C H A P T E R 19

Tools

This chapter provides a brief descriptions and procedures for accessing different tools and utilities for administering Cisco Unity Connection.

See the following sections:

Task Management Tool

The Task Definition page lists a variety of system maintenance and troubleshooting tasks that Unity Connection automatically runs on a regular schedule. Tasks can be run at the same time as backups and anti-virus scans.

The default settings and schedules for each task are optimized for functionality and performance. You should not change the default settings and schedules.

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Caution   Some tasks are critical to Unity Connection functionality. Disabling or changing the frequency of critical tasks may adversely affect performance or cause Unity Connection to stop functioning.

To View and Manage Tasks Using Task Management Tool

Step 1   In Cisco Unity Connection Administration, expand **Tools** and select **Task Management**.

The Task Definitions page displays the **Task Names**.

Step 2   To view and manage tasks (For more information, see **Help> This Page**):

- To view the **Task Execution Results** of any task, select the applicable task. The Task Definition Basics page displays the **Time Started** and **Time Completed** of the task.

- To manage any task:

a. On the Task Definition Basics page of the applicable task, select **Edit> Task Schedules**.

b. Enter the values of the required fields and select **Save**.

Bulk Administration Tool

The Bulk Administration Tool (BAT) allows you to create, edit, and delete multiple user accounts, contacts, distribution lists, distribution list members, unified messaging accounts, branches, or video service accounts by importing information contained in a comma separated value (CSV) file. In addition, it allows you to export information about users, contacts, distribution lists, or unified messaging accounts from Unity Connection to a CSV file.

CSV is a common text file format for moving data from one data store to another. For example, importing from a CSV file can be useful for transferring information from a corporate directory to Unity Connection. Transferring the information allows users with voice mailboxes to add corporate directory users who are not Unity Connection users to their address books and to then create call-routing rules based on calls from such contacts.

For small numbers of users up to a few hundred, it may be faster and easier to use the Import Users functionality to create Unity Connection users from an LDAP directory. See the Using Import Users and Synch Users Functionalities, page 4-6.

Note The information in this section is not applicable for updating user accounts, system distribution lists, or system distribution list members in Cisco Business Edition.

To Configure the Objects Using BAT

Step 1 In Cisco Unity Connection Administration, expand **Tools** and select **Bulk Administration Tool**.

Step 2 On the Bulk Administration Tool page, in the **Select Operation** section, select the applicable option:

- **Create**
- **Update**
- **Delete**
- **Export**

Step 3 In the **Select Object Type** section, select the applicable option:

- **Users**
- **Users With Mailbox**
- **System Contacts**
- **Distribution Lists**
- **Distribution List Members**
- **Unified Messaging Accounts**
- **Branches**
- **Video Service Accounts**

Step 4   (*When Creating Users or Users with Mailbox only)*: In the **Override CSV Fields When Creating User Accounts** section, select the applicable option.

Step 5   In the **Select File** section, in the **CSV File** field, enter the full path of the CSV input file.

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Note   If you are importing a CSV file that you created by exporting data from Unity Connection, you may need to manually create the ContactTemplateAlias column header, if applicable, and manually enter data, as this column header is not included in an export.

Step 6   In the **Failed Objects Filename** field, enter the name of the failed objects report file. For example, enter **errors.csv**.

Step 7   Select **Submit**.

BAT begins configuring the select object and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by selecting **Download the Failed Objects File**. For information about correcting errors, see the

Constructing Input CSV Files

BAT supports only UTF-8 and UTF-16 character set encoding for the text in the CSV file.

To quickly construct an input CSV file, you can use BAT to export the applicable type of user, contact, system distribution list, system distribution list members, or unified messaging accounts, and use the resulting output CSV file as a template.

The following example shows a CSV file for creating voicemail users. To construct the file as shown in the example, you need to first export the voicemail users to a CSV file, remove the unwanted columns and data from the file, and then add the TemplateAlias column and the applicable data.

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Note   The **DisplayName** is an optional field and the data for this field is missing for several users.

Example CSV Input File for Creating Voicemail Users

```
Alias,DisplayName,FirstName,LastName,TemplateAlias,Extension,ListInDirectory
iwinkler,"Winkler, Ian",Ian,Winkler,VoiceMailUserTemplate,5321,1
jsmith,,John,Smith,VoiceMailUserTemplate,5126,1
cjones,"Jones, Cris",Cris,Jones,VoiceMailUserTemplate,5249,1
dalbert,,Dan,Albert,VoiceMailUserTemplate,5299,1
jlee,"Lee, Jane",Jane,Lee,VoiceMailUserTemplate,5324,1
jthompson,"Thompson, Jim",Jim,Thompson,VoiceMailUserTemplate,5029,1
swong,"Wong, Sara",Sara,Wong,VoiceMailUserTemplate,5260,1
rhunter,"Hunter, Russ",Russ,Hunter,VoiceMailUserTemplate,5229,1
cashmore,,Carol,Ashmore,VoiceMailUserTemplate,5403,1
lcarson,"Carson, Lauren",Lauren,Carson,VoiceMailUserTemplate,5999,1
```

Whether you edit an output CSV file or create a CSV file from scratch, use the following guidelines, along with the tables in the Required and Optional CSV Fields in BAT, page B-1 section to construct a valid input CSV file for use with the BAT:

- The first row in the CSV file must contain column headings that identify the type of data in each column and the information in the subsequent rows must contain the data that you want to import.

- Ensure that commas separate the data in each row in the CSV file, including the column headings in the first row. Do not use a tab, spaces, or a semicolon to separate values in the file.

- Although the data must be arranged in the same order as the column heading, the order in which you arrange the columns is not important.

- If the CSV file includes a column that you want BAT to ignore, use the column heading "Junk."

- If any data includes a space, quotes, or commas, specify it within quotes.

  The data in the CSV file should not include double-quotes because it can cause problems with interactions with external servers. If the data does include double-quotes, place an additional double-quote next to each double-quote. For example, if the data is My "Spare Phone", the entry must be My ""Spare Phone"".

- Column headings are not case sensitive, but they must be spelled as indicated in the tables in the Required and Optional CSV Fields in BAT, page B-1 section. Columns that are designated not applicable (N/A) for an operation are ignored.

- *(Applicable only to Unity Connection configurations)* For creating user accounts, most optional fields that are listed in the CSV field tables correspond to settings defined in a user template. For example, for voicemail users, the default template includes class of service (COS), call transfer, and message notification settings. When data for a particular user setting is not included in the CSV file, BAT uses settings in the user template that you specify in the required field TemplateAlias. For this reason, you should review the settings in the user template that you use to create the accounts before adding any of the optional column headers to your CSV file. If a value for an optional field is not included in the CSV file and if the template does not specify a default value, then the value for the field is not set.

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Caution   If you specify an administrator template for TemplateAlias, the users do not have mailboxes

- To explicitly set the value of a field to empty (or to null, if allowed), use the expression %null% for the value in the CSV file.

- You should not include more than 5,000 records in an input CSV file.

Correcting Errors Using Failed Objects File

When you run BAT, it copies each record that it cannot process to a failed objects report file, along with the reason that the record was not processed correctly. For example, in the following CSV file, the first record includes an invalid entry for the Country field, and the second record specifies a template that is not a voicemail user template:

Alias, City, PostalCode, State, Country, TemplateAlias
Jsmith, Beverly Hills, 90210, Ca., United States, VoiceMailUserTemplate
BRobertson, Seattle, 98121, WA, US, AdminUserTemplate

Using this file to create users with voice mailboxes produces the following failed objects file:

FailureReason, alias, city, postalcode, state, country, templatealias
United States is invalid for column Country|, Jsmith, Beverly Hills, 90210, Ca., United States,
VoiceMailUserTemplate
Object not found or is not a template: Parameter = [@TemplateObjectId], Table =
[vw_SubscriberTemplate], Column = [Alias,ObjectId]|, BRobertson, Seattle, 98121, WA, US,
AdminUserTemplate

The FailureReason column, which provides information about the invalid data, is added before the first column.

To correct errors, do the following procedure to edit the failed objects file, rename it, and use it as the input file when you re-run BAT.

Note that depending on the type of problem with the data in the CSV file, for each problem record, BAT may report multiple errors or only the first error encountered. Therefore, after you correct errors, BAT may detect additional errors in the same record when the data is processed again. Thus, you may need to repeat the correction process, which is running the tool and correcting an error, several times to find and correct all errors.

To Correct Errors Using the Failed Objects File

Step 1   If the Bulk Administration Tool operation results in any failures, you can immediately inspect the failed objects report file by selecting **Download the Failed Objects File**.

Step 2   Open the file and correct all problems with the data, as indicated by the information in the **FailureReason** column for each record.

Step 3   Remove the **FailureReason** column or change the heading to "junk."

Step 4   Save the file as a CSV file with a new name after editing the data.

Step 5   Run BAT again with the CSV file that you saved in Step 4 as the input file.

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Note   Each time that you run BAT, the failed objects file is overwritten (unless you specify a new name for the file each time you run the tool).

Step 6   Repeat this procedure until all records are processed without error.

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Note   If you have navigated away from the Bulk Administration Tool page, you can go back and select the Display Last Operation button to bring up a download link for the output file from the previous operation. If you need a failed objects file from more than one previous operation, you can use the Command Line Interface (CLI) command "file view activelog cuc/<filename>" to view failed object files. For more information on using CLI commands, see the applicable *Cisco Unified Communications Operating System Administration Guide for Cisco Unity Connection*. The guide is available at http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html.

Custom Keypad Mapping Tool

The Custom Keypad Mapping tool allows you to edit the key mappings that are associated with the Custom Keypad Mapping conversations. Within each of these conversations—which are assigned to individual users or user templates on the **Phone Menu** page in Cisco Unity Connection Administration—there are eight different menus that can be customized. Changing keypad mappings using this tool does not affect any of the other Unity Connection conversation versions.

You can assign any one-, two-, or three-key sequence to any defined option for the **Main** menu, the **Message Playback** menu (the message header, body and footer can be mapped separately), the **After Message** menu, the **Settings** menu, the **Message Settings** menu, and the **Preferences** menu. You can customize which options are voiced in each menu and the order in which they are offered.

See the following sections for details:

- Using the Custom Keypad Mapping Tool, page 19-6
- Conversation Menus in Custom Keypad Mapping Tool, page 19-7
- Documenting Your Keymap, page 19-17

Using the Custom Keypad Mapping Tool

The Custom Keypad Mapping tool is divided into eight tabs that represent eight different conversation menus that can be customized. On each of these menu tabs you can:

- Customize which key or keys are assigned to each menu option. Leaving a key assignment blank disables that option for the menu.

- Configure whether the option is voiced in the menu. This allows you to assign a key or keys to an option but not have it presented verbally in the menu. The option would still be enabled for that menu and Unity Connection would respond appropriately if the assigned key is pressed, but the user would not hear the option in the menu.

- Configure the order in which the menu items are offered to users. This is done by selecting the radio button of the row that you want to reorder and then using either the **Up** or **Down** arrows or the **Move To** button to arrange the menu items. The order in which the options appear in the tool is the order in which they are presented to the user by phone regardless of which keys are mapped to the options

To Use the Custom Keypad Mapping Tool to Make Changes to a Custom Keypad Map

Step 1   In Cisco Unity Connection Administration, expand **Tools** and select **Custom Keypad Mapping**.

Step 2   On the Search Custom Keypad Mappings page, select the applicable custom keypad mapping conversation.

> **Note**   Unity Connection supports six Custom Keypad Mappings.

Step 3   On the Edit Custom Keypad Mapping page, select the applicable tab to select the menu for which you would like to change key assignments.

Step 4   Change key assignments as applicable. (For guidelines on allowed entries, see the "Guidelines for Assigning Keys to Menu Options" section on page 19-7.)

Step 5   Select **Save**.

When changes are saved, all new calls that use this conversation follow the new key mapping settings.

Step 6   Repeat Step 3 through Step 5 for each menu that you want to customize.

Guidelines for Assigning Keys to Menu Options

- The only characters allowed are: 0 – 9, *, # or blank.
- A maximum of 3 digits is allowed for each menu option.
- Duplicate key entries are not allowed for any unique menu. (For example, you cannot map the "1" key to both **Hear New Messages** and **Send a Message** in the Main menu. However, you can map the "1" key to Hear New Messages in the Main menu and also to Greetings in the Settings menu.)
- Leaving a key assignment blank disables that option for the menu.
- When you leave a key assignment blank, uncheck the **Option Voiced in Menu** check box.
- When changes are saved, all new calls that use the conversation follow the new key mapping settings.

Setting a Keypad Mapping to Match an Existing Conversation Mapping

You can change the key mappings for all menus to match that of an existing conversation. For example, you can have all of the key mappings for a selected custom keypad mapping replaced with the mappings of Optional Conversation 1. This can be useful if you want to make a small number of changes to an existing conversation and do not want to manually remap every option.

To Set Key Mappings to an Existing Conversation

Step 1   In Cisco Unity Connection Administration, expand **Tools** and select **Custom Keypad Mapping**.

Step 2   On the Search Custom Keypad Mappings page, select the applicable custom keypad mapping conversation.

Step 3   On any tab of the Edit Custom Keypad Mapping page, in the **Reset Mappings on All Tabs To** list, select the conversation that you want to use and select **Reset**.

Step 4   When asked to confirm that you want to replace all key mappings with those of the selected conversation before continuing, select **OK**.

Conversation Menus in Custom Keypad Mapping Tool

The Custom Keypad Mapping tool is divided into eight tabs that represent eight different conversation menus that can be customized. The **Message Playback** menu is represented on three tabs because the messages contain three distinct parts: the message header, the message body, and the message footer. The options on these three tabs are identical, but you may want to map different options to different keys for certain parts.

The following menus can be customized:

- Main Menu Tab, page 19-8
- Message Playback Menu Tabs, page 19-9

- After Message Menu Tab, page 19-13
- Settings Menu Tab, page 19-15
- Message Settings Menu Tab, page 19-16
- Preferences Menu Tab, page 19-16

Main Menu Tab

The **Main** menu is what users hear immediately after they sign in and hear their message counts (if applicable).

See Table 19-1 for a list of options that can be mapped.

Table 19-1   Main Menu Tab

Option	Description
Play New Messages	Takes users to the new (unread) message stack.
Send a Message	Takes users to the **Send Message** menu.
Review Old Messages	Takes users to the saved message stack. If applicable, users are also offered an opportunity to review deleted messages.
Change Setup Options	Takes users to the **Settings** menu where they can configure settings for greetings, transfer rules, and alternate contact numbers, and access their message settings and preferences.
Find Messages	Takes users to the **Message Locator** feature where they can search for new messages by the calling number or name of the sender.
	This option is offered only when the **Finding Messages With Message Locator** feature is enabled for each user on the **Phone Menu** page.
List Meetings	Lists the time, meeting organizer, and subject for all current and upcoming meetings.
	For Cisco Unified MeetingPlace and Cisco Unified MeetingPlace Express meetings, the user is offered the option to join current meetings.
	Note Integrations with Cisco Unified MeetingPlace Express are not supported in Unity Connection.
Play External Messages	Provides the count of messages that are stored on an external message store.
	The user is offered the option to listen to these messages.
Manage Call Handler Greetings	Allows users to access the Greetings Administrator conversation to change greetings for call handlers that have been assigned an extension.
	Users who are assigned to the **Greetings Administrator** role on the **Edit Roles** page can change the greetings for any system call handler.
	Users who are not assigned to the **Greetings Administrator** role can change the greetings only for call handlers that they own.
Call a Number	Allows users to access the **User System Transfer** conversation and dial any number that is allowed by their transfer restriction table.

Table 19-1   Main Menu Tab (continued)

Option	Description
Manage Broadcast Messages	Allows users to access the Broadcast Message Administration conversation. This option is offered only when the **Send or Update Broadcast Messages** setting is configured for each user on the **Send Message Settings** page.
Repeat Menu Options	Plays the **Main** menu again.
Help	Plays the **Main** menu **Help**.
Cancel or Back Up	Exits the user mailbox. By default, when users exit their mailboxes they are sent to the Opening Greeting call handler. However, you can customize the exit behavior by changing the When **Exiting the Conversation** setting on the Phone Menu page for each user.
Switch Between Using the Phone Keypad and Using Voice Commands	Allows users to toggle between the touchtone and voice-recognition conversations: • When users are listening to the touchtone conversation, and press the applicable keys, they are immediately switched to the voice-recognition conversation. • When users are listening to the voice-recognition conversation, and press the applicable keys, they are immediately switched to the touchtone conversation. Note that the toggle persists until the user toggles back, or until the end of the call. **Note** In case of a video call, the toggle key is not supported as Unity Connection 10.0(1) always plays touchtone conversation.
Change Alternate Greeting	Allows users to change alternate greetings by activating and re-recording. In case of a video call, when users are listening to the main menu options and press the applicable key, Unity Connection plays your alternate video greeting and asks you to re-record your alternate greeting. For more details on enabling alternate greetings for each user, see the Task List for Configuring Video Greetings, page 15-1 section.

Message Playback Menu Tabs

Message Playback Menu tabs include Message Header, Message Body, and Message Footer tabs that you can use to customize the conversation settings, such as defining the speed and volume of the message header via TUI. When a message is played in the Unity Connection user conversation, there are three separate parts: the header, the body, and the footer. By default, the message header contains the message number and the sender information. The message body is the actual recording of the message. The message footer is the time stamp.

The contents of the header and footer sections can be modified on the **Playback Message Settings** page. For example, the message number, the sender information, the sender extension, and the time stamp can be added or removed from the header. These settings are controlled by the check boxes under the "Before Playing Each Message, Play" section on the **Playback Message Settings** page. For the message footer, you have the option of playing the time stamp after the message; you can exclude it altogether or have it played as part of the header. This option is controlled with the check box under the "After Playing Each Message, Play" section on the **Playback Message Settings** page. If you choose not to play the time stamp after the message, the effect is to have no footer to the message. In Unity Connection, the "After Playing Each Message, Play" section now includes the sender information, extension or ANI, and the message number, in addition to the time the message was sent and message duration.

The Custom Keypad Mapping tool includes separate tabs for each part of the message. As a best practice, you should map the same keys to each option for all three parts. However, in some cases it may be useful to map the same key to different actions. For example, during the message header you might want to press the "1" key to skip to the start of the message body, and during the message body press the "1" key to skip to the message footer.

The same message playback key mappings are used when listening to new messages, saved messages, and deleted messages, rather than separate mappings for each message stack. Keep this in mind as you are deciding on key mapping preferences, particularly for options such as marking messages as new (unread) or saved (read).

Message playback options are not voiced in a menu format by phone, but they are listed if the user presses the key that is mapped to the **Help** option. The Custom Keypad Mapping tool allows you to configure which items are voiced in the **Help**.

See Table 19-2 for a list of options that can be mapped.

Table 19-2   Message Playback Menu Tabs

Option	Description
Repeat Message	Jumps to the beginning of the header portion of the message.
Save	Skips to the next message and marks the current message as saved.
Delete	Deletes the message that is currently being played.
	The user class of service determines whether the message is moved to the deleted items folder or is deleted permanently.
Slow Playback	Slows down the message that is currently being played. Pressing the mapped key slows the message playback by 50 percent.
	Note If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback speed is saved as the default playback speed for the user.
Fast Playback	Speeds up the message that is currently being played. Pressing the mapped key speeds the message playback by 50 percent. Pressing the key again speeds the message playback by 100 percent.
	Note If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback speed is saved as the default playback speed for the user.

Table 19-2   Message Playback Menu Tabs (continued)

Option	Description
Reset Speed to Default	Resets the speed of the message that is currently being played to the default message playback speed setting for the user. **Note** If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback speed is saved as the default playback speed for the user.
Change Volume	Cycles the volume of the message that is currently being played through three volume levels: normal, loud, and quiet.If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback volume is saved as the default playback volume for the user.
Reset Volume to Default	Resets the volume of the message that is currently being played to the default message playback volume setting for the user. **Note** If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback volume is saved as the default playback volume for the user.
Quieter Playback	Decreases the volume of the message that is currently being played. **Note** If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback volume is saved as the default playback volume for the user.
Louder Playback	Increases the volume of the message that is currently being played. **Note** If the **Save Speed and Volume Changes Made by User** setting is enabled on the **System Settings > Advanced > Conversation Configuration** page, the last change made to playback volume is saved as the default playback volume for the user.
Pause/Resume	Pauses playback of the message, or resumes playback when the message is already paused.
Rewind	Jumps backward in the message that is currently being played. By default, the message rewinds five seconds. You can adjust the rewind time on the **Playback Message Settings** page.
Fast-Forward	Jumps forward in the message that is currently being played. By default, the message fast-forwards five seconds. You can adjust the fast-forward time on the **Playback Message Settings** page.
Skip to After Message Menu	Jumps directly to the **After Message** menu.
Skip Message, Save As Is	Skips to the next message in the stack and leaves the message in the state it was in. When a new message is skipped, it is saved as unread; when a saved message is skipped, it remains saved; and when a deleted message is skipped, it remains deleted.

Table 19-2   *Message Playback Menu Tabs (continued)*

Option	Description
Save as New	Skips to the next message in the stack and marks the message as new. When this option is selected, if a user skips messages when listening to saved or deleted messages, the messages are marked as unread and are moved to the new message stack.
Play Message By Number	Asks the user to enter the number of a message in the current stack (new, saved, or deleted messages) and then takes the user directly to that message. For users who have large numbers of messages, this is a useful way to jump ahead or back in the stacks.
	This option is offered only when the **Enable Go to Message** setting is enabled on the **System Settings > Advanced > Conversation** page.
Go to Previous Message	Takes the user to the previous message in the stack.
Go to Next Message	Takes the user to the next message in the stack. The message the user was listening to is left in the state it was in (new, saved, or deleted). **Go to Next Message** functions the same as the **Skip Message**, **Save As Is** option.
Cancel or Back Up	Terminates message playback and goes up a menu level. Users who are listening to new or saved messages go to the **Main** menu. Users who are listening to deleted messages go to the **Deleted Message Option** menu.
Reply	Replies to the sender of the message. Only the sender receives the reply. Other recipients of the original message do not receive the reply.
	This option is available only when the message is from another user; users cannot reply to outside caller messages.
Reply to All	Replies to all recipients of the message.
Call the Sender	Terminates message playback, signs users out of their mailboxes, and transfers users to the person who left the message. This feature is also known as **Live Reply.** This key option is used to return calls to both users and unidentified callers.
	This option is available only when the user is assigned to a class of service that has enabled either the **Users Can Reply to Messages from Other Users by Calling Them** or the **Users Can Reply to Messages from Unidentified Callers by Calling Them** setting.
Forward Message	Allows the user to forward the message to another user or distribution list.
Forward Original Message	Forwards the original voice message and removes any forwarded introductions that may have been added to the message by previous forwards.
Skip to End	Jumps to the beginning of the message footer.
	When the **After Playing Each Message**, Play options are not enabled for the user on the **Playback Message Settings** page, these options effectively skips to the end of the message and goes directly to the **After Message** menu.
Replay Message	Jumps to the beginning of the message body, effectively repeating the message. If you assign a key to this option for the message header, it allows users to skip the header and jump right to the message.

Table 19-2   Message Playback Menu Tabs (continued)

Option	Description
Play Message Properties	Plays the properties of the message that is currently being played. This includes the sender information (including ANI if it is provided for outside callers) and the time that the message was sent.
Operator	Signs users out of their mailboxes and sends them to the Operator call handler. The message is left in the state that it was in.
Go to First Message	Jumps to the first message of the message stack. Unity Connection plays the "First message" prompt as an audible cue to the user.
Go to Last Message	Jumps to the last message of the message stack. Unity Connection plays the "Last message" prompt as an audible cue to the user.
List Message Recipients	Lists all recipients of the current message.
Toggle Urgency Flag	Toggles the priority flag on a received message between urgent and normal. Users who want to identify the high-priority messages among all of their received messages may be interested in this functionality. By default, Unity Connection plays messages that are marked urgent first.
Send to Fax Machine for Printing	Sends the message to a fax machine. This option is available for fax messages and any message that has an attachment that can be sent to a fax machine. This option is available only when the fax is configured as an external service for the user.
Help	Plays **Help** for all of the options that are mapped to a key, and for which the **Option Voiced in Help** check box is checked.
Play Message Attachments	Describes the files that are attached to the message. Files in compatible formats are played or read.

After Message Menu Tab

The **After Message** menu plays after the user has listened to a message.

See Table 19-3 for a list of options that can be mapped.

Table 19-3   After Message Menu Tab

Option	Description
Repeat Message	Plays the message again, starting with the header.
Save	Marks the message as saved (read) and moves to the next message in the stack. When the user is listening to a deleted message, this option moves the message to the saved message stack.
Delete	Deletes the message that is currently being played. The user class of service determines whether the message is moved to the deleted items folder or is deleted permanently.

Table 19-3   After Message Menu Tab (continued)

Option	Description
Reply	Replies to the sender of the message. Only the sender receives the reply; other recipients of the original message do not receive the reply.
	This option is available only when the message is from another user; users cannot reply to outside caller messages.
Forward Message	Allows the user to forward the message to another user or distribution list.
Forward Original Message	Forwards the original voice message and removes any forwarded introductions that may have been added to the message by previous forwards.
Save as New	Marks the message as new (unread) and moves to the next message in the stack. When the user is listening to a saved or deleted message, this option moves the message to the new message stack.
Rewind	Jumps backward into the message.
	By default, the message rewinds five seconds. You can adjust the rewind time on the Playback Message Settings page.
Send to Fax Machine for Printing	Sends the message to a fax machine. This option is available for fax messages and any message that has an attachment that can be sent to a fax machine.
	This option is available only when fax is configured as an external service for the user.
Play Message Properties	Plays the properties of the current message. This includes the sender information (including ANI if it is provided for outside callers) and the time that the message was sent.
Cancel or Back Up	Exits the **After Message** menu and goes up a menu level. Users who are listening to new or saved messages go to the **Main** menu. Users who are listening to deleted messages go to the **Deleted Message Option** menu.
Help	Plays the After Message menu Help.
Operator	Signs users out of their mailboxes and sends them to the operator call handler. The message is left in the state it was in.
Play Message Attachments	Describes the files that are attached to the message. Files in compatible formats are played or read.
Play Message By Number	Asks the user to enter the number of a message in the current stack (new, saved, or deleted messages) and then takes the user directly to that message. For users who have large numbers of messages, this is a useful way to jump ahead or back in the stacks.
	This option is available only when the **Enable Go to Message** setting is enabled on the **System Settings > Advanced > Conversations** page.
Go to Previous Message	Takes the user to the previous message in the stack.
Go to Next Message	Takes the user to the next message in the stack. The message the user was listening to is left in the state that it was in (new, saved, or deleted). **Go to Next Message** functions the same as the **Skip Message**, **Save As Is** option.

Table 19-3   After Message Menu Tab (continued)

Option	Description
Save As Is	Goes to the next message in the stack and leaves the message in the state that it was in. New messages are saved as unread; saved messages remain saved; and deleted messages remain deleted.
Go to First Message	Jumps to the first message of the message stack. Unity Connection plays the "First message" prompt as an audible cue to the user.
Go to Last Message	Jumps to the last message of the message stack. Unity Connection plays the "Last message" prompt as an audible cue to the user.
Toggle Urgency Flag	Toggles the priority flag on a received message between urgent and normal. Users who want to identify the high-priority messages among all of their received messages may be interested in this functionality. By default, Unity Connection plays messages that are marked urgent first.
Call the Sender	Terminates message playback, signs users out of their mailboxes, and transfers users to the person who left the message. This feature is also known as **Live Reply**. This key option is used to return calls to both other users and unidentified callers. This option is available only when the user is assigned to a class of service that has enabled either the **Users Can Reply to Messages from Other Users by Calling Them** or the **Users Can Reply to Messages from Unidentified Callers by Calling Them** setting.
Skip Message, Save As Is	Skips to the next message in the stack and leaves the message in the state it was in. When a new message is skipped, it is saved as unread; when a saved message is skipped, it remains saved; and when a deleted message is skipped, it remains deleted.
List Message Recipients	Lists all recipients of the current message.
Reply to All	Replies to all recipients of the message.

Settings Menu Tab

The Settings menu is what users hear when they choose **Change Setup Options** from the **Main** menu. See Table 19-4 for a list of options that can be mapped.

Table 19-4   Settings Menu Tab

Option	Description
Greetings	Allows users to edit their greetings.
Message Settings	Takes users to the Message Settings menu.
Preferences	Takes users to the Preferences menu.
Transfer Settings	Allows users to edit their transfer rules.
Alternate Contact Numbers	Allows users to change their alternate contact phone numbers. This option is available for a user only when an administrator has configured one or more caller input keys to transfer to an alternate contact number on the user **Edit Caller Input** page.

Table 19-4   Settings Menu Tab (continued)

Option	Description
Repeat Menu	Plays the **Settings** menu again.
Help	Plays the **Settings** menu **Help**.
Cancel or Back Up	Exits the **Settings** menu and goes up a menu level to the **Main** menu.
Change Alternate Greeting	Allows users to change alternate greetings by activating and re-recording. In case of a video call, when users are listening to the main menu options and press the applicable key, Unity Connection plays your alternate video greeting and asks you to re-record your alternate greeting.

Message Settings Menu Tab

The Message Settings menu is what users hear when they choose Message Settings from the Settings menu.

See Table 19-5 for a list of options that can be mapped.

Table 19-5   Message Settings Menu Tab

Option	Description
Message Notification	Allows users to edit the settings for their message notification devices.
Fax Delivery	Allows users to change the phone number of the fax machine to which they can send faxes for printing.
Menu Style	Allows users to switch between the full or brief menu styles.
Private Lists	Allows users to edit their private lists.
Addressing Priority List	Allows users to review and add or remove names from their addressing priority list.
Repeat Menu	Plays the Message Settings menu again.
Help	Plays the Message Settings menu Help.
Cancel or Back Up	Exits the Message Settings menu and goes up a menu level to the Settings menu.

Preferences Menu Tab

The **Preferences** menu is what users hear when they choose **Preferences** from the **Settings** menu.

See Table 19-6 for a list of options that can be mapped.

Table 19-6   Preferences Menu Tab

Option	Description
Change Phone Password	Allows users to edit their phone PINs. This option is not available for a user when the **User Cannot Change** check box is checked on the user **Edit Password Settings** page.

Table 19-6   Preferences Menu Tab (continued)

Option	Description
Change Recorded Name	Allows users to record names. This option is available only when the user is assigned to a class of service that has enabled the **Allow Recording of Name** option.
Change Directory Listing	Allows users to choose whether or not they want to be listed in the directory. This option is available only when the user is assigned to a class of service that has enabled the **Allow Users to Choose to Be Listed in the Directory** option.
Edit User-Defined Alternate Extensions	Allows users to list and delete their alternate extensions. Also allows users to add the current number they are calling from as an alternate extension (if it is not already an alternate extension and does not match a blocked pattern in the **User-Defined or Automatically-Added Alternate Extensions** restriction table).
Repeat Menu	Plays the **Preferences** menu again.
Help	Plays the **Preferences** menu **Help**.
Cancel or Back Up	Exits the **Preferences** menu and goes up a menu level to the **Settings** menu.

Documenting Your Keymap

The Wallet Card wizard is available for creating a PDF file of a wallet card based on your custom keypad mappings. For details, see the .

Migrate Utilities

The **Migrate Utilities** tool includes **Migrate Users** and **Migrate Messages** to migrate users and messages respectively, from Cisco Unity 4.0(5) or later to Unity Connection 10.x. However, you should use the Cisco Unified Backup and Restore Application Suite (COBRAS) tool to quickly migrate huge amount of data as COBRAS does not require you to configure a secure shell (SSH) server application.

> **Note**   You can only migrate messages if you have first migrated the user data.

To Access the Migrate Utilities

Step 1   In Cisco Unity Connection Administration, expand **Tools** and select **Migration Utilities**.

Step 2   Expand **Migration Utilities**, then select the applicable option (**Migrate Users** or **Migrate Messages**).

For a task list that enumerates the steps for migrating from Cisco Unity to Unity Connection 10.x either using COBRAS or Migrate Messages and Migrate Users utilities, see the "Maintaining Cisco Unity Connection Server" chapter of the *Install, Upgrade, and Maintenance Guide for Cisco Unity*

Connection, Release 10.x, available at
http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/10x/install_upgrade/guide/10xcuciu
mgx/10xcuciumg050.html.

Grammar Statistics Tool

The Grammar Statistics tool shows information about all of the dynamic name grammars that are used
by the Unity Connection voice-recognition conversation to match caller utterances to the names of
objects on the system (for example, usernames and alternate names, distribution list names, and so on).
When administrators add or change names on the Unity Connection system, the names are not
recognized by the voice-recognition conversation until they are compiled in the grammars.

For each name grammar, the tool displays information such as the finish time of the last grammar
recompilation, the total number of unique items in the grammar, whether there are updates pending to
the grammar, and whether the grammar is currently in the process of being recompiled.

By default, Unity Connection recompiles grammars when administrators add named objects or change
object names on the system (unless a bulk operation is in progress, in which case Unity Connection waits
ten minutes for the operation to complete before recompiling the grammars), or when there are more than
five changes requested in a minute. If the grammars have grown to the point where the name grammar
recompilation process is affecting the performance of your Unity Connection server during busy periods,
you can edit the default **Voice Recognition Update Schedule** (under **System Settings > Schedules** in
Cisco Unity Connection Administration) to limit the times and days when the Unity Connection
voice-recognition transport utility can automatically rebuild the voice-recognition name grammars. By
default, all the days and times are active for this schedule; if you edit the schedule but want to override
the schedule while it is inactive and force an immediate recompilation of all grammars, or if you want
to force recompilation during the ten minute wait period after a bulk operation has been initiated, you
can select the **Rebuild Grammars** button on the Grammar Statistics tool.

SMTP Address Search

The SMTP Address Search tool allows you to search a particular object, such as a user or a distribution
list, based on the SMTP address of the object. For example, if there are two users with the same display
name in different domains, you can search the desired user by specifying the complete SMTP address.

Show Dependency Results

The Show Dependency Results page provides a way to view the results of the most recent dependency
search.

When database objects such as user accounts are referenced by other objects in Unity Connection (for
example, if a user is set to be a recipient of messages left in an interview handler, or if a call handler is
set to transfer incoming calls to a user phone), you cannot delete the referenced objects until you have
changed settings on the dependent objects.

To determine the dependencies of an object that you want to delete, select the **Show Dependencies**
option on the search page for the object type. The option initiates a search for database objects that are
dependent on the object you want to delete. From the dependency search results, follow links to the
dependent objects and reassign the dependencies. When all dependencies have been reassigned, you can
delete the object.

Some dependency searches can take several minutes, depending on the object being searched. While a search is in progress, if you browse to another page, or your browser session times out, navigate to **Tools > Show Dependency Results** to view the dependency search results.

Other Administrative Tools

In addition to the tools that appear on Unity Connection Administration interface, Unity Connection provides the following tools, which you can use to monitor system performance:

- Remote Database Administration Tools, page 19-19
- Cisco Unified Backup and Restore Application Suite (COBRAS), page 19-20
- Cisco Voice Technology Group Subscription Tool, page 19-21
- Cisco Utilities Database Link for Informix (CUDLI), page 19-21
- Unity Connection User Data Dump (CUDD), page 19-21
- Wallet Card Wizard, page 19-21

Remote Database Administration Tools

A database proxy can be enabled to allow the use of some Windows-based remote database administration tools that are available on the Cisco Unity Tools website (http://ciscounitytools.com), where updates to the utilities are frequently posted between Cisco Unity Connection releases.

> ✎
>
> **Note**   You can sign up to be notified when the utilities posted on the Cisco Unity Tools website are updated. Go to http://ciscounitytools.com and select **Sign Up Here**.

Enabling Database Access for Remote Administration Tools

In order to use the remote tools, you must first enable remote database access. As opening up database access for remote administration tools can introduce a security risk to your system, several layers of security are involved with enabling access:

- The username and password of a user with the Remote Administrator role is required to run remote tools.
- The Unity Connection Database Proxy service is disabled by default.

To enable remote database access, do the following three procedures in the order presented:

- To Assign the Remote Administrator Role to One or More Users, page 19-19
- To Start the Database Proxy Service, page 19-20

To Assign the Remote Administrator Role to One or More Users

Step 1   In Cisco Unity Connection Administration, expand **Users** and select **Users**.

Step 2   On the Search Users page, find the applicable user account.

> **Note** As a best practice, do not use the default system administrator user account for remote access. Instead, use a different administrative user account to avoid the default system administrator account become locked due to too many failed authentication attempts.

Step 3 On the Edit User Basics page, in the **Edit** menu, select **Roles**.

Step 4 On the Edit Roles page, in the **Available Roles** field, select **Remote Administrator**, then select the **Up** arrow to move it into the **Assigned Roles** field.

Step 5 Select **Save**.

Step 6 Repeat Step 2 through Step 5 for each user who needs access to remote administration tools.

To Start the Database Proxy Service

Step 1 In Cisco Unity Connection Serviceability, expand **Tools** and select **Service Management**.

Step 2 In the **Optional Services** section, find the **Unity Connection Database Proxy** row and select **Activate**.

Cisco Unified Backup and Restore Application Suite (COBRAS)

Cisco Unified Backup and Restore Application Suite (COBRAS) is the application you use to migrate data and messages from Cisco Unity 4.0(5) or later or from Unity Connection 1.2 to Unity Connection 10.x. Download the latest version, and view training videos and **Help** at http://www.ciscounitytools.com/Applications/General/COBRAS/COBRAS.html.

Alternatively, you can use the Unity Connection **Migrate Messages** and **Migrate Users** utilities to migrate messages and user data when you are migrating from Cisco Unity 4.0(4) and earlier and you cannot upgrade to Cisco Unity 4.0(5) or later for some reason. For more information, see the "Migrate Utilities" section on page 19-17.

> **Note** Migration in a Tenant Partitioned environment using COBRAS tool allows the administrator to export the data from a non-partitioned Unity Connection system or a Tenant-Partitioned Unity Connection system. For more information on each scenario and on migration process using COBRAS tools, refer to http://www.ciscounitytools.com/Applications/General/COBRAS/COBRAS.html link.

For a task list that enumerates the steps for migrating from Cisco Unity or from Unity Connection 7.x to Unity Connection 10.x either using COBRAS or Migrate Messages and Migrate Users utilities, see the "Backing Up and Restoring Cisco Unity Connection Components" chapter of the *Install, Upgrade, and Maintenance Guide for Cisco Unity Connection, Release 10.x*, available at http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/10x/install_upgrade/guide/10xcuciu mgx/10xcuciumg020.html.

Cisco Voice Technology Group Subscription Tool

You can use the Cisco Voice Technology Group Subscription tool to be notified by email of any Cisco Unity Connection software updates. To subscribe, go to the Cisco Voice Technology Group Subscription Tool page at http://www.cisco.com/cgi-bin/Software/Newsbuilder/Builder/VOICE.cgi.

Cisco Utilities Database Link for Informix (CUDLI)

The Cisco Utilities Database Link for Informix (CUDLI) tool allows you to navigate the Cisco Unity Connection database, learn about the purpose of data in a particular table or column, and jump between referenced objects in the database. It also shows stored procedures and includes a custom query builder.

Download the tool and view training videos and Help at http://www.ciscounitytools.com/Applications/CxN/CUDLI/CUDLI.html.

Unity Connection User Data Dump (CUDD)

The Unity Connection User Data Dump (CUDD) allows you to export specific information about users to a file that can then be viewed or imported into another application such as a database utility or Excel. When the data is exported, the tool automatically creates a header row that lists the data type found in each column of the output, for ease of import into other programs.

Download the tool and view training videos and Help at http://www.ciscounitytools.com/Applications/CxN/UserDataDump/UserDataDump.html.

Wallet Card Wizard

The Wallet Card wizard is available for creating a PDF file of a wallet card based on any of the Unity Connection conversations, including custom keypad mappings. The templates in the wizard list frequently use menu options and shortcuts for managing Unity Connection messages and user preferences by phone; the wizard fills in the applicable keys based on the conversation that you specify. The resulting PDF is formatted as a wallet card that can be printed, then cut out and folded by users.

The wizard also allows you to customize technical support information and instructions for signing in to Unity Connection. The Wallet Card wizard is a Windows-based remote database administration tool. Download the tool and view Help at http://www.ciscounitytools.com/Applications/CxN/WalletCardWizard/WalletCardWizard.html.

Other Administrative Tools