Message Notifications

This chapter includes the following sections:

Message Notification Is Slow for Multiple Users

There are several possible reasons that message notification may appear to be slow for multiple users. Use the "Task List for Troubleshooting Slow Message Notifications for Multiple Users" to troubleshoot the possible causes.

Task List for Troubleshooting Slow Message Notifications for Multiple Users

1. Confirm that ports are not too busy to handle message notification. See the "Ports Are Too Busy to Make Notification Calls Promptly" section on page 11-1.
2. Confirm that there are enough ports assigned to message notification. See the "Not Enough Ports Are Set for Message Notification Only" section on page 11-2.
3. Confirm that the phone system sends calls to ports that are set to answer calls. See the "Confirming That the Phone System Sends Calls to the Ports Set to Answer Calls" section on page 11-2.

Ports Are Too Busy to Make Notification Calls Promptly

When the ports that make notification calls are also set to perform other operations, they may be too busy to make notification calls promptly. You can improve notification performance by dedicating a smaller number of ports to making notification calls exclusively.

Systems that handle a large volume of calls may require additional ports to improve notification performance.

To Review Port Configuration for Message Notification

Step 1 In Cisco Unity Connection Administration, expand **Telephony Integration**, then click **Port**.

Step 2 Review the existing port configuration and determine whether one or more ports can be set to dial out for message notification only.

Not Enough Ports Are Set for Message Notification Only

When a small number of ports are set to make notification calls and Cisco Unity Connection takes a lot of messages, the notification ports may not always be able to dial out promptly.

If the percentage of ports used for dialing out for message notification exceeds 70 percent usage during peak periods, review the existing port configuration and determine whether more ports can be set to dial out for message notification only.

If the percentage of ports used for dialing out for message notification does not exceed 70 percent usage during peak periods, the number of notification ports is adequate. Contact Cisco TAC to resolve the problem.

To Determine Whether the Number of Message Notification Ports Is Adequate

Step 1 On the Windows desktop, double-click the **Cisco Unity Tools Depot** icon.

Step 2 In the left pane, under Reporting Tools, double-click **Port Usage Analyzer**.

Step 3 In the Port Usage Analyzer window, click the **Port Availability** tab.

Step 4 In the Data Logs Folder field, enter the path to the data logs.

Step 5 In the Select Day list, click the day for which you want port usage analyzed.

Step 6 Click **Load Data**. A summary of the port usage information appears in a dialog box.

Step 7 (Optional) To generate a report, on the Port Availability tab, click **Run Report**.

Step 8 If the percentage of ports used exceeds 70 percent usage during peak periods, in Cisco Unity Connection Administration, expand **Telephony Integration**, then click **Port**. Then skip to Step 9.

If the percentage of ports used does not exceed 70 percent usage during peak periods, the number of message waiting indication ports is adequate.

Step 9 Review the existing port configuration and determine whether more ports can be set to dial out for message notification only.

Confirming That the Phone System Sends Calls to the Ports Set to Answer Calls

If the phone system is programmed to send calls to a port on Cisco Unity Connection that is not configured to answer calls, Connection will not answer the call.

To Confirm That Calls Are Being Sent to the Correct Cisco Unity Connection Ports

Step 1 In Cisco Unity Connection Administration, expand **Telephony Integration**, then click **Port**.

Step 2 Note which ports are set to answer calls.

Step 3 In the phone system programming, confirm that calls are only being sent to ports set to answer calls. Change the phone system programming if necessary.

Step 4 If you make a change to the phone system programming, restart the Connection server to clear any hung ports.

Message Notification Is Slow for a User

There are several possible reasons that message notification may appear to be slow for a user. Use the "Task List for Troubleshooting Slow Message Notification for a Single User" to troubleshoot the possible causes.

Task List for Troubleshooting Slow Message Notification for a Single User

1. The user settings may not be adequate for the needs of the user. See the "Message Notification Setup Is Inadequate" section on page 11-3.
2. The user settings may need adjustment to more correctly map to the work schedule of the user. See the "Notification Attempts Are Missed" section on page 11-4.
3. The user may not clearly understand how repeat notifications are handled by Connection. See the "Repeat Notification Option Is Misunderstood" section on page 11-4.

Message Notification Setup Is Inadequate

When a user complains that notification calls are not being received when expected, the problem may be with the notification settings.

To Determine Whether Notification Setup Is Adequate

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 Confirm with the user that the notification device is applicable to the needs of the user. If the user has selected a very busy phone for Connection to call, ask if there is an alternate phone or pager to use for message notification.

Step 6 Confirm with the user that the notification schedule is consistent with the days and times that the user is available to receive notification calls.

Notification Attempts Are Missed

A user who is frequently away from or busy using a notification device may repeatedly miss notification attempts. To the user, it appears that Cisco Unity Connection has delayed message notification.

To Resolve Missed Notification Attempts

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 In the Notification Event list, click **Every Voice Mail**.

Step 6 Check the **Repeat Notification If There Are Still Messages** check box.

Step 7 If the user has another notification device available, for On Notification Failure, click **Send To**, and choose the device.

Step 8 In the Busy Retry Limit and RNA Retry Limit boxes, increase the numbers so that Connection makes more notification calls when the device does not answer or is busy.

Step 9 In the Busy Retry Interval and RNA Retry Interval boxes, decrease the numbers so that Connection makes notification calls more often when the device does not answer or is busy.

Step 10 Click **Save**.

Step 11 If you chose another device in Step 7:

a. On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

b. In the Device list, click the correct notification device.

a. Enter settings and a schedule for the additional device.

Step 12 Suggest that the user set up an answering machine for the notification phone, so that notification calls are received even when the user is unavailable.

When Connection is set to call a phone that has an answering machine, confirm with the user that the answering machine greeting is short enough so that the machine starts recording before the notification message is repeated.

Repeat Notification Option Is Misunderstood

Setting Cisco Unity Connection to repeat notification at a particular interval when there are still new messages can be useful for users who receive a lot of messages but who do not want immediate notification. However, when a user chooses not to have Connection restart notification each time a new message arrives, setting a long interval between repeat notification calls may lead the user to believe that Connection is delaying notification.

To Resolve a Repeat Notification Problem

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 In the Repeat Notification Interval box, set a shorter interval, such as 15 minutes.

Message Notification Is Not Working at All for a User

There are several possible reasons that message notification may not work at all for a user. If SMS notification is not working, see the "SMS Notifications Are Not Working" section on page 11-5. For all other message notifications, use the "Task List for Troubleshooting Non-Functional Message Notifications for a User" to troubleshoot the possible causes.

Task List for Troubleshooting Non-Functional Message Notifications for a User

1. Confirm that message notification is enabled for the correct types of messages. See the "Only Certain Types of Messages Are Set to Trigger Notification" section on page 11-6.
2. Confirm that the message notification phone number includes the access code for an external line if notification is to an external phone. See the "Access Code for an External Line Is Missing" section on page 11-7.
3. Confirm that the notification device is enabled. See the "Notification Number Is Incorrect or the Device Is Disabled or Not Working" section on page 11-7.
4. (Dual phone system integrations only) Confirm that the notification device is assigned to the correct phone system. See the "Notification Device Phone System Assignment Is Incorrect (Dual Phone System Integrations Only)" section on page 11-8.

SMS Notifications Are Not Working

If SMS notifications are not working, check the settings on the Edit SMPP Provider page in Cisco Unity Connection Administration and confirm that the settings match the settings specified by the provider.

If settings on the Edit SMPP Provider page are correct, do the following procedure to turn on macro and micro traces that may help you diagnose the problem.

Turning on Macro and Micro Traces to Diagnose Problems with SMS Notifications

Step 1 On the Windows Start menu, click **Programs > Cisco Unity > Cisco Unity Diagnostic Tool**.

Step 2 In the right pane of the Cisco Unity Diagnostic Tool, click **Configure Macro Traces**.

Step 3 On the Welcome to the Configure Macro Traces Wizard page, click **Next**.

Step 4 On the Configure Macro Traces page, click **Traces for Other Notification Problems**, and click **Next**.

Step 5 On the Completing the Configure Macro Traces Wizard page, click **Finish**.

Step 6 In the right pane of the Cisco Unity Diagnostic Tool, click **Configure Micro Traces**.

Step 7 On the Welcome to the Configure Micro Traces Wizard page, click **Next**.

Step 8 On the Configure Micro Traces page, expand **Notifier and Notification Devices (Notifier)**, and click **30 SMS Device**.

Step 9 Click **Next**.

Step 10 On the Completing the Configure Micro Traces Wizard page, click **Finish**.

For information on gathering and reviewing the logs, see the "Diagnostic Traces and Event Logs" chapter.

Common error codes and explanations for SMS problems are listed in the following table:

SmppConnect failed	Connection was unable to connect to the SMPP provider.
SmppBindTransmitter failed	Connection was unable to log in to the SMPP provider.
SmppSubmitSm failed	Connection was unable to submit the SMS message to the SMPP provider.

Only Certain Types of Messages Are Set to Trigger Notification

Cisco Unity Connection can be set so that a user is notified only of certain types of messages. For example, if user notification is set up only for the first voice message or only for urgent voice messages, additional voice messages and regular voice messages will not cause Connection to make a notification call.

To Change the Message Types That Trigger Notification Calls

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 In the Notification Event list, verify the selected message types with the user.

Access Code for an External Line Is Missing

To place an external call, a user usually must dial an access code (for example, 9) to get an external line. When the phone system requires an access code, an external message notification phone number set in Cisco Unity Connection must include the access code.

In addition, some phone systems may require a brief pause between dialing the access code and being connected to an external line.

To Verify an Access Code

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 In the Phone Number box, confirm that the correct access code is included before the phone number. If the phone system requires a pause, enter two commas between the access code and the phone number (for example, 9,,5551234).

Notification Number Is Incorrect or the Device Is Disabled or Not Working

The user may have entered a wrong phone number for Cisco Unity Connection to call. Also, when a user disables notification to a phone or pager, Connection will not attempt a notification call to the device regardless of the other notification settings.

To Verify a Device Phone Number and Status

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 In the Device list, click the correct notification device.

Step 5 Confirm that the **Enabled** check box is checked.

Step 6 In the Phone Number box, confirm that the correct access code and phone number are entered for the device.

To Test a Notification Device

Step 1 If the notification device is a cellular phone or pager, ask the user to have it available for the test.

If the notification device is a home phone or another phone away from the office, ask the user to have someone available to answer the phone during the test.

Step 2 Confirm that the notification device is on.

Step 3 Set up a test phone (Phone 1) for single-line testing. Use a line connected to a port that is set to dial out for message notification. For more information, see the "Preparations for Troubleshooting the Phone System" section on page 4-1.

Step 4 On Phone 1, dial the notification number set in Connection for the device.

If the pager is activated or the phone rings, you have confirmed that Connection can call the device.

If the pager is not activated or the phone does not ring, there may be a problem with the device. Consult the documentation from the device manufacturer, or ask the user to obtain a different notification device and repeat the test.

Notification Device Phone System Assignment Is Incorrect (Dual Phone System Integrations Only)

To Verify Notification Device Phone System Assignment

Step 1 In Cisco Unity Connection Administration, click **Users**.

Step 2 On the Search Users page, in the Search Results table, click the alias of the applicable user.

Note If the user does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and click **Find**.

Step 3 On the Edit User Basics page, on the Edit menu, click **Notification Devices**.

Step 4 Note the phone system that is assigned to the device in the Phone System field at the bottom of the page.

Step 5 In Cisco Unity Connection Administration, expand **Telephony Integration**, then click **Port**.

Step 6 Verify that the phone system assigned to the notification device has at least one port designated for message notification. Correct the port settings if necessary.

Step 7 Click **Save**.

Message Notifications Function Intermittently or Not At All

A possible cause for notification devices (such as phones, pagers, SMTP, and SMS) to function intermittently or not at all is that the schedule for the user is not active during the time in question.

To correct the problem, edit the schedules of the notification devices for the user so that the notification devices are active when the user wants message notifications delivered. The schedules can be edited in the Cisco Personal Communications Assistant.

Notification Devices Added in Cisco Unity Connection Administration Do Not Work

When a notification device is added for a user in Cisco Unity Connection Administration, the device does not have an active schedule. You must log on to the user account in the Cisco Personal Communications Assistant to enter a schedule for notification devices.

Connection Administration does not expose schedules for notification devices.