SpeechView

Overview

The SpeechView feature enables the transcription of voice messages so that users can receive the voicemails in the form of text. Users can access the transcripted voicemails using email clients. SpeechView is a feature of Cisco Unity Connection unified messaging solution. Therefore, the audio part of each voice message is also available to the users.

Note   When a voice message is sent from Web Inbox to ViewMail for Outlook, the voice message is delivered to the mailbox of the recipient along with the transcribed text both in the transcript view box and in the mail body.

Without this feature, the voice message delivered to the user mailbox has a blank text attachment. This feature requires the use of a third party transcription service to convert the voice message to text. Therefore, the blank text attachment is updated with the transcripted text or an error message if there was a problem with transcription.

The SpeechView feature supports the following types of transcription services:

- Standard Transcription Service: The standard transcription service automatically converts the voice message to text and the transcripted text received is sent to the user over email.

- Professional Transcription Service: The professional transcription or SpeechView Pro service automatically converts the voice message to text and then confirms the accuracy of transcription. If the accuracy of trancription is low at any part, the particular part of trancription text is sent to a human operator who reviews the audio and improves the quality of transcription.

As the professional transcription involves both automatic transcription and accuracy confirmation by a human operator, it delivers more accurate transcripted texts of voice messages.

> **Note** Unity Connection supports only (Universal Transformation Format) UTF-8 character set encoding for transcription.

The following messages are never transcribed:

- Private messages

- Broadcast messages

- Dispatch messages

- Secure messages

- Messages with no recipients

> **Note** Secure messages are not transcribed by default, however the Class of Service provides an option under Licensed Features which enables the SpeechView Transcription Service.

> **Note** For Speechview feature, it is recommended not to use any interference device, such as Email Scanner as the device might modify the content of the data being exchanged with the nuance server. Using such devices may lead to the failure of audio message transcriptions.

Unity Connection can be configured to deliver transcriptions to an SMS device as a text message or to an SMTP address as an email message. The fields to turn on transcription delivery are located on the SMTP and SMS Notification Device pages where you set up message notification. For more information on notification devices, see the Configuring Notification Devices section.

Following are the considerations for effective use of transcription delivery:

- In the From field, enter the number users dial to reach Unity Connection when they are not dialing from their desk phone. If users have a text-compatible mobile phone, they may be able to initiate a callback to Unity Connection in the event that they want to listen to the message.

- Check the Include Message Information in Message Text check box to include call information such as caller name and caller ID (if available) and the time that the message was received. Otherwise, there is no indication in the message of when it was received.

In addition, if they have a text-compatible mobile phone, they may be able to initiate a callback when the caller ID is included with the transcription.

- In the Notify Me Of section, if you turn on notification for voice or dispatch messages, users are notified when a message arrives. The transcription soon follows. If you do not want notification before the transcription arrives, do not select the voice or dispatch message options.

- Email messages that contain transcriptions have a subject line that is identical to notification messages. So if you have notification for voice or dispatch messages turned on, users have to open the messages to determine which one contains the transcription.

Note Nuance server converts the voice message to text into the phone language in which Unity Connection plays system prompts to users and callers. If phone language is not supported by nuance, it recognizes the audio of the message and converts into the language of the audio. You can set the phone language for the following Unity Connection components: user accounts, routing rules, call handlers, interview handlers, and directory handlers. For information on supported language for SpeechView, see Available Languages for Unity Connection Components section of *System Requirements for Cisco Unity Connection Release 12.x* available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/12x/requirements/b_12xcucsysreqs.html

Unity Connection allows you to send an alternate language along with default language to nuance server for transcription. For this, execute

```
run cuc dbquery unitydirdb update tbl_configuration set valuebool ='1' where
fullname='System.Conversations.ConfigParamForAlternateTranscriptionLanguage'
```

CLI command.

SpeechView Security Considerations

S/MIME (Secure/ Multipurpose Internet Mail Extensions), a standard for public key encryption, secures the communication between Unity Connection and the third party transcription service. A private key and public key is generated each time Unity Connection registers with a third party transcription service.

The pair of private and public keys ensures that each time voice messages are sent to the transcription service, the user information is not passed along with the message. Therefore, the transcription service is unaware of the specific user to whom the voice message belongs to.

If human operator is involved during transcription, the user or the organization from which the message generated cannot be determined. In addition to this, the audio part of a voice message is never stored in the workstation of the person processing the transcription service. After sending the transcripted message to the Unity Connection server, the copy in the transcription service is purged.

Considerations for Deploying SpeechView

Consider the following when deploying the SpeechView feature:

- To enable SpeechView in a digital network deployment, consider configuring one of the Unity Connection servers in the network as a proxy server that registers with the third party transcription service.

This can make it easier to troubleshoot any problems with transcriptions, track your transcription usage and monitor the load it introduces to your network. If one of your Unity Connection servers has a lower call volume than others in the network, consider designating it as the proxy server for transcriptions. If you do not use a proxy server for transcriptions, you need a separate external facing SMTP address for each server (or cluster) in the network.

- To extend the SpeechView functionality, users who want to transcribe the voice messages left on their personal number must configure their personal phones to forward calls to Unity Connection when a caller wants to leave a voicemail. This allows to collect all voicemails in one mailbox where they are transcribed. To configure the mobile phones for call forwarding, see the "Task List for Consolidating Your Voicemail from Multiple Phones into One Mailbox" section of the "Changing Your User Preferences" chapter of

the User Guide for the Cisco Unity Connection Messaging Assistant Web Tool, Release 15, available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/user/guide/assistant/b_ 15cucugasst.html.

Note When personal phones are configured to forward callers to Unity Connection to leave voice messages, callers may hear a lot of rings before reaching the user mailbox. To avoid this problem, you can instead forward the mobile phone to a special number that does not ring a phone and forwards directly to the mailbox of the user. This can be accomplished by adding the special number as an alternate extension for the user.

- To allow both transcription and relay of voice messages, configure the Message Action in Cisco Unity Connection Administration> Users to accept and relay messages. For more information, see the Message Actions section.

- You can configure the SMTP notification devices to send the transcription text message to the SMTP address. This means users receive two emails at the SMTP address, first one is the relayed copy of the message.WAV file and the second one is the notification with transcription text. For more information on configuring SMTP notifications, see the Setting Up SMTP Message Notification section.

Task List for Configuring SpeechView

This section contains a list of tasks to configure the SpeechView feature in Unity Connection:

1. Ensure that Unity Connection is registered with Cisco Smart Software Manager (CSSM) or Cisco Smart Software Manager satellite. You have acquired the proper licenses, SpeechView or SpeechViewPro from Cisco to use this feature. For more information, see the "Managing Licenses" chapter of the Install, Upgrade, and Maintenance Guide for Cisco Unity Connection, Release 15, available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/install_upgrade/guide/b_ 15cuciumg.html

2. Assign users to a class of service that provides SpeechView transcription of voice messages. For more information, see the Enabling SpeechView Transcription of Voice Messages in Class of Service section.

3. Configure an SMTP smart host to accept messages from the Unity Connection server. For more information, see the documentation for the SMTP server application that you are using.

4. Configure the Unity Connection server to relay messages to the smart host. For more information, see the Configuring Unity Connection to Relay Messages to a Smart Host section.

5. (When Unity Connection is configured to refuse connections from untrusted IP addresses) Configure Unity Connection to receive messages from the user email address. For more information, see the Configuring Unity Connection to Accept Messages from Email System section.

6. Configure the user email system to route incoming SpeechView traffic to Unity Connection. For more information, see the Configuring Email System to Route Incoming SpeechView Traffic section.

7. Configure SpeechView transcription service. For more information, see the Configuring SpeechView Transcription Service section.

8. Configure SMS or SMTP notification devices for users and user templates.

Enabling SpeechView Transcription of Voice Messages in Class of Service

The members of the class of service can view the transcriptions of the voice messages using an IMAP client configured to access the user messages.

Step 1 In Cisco Unity Connection Administration, expand Class of Service and select Class of Service.

Step 2 In the Search Class of Service page, select the class of service in which you want to enable SpeechView transcription or create a new one selecting Add New.

Step 3 On the Edit Class of Service page, under Licensing Features section, select the Use Standard SpeechView Transcription Service option to enable the standard transcription. Similarly, you may select Use SpeechView Pro Transcription Service option to enable professional transcription.

> **Note** Cisco Unity Connection supports only **Standard SpeechView Transcription Service** in HCS mode.

Step 4 Select the applicable options under transcription service section and select Save. (For information on each field, see Help> This Page).

Configuring Unity Connection to Relay Messages to a Smart Host

To enable Unity Connection to send messages to the third party transcription service, you must configure the Unity Connection server to relay messages through a smart host.

> **Note** If we configure SpeechView on Unity Connection with Exchange Server as Microsoft Office 365, then on prem Microsoft Exchange as Smart Host is not a essential requirement.

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

Step 2 In the Smart Host page, in the Smart Host field, enter the IP address or fully qualified domain name of the SMTP smart host server and select Save. (For more information on each field, see Help> This Page).

> **Note** The Smart Host can contain up to 50 characters.

Configuring Unity Connection to Accept Messages from Email System

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

Step 2 In 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** to add a new IP address to the list.

Step 4 On the New Access IP Address page, enter the IP address of your email server and select **Save**.

Step 5 To allow connections from the IP address that you entered in Step 4, check the **Allow** Unity Connection check box and select **Save**.

Step 6   If you have more than one email server in your organization, repeat Step 2 through Step 6 to add each additional IP address to the access list.

Configuring Email System to Route Incoming SpeechView Traffic

Step 1   Set up an external facing SMTP address that the third party transcription service can use to send transcriptions to Unity Connection. For example, "transcriptions@<yourdomain.com>"

If you have more than one Unity Connection server or cluster, you need a separate external facing SMTP address for each server. Alternatively, you can configure one Unity Connection server or cluster to act as a proxy for the remaining servers or clusters in the digital network. For example, if the SMTP domain for the Unity Connection server is "Unity Connectionserver1.cisco.com," the email infrastructure must be configured to route "transcriptions@cisco.com" to "stt-service@connectionserver1.cisco.com."

If you are configuring SpeechView on a Unity Connection cluster, configure the smart host to resolve the SMTP domain of the cluster to both the publisher and subscriber servers in order for incoming transcriptions to reach the cluster subscriber server in the event that the publisher server is down.

Step 2   Add "nuancevm.com" to the "safe senders" list in the email infrastructure so that incoming transcriptions do not get filtered out as spam.

> **Note**   In Unity Connection, to avoid timeout or failure of the registration request with the Nuance server, make sure to:
>
> - Remove the email disclaimers from the inbound and outbound email messages between Unity Connection and the Nuance server.
>
> - Maintain SpeechView registration messages in the S/MIME format.

Configuring SpeechView Transcription Service

Step 1   In Cisco Unity Connection Administration, expand Unified Messaging and select SpeechView Transcription Service.

Step 2   In the SpeechView Transcription Service page, check the Enabled check box.

Step 3   Configure SpeechView transcription service (For more information, see Help> This Page):

- If this server access the transcription services through another Unity Connection location that is digitally networked, select the Access Transcription Services Through Unity Connection Proxy Location field. Select the name of the Unity Connection location from the list and select Save. Skip to Step 4.

- If the server is going to access trancription services through another location that isdigitally networked, do the given steps:

  Select Access Transcription Service Directly field.

  In the Incoming SMTP Address field, enter the email address recognized by the email system and routed to the "stt-service" alias on the Unity Connection server.

In the Registration Name field, enter a name that identifies the Unity Connection server within your organization. This name is used by the third party transcription service to identify this server for registration and subsequent transcription requests.

If you want this server to offer transcription proxy services to other Unity Connection locations in a digital network, check the Advertise Transcription Proxy Services to Other Unity Connection Locations check box. Select Save and then Register.

Another window displaying the results open. Wait for the registration process to complete successfully before going on to the next step. If registration does not complete within 5 minutes, there may be a configuration issue. The registration process timeout after 30 minutes.

Note   Make sure to save all the configuration of Speech View Transcription Services before synchronizing the license data.

Step 4   Select Test. Another window displaying the results open. The test usually takes several minutes but can take up to 30 minutes.

SpeechView Reports

Unity Connection can generate the following reports about SpeechView usage:

- SpeechView Activity Report by User —Shows the total number of transcribed messages, failed transcriptions, and truncated transcriptions for a given user during a given time period.

- SpeechView Activity Summary Report—Shows the total number of transcribed messages, failed transcriptions, and truncated transcriptions for the entire system during a given time period. Note that when messages are sent to multiple recipients, the message is transcribed only once, so the transcription activity is counted only once.

SpeechView Transcription Error Codes

Whenever a transcription fails, the third party external transcription service sends an error code to Unity Connection.

Cisco Unity Connection Administration interface shows the five default error codes that can modified or deleted by an administrator. In addition, user has the privilege to add a new error code. Whenever a new error code is sent by the third party external transcription service, the administrator needs to add a new error code along with the appropriate description.

Note   - The error code and description should be in the default system language.
- If the error code provisioning is not done, then the error code received from the third party external transcription service is displayed.

The default error codes are sent by the third party external transcription service to the SpeechView user. The Table 13-1 shows the default error codes in the Cisco Unity Connection Administration interface.

Default Error Codes

Error Code Name	Description
Fault	When Unity Connection tries to register with the third party external transcription service and the registration fails.
Inaudible	When a voice mail sent by a SpeechView user is inaudible at the third party external transcription service site and system was unable to transcribe the message.
Rejected	When the conversion request contains more than one audio file attachment, the third party external transcription service rejects the messages.
Time-out	Whenever there is a response timeout from the third party external transcription service.
Unconverted	When the third party external transcription service is not able to transcript the voice mail sent by a SpeechView user.

Configuring Transcription Error Codes

Step 1   In Cisco Unity Connection Administration, expand **Unified Messaging** > SpeechView Transcription, and select **Error Codes**.

Step 2   The Search Transcription Error Codes appears displaying the currently configured error codes.

Step 3   Configure transcription error code (For more information on each field, see Help> This Page):

- To add a transcription error code, select **Add New**.

  On the New Transcription Error Code page, enter the error code and the error code description to create a new error code.

  Select **Save**.

- To edit a transcription error code, select the error code that you want to edit.

  On the Edit Transcription Error Code (Fault) page, change the error code or the error code description, as applicable.

  Select **Save**.

- To delete a transcription error code, check the check box adjacent to the display name of the schedule that you want to delete. Select **Delete Selected** and OK to confirm deletion.