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<td>April 2014</td>
<td>Aastra Technical Publications, Velvet Moore</td>
<td>Initial release of this publication.</td>
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ABOUT CLEARSPAN® COMMUNICATOR FOR ANDROID

Clearspan® Communicator for Android provides the following communication features:

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

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

INSTALLATION

Android clients can be downloaded from Google Play.

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 system administrator.

2. Enter your Clearspan user name and password.

3. Select whether you would like Clearspan Communicator to remember your password.

4. Select whether you would like Clearspan Communicator to sign you automatically in on subsequent launches.

5. Tap Sign In.

Note: If you choose automatic sign in, you are automatically signed in 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 link for Forgot Password on the login dialog box allowing retrieval of forgotten password. The functionality for retrieving the password is provided by the service provider.
MAIN TABS

When you start Clearspan Communicator for the first time, your Contacts list is empty. You 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 located on the top bar:

- Contacts
- Dial Pad
- Chat
- History
- My Room
CONTACTS

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

- Presence-enabled contacts
- Non presence-enabled contacts

Any contact can be marked as a favorite, when then 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. These are also stored on the server and available on all client instances of the user.

The Android Mobile client shows contact groups created from the Desktop. Contact groups cannot be created or edited from the Mobile 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. You can add a new presence-enable contact at any time by selecting the option Add Contact from the plus icon in the top right corner of the screen. 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 select OK. By default, your presence information is always shared with a new contact if an XMPP address is provided.

If you receive a subscription request, you can decline or accept it. If you decline therequest, you can always share your presence information later by selecting Subscribe from the person's contact card. Note that the contact must accept your subscription request for you to establish the presence relationship successfully.
You can add a conference number by selecting the option *Add Conference* from the plus icon in the top right corner of the screen. In the *Add Conference* screen, enter the conference information and then select **OK**. 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 Add Local Contact option using the plus icon in the top right corner of the screen. The Add Local Contact option opens the native Address Book for adding a new contact in the local phone book.

**EDIT CONTACTS**

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

- Select *Edit* from action overflow button to open the *Contact Information* dialog box where you can edit information. This works for both presence-enabled and non- presence-enabled contacts.

- Select *Unsubscribe* from action overflow button to remove 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 a presence relationship. An unsubscribed contact remains on the *Contacts* list and is always shown as “offline”.

- Select *Remove* from action overflow button to remove the contact from your Contacts list.

**FILTERS**

There are four contact lists 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 Message (IM) and Presence (P) are optional Clearspan features.

You can see the presence of 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>
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<tr>
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<tr>
<td>🟢</td>
<td>The green presence icon indicates that the user is online and ready for communication.</td>
</tr>
<tr>
<td>🟢📞</td>
<td>The cellphone icon indicates that the user is logged in on a mobile device.</td>
</tr>
<tr>
<td>🟠</td>
<td>The yellow presence icon indicates that the user is online on their Communicator Desktop client but has been idle or away from their computer for more than ten minutes.</td>
</tr>
<tr>
<td>🔴</td>
<td>The red presence icon indicates that the user is busy and does not want to be disturbed.</td>
</tr>
<tr>
<td>🔴📞</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>🟡</td>
<td>The question mark indicates that a subscription is pending and the contact has not yet approved sharing their presence.</td>
</tr>
<tr>
<td>📞</td>
<td>This icon indicates that the contact is busy on a call. This is an automated presence status.</td>
</tr>
<tr>
<td>🔴📞</td>
<td>This icon indicates that the contact is busy in 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 if there is a meeting but no call.</td>
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You can manually set your own presence by tapping on the Presence icon in the top left corner of the screen. Tapping the Presence icon opens the My status screen where you can change your profile photo, personal message, and presence status.

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

You can enter a status message in the area next to the profile photo. This status text is shown in your friends’ Contacts list.

If you see the error message, “Chat Unavailable”, under any tab, it means that the 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 them. Note that all-day meetings do not trigger a presence change to Busy – *In Meeting.*
INSTANT MESSAGING

CHAT TAB

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

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 from the Chat list opens the chat view (IM view) in the right pane 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. Chat are not in alphabetical order and are always listed with the most recent first.

CHAT

Start a chat using one of the following methods:

- Tap a contact from the Contacts list to open a contact card. From the contact card, choose the chat icon to start a chat.
- From the options provided after a long press on a contact.
- In the Chat History list, tap a contact entry to start a chat.
- From search results, tap a contact to open the contact card and then choose the chat icon.

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 at the top of the Chat History list.

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

Smiles can be added to messages by typing the corresponding character codes and by selecting from the smiley icons, (the smiley is displayed graphically in the message area).
GROUP CHAT (AD-HOC ROOMS)

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.
- 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 participants 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 from 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 behaves the same way as the corresponding option in the 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.

Note that deleting a chat room is not supported.

CHAT RECORDING

The Clearspan Communicator client can provide a chat recording indication to users of all chat sessions depending on the server’s configuration. A chat recording state is applied to all users registered in a single domain. This setting is not specific to any one user; therefore, the recording state cannot be modified by the user.

CHAT SECURITY CLASSIFICATION

The Clearspan Communicator client provides the ability to specify a security classification of a chat session. The security classification is configured on the server side and cannot be changed by the user. The security classification level for instant messaging is assigned to the entire domain and all users have same classification level. It is visible in all chat sessions (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: Call, Video call, and Dial pad menu that are configurable by the service provider. The top text field also has 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 voice mail box. The voice mail icon under digit one becomes orange when there are voice mail messages. A long press on digit one connects you with your voice mail box. When there are no voice mail messages in your voice mail box the icon is grey.

The dial pad menu contains two options: Pull call and Retrieve call.

MAKE AUDIO OR VIDEO CALLS

You can make an audio or video call using one of the following methods:

- Tap a contact from the Contacts list to open a contact card. From the contact card, choose the headset icon to make an audio call or the video icon to make a video call.
- From the options provided, after long press on a contact.
- From the search results, tap a contact to open a contact card and choose the audio or video icon or by using the long press options.
- 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 to make an audio call or the video icon to make 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 with a ringtone. There are two options on the incoming call screen: Accept 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 a user is in the middle of a VoIP call and receives an incoming cellular call, the VoIP call continues while the phone is alerting. Once the cellular call is answered, the VoIP call is put on hold.

IN CALL ACTIONS

From the In Call screen, you can perform the following actions:

- End a call
- Mute the microphone
- Place a call on hold
- Adjust the volume
- Escalate from audio to video call and downgrade from video to audio call
- Open the dial pad
- 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 a conference call only)
- Merge two separate calls
- Swap two separate calls
- View participants (on a conference call)

In addition, the user can use the Android back button to leave the In Call screen and navigate through the other application screens. Returning to the In Call screen is possible through the active call toolbar in Communicator or the active call notification entry in the Android notification center.

MISSED CALLS AND NEW MESSAGES

When you miss a call, the notification bar on the Android device shows a note. By tapping the missed call, you go to the History screen. Notifications, for example, missed calls or new messages, are also shown as badges on the tab icons.

MESSAGE WAITING INDICATOR AND VOICE MAIL ACCESS

If you have pending voice mail messages, then the notification bar on the Android device displays an icon and the message, “You have XX pending voice mail messages”. By tapping the voice mail notification, the application dials the voice mail access number directly and you can listen to the voice mail messages.

Voice mail is also accessible with a long press of the dial pad “1” key (similar to how it is on a regular mobile dial pad). If voice mail messages are available, then the “1” key changes color. In addition, a voice mail notification is displayed as a badge on the Call tab icon.

The number for new voice mails changes depending on how many are open or are new. The voice mail icon in the notification area has an associated badge that shows the number of new messages.
BUSINESS LINE CALL BACK

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.

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

Call Through functionality is available if the Clearspan Anywhere service is assigned to the user and configured with at least one location. Call Through provides a more natural dialing experience. When a call is placed in this mode, the client communicates transparently with Clearspan to obtain a temporary IP Multimedia Routing Number (IMRN). The client then calls the IMRN and connects the user directly to the destination identifying the call with their business line identity.

Note that Call Through requires “My Phone number” on iOS or “Own phone number” on Android local setting to be set to the phone number of the mobile device. This number must be set and must also match the number configured in Anywhere in order for Call Through to work.

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

CONTACT NAME LOOKUP FOR INCOMING CALLS AND CALL LOGS

When receiving a call, Communicator searches for the name in the following sources and in the following order: XMPP contact name, Enterprise directories, Local Contact, P-Idenfier 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 Mobile 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. Once the conference is established, the participants are shown on the Device screen.

The other way to create a Conference call or to add participants in an existing Conference is to make a new second call and 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 call with remote party.
2. Initiate second call using the new call button.
3. Select a contact then choose a number. After the new call is established, the first call is put on hold. You can 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 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 remote party. Select a contact 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, this call can be transferred seamlessly to the mobile phone via the Call Pull button. 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 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 provider 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.

SECURITY CLASSIFICATION

The Communicator Mobile client provides the ability to specify the security classification of a call. 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 control incoming and ongoing 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 Android 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-switch calls delivered to the mobile phone via Clearspan Anywhere 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 (as shown in the previous figure) which can be used to manage the call.
SWIPE BETWEEN CHAT AND AUDIO/VIDEO COMMUNICATION VIEWS

Communicator provides the ability to switch between Chat and Audio/Video communications sessions for 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. The user can perform a swipe to switch between the sessions.
CALL HISTORY

Call history can be accessed from the History tab. Clearspan Communicator saves a call history for all calls and 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.

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

Swipe in from the left side of the screen to access the side navigation menu. The Side Navigation contains the following items:

- My status
- Call settings
- Preferences
- Queues
- About
- 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 supplementary services to be turned on or off using the native client Preferences window:

- Do Not Disturb
- Call Forwarding
- Remote Office
- Hide number
- Clearspan Anywhere
- Outgoing calls
- Simultaneous Ring Personal
- Call Waiting
- Own phone number
- My Room

**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.

CLEARSPAN 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 Remote Office is a premium feature.

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.

DO NOT DISTURB

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

HIDE NUMBER

You can hide or display your number when calling or communicating with other parties or contacts. To hide your number, set to “Enable”. To show your number, set to “Disable”.

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Clearspan Remote Office is a premium feature.
TEST CALL

The client provides the ability to perform an Audio or Video test call to an echo number. Note that the echo service is provided and enabled by the service provider.

A common example of using an echo service is:

- Press Test Call to initiate a call to the echo service, then follow the operator’s instructions until you hear back your recorded message.

PREFERENCES

The client supports the following preferences.

DEVICE ID

Communicator has the ability to lock the user to a single desktop or mobile device so that the software cannot be used on other hardware. The Android user can copy the Device ID from Preferences before signing into the application and provide it to the company administrator. The administrator locks Communicator to the reported device and the user can sign in only from this device.

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. These are available while the user is logged in.

AUTOMATIC SIGN IN

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.
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.

TEST CALL

The client provides the ability to perform an Audio or Video test call to an echo number. Note that the echo service is provided and enabled by the service provider.

A common example of using an echo service is:

- Press **Test Call** to initiate a call to the echo service, then follow the operator’s instructions until you hear back your recorded message.

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 menu.
MY ROOM

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

My Room is accessible using the house 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 clicking your name on their Contacts list and selecting Join Room from the contact card.

My Room and Desktop Sharing are optional Clearspan features.

GUEST CLIENT

This Guest Client feature is specifically intended for users outside of the company. Communicator users can invite Guest Client users to their My Room by selecting “Copy Guest Join Link” from the My Room menu button on the top right corner. The copied link delivery is outside the scope of Communicator (that is, email).

Guest users can join a session with audio in the web browser by requesting a Call Back using the provided dial-in number and conference PIN. They can also use group chat and sharing inside the web browser. However, guest clients do not have the private chat possibility and they can see the chat history of messages that occurred after they joined the session.

The My Room owner is prompted to accept or reject guest client users joining My Room sessions.

A Guest Client user invitation can be revoked by selecting “Reset Guest Link” from the My Room menu button.
SEARCH

Communicator supports search in Communicator 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 when receiving an incoming call, at which point the application performs search for a display name corresponding to caller’s number.
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 has 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 from the server to all of the user’s clients indicating that the subscription was terminated, and 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 Contacts list in one device is recognized in another client, and the Contacts 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 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)

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

VERSION CONTROL

Version control is supported using the Android market mechanisms. When a new release is available, the old version is removed from the market 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 NETWORK ADDRESS TRANSLATIONS

The client supports rport (RFC 3581) for Network Address Translation (NAT) traversal and 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 (that is, currently unlikely to work without an SBC).
**FAILOVER AND FAILBACK**

The client supports failover and failback mechanisms for all of the used protocols: Xsi, XMPP, and SIP. This feature adds:

- 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 QOS**

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>
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<tbody>
<tr>
<td>APN</td>
<td>Access Point Name</td>
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<tr>
<td>ACD</td>
<td>Automatic Call Distribution</td>
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<tr>
<td>CC</td>
<td>Country Codes</td>
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<tr>
<td>CLIP</td>
<td>Calling Line Identification Presentation</td>
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<tr>
<td>CLIR</td>
<td>Calling Line Identification Restriction</td>
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<tr>
<td>CS</td>
<td>Circuit Switched</td>
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<tr>
<td>DSCP</td>
<td>Differentiated Services Code Point</td>
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<tr>
<td>FMC</td>
<td>Fixed-Mobile Convergence</td>
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<tr>
<td>HTTP</td>
<td>Hypertext Transfer Protocol</td>
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<tr>
<td>HTTPS</td>
<td>Hypertext Transfer Protocol Secure Sockets</td>
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<tr>
<td>IM&amp;P</td>
<td>Instant Messaging and Presence</td>
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<tr>
<td>IP</td>
<td>Internet Protocol</td>
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<tr>
<td>NAT</td>
<td>Network Address Translation</td>
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<tr>
<td>PBX</td>
<td>Private Branch Exchange</td>
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<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
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<tr>
<td>QoS</td>
<td>Quality of Service</td>
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<tr>
<td>RCS</td>
<td>Rich Communication Suite</td>
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<tr>
<td>RTCP</td>
<td>Real-Time Control Protocol</td>
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<tr>
<td>SBC</td>
<td>Session Border Controller</td>
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<tr>
<td>SIM</td>
<td>Subscriber Identity Module</td>
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<tr>
<td>SIP</td>
<td>Session Initiation Protocol</td>
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<tr>
<td>TN</td>
<td>Telephone Number</td>
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<tr>
<td>ToS</td>
<td>Type of Service</td>
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<tr>
<td>UC</td>
<td>Unified Communications</td>
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<td>UI</td>
<td>User Interface</td>
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<tr>
<td>URI</td>
<td>Uniform Resource Identifier</td>
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<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
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<td>VM</td>
<td>Voice Mail</td>
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<td>VoIP</td>
<td>Voice Over IP</td>
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<tr>
<td>VPN</td>
<td>Virtual Private Network</td>
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<tr>
<td>XMPP</td>
<td>Extensible Messaging and Presence Protocol</td>
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<tr>
<td>XR</td>
<td>Extended Reports</td>
</tr>
<tr>
<td>Xsi</td>
<td>Xtended Services Interface</td>
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