlier versions of CAD loaded phone books from Directory Services every time the agent launched the dial pad. The current version of CAD loads phone books once and stores them in memory to avoid delays.   |

**Question** Can global phone books be linked back into the Cisco Unified Communications Manager/Unified CallManager LDAP user list so that it is available from the IP phone corporate directory?

**Answer** No.

**Question** Are phone books available to agents when they use their non-ACD extension?

**Answer** No.

**Question** Is there a maximum number of entries that can be put into a phone book?

**Answer** Yes. All phone books are limited to 3,000 entries each. The total number of phone book entries supported in all phone books is 10,000.

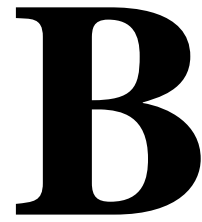
**Question** Can a global phone book be locked down so that only members of a certain team can view it?

No, global phone books are either available to all agents or no agents. However, there are work flow group phone books that are available to agents that are assigned to that particular work flow group. If a team is assigned to a work flow group, and there is a specific phone book for that work flow group, then no other teams can view that particular phone book. See ["Phone Books" on page 39](#) for more information on the various types of phone books.



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# Cisco Desktop Monitoring Console



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## Overview

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The Cisco Desktop Monitoring Console is a Java application that monitors the status of the CAD services and Directory Services (LDAP).

The Monitoring Console requires Tomcat to run. Tomcat is automatically installed with the CAD base services.

**NOTE:** The Monitoring Console is installed automatically when the CAD base services are installed. There is some manual setup and configuration that is required. See the *Cisco CAD Installation Guide* for more information.

The Monitoring Console application is located on any computer where the CAD base services are installed. The URL for a hyperlink to the application is the following, where <CAD server> is the IP address for the server on which the CAD base services are installed:

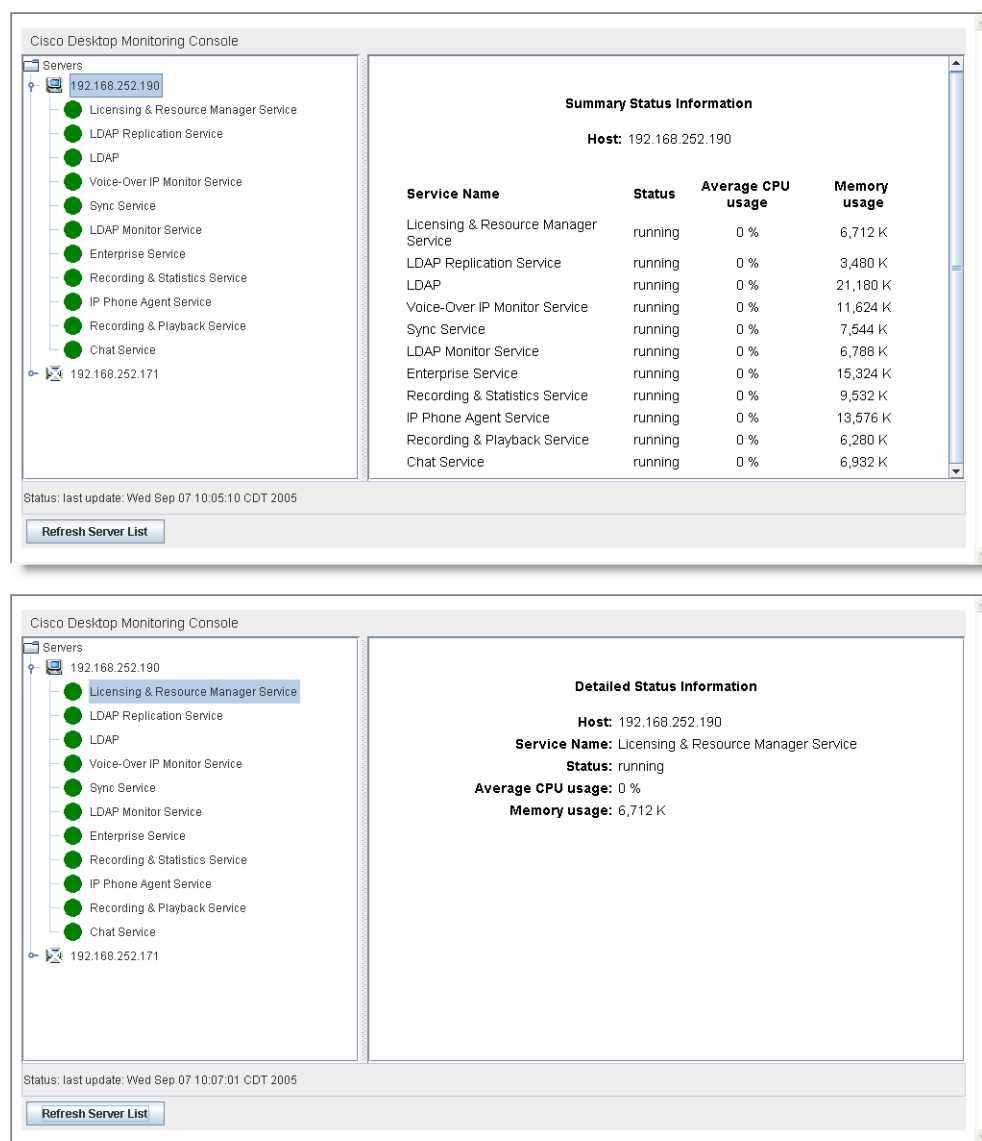
`http://<CAD server>:8088/smc/monitor.jsp`

## Using the Monitoring Console

The Monitoring Console consists of 2 panes. The left pane displays a list of CAD servers and the CAD services located on those servers. The right pane displays either a summary view or a detail view of service status.

The summary view is displayed when you select the IP address of a server from the left pane (Figure 107). The detail view is displayed when you select a specific service.

**Figure 107.** Cisco Desktop Monitoring Console, summary view (top) and detail view (bottom)



Status of the services is indicated also by a colored icon next to each service in the left pane. If the service is running, a green circle is displayed; if the service is down, a red circle with a white X through it is displayed.

If a server is down, a gray computer with a white X through it is displayed.

**NOTE:** Currently, the summary view and the detail view display the same information in different ways. In the future, more service details will be added to the detail view.

The information displayed, including the server list in the left pane, is refreshed every 15 seconds. It can also be manually refreshed at any time by clicking the Refresh Server List button.



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### A

**ACD**

See automatic call distribution.

**action**

An occurrence that takes place when a rule is met. More than one action can take place as a result of meeting a rule.

**administrator**

The person who administers CAD. The administrator defines work flows and teams, and the look and feel of the agent's desktop.

**agent**

The person who interacts with customers in a contact center.

**Agent Desktop**

The Cisco desktop application used by a contact center agent to handle customer calls.

**agent state**

An agent's current ACD status. Possible statuses are Ready, Not Ready, Work Ready, Work Not Ready, Reserved, Hold, Talking, and Logged Out.

**Agent State action**

An action type that changes an agent's ACD agent state.

**Always on Top mode**

A display mode in which the interface is always on top of all other windows and does not minimize.

**Always Open mode**

A display mode in which the interface is always visible, but might be hidden by other open applications.

**ANI**

See automatic number identification.

**area code**

A 3-digit code designating a toll center in the United States and Canada.

**array variable**

A Unified ICM extended call context (ECC) variable that stores multiple pieces of data.

**automatic call distributor (ACD)**

Optional software that resides on the PBX. Its role is to monitor various parameters within the system and call center and to intelligently route calls based on that information.

**automatic number identification (ANI)**

A series of digits at the front of a phone call that delivers the billing number (which is not necessarily the phone number) of the caller.

## B

**barge-in**

A feature in Supervisor Desktop that allows a supervisor to forcibly join an agent's call with a customer. It is a forced conference call.

**bridged appearance**

A situation in which two devices share the same phone number (for example, a secretary whose phone can also answer the supervisor's phone).

**Browser and IP Phone Agent (BIPPA) Service**

See Cisco Browser and IP Phone Agent (BIPPA) Service.

## C

**CAD-BE**

Cisco Agent Desktop—Browser Edition. A Java applet version of Agent Desktop that runs in a web browser.

---

**call activity data**

The information displayed Agent Desktop documenting the length of time a call is at a particular type of device or agent within the call center.

**call center**

A location where calls are made and answered. A call center typically has numerous agents and an automatic call distributor.

**call control**

The action of changing the state of a call, for instance, making, answering, transferring, or dropping a call.

**Call Control action**

An action that performs a call control function triggered by an event meeting a rule. Call control actions vary according to switch type.

**call history**

See call activity data.

**call log**

The record of calls made and received by a desktop while running Agent Desktop.

**call routing**

The automatic sending of calls to the desired destination, such as an extension or a queue.

**caller input**

Touch tone data entered by the caller in response to prompting.

**CallManager**

A Cisco software-based voice over IP telephone switch.

**Chat**

A feature of Agent Desktop and Supervisor Desktop that enables agents and supervisors to communicate via an instant messaging window.

**Chat Service**

See Cisco Chat Service.

**chat session**

A written exchange between agents or between agent and supervisor using the Chat application.

### **Cisco Browser and IP Phone Agent (BIPPA) Service**

The service that enables CAD-BE and IP phone agents to log in and out of Unified ICM, change agent states, and enter wrap-up data and reason codes without having the Agent Desktop software. This service works in conjunction with the Services feature of Unified CM and Cisco IP phones.

### **Cisco Chat Service**

A service that acts as a message broker between the Chat clients and Supervisor Desktop. It is in constant communication with all agents and supervisor desktops.

### **Cisco Enterprise Service**

A server program that tracks calls in the system. It is used to attach IVR-collected data to a call in order to make real-time call activity data available at the agent desktop.

### **Cisco LDAP Monitor Service**

The service that starts Directory Services and then monitors it to ensure that it keeps running.

### **Cisco Licensing and Resource Manager Service**

The service that distributes licenses to clients and oversees the health of the CAD services. In the event of a service failure, it initiates the failover process.

### **Cisco Recording & Playback Service**

The service that extends the capabilities of the Cisco VoIP Monitor Service by allowing supervisors and agents to record and play back calls.

### **Cisco Recording and Statistics Service**

A service that maintains a 7-day history of agent and team statistics. It also manages call recording.

### **Cisco Sync Service**

The service that connects to the Unified ICM logger SQL database via an ODBC connection and retrieves agent, supervisor, team, and skill information. It then compares the information with the information in Directory Services and adds, updates, or deletes entries as needed to stay consistent with the Unified ICM configuration.

### **Cisco Unified Mobile Agent**

Cisco Unified Mobile Agent provides the capability to use remote agents when staffing contact centers. It provides an encrypted, secure, IT-managed connection over broadband to the home. The agents have complete access to all the contact center applications.



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**Cisco VoIP Monitor Service**

A service that enables supervisors to silently monitor agents. The service accomplishes this by “sniffing” network traffic for voice packets.

**Computer telephony integration (CTI)**

The connection of a computer with a telephone switch that allows the computer to issue commands and receive event information for calls and agents.

**configuration file**

The computer file that stores the settings for an application.

**contact center**

An expansion of a call center, so that it can make and receive not only phone calls, but email, faxes, web chat messages, and so on.

**CORBA**

Common Object Request Broker Architecture. An architecture and specification for creating, distributing, and managing distributed program objects in a network. It allows programs at different locations and developed by different vendors to communicate in a network through an interface broker.

**country code**

The 1–3 digit code that, in the world numbering plan, identifies each country or integrated numbering plan in the world.

**CTI**

See computer telephony integration.

## D

**data field**

A piece of information about a phone call that is available for display in the Agent Desktop interface.

**data field condition**

A logical statement about call data that evaluates as either true or false.

**data router**

In networks, a device that connects any number of IP local area networks (LANs).

**data switch**

In networks, a device that filters and forwards packets between LAN segments.

**database**

A collection of data structured and organized in a disciplined fashion so that information of interest can be accessed quickly.

**deflected call**

A ringing call that is redirected to another extension without being answered first. This typically happens when the call is answered by voice mail.

**delimiter**

A word or character that marks the beginning or end of a segment of data.

**Desktop Administrator**

The application used to administer Cisco Agent Desktop.

**device**

A unit (for example, a telephone) connected to the telephone system.

**Dial Pad**

The soft phone screen that enables an agent to dial a number.

**dial plan**

A description of the dialing arrangements for customer use on a telephone network. For example, the local access code, local area code, etc.

**dialed number information service (DNIS)**

A telephony network feature that provides the number the caller dialed.

**Directory Services**

Also known as LDAP. The service that all other CAD services register with at startup. Clients use this service to request information about other CAD components.

**DNIS**

See dialed number information service.

**drop**

To hang up or disconnect a phone call.

**Dropped event**

An event which indicates a call is disconnected.

**DTMF**

See Dual Tone Multi-Frequency.

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**dual tone multi-frequency (DTMF)**

The term for touch tone dialing. In DTMF, when you touch a button on a push button pad, it makes a tone which is actually a combination of two tones, one high frequency and one low frequency. These are the beeps you hear when you dial a phone number.

**duplex environment**

An operating environment that contains a primary and secondary service. If the primary service fails, the secondary service takes over.

## E

**ECC variable**

See expanded call context variable.

**enterprise data**

A piece of data available to CAD via the Cisco Enterprise Service.

**Enterprise Service**

See Cisco Enterprise Service.

**Ethernet**

A local area network standard. Like other LAN technologies, Ethernet is used to connect computers, printers, workstations, terminals, servers, and other devices within the same building or campus.

**event**

An occurrence at the agent desktop. Events include: startup, shutdown, ringing, answered, and dropped.

**expanded call context variable**

A Unified ICM term for a piece of information about a phone call. It must be defined within Unified ICM.

**extension**

The internal telephone number at the agent desktop.

**external application**

A software application not belonging to CAD.

## H

**host**

A server connected to a network.

## I

### **ICM**

See Unified Intelligent Contact Management.

### **Install Manager**

The program that helps you install CAD on your system.

### **interactive voice response (IVR)**

The use of a computer to interact verbally via a telephone with a caller. The computer plays announcements and questions to the caller, and the caller replies by entering information via touch tones, a rotary dial, or by speaking. “IVR” and “VRU” are often used interchangeably. See voice response unit (VRU).

### **intercept**

An intercept occurs when a supervisor uses the Intercept button to force a transfer from an agent to the supervisor.

### **Internet protocol (IP)**

This protocol specifies the format of packets, also called datagrams, and the addressing scheme. Most networks combine IP with a higher-level protocol called transport control protocol (TCP), which establishes a virtual connection between a destination and a source.

IP by itself is something like the postal system. It allows you to address a package and drop it in the system, but there's no direct link between you and the recipient. TCP/IP, on the other hand, establishes a connection between two hosts so that they can send messages back and forth for a period of time.

### **IP**

See Internet protocol.

### **IP address**

The Internet protocol address of a device.

### **IP Contact Center (IPCC)**

Now known as Cisco Unified Contact Center (CC). A Cisco solution for an IP contact center. Its components include IP IVR, Unified CM, and Unified ICM.

### **IP IVR**

Cisco IP IVR is an IP-powered interactive voice response application that provides an open and extensible foundation for the creation and delivery of IVR solutions via Internet technology. It automates the handling of calls by autonomously interacting with users.

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**IP phone**

A phone that enables you to move multimedia traffic over any network that uses Internet protocol (IP).

**IP port**

In TCP/IP and UDP networks, an endpoint to a logical connection.

**IPCC**

See IP Contact Center.

**IVR**

See interactive voice response.

**L****LAN**

See local area network.

**Launch External Application action**

An action that starts an external application from within Agent Desktop.

**LCC**

See logical contact center.

**LDAP**

See lightweight directory access protocol.

**LDAP Monitor Service**

See Cisco LDAP Monitor Service.

**LDAP Service**

The service that all other CAD services register with at startup. Clients use this service to request information about other CAD components.

**License Administration**

The application used to update the number of seats purchased in your CAD system.

**Licensing and Resource Manager Service**

See Cisco Licensing and Resource Manager Service.

**lightweight directory access protocol (LDAP)**

Also known as Directory Services. LDAP defines a standard manner of organizing directory hierarchies and a standard interface for clients to access directory servers.

**local area network (LAN)**

Two or more computers, and other devices, connected by cable, generally within the same building or campus.

**local extension**

See extension.

**logical contact center (LCC)**

The root of the LDAP tree where CAD applications query for information. It is used to segregate logically separate call centers within the LDAP server.

## M

**macro**

A series of prerecorded commands that accomplish a task.

**macro hot key**

In Desktop Work Flow Administrator, the key used to pause the recording of a macro and to display the macro recording menu.

**macro recorder**

The feature in Desktop Work Flow Administrator used to record a macro.

## N

**Normal mode**

A display mode in which the interface appears when calls are present and minimizes when idle.

## P

**pane**

Section of an application window.

**password**

A series of alphanumeric characters required to log onto an application or server.

**PBX**

See private branch exchange.

**peripheral ID**

The number within the Unified ICM schema that identifies the peripheral device, for example, the peripheral interface managers (PIMs) for VRU/IVR, ACD, or Unified CM.

---

**phone book**

In Agent Desktop, any one of the stored phone directories. Agent Desktop contains global phone books as well as an employee phone book.

**plain old telephone service (POTS)**

The basic service supplying standard telephones, telephone lines, and access to the public switched network.

**port**

See IP port.

**POTS**

See plain old telephone service.

**primary server**

In a duplex environment, the main server used. If the primary server fails, the secondary server takes over.

**private branch exchange (PBX)**

A private telephone network used within an enterprise. Users of the PBX share a certain number of outside lines for making telephone calls external to the PBX.

**PSTN**

See public switched telephone network.

**public network**

A network operated by common carriers or telecommunications administrations for the provision of circuit switched, packet switched, and leased-line circuits to the public.

**public switched telephone network (PSTN)**

Refers to the world's collection of interconnected voice-oriented public telephone networks, both commercial and government-owned.

## R

**real-time transport protocol (RTP)**

An Internet protocol for transmitting real-time data such as audio and video.

**recent call list**

A list of an agent's 100 most recently made phone calls, automatically kept in the Dial Pad window.

**Recording & Playback Service**

See Cisco Recording & Playback Service.

**Recording and Statistics Service**

See Cisco Recording and Statistics Service.

**Ringing event**

The event that occurs when the phone rings. See Event.

**RTP**

See real-time transport protocol.

**rule**

A set of 1–3 data field conditions. If any or all the conditions that constitute the rule are evaluated as true, then the rule is met. Rules that are met trigger events and actions.

**Run Macro action**

An action that starts and runs a macro.

**scalar variable**

An extended call context (ECC) variable that stores a single piece of data.

**screen pop**

The delivery of caller-specific information onto the agent's computer screen ("populating" the screen).

## S

**seat**

An instance of Agent Desktop, Supervisor Desktop, or other CAD applications.

**secondary server**

In a duplex environment, the backup server. If the primary server fails, the secondary server takes over.

**shortcut key**

A keyboard key or key combination (also known as a "hotkey" or "keyboard accelerator key") that invokes a particular command that is generally faster to use than clicking the mouse through a menu.

**Shutdown event**

The event that occurs when Agent Desktop shuts down. See event.

**skill**

An ability (expertise in a particular type of software, fluency in a foreign language, for example) of a contact center agent. Calls can be routed based on agent skills (skill-based routing) for better customer service.



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**soft phone**

A software phone, such as Agent Desktop's dial pad.

**Startup event**

The event that occurs when Agent Desktop starts up. See event.

**status bar**

The area on the Agent Desktop or Supervisor Desktop interface that displays the status of the agent and of the CAD system.

**Stealth mode**

A display mode in which an application appears as an icon in the system tray unless maximized by the agent.

**supervisor**

The leader and/or manager of a team of agents.

**Supervisor Desktop**

The application used by contact center supervisors to manage agent teams in real time.

**Sync Service**

See Cisco Sync Service.

## T

**task button**

One of a series of up to 10 buttons on the Agent Desktop interface to which actions can be assigned.

**team**

A group of agents who report to the same supervisor.

**Team Performance Message (TPM)**

A message the supervisor can create to display in Agent Desktop for a set length of time to communicate important information. The TPM can be scrolling or non-scrolling, depending on how the supervisor configures it.

**threshold**

The acceptable amount of time a call can remain at a particular device or call center. Caution or warning icons are displayed in the Enterprise Data window when thresholds are met or exceeded for a call.

**touch tones**

See dual tone multi-frequency.

**TPM**

See Team Performance Message.

**transfer**

A phone switch feature that allows moving a call from one extension to another.

**transfer, blind**

A transfer in which the active call is transferred to the third party without ensuring that the transfer is successful (picked up at the other end).

**transfer, supervised**

A transfer in which you speak to the third party to whom the call is being transferred before connecting the active call, in order to confirm that the transfer can be made successfully.

**user ID**

An identifier that designates a particular user and that is required to log into an application or server.

## U

**Unified Intelligent Contact Management (Unified ICM)**

A Cisco computer telephony integration application that collects data and profiles customers from the network to the agent's desktop, and coordinates the delivery of voice and data to a targeted answering resource across the enterprise. Using network-provided data, caller-entered digits, and information obtained from a customer profile database, Unified ICM determines who is calling and why, and routes the call to the appropriate area in the contact center.

**user interface**

An application's look and feel to the user.

## V

**virtual private network (VPN)**

A network created by renting or acquiring some part of someone else's network (a phone company, an Internet provider) and used to communicate between a company's offices.

**voice gateway router**

A combination of hardware and software that links a POTS telephone network to an IP data network.

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**voice monitoring**

The ability of a supervisor to monitor an agent's phone conversations without being heard and without letting the agent knowing it is happening.

**voice over IP (VoIP)**

A category of hardware and software that enables people to use Internet protocol as the transmission medium for telephone calls.

**voice packet**

A digitized sample of a voice conversation sent over a network.

**voice response unit (VRU)**

The computer used to interact verbally via a telephone with a caller. The computer plays announcements and questions to the caller, and the caller replies by entering information via touch tones, a rotary dial, or by speaking. "VRU" and "IVR" are often used interchangeably. See interactive voice response (IVR).

**VoIP Monitor Service**

See Cisco VoIP Monitor Service.

**VoIP**

See Cisco VoIP Monitor Service.

**VPN**

See virtual private network.

**VRU**

See voice response unit.

## W

**wild card**

Special characters used to represent one or more characters in a string. An asterisk (\*) represents several characters and a question mark (?) represents a single character.

**work flow**

A sequence of actions that takes place when specific event/rule criteria are met.

**work flow group**

A group that shares a common set of work flows.



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