



Introduction to Unified Messaging

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Overview

The unified messaging feature provides a single storage for different types of messages, such as voicemails and emails that are accessible from a variety of devices. For example, a user can access a voicemail either from the email inbox using computer speakers or directly from the phone interface.

The following are the supported mail server with which you can integrate Unity Connection to enable unified messaging:

- Microsoft Exchange (2007, 2010, 2013 and 2016) servers
- Microsoft Office 365
- Cisco Unified MeetingPlace

Integrating Unity Connection with an Exchange or Office 365 server provides the following functionalities:

- Synchronization of voicemails between Unity Connection and Exchange/ Office 365 mailboxes.
- Text-to-speech (TTS) access to Exchange/ Office 365 email.
- Access to Exchange/ Office 365 calendars that allows users to do meeting-related tasks by phone, such as, hear a list of upcoming meetings and accept or decline meeting invitations.
- Access to Exchange/ Office 365 contacts that allows users to import Exchange/ Office 365 contacts and use the contact information in personal call transfer rules and when placing outgoing calls using voice commands.
- Transcription of Unity Connection voicemails.

Integrating Unity Connection with Cisco Unified MeetingPlace provides the following functionalities:

- Join a meeting that is in progress.
- Hear a list of the participants for a meeting.

- Send a message to the meeting organizer and meeting participants.
- Set up immediate meetings.
- Cancel a meeting (applied to meeting organizers only).

Single Inbox

The synchronization of user messages between Unity Connection and Exchange/Office 365 mailboxes is known as single inbox. When the single inbox feature is enabled on Unity Connection, voice mails are first delivered to the user mailbox in Unity Connection and then the mails are replicated to the user mailbox on Exchange/ Office 365 server. For information on configuring the single inbox or unified messaging feature in Unity Connection, see the “[Configuring Unified Messaging](#)” chapter.



Note

- The single inbox feature is supported with both IPv4 and IPv6 addresses.
- Unity Connection supports Single Inbox feature with Office 365, Exchange 2019, Exchange 2016, Exchange 2013 and Exchange 2010 server.
- When the single inbox feature is enabled for a user, the Outlook rules may or may not work for single inbox messages.
- Unity Connection 9.1(2) and later supports maximum of 8000 Office 365 users. For more information see the section “[Specification for Virtual Platform Overlays](#)” of the *Cisco Unity Connection 12.x Supported Platform List* at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/12x/supported_platforms/b_12xcucspl.html

Storing Voicemails for Single Inbox Configuration

All Unity Connection voicemails, including those sent from Cisco ViewMail for Microsoft Outlook, are first stored in Unity Connection and are immediately replicated to the Exchange/ Office 365 mailbox for the recipient.

Single Inbox with ViewMail for Outlook

Consider the following points if you want to use Outlook for sending, replying, and forwarding voicemails and to synchronize the messages with Unity Connection:

- Install ViewMail for Outlook on user workstations. If ViewMail for Outlook is not installed, the voicemails that are sent by Outlook are treated as .wav file attachments by Unity Connection. For more information on installing ViewMail for Outlook, see the *Release Notes for Cisco ViewMail for Microsoft Outlook* for the latest release at http://www.cisco.com/en/US/products/ps6509/prod_release_notes_list.html.
- Make sure to add SMTP proxy addresses for unified messaging users in Unity Connection. The SMTP proxy address of a user specified in Cisco Unity Connection Administration must match the Exchange/ Office 365 email address specified in the unified messaging account in which single inbox is enabled.
- Associate an email account of each user in the organization with a Unity Connection server domain.

The Outlook Inbox folder contains both voicemails and the other messages stored in Exchange/ Office 365. The voicemails also appear in the Web Inbox of a user.

A single inbox user has a **Voice Outbox** folder added to the Outlook mailbox. Unity Connection voicemails sent from Outlook do not appear in the Sent Items folder.



Note Private messages cannot be forwarded.

Single Inbox without ViewMail for Outlook or with Other Email Clients

If you do not install ViewMail for Outlook or use another email client to access Unity Connection voicemails in Exchange/ Office 365:

- The email client treats voicemails as emails with .wav file attachments.
- When a user replies to or forwards a voicemail, the reply or forward also is treated as an email even if the user attaches a .wav file. Message routing is handled by Exchange/ Office 365, not by Unity Connection, so the message is never sent to the Unity Connection mailbox for the recipient.
- Users cannot listen to secure voicemails.
- It may be possible to forward private voicemails. (ViewMail for Outlook prevents private messages from being forwarded).

Accessing Secure Voicemails in the Exchange/ Office 365 Mailbox

To play secure voicemails in the Exchange/ Office 365 mailbox, users must use Microsoft Outlook and Cisco ViewMail for Microsoft Outlook. If ViewMail for Outlook is not installed, users accessing secure voicemails see only text in the body of a decoy message which briefly explains the secure messages.

Transcription of Voicemails Synchronized Between Unity Connection and Exchange/ Office 365 Mailbox

A system administrator can enable the single inbox transcription functionality by configuring the unified messaging services and the SpeechView transcription services on Unity Connection.

For information on configuring unified messaging services in Unity Connection, see the [Creating a Unified Messaging Service to Access Mail Server](#) section.

For information on configuring SpeechView transcription service, see the “[SpeechView](#)” chapter of the *System Administration Guide for Cisco Unity Connection, Release 12.x*, available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/12x/administration/guide/b_12xcucsag.html.

“Synchronization of multiple forward messages” service is not supported with Unity Connection, if configured with single inbox:

In single inbox, the transcription of voicemails is synchronized with Exchange in the following ways:

- When sender sends voicemail to a user through Web Inbox or touchtone conversation user interface and the user views voicemail through various email clients, then the transcription of voicemails are synchronized as shown in the [Table 1](#).

When Sender Sends Voice Mail through Web Inbox or Touchtone Conversation User Interface

Table 1: When Sender Sends Voice Mail through Web Inbox or Touchtone Conversation User Interface

Scenarios	Web Inbox	Outlook WebMail Access/ Outlook without VMO	ViewMail for Outlook
Successful delivery of voicemails	The text of the transcription gets displayed in the reading pane of the email.	The text of transcription gets displayed in the reading pane of the email.	The text of the transcription gets displayed in the reading pane of the email and is also displayed in the transcription panel.
Failure or Response Time-out	The “Failure or Response Timeout” text gets displayed in the reading pane of the email.	The “Failure or Response Timeout” text gets displayed in the reading pane of the email.	The “Failure or Response Timeout” text gets displayed in the reading pane of the email and is also displayed in the transcription panel.
Transcription in Progress	The “Transcription in Progress” text gets displayed in the reading pane of the email.	The reading pane of the email is blank .text.	The “Transcription in Progress” text gets displayed in the transcription panel.

- When sender sends voicemail to a Unity Connection user through ViewMail for Outlook and the Unity Connection user views voicemail through various email clients, then the transcription of voicemails are synchronized, as shown in the [Table 2](#):

When Sender Sends Voicemaill through ViewMail for Outlook

Table 2: When Sender Sends Voicemaill through ViewMail for Outlook

Scenarios	Web Inbox	Outlook WebMail Access/ Outlook without VMO	ViewMail for Outlook
Successful delivery of voicemails	The text of transcription gets displayed in the reading pane of the email.	The text of the transcription is the part of transcript file “Transcription.txt”.	The text of the transcription is the part of transcript file “Transcription.txt” and is also displayed in the transcription panel.

Scenarios	Web Inbox	Outlook WebMail Access/ Outlook without VMO	ViewMail for Outlook
Failure or Response Time-out	The “Failure or Response Timeout” text gets displayed in the reading pane of the email.	The “Failure or Response Time-out” text is the part of transcript file “Transcription.txt” attached in the voicemail.	The “Failure or Response Time-out” text is the part of transcript file “Transcription.txt” attached in the voicemail and is also displayed in the transcription panel.
Transcription in Progress	The “Transcription in Progress” text gets displayed in the reading pane of the email.	The attachment “Transcription_pending.txt” indicates the progress of transcription.	The attachment “Transcription_pending.txt” indicates the progress of transcription and the text “Transcription in Progress” is also displayed in transcription panel.



Note The message body of the voicemails composed using ViewMail for Outlook and received by Unity Connection are either blank or contain text.

- When a sender sends a voicemail to Unity Connection through third party email clients, the receiver can view the voicemail through various clients after synchronizing the transcription of voicemails.

Do the following steps to synchronize the new voicemails between Unity Connection and Exchange/ Office 365 mailboxes for a unified messaging user with SpeechView transcription service:

1. Navigate to Cisco Personal Communications Assistant and select **Messaging Assistant**.
2. In the Messaging Assistant tab, select **Personal Options** and enable the **Hold till transcription received** option.



Note By default, the **Hold till transcription received** option is disabled.

3. The **Hold till transcription received** option enables the synchronization of voicemail between Unity Connection and Exchange only when Unity Connection receives time-out/ failure transcription response from the third party external service.

Transcription of Voicemails in Secure and Private Messages

- **Secure Messages:** The secure messages are stored only on the Unity Connection server. Secure messages are transcribed only if the user belongs to a class of service for which the **Allow Transcriptions of Secure Messages** option are enabled. This option, however, does not allow the synchronization of transcribed secure messages on the Exchange server integrated with the Unity Connection server.

- **Private Messages:** The transcription of private messages is not supported.

Synchronization with Outlook Folders

The voicemails of a user are visible in the Outlook Inbox folder. Unity Connection synchronizes voicemails in the following Outlook folders with the Unity Connection Inbox folder for the user:

- Subfolders under the Outlook Inbox folder
- Subfolders under the Outlook Deleted Items folder
- The Outlook Junk Email folder

Messages in the Outlook Deleted Items folder appear in the Unity Connection Deleted Items folder. If the user moves voicemails (except secure voicemails) into Outlook folders that are not under the Inbox folder, the messages are moved to the deleted items folder in Unity Connection. However, the messages can still be played using ViewMail for Outlook because a copy of the message still exists in the Outlook folder. If the user moves the messages back into the Outlook Inbox folder or into an Outlook folder that is synchronized with the Unity Connection Inbox folder, and:

- If the message is in the deleted items folder in Unity Connection, the message is synchronized back into the Unity Connection Inbox for that user.
- If the message is not in the deleted items folder in Unity Connection, the message is still playable in Outlook but not resynchronized into Unity Connection.

Unity Connection synchronizes voicemails in the Sent Items folder of Outlook with the Exchange/ Office 365 Sent Items folder for the user. However, the changes to the subject line, the priority, and the status (for example, from unread to read) are replicated from Unity Connection to Exchange/ Office 365 only on an hourly basis. When a user sends a voicemail from Unity Connection to Exchange/ Office 365 or vice versa, the voicemail in the Unity Connection Sent Items folder remains unread and the voicemail in the Exchange/ Office 365 Sent Items folder is marked as read.

By default, the synchronization of voicemails in the Exchange/ Office 365 Sent Items folder with the Unity Connection Sent Items folder is not enabled.

Enabling the Sent Items Folder Synchronization

Secure voicemails behave differently. When Unity Connection replicates a secure voicemail to Exchange/ Office 365 mailbox, it replicates only a decoy message that briefly explains secure messages; only a copy of the voicemail remains on the Unity Connection server. When a user plays a secure message using ViewMail for Outlook, ViewMail retrieves the message from the Unity Connection server and plays it without ever storing the message in Exchange/ Office 365 or on the computer of the user.

If a user moves a secure message to an Outlook folder that is not synchronized with the Unity Connection Inbox folder, only the copy of the voicemail is moved to the Deleted Items folder in Unity Connection. Such secure messages cannot be played in Outlook. If the user moves the message back into the Outlook Inbox folder or into an Outlook folder that is synchronized with the Unity Connection Inbox folder, and:

- If the message exists in the Deleted items folder in Unity Connection, the message is synchronized back into the Unity Connection Inbox of the user and the message becomes playable again in Outlook.
- If the message does not exist in the Deleted items folder in Unity Connection, the message is not resynchronized into Unity Connection and can no longer be played in Outlook.

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- Step 1** In Cisco Unity Connection Administration, expand System Settings > Advanced, select Messaging.
- Step 2** On the Messaging Configuration page, enter a value greater than zero in the Sent Messages: Retention Period (in Days) field.
- Step 3** Select Save.
- Note** When a user sends the voicemail to the Exchange/ Office 365 voice mailbox, the voicemail is not synchronized with the Sent Items folder in Exchange/ Office 365 server. The voicemail remains in the Unity Connection Sent Items folder.
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Working of Message Routing Using SMTP Domain Name

Unity Connection uses SMTP domain name to route messages between digitally networked Unity Connection servers and to construct the SMTP address of the sender on outgoing SMTP messages. For each user, Unity Connection creates an SMTP address of <Alias>@<SMTP Domain>. This SMTP address is displayed on the Edit User Basics page for the user. Examples of outgoing SMTP messages that use this address format include messages sent by users on this server to recipients on other digitally networked Unity Connection servers and messages that are sent from the Unity Connection phone interface or Messaging Inbox and relayed to an external server based on the Message Actions setting of the recipient.

Unity Connection also uses the SMTP Domain to create sender VPIM addresses on outgoing VPIM messages, and to construct the From address for notifications that are sent to SMTP notification devices.

When Unity Connection is first installed, the SMTP Domain is automatically set to the fully qualified host name of the server.

Make sure that the SMTP domain of Unity Connection is different from the Corporate Email domain to avoid issues in message routing for Unity Connection.

Some scenarios in which you may encounter issues with the same domain are listed below:

- Routing of the voice messages between digitally networked Unity Connection servers.
- Relaying of the messages.
- Replying and Forwarding of the voice messages using ViewMail for Outlook.
- Routing of the SpeechView messages to Cisco Unity Connection server.
- Sending the SMTP message Notifications.
- Routing of the VPIM messages.



Note Unity Connection requires a unique SMTP domain for every user, which is different from the corporate email domain. Due to same domain name configuration on Microsoft Exchange and Unity Connection, the users who are configured for Unified Messaging may face issues in adding recipient while composing, replying and forwarding of messages. For more information on resolving domain name configuration issues, see the [Resolving SMTP Domain Name Configuration Issues](#) section

Location for Deleted Messages

By default, when a user deletes a voicemail in Unity Connection, the message is sent to the Unity Connection deleted items folder and synchronized with the Outlook Deleted Items folder. When the message is deleted from the Unity Connection Deleted Items folder (you can either do this manually or configure message aging to do it automatically), it is also deleted from the Outlook Deleted Items folder.

When a user deletes a voicemail from any Outlook folder, the message is not permanently deleted but it is moved to the Deleted Items folder. No operation in Outlook causes a message to be permanently deleted in Unity Connection.

To permanently delete messages using Web Inbox or Unity Connection phone interface, you must configure Unity Connection to permanently delete messages without saving them in the Deleted Items folder.

When Unity Connection synchronizes with Exchange/ Office 365, the message is moved to the Unity Connection Deleted items folder but not permanently deleted.



Note We can also permanently delete messages from the Unity Connection Deleted Items folder using Web Inbox.

To permanently delete messages from the Unity Connection Deleted Items folder, do either or both of the following steps:

- Configure message aging to permanently delete messages in the Unity Connection Deleted Items folder.
- Configure message quotas so that Unity Connection prompts users to delete messages when their mailboxes approach a specified size.

Types of Messages Not Synchronized with Exchange/ Office 365

The following types of Unity Connection messages are not synchronized:

- Draft messages
- Messages configured for future delivery but not yet delivered
- Broadcast messages
- Unaccepted dispatch messages



Note When a dispatch message is accepted by a recipient, it becomes a normal message and is synchronized with Exchange/ Office 365 for the user who accepted it and deleted for all other recipients. Until someone in the distribution list accepts a dispatch message, the message waiting indicator for everyone in the distribution list remains on, even when users have no other unread messages.

Affect of Disabling and Re-enabling Single Inbox

When you configure unified messaging, you can create one or more unified messaging services. Each unified messaging service has a set of specific unified messaging features enabled. You can create only one unified messaging account for each user and associate it with a unified messaging service.

Single inbox can be disabled in the following three ways:

- Entirely disable a unified messaging service in which single inbox is enabled. This disables all enabled unified messaging features (including single inbox) for all users that are associated with the service.
- Disable only the single inbox feature for a unified messaging service, which disables only the single inbox feature for all users that are associated with that service.
- Disable single inbox for a unified messaging account, which disables single inbox only for the associated user.

If you disable and later re-enable single inbox using any of these methods, Unity Connection resynchronizes the Unity Connection and Exchange/ Office 365 mailboxes for the affected users. Note the following:

- If users delete messages in Exchange/ Office 365 but do not delete the corresponding messages in Unity Connection while single inbox is disabled, the messages get resynchronized into the Exchange mailbox when single inbox is re-enabled.
- If messages are hard deleted from Exchange/ Office 365 (deleted from the Deleted Items folder) before single inbox is disabled, the corresponding messages that are still in the deleted items folder in Unity Connection when single inbox is re-enabled are resynchronized into the Exchange/ Office 365 Deleted Items folder.
- If users hard delete the messages in Unity Connection but do not delete the corresponding messages in Exchange/ Office 365 while single inbox is disabled, the messages remain in Exchange/ Office 365 when single inbox is re-enabled. Users must delete the messages from Exchange/ Office 365 manually.
- If users change the status of messages in Exchange/ Office 365 (for example, from unread to read) while single inbox is disabled, the status of Exchange/ Office 365 messages is changed to the current status of the corresponding Unity Connection messages when single inbox is re-enabled.
- When you re-enable single inbox, depending on the number of users associated with the service and the size of their Unity Connection and Exchange/ Office 365 mailboxes, resynchronization for existing messages may affect synchronization performance for new messages.
- When you re-enable single inbox, depending on the number of users associated with the service and the size of their Unity Connection and Exchange/ Office 365 mailboxes, resynchronization for existing messages may affect synchronization performance for new messages.

Synchronization of Read/Heard Receipts, Delivery Receipts, and Non-delivery Receipts

Unity Connection can send read/heard receipts, delivery receipts, and non-delivery receipts to Unity Connection users who send voicemails. If the sender of a voicemail is configured for single inbox, the applicable receipt is sent to the Unity Connection mailbox of the sender. The receipt is then synchronized into the Exchange/ Office 365 mailbox of the sender.

Note the following.

- **Read/heard receipts:** When sending a voicemail, a sender can request a read/heard receipt.

Do the following steps to prevent Unity Connection to respond to requests for read receipts:

- In Unity Connection Administration, either expand **Users** and select **Users**, or expand **Templates** and select **User Templates**.
 - If you selected **Users**, then select an applicable user and open the Edit User Basics page. If you selected **User Templates**, then select an applicable template and open the Edit User Template Basics page.
 - On the Edit User Basics page or the Edit User Template Basics page, select **Edit > Mailbox**.
 - On the Edit Mailbox page, uncheck the **Respond to Requests for Read Receipts** check box.
- **Delivery receipts:** A sender can request a delivery receipt only when sending a voicemail from ViewMail for Outlook. You cannot prevent Unity Connection from responding to a request for a delivery receipt.
 - **Non-delivery receipts (NDR):** A sender receives an NDR when a voicemail cannot be delivered.

Do the following steps to prevent Unity Connection to send an NDR when a message is not delivered:

- In Unity Connection Administration, either expand **Users** and select **Users**, or expand **Templates** and select **User Templates**.
- If you selected **Users**, then select an applicable user and open the Edit User Basics page. If you selected **User Templates**, then select an applicable template and open the Edit User Template Basics page.
- On the Edit User Basics page or the Edit User Template Basics page, uncheck the **Send Non-Delivery Receipts for Message Failed Delivery** check box and select **Save**.



Note

- When the sender accesses Unity Connection using the TUI, the NDR includes the original voicemail that allows the sender to resend the message at a later time or to a different recipient.
- When the sender accesses Unity Connection using Web Inbox, the NDR includes the original voicemail but the sender cannot resend it.
- When the sender uses ViewMail for Outlook to access Unity Connection voicemails that have been synchronized into Exchange, the NDR is a receipt that contains only an error code, not the original voicemail, so the sender cannot resend the voicemail.
- When the sender is an outside caller, NDRs are sent to Unity Connection users on the Undeliverable Messages distribution list. Verify that the Undeliverable Messages distribution list includes one or more users who regularly monitors and reroutes undelivered messages.

Text-to-Speech

The Text-to-Speech feature allows the unified messaging users to listen to their emails when they sign in to Unity Connection using phone.

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

- Office 365
- Exchange 2019
- Exchange 2016
- Exchange 2013
- Exchange 2010



Note Text-to-Speech over Office 365, Exchange 2019, Exchange 2016, Exchange 2013, and Exchange 2010 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.

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 in the “Notification” chapter of the *System Administration Guide for Cisco Unity Connection, Release 12.x*, available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/12x/administration/guide/b_12xcucsag.html.

Following are the considerations for effective use of transcription delivery:

- In the **From** field, enter the number you dial to reach Unity Connection when you are not dialing from the desk phone. If you have a text-compatible mobile phone, can initiate a callback to Unity Connection in the event that you want to listen to the message.
- You must check the **Include Message Information in Message Text** check box to include call information, such as caller name, caller ID (if available), and the time that the message was received. If the check box is unchecked, the message received does not indicate the call information.

In addition, if you have a text-compatible mobile phone, you can 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, you are notified when a message arrives and 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, you have to open the messages to determine which one contains the transcription.



Note For information on configuring the text-to-speech feature in Unity Connection, see the “[Configuring Text-to-Speech](#)” chapter.

Calendar and Contact Integration



Note For information on configuring calendar and contact integration in Unity Connection, see the “[Configuring Calendar and Contact Integration](#)” chapter.

About Calendar Integration

The calendar integration feature enables the unified messaging users to do the following tasks over phone:

- Hear a list of upcoming meetings (Outlook meetings only).
- Join a meeting that is in progress (MeetingPlace and MeetingPlace Express meetings only).
- Hear a list of the participants for a meeting.
- Send a message to the meeting organizer.
- Send a message to the meeting participants.
- Accept or decline meeting invitations (Outlook meetings only).
- Set up immediate meetings (MeetingPlace and MeetingPlace Express meetings only).
- Cancel a meeting (meeting organizers only).

Unity Connection supports calendar applications when integrated with the following mail servers:

- Office 365
- Exchange 2019
- Exchange 2016
- Exchange 2013
- Exchange 2010
- Cisco Unified MeetingPlace/ Cisco Unified MeetingPlace Express.

For listing, joining, and scheduling meetings, see the “[Cisco Unity Connection Phone Menus and Voice Commands](#)” chapter of the *User Guide for the Cisco Unity Connection Phone Interface, Release 12.x*, available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/12x/user/guide/phone/b_12xcucugphone.html.

For using Personal Call Transfer Rules, see the *User Guide for the Cisco Unity Connection Personal Call Transfer Rules Web Tool, Release 12.x*, available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/12x/user/guide/pctr/b_12xcucugpctr.html.

About Contact Integrations

Unity Connection allows users to import Exchange contacts and use the contact information in Personal Call Transfer Rules and when placing outgoing calls using voice commands. Unity Connection supports contact applications when integrated with the following mail servers:

- Office 365
- Exchange 2019
- Exchange 2016
- Exchange 2013
- Exchange 2010

For importing Exchange contacts, see the “[Managing Your Contacts](#)” chapter of the *User Guide for the Cisco Unity Connection Messaging Assistant Web Tool, Release 12.x*, available at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/12x/user/guide/assistant/b_12xcucugasst.html.

