



CHAPTER 33

Creating a Cisco Fax Server Integration in Cisco Unity Connection 9.x

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About the Cisco Fax Server Integration in Cisco Unity Connection 9.x

Cisco Unity Connection can integrate with the Cisco Fax Server so that users can do the following while on the phone or while using the Connection 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 Connection server. The Text to Speech (TTS) feature cannot read faxes.

Note that 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 in Cisco Unity Connection 9.x

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 33-2.
2. Configure the Cisco Fax Server. See the “[Configuring the Cisco Fax Server in Cisco Unity Connection 9.x](#)” section on page 33-2.
3. Configure Cisco Unity Connection. See the “[Configuring Cisco Unity Connection 9.x for the Cisco Fax Server Integration](#)” section on page 33-6.
4. Configure the Connection user accounts. See the “[Configuring Cisco Unity Connection 9.x Users for the Cisco Fax Server Integration](#)” section on page 33-7.
5. Test the Cisco Fax Server integration. See the “[Testing the Cisco Fax Server Integration in Cisco Unity Connection 9.x](#)” section on page 33-7.



Note

You can change the Cisco Unity Connection configuration and the user configuration after the Cisco Fax Server integration is created. See the “[Changing the Cisco Unity Connection 9.x Configuration for the Cisco Fax Server Integration](#)” section on page 33-8 and the “[Changing the Cisco Unity Connection 9.x User Configuration for the Cisco Fax Server Integration](#)” section on page 33-9.

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 9.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/installation/guide/9xcucigx.html.

Configuring the Cisco Fax Server in Cisco Unity Connection 9.x

Do the following four procedures in the order given.

**Note**

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

To Configure SMTP on the Cisco Fax Server

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- 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, under Service Name, 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 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, 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, Connection notifies the user of the successful fax.
- Step 10** Select **OK**.
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To Set Up the Windows Email Service for POP3

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- 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**.



Caution A domain for the POP3 mailbox 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.



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 33-4](#).

- Step 11** In the Confirm Password field, re-enter the password and select **OK**.
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To Configure the POP3 Mailbox on the Cisco Fax Server

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- Step 1** In the RightFax Enterprise Fax Manager window, in the right pane, under Service Name, 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 33-4](#).
 - 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, under 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** Under Relay Restrictions, select **Relay**.
- Step 5** In the Relay Restrictions dialog box, confirm that **Only the List Below** is selected.
- Step 6** Under Computers, 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.
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To Add 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 Connection user.
- Step 3** In the User Name field, enter the name of the 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 Connection user.
- Step 6** In the E-mail Address field, enter <Connection user alias>@<fully qualified DNS name of the Connection server>.
- Step 7** Select the **Inbound Routing** tab.
- Step 8** In the Routing Code (DID/DNIS Number) field, enter the extension of the 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 <Connection user alias>@<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.
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Configuring Cisco Unity Connection 9.x for the Cisco Fax Server Integration

Do the following procedures.

To Allow Cisco Unity Connection to Access the IP Address Access of the Cisco Fax Server

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- 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 Connection** check box and select **Save**.
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To Enable the Cisco Fax Server Integration on Cisco Unity Connection

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- 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.



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**.
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To Customize the Cisco Fax Server Integration on Cisco Unity Connection

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- 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 Connection keeps in messages that are delivered to the Cisco Fax Server. 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 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 Connection detects this prefix, it generates a non-delivery receipt and places it in the user mailbox.
- Step 5** Select **Save**.
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Configuring Cisco Unity Connection 9.x Users for the Cisco Fax Server Integration

Do the following procedure.

**Note**

The Cisco Fax Server must have a subscriber for each 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.

To Configure Users

- 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 the Cisco Fax Server Integration in Cisco Unity Connection 9.x

Do the following procedure.

To Test the Cisco Fax Server Integration

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- 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 Cisco 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.
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Changing the Cisco Unity Connection 9.x Configuration for the Cisco Fax Server Integration

You can change the Cisco Unity Connection configuration after the Cisco Fax Server integration was created. Do the applicable procedures.

To Change the Cisco Fax Server Integration on Cisco Unity Connection

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

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- 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 Connection keeps in messages that are delivered to the Cisco Fax Server. 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 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 Connection detects this prefix, it generates a non-delivery receipt and places it in the user mailbox.
- Step 5** Select **Save**.
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Changing the Cisco Unity Connection 9.x User Configuration for the Cisco Fax Server Integration

You can change the user configuration after the Cisco Fax Server integration was created. Do the following procedure.

**Note**

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

To Change the User Configuration for the 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 in Cisco Unity Connection 9.x

Cisco 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 Connection.

Task List

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

- 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 9.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/installation/guide/9xcucigx.html.
- The TCL script file `app_fax_detect.2.1.2.3.tcl` or later.