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<td>2893-001</td>
<td>June 2014</td>
<td>Aastra Technical Publications, Velvet Moore</td>
<td>Initial release of this publication.</td>
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ABOUT CLEARSPAN COMMUNICATOR FOR IPHONE

Clearspan Communicator for iPhone provides the following communication features:

- Voice Calling (VoIP)
- Voice Calling (Circuit Switched)
- Video Calling
- Clearspan Call Settings
- Instant Messaging and Presence (IM&P)
GETTING STARTED

This section contains the essential information for getting started with Clearspan Communicator.

INSTALLATION

The iPhone client can be downloaded from the Apple App Store.

SIGN IN

When you first launch the application, you are prompted to sign in.

1. If displayed, enter the device configuration address (Uniform Resource Identifier [URI]) provided by your service provider.
2. Enter your Clearspan user name and password.
3. Select whether you would like Clearspan Communicator to remember your password.
4. Tap Sign In.

Note: If you select automatic sign in, you are signed in automatically and taken to the Contacts list upon subsequent Clearspan Communicator launches. Otherwise, you are presented with the Sign In screen.

- A pop-up dialog about emergency calls may appear on the Sign In screen. Selecting Ok completes the sign-in, and you can use the client. Selecting Cancel returns you to the Sign In screen.

Depending on your service provider settings, the client may have a Forgot Password link on the login dialog box allowing retrieval of forgotten passwords. The functionality for retrieving the password is provided by the service provider.
MAIN TABS

When you start Clearspan Communicator for the first time, the Contacts list is empty. Use the search field to find people and add them to your Contacts list. Contacts can also be added manually by tapping the + Add button.

The main view contains a number of tabs that present information about the contacts and communications options available as follows:

- **Contacts** – View your buddy list, view local contacts, or search for directory contacts.
- **Call** – Make calls.
- **Chat** – View chat history.
- **History** – View incoming, outgoing, and missed calls.
- **My Room** – Join my room.

The main view contains a number of tabs that present information about the contacts and communications options available as follows:

- Contacts
- Chat
- Call
- History
- My Room
CONTACTS

The Contacts list in Contact tab can contain different types of contacts as follows:

- Presence-enabled contacts
- Non presence-enabled contacts

Any contact can be marked as a favorite and it appears at the top of the Contacts list in the Favorites section.

Presence-enabled contacts are users with an Extensible Messaging and Presence Protocol (XMPP) address. These can be other Clearspan Communicator users or users from federated systems such as Google Talk. Non presence-enabled contacts can be phone or conference numbers.

The iPhone client shows contact groups created from the Desktop or Tablet devices. The contacts groups cannot be created or edited from the iPhone client.

The Contacts tab contains:

- Clearspan Contacts
  - All
  - Online
- Contact Directories
  - Local Address Book
  - Directory

Directory provides the company directory contacts. The Local contact list provides the contacts from the local phone book.

ADD CONTACTS

When you sign in for the first time, there are no contacts on your Contacts list. Add a new presence-enable contact at any time by selecting the option Add Contact from the + plus icon in the navigation bar. Another way to add new contacts is to use the directory search option from the Contacts tab.

In the Add Contact screen, enter the contact’s information and then tap Done. By default, your presence information is always shared with a new contact if an XMPP address is provided.

If you receive a buddy request invitation, you can ignore or accept it. If you ignore the buddy request, you can always share your presence information later by selecting Subscribe from the buddy contact card. Note that the contact must accept your subscription request for you to establish the presence relationship successfully.

Add a conference number by selecting the option Add Conference from the + plus icon in the navigation bar by typing a conference number. You can also add a conference number from directory search. A
conference contact is a special contact used for conference bridges to avoid having to remember a PIN code and a conference number, for example, for a recurring conference.

Add a local contact by selecting the option Add Local Contact from the + plus icon in the navigation bar. The option Add Local Contact opens the native Address Book for adding a new contact from the local phone book.

EDIT CONTACTS

Tap a contact entry from the Contacts list to open a contact card. This is the same for presence-enabled and non-presence-enabled contacts.

- **Edit** opens the Contact Information dialog box where you can add, edit, or remove information. This works for both presence-enabled and non-presence-enabled contacts.
- **Unsubscribe** removes the presence relationship between you and that contact. This means you do not see the contact’s presence information and your contact does not see yours. Select Subscribe to re-establish the presence relationship. An unsubscribed contact remains on your Contacts list and is always shown as “offline”.
- **Remove contact** deletes the contact from your Contacts list.

FILTERS

There are four contact filters available from the Contacts tab:

- **All** – Shows all presence-enabled and non-presence-enabled contacts.
- **Online** – Shows only the presence-enabled contacts that are currently online.
- **Local Address Book** – Shows the contacts from your local phone book.
- **Directory** – Shows the contacts from a company directory (which requires a search).
PRESENCE

Instant Messaging (IM) and Presence (P) are optional Clearspan features.

You can see presence for each contact to which you have subscribed. Similarly, your contacts can see your presence on their Contacts list. Presence means that your friends are able to see whether you are available, for example, “I’m available” or “I’m busy”.

<table>
<thead>
<tr>
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<th>WHAT IT MEANS</th>
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<tr>
<td><img src="green.png" alt="Green" /></td>
<td>The green presence icon indicates that the user is online and ready for communication.</td>
</tr>
<tr>
<td><img src="cellphone.png" alt="Cellphone" /></td>
<td>The cellphone icon indicates that the user is logged in on a mobile device.</td>
</tr>
<tr>
<td><img src="yellow.png" alt="Yellow" /></td>
<td>The yellow presence icon indicates that the user is online on their Clearspan Communicator desktop client but has been idle or away from the computer for more than ten minutes.</td>
</tr>
<tr>
<td><img src="red.png" alt="Red" /></td>
<td>The red presence icon indicates that the user is busy and does not want to be disturbed.</td>
</tr>
<tr>
<td><img src="grey.png" alt="Grey" /></td>
<td>The grey presence state icon indicates that the user is offline, and the only available contact method is calling or leaving a chat message.</td>
</tr>
<tr>
<td><img src="question_mark.png" alt="Question Mark" /></td>
<td>The question mark indicates that a subscription is pending and the contact has not yet approved sharing presence.</td>
</tr>
<tr>
<td><img src="phone.png" alt="Phone" /></td>
<td>This icon indicates that the contact is busy due to a call. This is an automated presence status.</td>
</tr>
<tr>
<td><img src="meeting.png" alt="Meeting" /></td>
<td>This icon indicates that the contact is busy due to a meeting. This is an automated presence status. The Busy – In Call status overrides the Busy – In Meeting status, so this one is only seen when there is a meeting but no call.</td>
</tr>
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</table>

You can manually set your own presence by tapping on the presence icon from the status bar on the Chat tab. The presence icon opens the My Status screen where you can change your avatar, personal message, and presence status.

Your avatar is the picture that represents you in your friends’ Contacts lists and in chat screens. Tapping on an avatar opens a dialog with options to select an existing image, to take a new one with your phone camera, or to clear your avatar. You can enter a status message into the area next to the avatar. This status text is shown in your friends’ Contacts lists.

If you see the error message, “Chat Unavailable” under any tab, it means that XMPP connectivity has been lost for chat and presence; however, you can still make calls. In this case, you should contact your service provider.

The presence update is only triggered by appointments and meetings that are either accepted by the user or made by the user. All-day meetings do not trigger a presence change to Busy – In Meeting.
INSTANT MESSAGING

Instant Messaging (IM) and Presence (P) are optional Clearspan features.

CHAT TAB

Chat shows the list of recent chats since the last login. If User A chats with User B multiple times, their discussions appear as one item in the list.

Tapping the name opens the chat view (IM view) where new messages can be typed. Old messages are also shown.

New incoming messages are indicated with a notification badge to the right of the name. The icon remains next to the name until the message is read.

Chats are listed so that the newest one is always at the top. Chats are not in alphabetical order. Instead, they are listed with the most recent first.

Tapping the menu button in the navigation bar displays the Start Group Chat option.

Tap the presence status icon to update your status or location and enter a status message.

CHAT

Start a chat using one of the following methods:

- From the Contacts list, tap a contact to open the contact card. From the contact card, choose the chat bubble icon to start chat.

- In the Chat History list, tap a chat history entry to start a chat.

When you initiate a chat, the Chat screen opens. Chatting with a contact is possible only when you are both online. If your contact initiates a chat, you see a notification badge on the Chat tab and the entry appears on the top of Chat History list.

When the chat opens, the name of the recipient is on the top bar and there is a presence icon flag before the name. The recipient messages are presented in the orange background and the user is presented in white background.

A smiley can be added to a message by typing the corresponding character code or by selecting a smiley icon. The smiley is displayed graphically in the message area. The text input field in Chat uses auto-correct, auto-cap, and spell check based on system settings. Use the system settings to enable or disable these features.
GROUP CHAT

Start a group chat using one of the following methods:

- In single chat session, tap the add participant icon to escalate from a single to a group chat.
- From the Chat tab, tap on the menu icon to select the Start group chat option.
- In the Chat History list, tap a group communication entry to start a group chat.

When you initiate a group chat, the Chat screen opens. More people can be added later to the chat using the add participant icon. Anyone in the group chat can add participants. However, removing participants is currently not supported.

A group chat works the same way as a one-on-one chat. All messages from anyone are sent to everyone else. All contacts need to be online to be able to participate in a group chat. You cannot invite an offline contact.

A group chat history is saved and is available to view later in the Chat tab.

A user can leave a group chat by selecting the Leave Chat option. The chat is marked as “offline” and the user no longer receives messages from the chat. When tapping on the “offline” chat, the user re-joins the room and starts receiving messages. However, the user does not receive the messages that were sent in the chat while the user was outside of the room.

The Clear History menu item works the same way as the corresponding option in a one-on-one chat and removes the local history.

The View Participants button opens a dialog that shows the list of participants in the group chat.

Deleting a chat room is not supported.

CHAT RECORDING

The Clearspan Communicator client can provide a chat recording indication to users for all chat sessions depending on the server configuration. Chat recording state is applied to all users registered in a single domain. This setting is not specific to any user and therefore the recording state cannot be modified by end users.

CHAT SECURITY CLASSIFICATION

The Clearspan Communicator client provides the ability to specify the security classification of chat sessions. The security classification is configured on the server side and cannot be changed by end users. The security classification level for instant messaging is assigned to the whole domain and all users in that domain have the same classification level. It is visible in all the chat session types: single and group.
AUDIO AND VIDEO CALLS

DIAL PAD TAB

The Dial Pad tab displays a dial pad and a text field used to enter numbers. The dial pad is one of the options used to make audio or video calls. There are three buttons below the dial pad: Video Call, Call, and Dial pad menu that are configurable by the service provider. When you enter a number, the top text field will have a delete button that, when pressed, deletes one character at a time.

A badge notification appears on the Dial pad tab when there are messages in the voicemail box. A long press on the “1” digit connects you to the voicemail box. When there is no voice mail in your voicemail box, no notification badge is shown.

The Dial pad menu can contain two options: Call Pull and Retrieve Call.

MAKE AUDIO OR VIDEO CALLS

Make an audio or video call using one of the following methods:

- Choose a contact from contact list and tap on the headset icon ☎️ for an audio call or the video icon 📹 for a video call.
- From search results, open a contact card and tap on the headset icon ☎️ for an audio call or the video icon 📹 to perform a video call.
- Open the dial pad, enter a phone number, and tap the Call or Video button.
- On the Call History list, tap a call entry.
- On the Chat screen, tap the headset icon ☎️ for an audio call or the video icon 📹 for a video call.

MAKE AN EMERGENCY CALL

If you place an emergency call from Communicator, the call is placed over a cellular network, if possible. If the cellular network is not available, Communicator tries placing the call over a cellular data connection or WiFi network, as a VoIP call.
ANSWER CALL

An incoming call is indicated by a ringtone. There are two options on the incoming call screen: Answer and Decline. If you decline the call, it causes the line to sound busy at the caller’s end and they know that you rejected the call.

If you are in the middle of a VoIP call and receive an incoming cellular call, the VoIP call is put on hold right away before answering/declining it.

If the iOS device (iPhone or iPad) is locked and there is incoming VoIP call, a notification is displayed on the locked screen, accompanied with an alerting sound and vibration.

If the device is in silent mode, the Communicator notification is accompanied by multiple vibrations. Vibrations are played until the call is answered locally, answered on another location, or redirected to voice mail or another number, or after a predefined timeout.

The incoming call ring volume when the application is in background is controlled by the Ringer volume when the phone is unlocked. The volume of the incoming call ring when the application is in foreground is controlled only during active alerting of an incoming call.

IN CALL ACTIONS

You can perform the following actions from the In Call screen:

- End a call
- Mute the microphone
- Enable/Disable Speaker*
- Open the key pad
• Adjust the volume
• Escalate from an audio to video call and downgrade from a video to audio call
• Place a call on hold
• Make a new call
• Transfer a call – Attended
• Transfer a call – Unattended
• Make a conference
• Park a call
• Transfer a call to circuit-switched call
• Add more participants (in conference call only)
• Merge two separate calls
• Swap two separate calls
• View participants (on a conference call)

* During a video call, the audio output is automatically switched to speaker-only mode.

**MISSED CALLS AND NEW MESSAGES**

Notifications (for example, for missed calls or new messages) are shown as badges on the tab icons.

**MESSAGE WAITING INDICATOR AND VOICE MAIL ACCESS**

If you have pending voice mail (VM) messages, then a badge is displayed on the Call tab icon that indicates the number of pending VM messages.

The voice mail is accessible with a long-press of the dial pad digit “1” (similar to how it is done on a regular mobile keypad).

**BUSINESS LINE CALL BACK**

Clearspan Communicator allows you to originate a circuit-switched call using your business line identity. This is done using the basic Call Back functionality on Clearspan.

Basic Call Back is only available if you have Clearspan Anywhere or Remote Office assigned. The application checks to see whether one of these two services is provisioned with a phone number that matches the mobile number. If it is provisioned this way, it provides you with the option to make calls using the Call Back feature.

In order to provide a better user experience, the client creates a temporary contact in the native phonebook for the destination telephone number but configured with the temporary IMRN as a number. If a contact has an entry in the local phonebook, then the name is also copied into this new temporary contact. By doing
this, the user receives visual feedback from the phone’s native dialer that the correct person is being reached even though the phone is dialing a Clearspan number (or IMRN).

Note that nothing can be done for the phone’s native call log. That is, the user sees in the phone’s native call log all the IMRN numbers with no indication of the actual destination number being called. The user must access the Clearspan Call History via the Clearspan Communicator application to see the actual destination number that was called.

Starting with Communicator Release 21.2.x, the application provides mid-call control services for business circuit-switched calls. For more information, see Mid-Call Controls for Circuit-switched Business Calls.

The iOS client provides two additional settings related to Call-Back dialing:

- Callback validation – if set to “ON”, it checks that Clearspan Anywhere or Remote Office is enabled and verifies that the phone number in Clearspan Anywhere or Remote Office matches the users mobile phone number.
- Mobility – if set to “ON”, it imposes that the Mobility service number is used for Call Back instead of Clearspan Anywhere or Remote Office.

CONTACT NAME LOOKUP FOR INCOMING CALLS AND CALL LOGS

When receiving a call, Clearspan Communicator searches for the name in the following sources and in the following order: XMPP contact name, Enterprise directories, Local Contact, P-Identifier header (SIP), and From header (SIP). If the number matches one of the contacts, the name is shown on the incoming Call screen.

N-WAY CALLING (CONFERENCE)

Clearspan Communicator supports SIP-based conference calls. While on a two-way audio or video call, you can add more participants by using the Conference button. It opens the address book on the device to search for and select the new participant.

The supported mode is Blind Conference calling. The third party receives a call and it is joined to the conference automatically when the call is answered. The Attended Conference mode, which prompts the third party to join or decline, is not supported in this release.

Once the conference is established, the participants are shown on the Device screen.

The other way to create Conference call or to add participants to an existing Conference is to make a second new call and then select the merge option.

CALL WAITING

You can have one active call at any one time if you receive a new incoming call and accept it. The existing call is put on hold and you can change between these two calls by using the Hold and Unhold buttons.
NEW CALL

The client supports starting a new call while in an ongoing call. The steps are as follows:

1. Establish a call with a remote party.
2. Initiate second call using the new call button.
3. Select a contact and then choose a number. After the new call is established, the first call is put on hold. You can also swap the two calls or to merge it in conference.

CALL TRANSFER

The client supports transferring VoIP calls to another party. Two modes of transfer are supported:

- Attended Transfer – Establish a call with a remote party. Select a contact then choose a number. Select the call first option. If the call is successfully established, you can talk with the third party privately before completing the transfer by pressing the complete button.
- Unattended Transfer – Establish a call with a remote party. Select a contact and then choose a number. Select the Transfer option and the transfer is completed.

CALL PULL

Call Pull can be used in scenarios where a user has two endpoints, for example, a VoIP desk phone and a mobile phone with Clearspan Communicator. If the user has an active call on the desk phone, then this call can be transferred seamlessly to the mobile phone by selecting Pull Call from the Dial pad menu. Depending on the application, dialing settings, and service configuration, the call can be pulled as a VoIP or circuit-switched call to the mobile phone. There is no interruption to the voice call.

CALL PARK

The Call Park service allows a “parking” user to park a call against a “parked against” extension. The “parked” user is placed on hold until a user retrieves the parked call. If the call is not retrieved within the provisioned recall time, then the parked call is reverted and presented to the “recall” user.

CALL RECORDING

The Clearspan Communicator client provides the ability for users to start, stop, pause, and resume call recordings. Call recording controls depend on user’s call recording mode configured on the server. The client supports the option to record a call before it begins or during the call itself.

Recorded calls are accessed outside of Communicator; you cannot view them using the client. Depending on your service settings, call recording behavior is one of the following (this cannot be controlled in the client but in the self-provisioning portal):

- Always – recording indication (icon) in the In Call screen.
- Always with pause/resume – recording indication (icon) in the In Call screen. Only pause/resume menus are available in this mode.
• On demand – recording indication (icon) in the In Call screen. No stop menu is available, only start and pause/resume. After a call is established, call recording starts on the server. If the user presses the Start Recording button during the call, the call recording is stored and the server keeps the recording of the whole call regardless of when the recording was started (except for pauses). Otherwise, if no start recording is initiated from the user, the call recording is deleted from the server.

• On demand with user-initiated start – recording indication (icon) in the In Call screen. Menu options available for start, stop, and pause. Call recording can be initiated at any time and several times during a call. There are separate call recordings for each call recording startup.

• Never – no indicators or menu options present. Pause/resume audio indication depends on your service provider settings. It is recommended to re-login after changing the call recording mode in the self-provisioning portal.

CALL SECURITY CLASSIFICATION

The Clearspan Communicator client provides the ability to specify the security classification of calls and chats. The security classification of a call party is determined by the security classification set at the Clearspan Enterprise level; all users within the organization inherit that security classification. Security levels are configurable on the server side, but there is always at least one security level, that is, “Unclassified”.

In addition, each user can change the security classification for the duration of the call via their handset. The user can change the security classification to a level less than or equal to their configured security classification.

For calls, the security classification can be changed during a call by a user and it works with supplementary services such as Call Transfer and Conference.

For chat, the security classification is displayed but cannot be changed.

BLUETOOTH SUPPORT

You can perform audio calls from a compatible Bluetooth headset. The System requirements section in the Communicator for Desktop and Mobile Product Guide lists the headsets that have been tested, although other Bluetooth devices should also work.

Communicator Mobile iOS supports mute and volume control from the Bluetooth headset; however, answer and hang up are supported only from the application.

MID-CALL CONTROLS FOR CIRCUIT-SWITCHED BUSINESS CALLS

Communicator Mobile provides mid-call control services for business circuit-switched calls that are anchored at Clearspan. This functionality is available for:

• Call Through and Call Back circuit-switched calls initiated from the Communicator client via the native phone dialer.

• Incoming circuit-switched calls delivered to the mobile phone via Clearspan Anywhere, Clearspan Mobility, or Remote Office location.
Supported mid-call control services are:

- **Hold / Resume.** For more than one call, this functionality requires Clearspan Call Control to be turned ON for the location.
- **Transfer**
- **Conference (limited to five participants)**
- **Swap.** Requires Clearspan Call Control to be turned ON for the location.
- **End Call**

After initiating a Call Through or Call Back call or after receiving a business circuit-switched call, the user can return to the main screen and launch Communicator to the foreground. At this point, the application brings a Mid-Call Control screen (shown in the previous figure) which can be used to manage the call.

For Call Through or Call Back outgoing calls, Communicator for iOS displays a local notification after the remote party accepts the call with information that the user can click on the notification in order to return to Communicator and control the call.

**SWIPE BETWEEN CHAT AND AUDIO/VIDEO COMMUNICATION VIEWS**

Communicator lets you switch between Chat and Audio/Video communications sessions for your own My Room, other users’ My Room, and two-way chat. The ability to switch between sessions is indicated by the presence of dots at the bottom of the screen. You can swipe to switch between the sessions.
CALL HISTORY

The client supports the basic Clearspan Call History. From the segmented controls the Call History can be set to show all or missed calls.

On the list of calls, there are icons indicating whether a call was incoming, outgoing, or missed.

The list of the call items consists of an icon showing what kind of call it was (a green arrow means incoming, a blue arrow means outgoing, and a red arrow means missed). It also shows the name, number, Unavailable status for the caller, and below the name, it shows the number, if available. To the right, is the date of the call and the time the call was initiated.

The Call History makes it easy for you to redial and call back when you miss a call or when you want to dial a contact with whom you have recently spoken.
SIDE NAVIGATION

The *Side Navigation* contains the following items:

- My status
- Call settings
- Preferences
- Queues
- About
- Version
- Help
- Sign out

MY STATUS

You can set your own presence by tapping on your personal status from the side navigation. It opens the *My status* screen where you can change your avatar, personal message, and presence status.

Your avatar is the picture that represents you in your friends’ Contacts lists and in chat screens. Tapping on an avatar opens a dialog with options to select an existing image, to take a new one with your device’s camera, or to clear your avatar.

You can enter a status message into the area next to the avatar. This status text is shown in your friends’ Contacts lists.

If you see the error message “Chat Unavailable” under any tab, it means that XMPP connectivity has been lost for chat and presence; however, you can still make calls. In this case, you should contact your service provider.

Presence Rules

Presence Rules allows a user to configure calling rules associated with each of the presence states. When the presence state is triggered, the associated rule is applied.

Each presence rule can be configured with one of the following options:

- No Rules
- Forward to Number
- Silent Alerting
CALL SETTINGS

The client supports the following Clearspan Service Management features, allowing Clearspan supplementary services to be turned on or off using the native client Preferences window:

Call Options

- Caller ID Blocking
- Dialing Service

My Telephone Number

- iPhone

Call Forwarding

- No Answer
- Always
- Not Reachable
- Busy
- Do Not Disturb

Incoming Calls

- Simultaneous Ring Personal

Clearspan

- Clearspan Anywhere
- Remote Office

Do Not Disturb

When you activate this service, all calls are typically blocked by the server and sent to voice mail.

Call Forwarding

By tapping on a different Call Forward option, you can enter a number to forward your calls as follows: Call Forward Always, Busy, or When Unreachable.

Remote Office

This service allows the use of any phone as the office phone from a charging and numbering perspective. For instance, a hotel room phone can be used as the office phone.

Enable Remote Office and specify a phone number to be used as the Remote Office number.
Clearspan Anywhere

Clearspan Anywhere allows service providers to offer fixed-mobile convergence (FMC) services without additional equipment.

Clearspan Anywhere simplifies communications for on-the-go users and remote users by extending the features of a desk phone to any other fixed or mobile device, regardless of the network or handset manufacturer. Callers dial one number and can reach you on any phone the user chooses. A desk phone, cell phone, and/or a soft phone can ring simultaneously.

Voice call continuity is possible with the ability to move live calls from one device to another without hanging up.

Add locations (numbers) that can be used in the service using the Add New Location button. Use the Alert All Locations to activate parallel ringing.

Select Diversion Inhibitor to prevent a call ending up as a voice mail, which can be problematic, for example, in conference call situations.

Select Answer Confirmation to receive a separate audio prompt when answering a call from that number (location). It may be useful in cases where, for example, mobile numbers are being used to prevent incoming calls going to mobile voice mail since the call will be ended without going to voice mail if the answer confirmation is not provided.

Select Call Control to enable the server platform to provide mid-call services such as Call Transfer and Conferencing for that number (location).

Clearspan Anywhere is a premium feature.

PREFERENCES

The client supports the following preferences:

- Troubleshooting
- Remember password
- Caller ID lookup
- Sign in automatically
- Enable video calls

Troubleshooting

The troubleshooting function can be used if there are issues encountered with the application. It collects and sends diagnostic information to a predefined support email address that is configurable via the branding process. This helps support personnel to identify the issues. The information sent consists of the application and media engine diagnostic logs.
Troubleshooting is managed by a menu entry in **Settings**. It can be accessed from two places in the client:

- From the Settings button on the *Sign In* screen – This opens the screen that contains the help and troubleshooting-related entries. This can be used before the user has signed in, which is most often for cases when a user has issues with signing in or with connectivity.
- From the *Preferences* screen, accessible from the Side navigation. This is available while the user is logged in.

**Sign In Automatically**

The user can choose to sign in automatically with Communicator Mobile with a default account when the client is started. Together with the functionality to start Communicator automatically at system startup, this makes it easier for users to remember to sign in and be available for communication.

**Caller ID Lookup**

When there is an incoming call, Communicator matches it by searching in the contact list, local address book, and directory. To improve the performance, Communicator for iOS provides the ability to turn on/off searching in the local address book.

**CALL CENTER AGENT (QUEUES)**

Communicator allows a user to join and leave Call Center Queues and set their Automatic Call Distribution (ACD) status. This functionality is available based on the configuration and services assigned to the user.

To view the currently assigned queues, join and leave queues, and change state, use the Queues entry in the side navigation menu.

**HELP PAGE**

The client provides web-based help that can be launched from the *Settings* view.

**SIGN OUT**

You can sign out at the bottom of the left-side navigation drawer.
MY ROOM

My Room is an always available and permanent room you can use to chat with anyone that joins.

My Room is accessible using the My Room icon in the Tab bar. You can add more participants using the add participants icon or they can join your room from your contact card. Once participants join the chat room, they can tap on the Call button of that screen to automatically join the conference.

My Room uses your permanent chat room, permanent collaboration room, and a conference bridge (audio or video). All My Room sessions start as chats but a call can be added to the session while in progress.

Others join your room by tapping your name on their Contacts list and selecting Join Room from the contact card.

My Room and Desktop Sharing are optional Clearspan features.
COMMUNICATOR AND IPHONE SETTINGS

From iPhone Settings → Communicator, the user can allow Communicator to access:

- Contacts
- Microphone
- Camera
- Notifications
- Cellular Data

It is recommended that Communicator have access to all of the resources in the previous list.

In addition, the user can configure the type of notifications they want to get with Communicator:

- Allow Notifications
- Show in Notification Center
- Sounds
- Badge App Icon
- Show on Lock Screen

It is recommended for all of the items in the previous list to be enabled.

In addition, it is recommended to configure the option "Alert style when unlocked" to "Alerts".
Clearspan Communicator supports search in Clearspan Contacts and Contact Directories. The search is performed in a separate input field in the Contacts tab. Depending on the selected filter (All, Online, Local Address Book, or Directories), search results display contacts only from the current selected category.

In addition to results from the Enterprise Directory, the search is also performed in several more search sources:

- User’s Personal Phone List
- Group’s Common Phone List
- Enterprise’s Common Phone List

The enhanced search is applied for both contacts searching initiated by the user and upon receiving an incoming call, and searching for a display name corresponding to an unknown number.

Communicator for iOS also supports search in an LDAP-compatible directory like Microsoft Exchange. If the device email and contact applications are synchronized with Microsoft Exchange or a compatible email provider, Communicator can look up contacts from the directory Global Address List (GAL). This search is available through Contacts, Local Address Book, All Contacts with Groups, Groups, and GAL.
MULTI-DEVICE

Clearspan Communicator provides support for users with multiple devices. This includes several features:

- Chat invitations are sent to all devices. Before the session is accepted, messages are sent to all devices, and once answered, the chat messages go to the device that sent a reply message.

- Retrieving one’s own presence notifications when another client updates the user’s presence. The client updates its own status based on the information it receives from the server.

- Accepting a shared presence invitation in one client is also recognized by another client and both clients start receiving presence updates.

- A new presence subscription made in one client is recognized in another. If the contact blocks the invitation, there are presence notifications sent from the server to all of the user’s clients indicating that the subscription was terminated. This information is shown to the user. If the client receives two presence authorization requests from two or more devices for the same user, it only shows one request to the user.

- Removing a contact from a contact list in one device is recognized in another client and the contact list is updated (that is, the contact is removed) in the other client as well.
OTHER FEATURES

DEPLOYMENT CONFIGURATIONS FOR IM&P, AUDIO, AND VIDEO

The mobile client can be deployed in several different configurations, based on configuration file parameters as follows:

- Primarily as an IM&P client only (no audio or video support)
- Primarily as a soft client with audio only (no IM&P or video)
- Primarily as a soft client with audio and video (no IM&P)
- Primarily as a Unified Communications (UC) client with audio only (that is, IM&P and audio, but no video)
- Primarily as a UC client with audio, video, and IM&P
- Click-To-Dial (Call-Back and Call-Through through the native dialer)

For more information on the functionalities that are available in your version of the client, contact your service provider.

VERSION CONTROL

Version control is supported using the App Store mechanism. When a new release is available, the old version is removed from the App Store and users of the previous version are notified about the update possibility.

PRIVACY MANAGEMENT

Clearspan Communicator supports authentication with a user name and password for different services and servers requiring authentication. For convenience, the end user can save a user name and password for different realms.

When the end user adds contacts to the Contacts list, these contacts receive a New Subscriber dialog asking whether they allow the end user to see their presence. This information is stored in this contact’s presence policies.

At any time, the user can edit the presence policies, which are stored on the server. The user can see all contacts that are allowed to view the user’s presence (white list) and users that are not allowed to view the user’s presence (blacklist). This feature requires a compatible presence server.
FIREWALLS AND NATS

The client supports \texttt{rport} (\textit{RFC 3581}) for Network Address Translation (NAT) traversal and for using the client behind a firewall. However, it is assumed that the client is mainly used with a session border controller (SBC), which also provides support for NAT traversal for several key features, such as calling, (which is currently unlikely to work without an SBC).

FAILOVER AND FAILBACK

The client supports failover and failback mechanisms for all used protocols: Xsi, XMPP, and SIP. This feature is used to:

- Detect multiple connection endpoints (per protocol)
- Order connection points by priority
- Connect to the highest priority connection point
- Reconnect to the next connection point by priority one (if there is a problem with the primary connection point)
- Provide a failback mechanism to switch back to the primary, (which is the highest priority connection point)

SECURE VOIP COMMUNICATION

The client supports secure VoIP communication using encrypted call negotiation and media streams. Mandatory, preferred, and optional secure modes are supported.

VOIP QUALITY OF SERVICE

The client has the ability to mark audio and video streams with Differentiated Services Code Point (DSCP) or Type of Service (ToS) flags using the Quality of Service (QoS) capabilities of the network equipment.
## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>APN</td>
<td>Access Point Name</td>
</tr>
<tr>
<td>ACD</td>
<td>Automatic Call Distribution</td>
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<tr>
<td>CLIP</td>
<td>Calling Line Identification Presentation</td>
</tr>
<tr>
<td>CLIR</td>
<td>Calling Line Identification Restriction</td>
</tr>
<tr>
<td>CS</td>
<td>Circuit Switched</td>
</tr>
<tr>
<td>DSCP</td>
<td>Differentiated Services Code Point</td>
</tr>
<tr>
<td>FMC</td>
<td>Fixed-Mobile Convergence</td>
</tr>
<tr>
<td>GAL</td>
<td>Global Address List</td>
</tr>
<tr>
<td>HTTP</td>
<td>Hypertext Transfer Protocol</td>
</tr>
<tr>
<td>HTTPS</td>
<td>Hypertext Transfer Protocol Secure Sockets</td>
</tr>
<tr>
<td>IM&amp;P</td>
<td>Instant Messaging and Presence</td>
</tr>
<tr>
<td>IMRN</td>
<td>IP Multimedia Routing Number</td>
</tr>
<tr>
<td>IP</td>
<td>Internet Protocol</td>
</tr>
<tr>
<td>NAT</td>
<td>Network Address Translation</td>
</tr>
<tr>
<td>PBX</td>
<td>Private Branch Exchange</td>
</tr>
<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
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<tr>
<td>QoS</td>
<td>Quality of Service</td>
</tr>
<tr>
<td>RCS</td>
<td>Rich Communication Suite</td>
</tr>
<tr>
<td>RTCP</td>
<td>Real-Time Control Protocol</td>
</tr>
<tr>
<td>SBC</td>
<td>Session Border Controller</td>
</tr>
<tr>
<td>SIM</td>
<td>Subscriber Identity Module</td>
</tr>
<tr>
<td>SIP</td>
<td>Session Initiation Protocol</td>
</tr>
<tr>
<td>TN</td>
<td>Telephone Number</td>
</tr>
<tr>
<td>ToS</td>
<td>Type of Service</td>
</tr>
<tr>
<td>UC</td>
<td>Unified Communications</td>
</tr>
<tr>
<td>UI</td>
<td>User Interface</td>
</tr>
<tr>
<td>URI</td>
<td>Uniform Resource Identifier</td>
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<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>VM</td>
<td>Voice Mail</td>
</tr>
<tr>
<td>VoIP</td>
<td>Voice Over IP</td>
</tr>
<tr>
<td>VPN</td>
<td>Virtual Private Network</td>
</tr>
<tr>
<td>XMPP</td>
<td>Extensible Messaging and Presence Protocol</td>
</tr>
<tr>
<td>XR</td>
<td>Extended Reports</td>
</tr>
<tr>
<td>Xsi</td>
<td>Xtended Services Interface</td>
</tr>
</tbody>
</table>
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* OpenSSL is only used as part of the Screen Share feature, which is not available in the Communicator for iPhone.