



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

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About the Cisco Fax Server Integration in Cisco Unity Connection 10.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 Unity 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 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 in Cisco Unity Connection 10.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 34-2.
2. Configure the Cisco Fax Server. See the “[Configuring the Cisco Fax Server in Cisco Unity Connection 10.x](#)” section on page 34-3.
3. Configure Cisco Unity Connection. See the “[Configuring Cisco Unity Connection 10.x for the Cisco Fax Server Integration](#)” section on page 34-6.
4. Configure the Unity Connection user accounts. See the “[Configuring Cisco Unity Connection 10.x Users for the Cisco Fax Server Integration](#)” section on page 34-7.
5. Test the Cisco Fax Server integration. See the “[Testing the Cisco Fax Server Integration in Cisco Unity Connection 10.x](#)” section on page 34-7.

**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 10.x Configuration for the Cisco Fax Server Integration](#)” section on page 34-8 and the “[Changing the Cisco Unity Connection 10.x User Configuration for the Cisco Fax Server Integration](#)” section on page 34-9.

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 10.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/10x/installation/guide/10xcucigx.html.

Configuring the Cisco Fax Server in Cisco Unity Connection 10.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 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**.
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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 34-4](#).

- 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 34-4](#).
- 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 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.
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Configuring Cisco Unity Connection 10.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 Unity 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 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**.
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Configuring Cisco Unity Connection 10.x Users for the Cisco Fax Server Integration

Do the following procedure.



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.

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 10.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 10.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 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**.
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Changing the Cisco Unity Connection 10.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 10.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 Unity 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 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.