Configuring Text-to-Speech Access to Exchange Emails in Cisco Unity Connection 8.x

The text-to-speech feature allows the licensed Cisco Unity Connection voicemail users to listen to their emails when they sign in to Unity Connection using phone.

In Unity Connection 8.0 and earlier releases, the text-to-speech feature is enabled only when Unity Connection is configured to connect to an external message store (a message store other than Unity Connection). In Unity Connection 8.5 and later releases, the unified messaging feature was introduced and text-to-speech was supported for unified messaging users. For more information on unified messaging feature, see the Unified Messaging Guide for Unified Messaging Guide for Cisco Unity Connection Release 8.5 and Later, available at http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/unified_messaging/guide/85xcucumgx.html.

Unity Connection supports text-to-speech feature with the following message stores:

- Exchange 2013
- Exchange 2010
- Exchange 2007
- Exchange 2003

Note: Text-to-speech over Exchange 2007, Exchange 2010, and Exchange 2013 supports both the IPv4 and IPv6 addresses. However, the IPv6 address works only when Unity Connection platform is compatible and configured in dual (IPv4/IPv6) mode.

Task List for Configuring Text-to-Speech

Follow the given steps in the order given to configure text-to-speech feature for Unity Connection users:

Step 1

Unity Connection uses the IMAP protocol to access emails in Exchange so that the messages can be played using TTS. By default, Exchange is not configured to allow IMAP access to messages. To enable IMAP access to Exchange emails:

a. Sign in to the Exchange server using an account with Local Administrator group, This Exchange server contains the emails you want licensed voicemail Unity Connection users to access.
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b. On the Windows Start menu, select Administrative Tools > Services. Then select **Microsoft Exchange IMAP4** service.

c. Open the Microsoft Exchange IMAP4 Properties dialog box. Make sure the value of Status column is set to **Started** and value of Startup Type column is set to **Automatic**. Select OK to save changes.

d. Repeat the same steps for all Exchange servers that contain emails the unified messaging users want to access.

**Step 2**

Follow the steps depending on the Exchange server that has the mails the Unity Connection users want to access:

- **Steps to be followed on Exchange 2013, Exchange 2010, or Exchange 2007**
- **Steps to be followed on Exchange 2003**

**Step 3**

Enable text-to-speech in Unity Connection depending on the version of Unity Connection server:

- **Steps to be followed on Unity Connection 8.0 and Earlier Releases**
- **Steps to be followed on Unity Connection 8.5 and Later Releases**

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**Steps to be followed on Exchange 2013, Exchange 2010, or Exchange 2007**

Create and install an SSL certificate on each Exchange server that unified messaging users want to access following the given steps:

2. Enter the following command, where `<Exchange server>` is the IP address or host name of the Exchange server and `<friendly name>` is the friendly name that you select for the Exchange server:
   
   ```
   new-exchangecertificate -generaterequest -domainname <Exchange server> -friendlyname <friendly name>-path c:\csr.txt
   ```

   **Caution**
   
   The domain name for the Exchange server must be the IP address or the fully qualified DNS name (recommended) so that the Unity Connection server can successfully ping the Exchange server. Otherwise, users may not be able to access their emails in the external message store.

3. Press the Enter key and a Certificate Signing Request (CSR) file with the name Csr.txt is created in the root directory.
4. Send the CSR file to a Certification Authority (CA) that generates and sends back a new certificate.

   **Note**
   
   You must have a copy of the CA public root certificate or public root certificate chain. This certificate is needed for configuring Unity Connection to trust the Exchange 2013, Exchange 2010, or Exchange 2007 server.

5. Enter the following command, where `<path>` is the location of the directory where the CA saves the new server certificate:
   
   ```
   import-exchangecertificate -path <path>
   ```

6. Press the Enter key and enter the following command:
   
   ```
   dir cert:\localmachine\my | fl
   ```
7. Press the **Enter** key and highlight the “thumbprint” property and copy it to the clipboard.

8. Perform either of the following actions:
   a. If the class of service for unified messaging users is configured to access email and use calendar data from an external email server using IMAP, enter the following command:
      
      ```
      enable-exchangecertificate -thumbprint <thumbprint> -services "IIS,IMAP"
      ```
   b. If the class of service for unified messaging users is not configured to access calendar data from external email server using IMAP, enter the following command:
      
      ```
      enable-exchangecertificate -thumbprint <thumbprint> -services "IIS"
      ```

9. Press the **Enter** key.

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**Steps to be followed on Exchange 2003**

**Creating and Configuring Active Directory Service Account**

Create an Active Directory service account that acts as a proxy for Unity Connection and allows to access emails from an Exchange server. Follow the given steps:

1. Sign in to a computer that has Active Directory Users and Computers and Exchange System Manager are installed using an account with Domain Administrators role.

2. On the Windows Start menu, select Programs > Microsoft Exchange > Active Directory Users and Computers. Expand <Server name> , right-click Users , and select **New User**. Follow the on-screen prompts to create a domain user account without a mailbox.

3. On the Windows Start menu, select Programs > Microsoft Exchange > System Manager . Expand Servers and select the name of the Exchange server containing the mailboxes to be accessed by Unity Connection. Select **Properties**.

4. In the <Server name> Properties dialog box, select the Security tab and select **Add**.

   a. In the Select Users, Computers, or Groups dialog box, in the **Enter the Object Names to Select** field, enter the name of the service account created before.

   b. In the **Group or User Names** list, select the name of the service account.

5. In the Permissions For <Account name> list, set the permissions:

   a. For Full Control, check the **Deny** check box.

   b. For Receive As, check the **Allow** check box

   6. Select OK to close the <Server name> Properties dialog box.

   7. Repeat all the steps for each additional Exchange 2003 server on which you want to access emails.
Creating and Installing SSL Certificates on Exchange 2003 server

An SSL certificate must be created and installed on Exchange 2003 server to allow unified messaging users to be able to access emails on Exchange server. Follow the given steps:

1. Sign in to the Exchange System Manager with an account that is an Exchange Full Administrator.
2. On the Windows Start menu, select Programs > Microsoft Exchange > System Manager.
3. Expand <Organization> > Administrative Groups > <Administrative group> > Servers > <Server name> > Protocols > IMAP4, where <Administrative group> and <Server name> identify the first Exchange server that contains emails that you want unified messaging users to be able to access.
4. Right-click Default IMAP4 Virtual Server, and select Properties.
5. In the Properties dialog box, select the Access tab and select Certificate.
8. On the Delayed or Immediate Request page, select Prepare the Request Now But Send It Later and select Next.
9. On the Name and Security Settings page, enter a name for the certificate (for example, <Server name>_Cert) and select Next.
10. On the Organization Information page, enter the applicable values and select Next.
11. On the Your Site’s Common Name page, enter the computer name of the Exchange server or the fully qualified domain name and select Next.

Caution
The name must exactly match the host portion of any URL that will access the system by using a secure Unity Connection.

12. On the Geographical Information page, enter the applicable information and select Next.
13. On the Certificate Request File Name page, enter a path and filename, and write down the information and select Next.
16. Select OK to close the Default IMAP4 Virtual Server Properties dialog box.
17. Repeat all the steps for each additional Exchange 2003 server on which you want to access emails.
18. Close Exchange System Manager.

Securing Communication between Unity Connection and Exchange 2003 (Optional but Recommended)

To prevent Exchange from allowing access through unsecured IMAP connections, do the following procedure on each Exchange server:

1. Sign in to the Exchange System Manager with an account that is an Exchange Full Administrator.
2. On the Windows Start menu, select Programs > Microsoft Exchange > System Manager.
3. In the left pane, expand Servers > <Server name> > Protocols > IMAP4 > Default IMAP4 Virtual Server.
4. Right-click Default IMAP4 Virtual Server and select Properties.
5. Select the Access tab.
7. Select OK and close the Properties dialog box.
8. In the left pane, for the same server, expand Servers > <Server name> > Protocols > IMAP4 > Default IMAP4 Virtual Server.
9. In the System Manager toolbar, select the Stop icon and wait for a few seconds.
10. Select the Play icon and repeat the same steps for all other Exchange 2003 servers that unified messaging users want to access.

Steps to be followed on Unity Connection 8.0 and Earlier Releases

There are two steps to be followed on Unity Connection 8.0 and earlier releases to configure text-to-speech feature:

- Creating External Services to Specify the Exchange Servers Accessed by Users
- Configuring Users for the External Services

Creating External Services to Specify the Exchange Servers Accessed by Users

In Cisco Unity Connection Administration, you create and configure one IMAP Service for each Exchange server that contains emails that you want licensed Unity Connection users to be able to access.

To Specify the Exchange Servers Accessed by Unity Connection Users

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>In Cisco Unity Connection Administration, expand System Settings, then select External Services.</td>
</tr>
<tr>
<td>Step 2</td>
<td>On the Search External Services page, select Add New.</td>
</tr>
<tr>
<td>Step 3</td>
<td>On the New External Service page, in the Type list, select Exchange 2003 External Service Template.</td>
</tr>
<tr>
<td>Step 4</td>
<td>Confirm that the Enabled check box is checked.</td>
</tr>
<tr>
<td>Step 5</td>
<td>In the Display Name field, enter a name that will help you identify the service when you configure Unity Connection users to access their email. (For example, in the name of the service, you might include the name of the Exchange server that contains the email that users are accessing.)</td>
</tr>
<tr>
<td>Step 6</td>
<td>In the Server field, enter the server name or the fully qualified domain name of one of the Exchange servers that contain emails that you want licensed Unity Connection users to be able to access. The value that you enter must match the server name or the fully qualified domain name in the certificate for the Exchange server.</td>
</tr>
<tr>
<td>Step 7</td>
<td>In the Authentication Mode list, select NTLM.</td>
</tr>
<tr>
<td>Step 8</td>
<td>In the Security Transport Type list, if you created and installed SSL certificates, select SSL. Otherwise, select None.</td>
</tr>
<tr>
<td>Step 9</td>
<td>If you selected SSL in Step 8, check the Validate Server Certificates check box. Otherwise, continue to Step 10.</td>
</tr>
</tbody>
</table>
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Self-signed certificates cannot be validated. If you selected SSL in Step 8 and you are using self-signed certificates, do not check the Validate Server Certificates check box, or Unity Connection will not be able to access Exchange.

Step 10 Under Service Credentials, in the Alias field, enter the Active Directory user sign-in name of the service account. Use the format `<Domain name>\<Account name>`.

Step 11 In the Password field, enter the password for the service account.

Step 12 Under Service Capabilities, check the User Access to Email in Third-Party Message Store check box.

Step 13 Select Save.

Step 14 Repeat Step 2 through Step 13 for each additional Exchange server that contains emails that you want licensed Unity Connection users to be able to access.

Step 15 Close Cisco Unity Connection Administration.

Configuring Users for the External Services

Do the following procedure.

Note Exchange must have a user for each Unity Connection user that you are configuring.

To Configure Users for the External Services

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.

Step 3 On the Edit User Basics page, on the Edit menu, select External Service Accounts.

Step 4 On the External Service Accounts page, select Add New.

Step 5 On the New External Service Accounts page, in the External Service field, select the display name of the applicable external service that you created in the Creating External Services to Specify the Exchange Servers Accessed by Users.

Step 6 In the Email Address field, enter the email address for the user.

Step 7 In the Sign-In Type field, select the applicable option:
- Use Unity Connection Alias—This option is useful when the User ID setting in Exchange 2003 is the same as the Unity Connection user alias. Unity Connection will sign in the user with the Unity Connection user alias.
- Use User ID Provided Below—Enter the User ID setting from Exchange 2003 (useful when the User ID setting is different from the Unity Connection user alias). Unity Connection will sign in the user with the setting in this field.

Step 8 (Only when the Use User ID Provided Below option is selected in Step 7) In the User ID field, enter the User ID setting from Exchange.

Step 9 Under Service Capabilities, check the User Access to Email in Third-Party Message Store check box.

Step 10 Select Save.

Step 11 To check the Exchange configuration for the user, select Test. The Task Execution Results window appears with the test results.
If any part of the test fails, verify the configuration for Exchange, Cisco Unity Connection, and the user.

**Step 12**
Repeat Step 2 through Step 11 for all remaining users.

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### Steps to be followed on Unity Connection 8.5 and Later Releases

**Step 1**
Enable text-to-speech in Unity Connection on an existing or a new unified messaging service.


b. Either select an existing unified messaging service or create a new selecting **Add New**.

c. On the New Unified Messaging Service page or Edit Unified Messaging Service page, enter all the required details. Under Service Capabilities, make sure the **Access Exchange Email Using Text to Speech (TTS)** check box is checked.

**Note**

d. Select **Save**.

**Step 2**
Under Licensed Features, make sure the class of service assigned to the unified messaging users has the **Allow Access to Exchange Email Using Text-to-Speech (TTS)** check box checked.
Task List for Configuring Text-to-Speech