



Hospitality and Property Management System Integration

Overview: Hospitality and Property Management System Integration

The Cisco Unity Hospitality and Property Management System (PMS) Integration feature allows hotels and other short-term-stay environments to provide voice messaging functionality to guests. The PMS integration component is provided by two-way communication with the Percipia Networks Transient Communications Engine (PTCE) server. When deployed with a Cisco CallManager integration and Cisco IP phones, and a PTCE-compatible PMS, this feature provides a complete hospitality voice communications package.

The Hospitality and PMS Integration software is automatically installed when you install or upgrade Cisco Unity to version 4.0(3) or later.

Updates to the Hospitality and PMS Integration software are periodically made available for download from the Cisco Unity Tools page at http://www.ciscounitytools.com/App_Bellhop.htm.

The Hospitality feature can be used without a special license by any site that meets the requirements specified in *Cisco Unity System Requirements, and Supported Hardware and Software*, available at http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/sysreq/40_sysrq.htm.

See the following sections in this chapter for information on setting up the Hospitality and PMS Integration feature:

- [Before Connecting to the Percipia Networks Transient Communications Engine \(PTCE\)](#), page 18-2
- [Setting Up Hospitality and the PTCE Connection](#), page 18-2
- [Preparing to Create Guest Subscriber Accounts](#), page 18-3

See the following sections in this chapter for information on how the Hospitality and PMS Integration feature works, and for information on creating Guest subscriber accounts and administering the system.

- [Guest Subscriber Overview](#), page 18-5
- [Guest Subscriber Conversations](#), page 18-6
- [Creating and Updating Guest Subscriber Accounts and Mailboxes](#), page 18-6
- [Accessing Hospitality Log Files and Reports](#), page 18-9

Before Connecting to the Percipia Networks Transient Communications Engine (PTCE)

Cisco Unity communicates with the PMS through the PTCE by using a shared SQL table. All PMS systems that are supported for use with the PTCE are compatible with Cisco Unity.

Before connecting Cisco Unity to the PTCE, do the following tasks:

1. Determine the IP address that Cisco Unity will use to communicate with the PTCE.
2. Confirm that the PTCE software version meets the requirements specified in *Cisco Unity System Requirements, and Supported Hardware and Software*, available at http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/sysreq/40_sysrq.htm.
3. Confirm that the phone system integration is set up to work with Cisco Unity and with the PTCE.
4. Confirm that all primary guest room extensions are 10 digits or fewer in length.
5. Confirm that guest room phones are set up for easy message access.
6. Confirm that guest rooms with multiple extensions are set up so that the MWIs on each of the room phones are configured to light when a message is waiting on the primary room extension mailbox.
7. Set up an extension number for access to archived guest messages.

Setting Up Hospitality and the PTCE Connection

The Cisco Unity system-wide settings for Hospitality and the PMS integration are located in the Cisco Unity Bellhop Administration tool. Refer to the Cisco Unity Bellhop Administration tool Help for additional information about using the tool.

To Set Up Hospitality by Using the Cisco Unity Bellhop Administration Tool

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- Step 1** On the Cisco Unity server desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 2** In the left pane, under Administrative Tools, double-click **Bellhop Administration**.
- Step 3** In the Name or IP of Percipia Server field, enter the IP address or server name of the PTCE server.
- Step 4** Click **Connect** to confirm the connection to the PTCE server.
- If Cisco Unity is able to connect to the PTCE server and to open the database tables on that server, a success message will appear. If the connection attempt fails, contact Percipia for assistance in configuring the PTCE server.
- Step 5** In the Path to Logs field, enter the full directory path where the Cisco Unity Hospitality log files will be stored.
- Active log files must be stored on the local Cisco Unity server; they cannot be stored off-box.
- Step 6** In the Log Retention Time (Days) field, enter the number of days that the Cisco Unity Hospitality log files will be stored on the Cisco Unity server.
- We recommend a minimum of 14 days, so that the logs will be available if needed to troubleshoot a problem.
- Step 7** In the Mailbox Archive Time (Days) field, enter the number of days that a checked-out Guest subscriber mailbox is archived and available for access.
- The default value is 7 days; the minimum value is 5 days, and the maximum is 28 days.

- Step 8** In the Synchronization Cycle Time (Minutes) field, enter how often Cisco Unity will check the PTCE server for updates.
- We recommend entering **1** to set this field to one time per minute.
- Step 9** In the Subscriber Template for New Guests field, select a subscriber template on which to base new Guest subscriber accounts as they are created.
- We recommend using the Hotel Guest Template, which is the default.
- Step 10** In the Check for Archived Guests to Remove field, enter the time range for removal of archived Guest subscriber accounts and mailboxes that exceed the system retention criteria.
- The process of removing archived guest mailboxes and accounts can slow system response during times of peak demand. Therefore, we recommend scheduling the process to run at off-peak times. By default, the time range for removal is 1:00 a.m. to 4:00 a.m. You can restrict the range to as little as an hour per day if this is sufficient to complete the archived mailbox and account removal process.
- Step 11** In the Check for Log Cleanup Activity field, enter the time range for removal of old log files.
- The process of removing old log files can slow system response time during times of peak demand. Therefore, we recommend scheduling the process to run at off-peak times. By default, the time range for removal is 2:00 a.m. to 4:00 a.m. You can restrict the range to as little as one hour per day if this is sufficient to complete the log file removal process.
- Step 12** Confirm that the Log Debug Information check box is not checked.
- Logging debug information is not required for normal operation, and doing so will increase the size of the log files. If a system problem occurs that requires additional information to troubleshoot, Cisco TAC may ask you to check this check box.
- Step 13** Click **Save**.
- Step 14** Continue with the procedures in the [“Preparing to Create Guest Subscriber Accounts”](#) section on page 18-3.
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Preparing to Create Guest Subscriber Accounts

Before Guest subscribers can be created, the Hotel Guest subscriber template, Hotel Guest class of service, and Archived Messages call handler must be set up by using the Cisco Unity Administrator. In addition, you need to set up the Cisco Unity Bellhop Service. Do the following procedures, in the order presented.

To Confirm the Setup of the Hotel Guest Subscriber Template

For detailed information about subscriber template settings, see the [“Subscriber Template Settings”](#) chapter.

- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Subscriber Template** page. Click the **Find** icon, and double-click **Hotel Guest Template**.
- Step 2** On the Hotel Guest Template Profile page, confirm the following:
- That the Class of Service is set to **Hotel Guest COS**.
 - That the List in Phone Directory check box is not checked. This helps protect guest privacy by not automatically listing guests in the site directory.

- Step 3** On the Hotel Guest Template Conversation page, confirm that the Conversation Style is set to **Hospitality Conversation**.
- Step 4** On the Hotel Guest Template Password page, confirm that the default Phone Password For New Subscribers is set to **12345**. Guests will need to be given this password in order to set up their mailboxes.

To Confirm the Setup of the Hotel Guest Class of Service

For detailed information about class of service settings, see the “[Class of Service Settings](#)” chapter.

- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Class of Service** page. Click the **Find** icon, and double-click **Hotel Guest COS**.
- Step 2** On the Hotel Guest COS Profile page, confirm that the Subscribers Can Record Their Own Voice Name check box is not checked. This protects guest privacy by not allowing guests the option to be listed in the site directory along with regular (hotel employee) subscribers.

To Set Up the Archived Mailbox Call Handler

For detailed information about call handlers, see the “[Call Handler Settings](#)” chapter.

- Step 1** In the Cisco Unity Administrator, go to any **Call Management > Call Handlers** page.
- Step 2** Click the **Add** icon.
- Step 3** In the Add a Call Handler dialog box, enter **Archived Mailbox Call Handler** in the Name field.
- Step 4** Select **New Handler** and click the **Add** button.
- Step 5** Go to the **Archived Mailbox Call Handler Greetings** page, and in the Send Caller To field, click **Hotel Checked Out Conversation**.
- Step 6** Add the Archived Mailbox Call Handler to your site call plan map, and create an access path, such as one-key dialing from the Opening Greeting or from another call handler.
- For example, on the Opening Greeting or other call handler Caller Input page, you could map the 4 key by selecting **Send Caller to the Archived Mailbox Call Handler**.
- Step 7** Record a greeting for the new call handler, and revise any other call handler greetings as needed, based on your choices in [Step 6](#).
- Step 8** If you want Guest subscribers to reach the operator or front desk staff by pressing 00 (zero zero) during the Hospitality Conversation, set up the Operator Call Handler to send guests to the desired extension.
- Step 9** Click **Save**.

To Set Up the Cisco Unity Bellhop Service

- Step 1** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** Double-click the **Cisco Unity Bellhop** service.
- Step 3** Click the **Log On** tab. Confirm that the service is configured to use a logon account with the applicable permissions. We recommend that you use the default Local System account.
- Step 4** Click the **General** tab. In the Startup Type field, click **Automatic**.

Step 5 Click **OK**, then click **Start**. Confirm that the service starts successfully.

If the service does not start, confirm that you have the necessary account permissions and have configured the service correctly. Restart the service.

When the Cisco Unity Bellhop service starts, it will take several minutes to create the Guest subscriber mailboxes on the Cisco Unity server. The time it takes to complete the process will vary depending on the number of mailboxes created. You can monitor the progress of mailbox creation by using the Activity Viewer window of the Cisco Unity Bellhop Administration tool.

Step 6 When the mailbox creation process has completed, close the **Services** window.

Step 7 Test the system by completing the following sub-steps:

- a. Create a test Guest subscriber.
- b. Call in to Cisco Unity as the Guest subscriber, and test all guest functionality.
- c. Confirm that both Cisco Unity and the PTCE are set up correctly, and that the test data is correct and complete on both systems.

Guest Subscriber Overview

A Guest subscriber is a type of Cisco Unity subscriber with limited functionality. Guest subscribers can use the following options to manage their voice messages:

- Record a personalized mailbox greeting



Note Guest subscribers are allowed to create a standard greeting only; alternate greetings are not available to Guest subscribers.

- Set and change the mailbox password
- Listen to, save, and/or delete messages
- Quickly transfer to the hotel operator by pressing 00 (zero zero). Note that this functionality is dependent on setting up the Operator Call Handler. For detailed information about call handlers, see the “[Call Handler Settings](#)” chapter.
- Reply to messages sent by other Cisco Unity subscribers (for example, messages sent by hotel staff or other guests)
- Hear the Hospitality conversation in any installed language, if the language choice was entered in the PMS at the time the Guest subscriber account was created
- Access archived messages after checkout, based on the parameters specified by the site

Guest subscribers cannot use the following options:

- Create private distribution lists
- Send or forward messages to other Guest subscribers or regular subscribers
- Set notification rules or message playback options

Guest Subscriber Conversations

The Guest subscriber conversations are assigned automatically to the Guest subscriber accounts as they are created.

Guest subscribers may benefit from using written voice messaging system instructions. You can provide the *Hotel Guest Voice Messaging Guide* to your Guest subscribers, or you can customize the information for your site and include it in your guest services information book. The guide is available at http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/hspug/hspug403/hspug.pdf.

Hospitality Conversation

A first-time enrollment portion of the Hospitality conversation guides Guest subscribers through the process of entering a password and recording a personal greeting. If a Guest subscriber does not record a personal greeting, the default standard greeting—"The guest you are trying to reach is not available"—is used.

After Guest subscribers are enrolled, the Hospitality conversation guides them through the message and mailbox management options each time they access Cisco Unity to check messages.

Hotel Checked Out Conversation

After checkout, the Hotel Checked Out conversation is used to guide guests through the process of checking their archived messages.

Creating and Updating Guest Subscriber Accounts and Mailboxes

Cisco Unity obtains Guest subscriber check-in, checkout, and update information from the SQL table shared with the PTCE, according to the synchronization cycle chosen in the Cisco Unity Bellhop Administration tool. This information is used by Cisco Unity to create and update Guest subscriber accounts.

See the following sections for details:

- [Creating Guest Subscriber Accounts During Check-In, page 18-6](#)
- [Updating Guest Subscriber Accounts to Accommodate a Room Change, page 18-7](#)
- [Updating Guest Subscriber Accounts at Checkout, page 18-7](#)
- [Manually Resetting a Guest Password in Cisco Unity, page 18-8](#)
- [Archiving Guest Mailbox Information, page 18-9](#)

Creating Guest Subscriber Accounts During Check-In

Guest subscriber accounts are automatically created at the time that guests check in, based on the information sent by the PMS to Cisco Unity through a shared SQL table on the PTCE server. By default, once per minute the Cisco Unity Bellhop service checks for new information in the shared table, updates Cisco Unity, and adds information to the shared table as necessary, keeping the PMS and Cisco Unity data synchronized.

Guest subscriber accounts contain the default values specified in the Hotel Guest subscriber template and class of service that were created during setup. (See the “[Preparing to Create Guest Subscriber Accounts](#)” section on page 18-3 for more information.)

Guest subscriber accounts can be viewed by using the Cisco Unity Bellhop Administration tool or the Cisco Unity Administrator.

Each Guest subscriber account has a unique alias. The alias is a combination of the following values:

- the word “room”
- the check-in time converted to the number of seconds that have elapsed since January 1, 2000 at midnight
- an underscore
- the room number.

For example, ROOM126396347_1234 could be the alias for a guest who checked in to room 1234.

One guest mailbox is created per room. The guest mailbox is assigned to the primary extension and to the primary Guest subscriber who has registered to use the room. Up to four alternate extensions can be added to a room mailbox record to accommodate Guest subscribers in suites with more than one extension. Guest subscribers can check for messages from any room in a suite.

Updating Guest Subscriber Accounts to Accommodate a Room Change

If Guest subscribers change rooms during their stay, their mailboxes and accounts are reassigned automatically to the primary extensions of the new rooms. Guest account personal settings (such as the Guest subscriber password) and any messages in the Guest mailbox are preserved, and the messages can be accessed directly from the new room as soon as the updated information is received by Cisco Unity.

Cisco Unity can accommodate multiple check-ins and checkouts for the same room on the same day, as well as multiple room moves, swaps, and updates for Guest subscribers, as often as necessary.

Updating Guest Subscriber Accounts at Checkout

When a Guest subscriber checks out, the mailbox record is reset automatically and is immediately available for the next Guest subscriber who uses the room. Cisco Unity archives the mailbox and the Guest subscriber account of the checked-out guest, and communicates the mailbox status to the PMS. When the checkout process is complete, no further updates to the Guest subscriber account are passed from the PMS to Cisco Unity.

At checkout, front desk staff can check to see whether the guest has any new unheard messages, by using the Cisco Unity Bellhop Administration Tool. If there are new unheard messages, they can advise the guest to retrieve the messages before leaving.

If a guest is checked out of a room in error, you can cancel the checkout on the PMS and in Cisco Unity. Front desk staff check the guest back in on the PMS, and use the Cisco Unity Bellhop Administration tool to cancel the checkout in Cisco Unity.

To Cancel a Guest Checkout in Cisco Unity

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- Step 1** In the Cisco Unity Bellhop Administration Tool, click **View > Guest Information**.
- Step 2** Click the guest record for which the checkout must be cancelled.

Step 3 Click **Uncheckout**.

Step 4 Click **OK** to confirm.

Note that if the room occupied by the guest is now occupied by another guest, Cisco Unity will display an alert and guide you through the transactions necessary to complete the process.

Step 5 When the Uncheckout Complete window appears, click **OK**.

Manually Resetting a Guest Password in Cisco Unity

The PTCE currently does not support Guest subscriber password changes. If a guest forgets the mailbox password, you can reset the password in the Cisco Unity Administrator. Passwords can be reset for Guest subscribers during their stay, or after checkout. Depending on account policy settings, a Guest subscriber may report that the mailbox account is locked after repeated unsuccessful attempts to log on with an incorrect password.

To Unlock a Guest Mailbox Account and Reset a Guest Password

Step 1 In the Cisco Unity Bellhop Administration Tool, click **View > Guest Information**.

Step 2 Click the guest record for which the password must be reset.

Step 3 Click **Reset Password**.

Step 4 Enter a password, and click **OK** twice. The password must be between three and ten digits in length. You may want to use 12345, which is the default password that guests use for first-time access to their mailboxes. If you choose to use a different password, make sure that it is easy for both staff and guests to remember.

Step 5 When the Password Updated window appears, click **OK**.

Step 6 In the Cisco Unity Administrator, go to the **Subscribers > Subscribers > Account** page.

Step 7 Click the **Find** icon.

Step 8 Enter the Guest subscriber alias, extension, or name. You also can enter * to display a list of all subscribers, or enter one or more characters or values followed by * to narrow your search.

Step 9 Click **Find**.

Step 10 On the list of matches, click the name of the Guest subscriber to display the record.

Step 11 Uncheck the **Cisco Unity Account Status Locked** check box, if checked.

Depending on your account policy settings, and the number of unsuccessful attempts by the guest to enter a password, this check box may or may not be checked.

Step 12 If you unchecked the **Cisco Unity Account Status Locked** check box in [Step 11](#), click the **Save** icon.

Step 13 Ask the guest to call Cisco Unity and log on by using the password you set in [Step 4](#). Cisco Unity will then prompt the guest to enter a new password of his or her choice.

Archiving Guest Mailbox Information

When a Guest subscriber checks out, the Guest subscriber account and the associated mailbox are archived with any messages that are left in it. The default retention time for archived guest information is 7 days (the minimum retention time is 5 days; the maximum is 28 days).

Archived guest accounts are given unique alias identifiers. The format is identical to the alias assigned at check-in, with the word “out” appended to the beginning of the alias. For example, OUT_ROOM126396347_1234 could represent an archived guest account for room 1234.

Prior to archiving, any alternate extensions and message waiting indicator flags, if present, are removed from the account, but all other information is retained.

Guest subscribers can check their archived messages at any time, within the retention parameters that the site has chosen. To check archived messages, a guest who has checked out calls the operator or front desk. The guest is then transferred to a designated extension, and the Hotel Checked Out conversation guides the guest through the process of checking archived messages.

When the age of an archived guest mailbox exceeds the specified retention time, the mailbox, the messages, and the associated Guest subscriber account are automatically deleted. The deletion program runs once per day during the time specified in the Cisco Unity Bellhop Administration tool.

Accessing Hospitality Log Files and Reports

Log Files

Each addition, update, and deletion of guest subscriber information on Cisco Unity is logged to a file; the logged information is visible in the Service Activity Window in real time. In addition, any errors are displayed in the Service Activity window and are written to the Application Event log.

The Cisco Unity Bellhop Administration tool also generates a log file each time that it is opened and when actions such as cancelling a checkout and resetting a password are performed. You can view the current admin log file or open the log directory and look at past log files by using the View Current Admin Log File or View Admin Logging Folder options on the View menu.

The log file data is kept for the number of days and in the location specified in the Cisco Unity Bellhop Administration tool. Log file data can be imported in CSV format to a spreadsheet application.

To View Hospitality Log Files

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- Step 1** In the Cisco Unity Bellhop Administration tool, click **View**.
 - Step 2** Select **Current Admin Log**, **Admin Logging Folder**, or **Service Activity Window**.
 - Step 3** View the data, or import the data in CSV format into a spreadsheet application.
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Hospitality Reports

Two reports are available for use in analyzing Guest subscriber data. Both reports produce a file in CSV format that can be displayed immediately, or downloaded to a spreadsheet program.

Room Activity Report

The Room Activity report shows all check-in, checkout, room move, and room swap activity for the date range specified.

Archived Mailbox Report

The Archived Mailbox report shows all the checked-out guest mailboxes that have been deleted from the system after they have aged past the number of days specified in the Cisco Unity Bellhop Administration tool.

To Run the Room Activity or Mailbox Deletion Report

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- Step 1** In the Cisco Unity Bellhop Administration tool, click **View > Reports**.
 - Step 2** Click **Room Activity** or **Mailbox Deletion**.
 - Step 3** View the data, or import the data in CSV format into a spreadsheet application.
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