CHAPTER 25

Setting Up HTML, SMTP, and SMS (SMPP) Message Notifications in Cisco Unity Connection 9.x

Cisco Unity Connection can notify a user of new messages by calling a phone or pager. Additionally, you can set up Connection to send message and calendar event notifications in the form of text messages to text pagers and text-compatible mobile phones by using SMTP.

Connection configured with the SMTP smart host settings can also be used to send the HTML notifications from Cisco Unity Connection Administration.

You can also set up Connection to send message and calendar event notifications in the form of SMS messages to wireless devices by using SMPP.

See the following sections:

- Setting Up HTML or SMTP Message Notifications in Cisco Unity Connection 9.x, page 25-1
- Setting Up SMS (SMPP) Message Notifications in Cisco Unity Connection 9.x, page 25-2

(For information on setting up message notifications to a phone or pager, see the "Phone and Pager Notification Devices" section in the "Setting Up Features and Functionality That Are Controlled by User Account Settings in Cisco Unity Connection 9.x" chapter of the *User Moves, Adds, and Changes Guide for Cisco Unity Connection Release 9.x*, at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/user_mac/guide/9xcucmacx.html.)

Setting Up HTML or SMTP Message Notifications in Cisco Unity Connection 9.x

By using SMTP, Cisco Unity Connection can send an HTML or text notification to notify users that they have received a new message. The HTML notification use SMTP to notify the users that they have received a new voice message via email. The HTML notifications are used only for voice messages. In case of the text notifications, the users are also notified for the calendar events. In addition, the text notifications can be sent to any device or email client that supports SMTP, for example, email addresses, mobile phones, and text pagers.

To enable Connection to send notifications by using SMTP, the Connection server must be configured to relay messages through a smart host. If Connection is configured to deliver the HTML or text notifications but has not been configured to relay messages to a smart host, the notification attempt fails and the notification is put in the Connection SMTP Server badmail folder.

When a Connection user receives a new message, Connection can send an HTML or text notification to an email address.

Note If your site includes a Connection cluster, make sure that the SMTP Domain Address resolves to IP addresses of both the publisher and subscriber servers. The SMTP Domain Address facilitates to reach the cluster subscriber server when the publisher is down or vice versa. To configure the SMTP domain, go to the **System Settings > SMTP Configuration > Server** page.

To enable HTML or SMTP notifications, do the following tasks:

1. Configure the SMTP smart host to accept messages from the Connection server. See the documentation for the SMTP server application that you are using.
2. Configure the Connection server. See the "To Configure the Cisco Unity Connection Server to Relay Messages to a Smart Host" procedure on page 25-2.
3. Configure Connection users or templates. See the "SMTP-Compatible Notification Devices" and "HTML-Compatible Notification Devices" section in the "Setting Up Features and Functionality That Are Controlled by User Account Settings in Cisco Unity Connection 9.x" chapter of the *User Moves, Adds, and Changes Guide for Cisco Unity Connection Release 9.x*, at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/user_mac/guide/9xcucmacx.html.

   Alternatively, the users can set up their own HTML or SMTP-compatible devices by using the Connection Messaging Assistant. See the "Managing Message Notification" chapter of the *User Guide for the Cisco Unity Connection Messaging Assistant Web Tool Release 9.x*, available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/user/guide/assistant/b_9xcucugasst.html.

To Configure the Cisco Unity Connection Server to Relay Messages to a Smart Host

Step 1 In Cisco Unity Connection Administration, expand **System Settings > SMTP Configuration**, then select **Smart Host**.

Step 2 On the Smart Host page, in the **Smart Host** field, enter the IP address or fully qualified domain name of the SMTP smarthost server, for example, https://ucbu-cisco-vmxyz.cisco.com. (Enter the fully qualified domain name of the server only if DNS is configured.)

Step 3 Select **Save**.

Setting Up SMS (SMPP) Message Notifications in Cisco Unity Connection 9.x

With the services and information provided by a wireless carrier, mobile messaging service provider or similar company, Cisco Unity Connection can use the Short Message Peer-to-Peer (SMPP) protocol to send message notifications in the Short Message Service (SMS) format to mobile phones and other SMS-compatible devices when users receive new messages. SMS is a "store and forward service," which means that messages are not sent directly to the device used by the message recipient. Instead, an application like Connection—known as an External Short Message Entity (ESME)—submits a message to the SMS Center (SMSC). The SMSC then forwards the message to the device.

Advantages Over SMTP Message Notifications

An advantage of using SMS is that the user device often receives message notifications much faster than when using SMTP. The user device does not have to be on the wireless network at the time that Connection sends the message to the SMSC, nor when the SMSC forwards it. The wireless network holds the SMS messages until the device is available; when the device is available, the delivery of the queued messages to the device takes just a few seconds. In addition, you can configure Connection so that each notification message replaces the previous one. Note that this functionality may not be supported by all mobile service providers.

SMS Message Length Limitations

An SMS message is a short text message. The acceptable message length for an SMS message varies depending on the service provider, the character set used to compose the message text, and the specific characters used in the message text. The message count (assuming that users choose to include the message count) is not included in the total message length.

Character sets available include:

- Default Alphabet (GSM 3.38), 7-bit characters
- IA5/ASCII, 7-bit characters
- Latin 1 (ISO-8859-1), 8-bit characters
- Japanese (JIS), multi-byte characters
- Cyrillic (ISO-8859-5), 8-bit characters
- Latin/Hebrew (ISO-8859-8), 8-bit characters
- Unicode (USC-2), 16-bit characters
- Korean (KS C 5601), multi-byte characters

For 7-bit character sets, a maximum of 160 characters can fit into an SMS message; for 8-bit character sets, the limit is 140 characters; for 16-bit character sets, the limit is 70 characters; for multi-byte character sets, the limit is somewhere between 70 and 140 characters, depending on which characters make up the text of the message. (For multi-byte character sets, most characters are 16 bits; some of the more common characters are eight bits.)

Note Not all mobile phones support all character sets; most support the GSM 3.38 default alphabet.

Cost Considerations

When setting up SMS (SMPP) message notifications, consider that service providers typically charge for each SMS message or group of messages sent. Thus, the more SMS (SMPP) message notifications that Connection sends to user devices, the higher the costs to your organization. For this reason, you may want to restrict the use of this feature to a group of users (you can do so by assigning owners to the SMPP providers that you create), or you may want to ask users to limit the number of message notifications that they receive by message type or urgency. For example, users can specify in the Connection Messaging Assistant that Connection sends message notifications only when new urgent voice messages arrive.

Task List for Setting Up SMS (SMPP) Message Notifications

To enable SMS (SMPP) message notifications for users with SMS-compatible devices, do the following tasks:

1. Set up an account with a mobile messaging service provider that offers SMS messaging. Connection works with any service provider that supports the SMPP version 3.3 or SMPP version 3.4 protocols.
2. Gather the information needed to allow Connection to communicate with the SMPP server at the SMSC affiliated with your contracted service provider, and enter the information on the SMPP Provider page. See the "To Set Up an SMPP Provider" procedure on page 25-4.
3. When the Connection server is set up behind a firewall, configure the TCP port that is used by the SMPP server when connecting to Connection to allow incoming and outgoing communication between Connection and the SMPP server.
4. Enable SMS (SMPP) message notification and set up an SMS-compatible device to receive notifications for a user account, and then test to see if the device receives the SMS (SMPP) notification as expected. If notifications are not working, confirm that you entered the settings on the SMPP Provider page as indicated in the documentation that your service provider gave you. Contact your service provider for assistance, as needed.

   Procedures for setting up a device and enabling SMS (SMPP) notifications are in the "SMS-Compatible Notification Devices" section in the "Setting Up Features and Functionality That Are Controlled by User Account Settings in Cisco Unity Connection 9.x" chapter of the *User Moves, Adds, and Changes Guide for Cisco Unity Connection Release 9.x*, at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/user_mac/guide/9xcucmacx.html.
5. Repeat the previous task for additional users.

To Set Up an SMPP Provider

Step 1 In Cisco Unity Connection Administration, expand **System Settings > Advanced**, then select **SMPP Providers**.

Step 2 On the Search SMPP Providers page, select **Add New**.

Step 3 On the New SMPP Provider page, verify that the **Enable** check box is checked.

Step 4 Enter a Name for the provider.

Step 5 Enter the System ID given to you by your service provider.

Step 6 Enter a Host Name/Address, which is the SMSC Host name or IP address given to you by your service provider.

Step 7 If applicable, enter the Source Address given to you by the service provider. If your provider did not specify a value, leave the field blank.

Step 8 Set the Owner, as follows:

- To restrict provider use, select a user as owner of the selected SMPP provider. Select **User** and then select the applicable user in the list.
- To allow the SMPP provider to be used by all users with associated SMS (SMPP) notification devices at a location, select **System** as owner of the selected SMPP provider.

Step 9 Select **Save**.

Step 10 On the Edit SMPP Provider page, enter the Port, which is the port number that is used by the SMSC to listen for incoming connections.

Note The port number used by SMSC to listen for incoming connections should be in range of >100 and <=99999.

Step 11 Enter the Password given to you by your service provider.

Step 12 If applicable, enter the System Type, Address TONs, and Address NPIs given to you by the service provider. If your provider did not specify values, leave the fields blank.

Step 13 If applicable, in the Data Coding list, select the character set that you want each SMS message converted to when the messages are sent to the SMS device. (If your provider did not specify a value, select **Default Alphabet**.) For multilingual systems, consider creating a separate SMPP provider for each character set that you want to offer to users.

Step 14 Enter additional settings, as applicable.

Step 15 Select **Save**.