C H A P T E R 36

Creating a Cisco Fax Server Integration in Cisco Unity Connection 10.x

About the Cisco Fax Server Integration

Cisco Unity Connection can integrate with the Cisco Fax Server so that users can do the following while on the phone or using the Web Inbox or Messaging Inbox:

- Receive faxes that are sent to the fax extension for the user. Depending on the system configuration, faxes will be available in the user mailboxes or in the user IMAP clients.
- Forward the faxes that they receive to a fax machine for printing.
- Forward the faxes that they receive to another user.

Inbound faxes are sent to the fax extension for the user. The Cisco Fax Server uses its email gateway to route the fax through SMTP to the user mailbox on the Unity Connection server. The Text to Speech (TTS) feature cannot read faxes.

Note You must manage and configure the Cisco Fax Server on the Cisco Fax Server, not in Cisco Unity Connection Administration.

The Cisco Fax Server handles the following functions:

- Routing inbound faxes to user mailboxes.
- Managing inbound and outbound faxes.
- Writing logs for inbound and outbound faxes.
- Generating reports for monitoring Cisco Fax Server statistics.
- Sending alerts to the administrator.
- Providing cover pages.
- Providing least-cost routing.

Task List for Creating a Cisco Fax Server Integration

Follow the given tasks to create a Cisco fax server integration in Unity Connection:

1. Review the system requirements to confirm that all requirements for the Cisco Fax Server and the Cisco Unity Connection server have been met. See the "Requirements" section on page 36-2.

2. Configure the Cisco Fax Server. See the "Configuring SMTP on Cisco Fax Server" section on page 36-2.

3. Configure Unity Connection. See the "Configuring Unity Connection for Cisco Fax Server Integration" section on page 36-5.

4. Configure the Unity Connection user accounts. See the "Configuring Users for Cisco Fax Server Integration" section on page 36-6.

5. Test the Cisco Fax Server integration. See the "Testing Cisco Fax Server Integration" section on page 36-7.

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> **Note** You can change the Cisco Unity Connection configuration and the user configuration after the Cisco Fax Server integration is created. See the "Changing Unity Connection Configuration for Cisco Fax Server Integration" section on page 36-7 and the "Changing User Configuration for Cisco Fax Server Integration" section on page 36-8.

Requirements

The Cisco Fax Server integration has the following requirements:

- Cisco Fax Server 9.0 or later installed as described in the *Cisco Fax Server Installation Guide* at http://www.cisco.com/en/US/products/ps6178/prod_installation_guides_list.html.

- Cisco Unity Connection installed as described in the *Installation Guide for Cisco Unity Connection Release 10.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/10x/installation/guide/10xcucigx.html.

Configuring SMTP on Cisco Fax Server

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> **Note** The Cisco Fax Server documentation is available at http://www.cisco.com/en/US/products/ps6178/tsd_products_support_series_home.html.

Steps to Configure SMTP on Cisco Fax Server

Step 1 To sign in to the Cisco Fax Server, on the Start menu, select **All Programs > RightFax Enterprise Fax Manager**.

Step 2 In the left pane of the **RightFax Enterprise Fax Manager** window, select the name of the Cisco Fax Server.

Step 3 In the right pane, from the **Service Name** menu, scroll down to RightFax eTransport Module.

Step 4 Right-click **RightFax eTransport Module** and select **Configure Services**.

Step 5 Select the **eTransport** tab.

Step 6 In the **SMTP Hostname** field, enter the IP address of the Unity Connection server.

Step 7 Select the **Custom Messages** tab.

Step 8   In the applicable fields, enter **[Fax Failure]** for the fax failure prefix before the beginning word of the text. The following fields are recommended for entering the fax failure prefix:

- Imaging Error
- Bad Form Type
- Bad Fax Phone Number
- Too Many Retries
- Sending Error
- Incomplete Fax
- Invalid Billing Code
- Fax Needs Approval
- Fax Number Blocked
- Human Answered Fax
- Fax Block by Do Not Dial

When the text at the beginning of the field matches the value for the **Subject Prefix for Notification of a Failed Fax** field on the **System Settings > Advanced > Fax** page of Cisco Unity Connection Administration, Unity Connection notifies the user of the failed fax.

Step 9   In the **Successful Send** field, enter **[Fax Success]** for the fax success prefix before the beginning word of the text.

When the text at the beginning of the field matches the value for the **Subject Prefix for Notification of a Successful Fax** field on the **System Settings > Advanced > Fax** page of Connection Administration, Unity Connection notifies the user of the successful fax.

Step 10   Select **OK**.

To Set Up the Windows Email Service for POP3

Step 1   On the Cisco Fax Server, on the Windows Start menu, select **Control Panel > Add or Remove Programs**.

Step 2   In the **Add or Remove Programs** window, in the left pane, select **Add/Remove Windows Components**.

Step 3   In the **Windows Components** wizard, on the **Windows Components** page, check the **E-mail Services** check box and select **Next**.

Step 4   On the Completing the **Windows components Wizard** page, select **Finish**.

Step 5   Close the **Add or Remove Programs** window.

Step 6   On the **Windows Start** menu, select **All Programs > Administrative Tools > POP3 Service**.

Step 7   In the POP3 Service window, in the left pane, expand the Cisco Fax Server and select the Cisco Fax Server node.

Step 8   In the right pane, select **Add Mailbox**.

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> **Caution**   A domain for the POP3mailbox must be configured on the Cisco Fax Server. Otherwise, this option will not be available.

Step 9 In the **Add Mailbox** dialog box, in the **Mailbox Name** field, enter a name for the mailbox that receives faxes on the Cisco Fax Server.

Step 10 In the **Password** field, enter a password for this mailbox.

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> **Note** Make a note of this password because you will enter it in the "To Configure the POP3 Mailbox on the Cisco Fax Server" procedure on page 36-4.

Step 11 In the **Confirm Password** field, re-enter the password and select **OK**.

To Configure the POP3 Mailbox on the Cisco Fax Server

Step 1 In the **RightFax Enterprise Fax Manager** window, in the right pane, from the **Service Name** menu, scroll down to **RightFax E-mail Gateway Module**.

Step 2 Right-click **RightFax E-mail Gateway Module** and select **Configure Service**.

Step 3 In the **E-mail configuration** dialog box, select **Add Gateway**.

Step 4 In the **E-mail Gateway Selection** dialog box, select **SMTP/POP3** and select **Select**.

Step 5 On the **General** tab, in the **Server Address** field, enter the IP address of the Cisco Fax Server.

Step 6 In the **POP3 Mailbox Name** field, enter **<POP3 mailbox name>@<Cisco Fax Server name>**.

Step 7 In the **Mailbox Password** field, enter the password for the POP3 mailbox that you entered in the "To Set Up the Windows Email Service for POP3" procedure on page 36-3.

Step 8 Uncheck the **Use IETF Fax Addressing** check box.

Step 9 Confirm that the **Send Through Default User When E-mail Sender Is Unknown** check box is checked.

Step 10 In the **Email Delivery Direction** field, confirm that **Both** is selected.

Step 11 Select **OK**.

To Configure IIS Relay for the POP3 Mailbox on the Cisco Fax Server

Step 1 On the Windows Start menu, select **Programs > Administrative Tool > Internet Information Services (IIS) Manger**.

Step 2 In the Internet Information Services (IIS) Manager window, in the left pane, from the RightFax node, right-click **Default SMTP Virtual Server** and select **Properties**.

Step 3 In the **Default SMTP Virtual Server Properties** dialog box, select the **Access** tab.

Step 4 From the **Relay Restrictions** menu, select **Relay**.

Step 5 In the **Relay Restrictions** dialog box, confirm that **Only the List Below** is selected.

Step 6 From the **Computers** menu, select **Add**.

Step 7 In the **Computer** dialog box, select **Single Computer** and enter the IP address of the Cisco Fax Server.

Step 8 Select **OK**.

Step 9 In the **Relay Restrictions** dialog box, select **OK**.

Step 10 In the **Default SMTP Virtual Server Properties** dialog box, select **OK**.

Step 11   Close the **Internet Information Services (IIS) Manager** window.

To Add Unity Connection Users to the Cisco Fax Server

Step 1   In the **RightFax Enterprise Fax Manager** window, in the right pane, right-click **Users** and select **New**.

Step 2   In the **User Edit** dialog box, in the **User ID** field, enter the alias for the Unity Connection user.

Step 3   In the **User Name** field, enter the name of the Unity Connection user.

Step 4   In the **Group ID** field, confirm that **Everyone** is selected.

Step 5   In the **Voicemail Subscriber ID** field, enter the extension for the Unity Connection user.

Step 6   In the **E-mail Address** field, enter **<Unity Connection user alias>@<fully qualified DNS name of the Unity Connection server>**.

Step 7   Select the **Inbound Routing** tab.

Step 8   In the **Routing Code (DID/DNIS Number)** field, enter the extension of the Unity Connection user.

Step 9   In the **Routing Type** field, select **SMTP**.

Step 10   Select the **Notification** tab.

Step 11   In the **Method** field, select **SMTP**.

Step 12   In the **Notification Address/Info** field, enter **<Unity Connection user alias>@<Unity Connection server name>**.

Step 13   Select **OK**.

Step 14   Repeat Step 1 through Step 13 for all remaining users who will receive faxes.

Step 15   Close the **RightFax Enterprise Fax Manager** window.

Configuring Unity Connection for Cisco Fax Server Integration

Steps to Configure SMTP on Unity Connection Server

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

Step 2   On the SMTP Server Configuration page, in the **Edit** menu, select **Search IP Address Access List**.

Step 3   On the Search IP Address Access List page, select **Add New**.

Step 4   On the New Access IP Address page, in the **IP Address** field, enter the IP address of the Cisco Fax Server.

Step 5   Select **Save**.

Step 6   Check the **Allow Unity Connection** check box and select **Save**.

To Enable the Cisco Fax Server Integration on Unity Connection

Step 1   In Cisco Unity Connection Administration, expand **System Settings**, then select **Fax Server**.

Step 2   On the Edit Fax Server page, check the **Enabled** check box.

Step 3   In the **Fax Server Name** field, enter a descriptive name for the Cisco Fax Server.

Step 4   In the **SMTP Address** field, enter the fully qualified SMTP address of the SMTP server on the Cisco Fax Server.

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Caution   This fully qualified SMTP address must match the server address and domain that are configured for the POP3 mailbox on the Cisco Fax Server. Otherwise, the integration will not function correctly.

Step 5   In the **IP Address** field, enter the IP address of the Cisco Fax Server.

Step 6   If you use a smart host SMTP server to deliver faxes from the Cisco Fax Server to Cisco Unity Connection, check the **Use Smart SMTP Host** check box. Otherwise, uncheck this check box.

Step 7   Select **Save**.

To Customize the Cisco Fax Server Integration on Unity Connection

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

Step 2   In the Fax Configuration page, in the **Faxable File Types** field, enter the file extensions (separated by a comma) that Unity Connection keeps in messages that are delivered to the Cisco Fax Server. Unity Connection removes all files with other file extensions before delivering the message to the Cisco Fax Server.

Step 3   In the **Subject Prefix for Notification of a Successful Fax** field, enter the prefix that the Cisco Fax Server adds to the Subject field of fax reports. When Unity Connection detects this prefix, it generates a delivery receipt and places it in the user mailbox.

Step 4   In the **Subject Prefix for Notification of a Failed Fax** field, enter the prefix that the Cisco Fax Server adds to the Subject field of fax reports. When Unity Connection detects this prefix, it generates a non-delivery receipt and places it in the user mailbox.

Step 5   Select **Save**.

Configuring Users for Cisco Fax Server Integration

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Note   The Cisco Fax Server must have a subscriber for each Unity Connection user that you are configuring.

While on the phone, users can add or change the number for the fax machine that they send faxes to for printing.

Steps to Configure Unity Connection Users for Cisco Fax Server Integration

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

Step 2   On the **Search Users** page, select the alias of a user.

> **Note**   If the user alias does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and select **Search**.

Step 3   On the Edit User Basics page, in the **Outgoing Fax Number** field, enter the number for the fax machine that users send faxes to for printing.

Step 4   In the **Outgoing Fax Server** field, select the name of the Cisco Fax Server.

Step 5   Select **Save**.

Step 6   Repeat Step 2 through Step 5 for all remaining users.

> **Note**   You can use **Bulk Edit** mode to add or change fax extensions for multiple users at once.

Testing Cisco Fax Server Integration

Steps to Test the Cisco Fax Server Integration

Step 1   Send a fax to the fax extension of a user who has been configured for the Cisco Fax Server integration.

Step 2   Sign in to the Unity Connection mailbox of the user to whom you sent the fax.

Step 3   If the user account is configured for speech access, say **Play Messages**.

If the user account is not configured for speech access, press **1**, and then follow the prompts to list messages.

Step 4   When you hear the system announce the fax that you just sent, either say **Fax**, or press the applicable keys on the phone keypad to print the fax.

Changing Unity Connection Configuration for Cisco Fax Server Integration

Steps to Change the Cisco Fax Server Integration on Unity Connection

Step 1   In Cisco Unity Connection Administration, expand **System Settings**, then select **Fax Server**.

Step 2   On the Edit Fax Server Configuration page, check the **Enabled** check box to enable the integration with the Cisco Fax Server. Otherwise, uncheck this check box.

Step 3 In the **Fax Server Name,** enter a descriptive name for the Cisco Fax Server.

Step 4 In the **SMTP Address** field, enter the fully qualified SMTP address of the SMTP server on the Cisco Fax Server.

Step 5 In the **IP Address** field, enter the IP address of the Cisco Fax Server.

Step 6 If you use a smart host SMTP server to deliver faxes from the Cisco Fax Server to Cisco Unity Connection, check the **Use Smart SMTP Host** check box. Otherwise, uncheck this check box.

Step 7 Select **Save**.

To Change the Customized Settings for the Cisco Fax Server Integration on Unity Connection

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

Step 2 In the Fax Configuration page, in the **Faxable File Types** field, enter the file extensions (separated by a comma) that Unity Connection keeps in messages that are delivered to the Cisco Fax Server. Unity Connection removes all files with other file extensions before delivering the message to the Cisco Fax Server.

Step 3 In the **Subject Prefix for Notification of a Successful Fax** field, enter the prefix that the Cisco Fax Server adds to the Subject field of fax reports. When Unity Connection detects this prefix, it generates a delivery receipt and places it in the user mailbox.

Step 4 In the **Subject Prefix for Notification of a Failed Fax** field, enter the prefix that the Cisco Fax Server adds to the Subject field of fax reports. When Unity Connection detects this prefix, it generates a non-delivery receipt and places it in the user mailbox.

Step 5 Select **Save**.

Changing User Configuration for Cisco Fax Server Integration

> **Note** While on the phone, users can add or change the number for the fax machine that they send faxes to for printing.

Steps to Change the Unity Connection User Configuration for Cisco Fax Server Integration

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

Step 2 On the Search Users page, select the alias of a user.

> **Note** If the user alias does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and select **Search**.

Step 3 On the Edit User Basics page, in the **Outgoing Fax Number** field, enter the number for the fax machine that users send faxes to for printing.

Step 4 In the **Outgoing Fax Server** field, select the name of the Cisco Fax Server.

Step 5 Select **Save**.

Step 6 Repeat Step 2 through Step 5 for all remaining users.

> **Note** You can use **Bulk Edit** mode to change fax extensions for multiple users at once.

Configuring a Single Number to Receive Both Voice Calls and Faxes

Unity Connection can use a single number to receive both voice calls and fax calls. In this configuration, incoming calls are directed to a Cisco gateway that can detect a CNG (fax) tone. When a CNG tone is detected, the gateway forwards the fax call to the Cisco Fax Server. When no CNG tone is detected, the gateway forwards the voice call to Unity Connection.

Task List to Configure a Single Number to Receive Both Voice Calls and Faxes

1. Download the TCL script file app_fax_detect.2.1.2.3.tcl or later. See the "Configuring Fax Detection" chapter of the applicable *Cisco IOS Fax and Modem Services over IP Application Guide* at http://www.cisco.com/cisco/web/psa/default.html?mode=prod.

2. Configure the Cisco IOS gateway for fax detection. See the "Configuring T.38 Fax Relay" chapter of the applicable *Cisco IOS Fax and Modem Services over IP Application Guide* at http://www.cisco.com/cisco/web/psa/default.html?mode=prod.

Requirements to Configure a Single Number to Access Both Voice Calls and Faxes

- Cisco Fax Server 9.0 or later installed as described in the *Cisco Fax Server Installation Guide* at http://www.cisco.com/en/US/products/ps6178/prod_installation_guides_list.html.

- Cisco Unity Connection installed as described in the *Installation Guide for Cisco Unity Connection Release 10.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/10x/installation/guide/10xcucigx.html.

- The TCL script file app_fax_detect.2.1.2.3.tcl or later.