

Primus UC Communicator for Android Tablet

User Guide

Release 22.6.1

Document Version 1



Table of Contents

1	About Communicator for Android Tablet		
2	Get Started	5	
2.1	Install	5	
2.2	Sign In	5	
3	Main Tabs	6	
4	Contacts	8	
4.1	Contact Card	8	
4.2	Add Contacts	8	
4.3	Edit	9	
4.4	Filters	9	
4.5	Sort and Display Order	9	
5	Availability	10	
6	Instant Messaging	11	
6.1	Chat Tab	11	
6.2	Chat	11	
6.3	Group Chat (Ad Hoc Rooms)	12	
7	Audio and Video Calls	13	
7.1	Dial Pad Tab	13	
7.2	Make Audio or Video Calls	13	
7.3	Answer Call	13	
7.4	In Call Actions	13	
7.5	Missed Calls and New Messages	14	
7.6	Message Waiting Indicator and Voice Mail Access	14	
7.7	Contact Name Lookup for Incoming Calls and Call Logs	14	
7.8	N-Way Calling (Conference)		
7.9	Call Waiting	14	
7.10 New Call		15	
7.11 Call Transfer		15	
7.12 Call Pull			
7.13 Call Park			
7.14	, , , , , , , , , , , , , , , , , , , ,		
7.15			
8	Call History		
9	Side Navigation	18	
9.1 My Status		18	
9.2	Call Settings	18	
	9.2.1 Do Not Disturb	19	
	9.2.2 Call Forwarding	19	
	9.2.3 Remote Office	19	

primus

9.	9.2.4 Block My Caller ID	19			
9.	9.2.5 Primus Anywhere	19			
9.3	Preferences	19			
9.	9.3.1 Language Support	20			
9.	9.3.2 Troubleshooting	20			
9.	9.3.3 Automatic Sign-in	20			
9.4	About	20			
9.5	.5 Help Page				
9.6	Sign Out	20			
10 M	10 My Room				
10.1	Guest Client	21			
11 S	Search Enterprise Directory	22			
12 S	Screen Share	23			
13 M	Multi-Device Support	24			
14 P	Push Notifications for Calls	25			
15 O	Other Features	26			
15.1	Version Control	26			
15.2	Privacy Management	26			
15.3	Firewalls and Network Address Translations	26			
15.4	Privacy Policy	26			
16 A	Acronyms and Abbreviations	27			
17 A	Appendix A: Third-Party Software	28			



About Communicator for Android Tablet

Communicator for Android Tablet provides the following communication features:

- Instant Messaging and Presence (IM&P)
- Voice Calling (VoIP)
- Video Calling
- Primus HPBX Call Settings





2 **Get Started**

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

2.1 Install

Android Tablet clients can be downloaded from Google Play.

2.2 Sign In

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

- 1) Enter your Hosted PBX user name and password (the same username and password used to log into the online HPBX portal at https://voice.primus.ca).
- 2) Select whether you would like Communicator to remember your password.
- 3) Select whether you would like Communicator to sign you in automatically on subsequent launches.
- 4) Tap Sign In.

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

The client also has a link for Forgot Password on the login dialog box which links to the online HPBX portal at https://voice.primus.ca.

3 **Main Tabs**

When you start Communicator for the first time, your 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.



Figure 1 Main View

Icon	Description
	Contacts – View your contacts from a <i>Buddies</i> list, or a local or company directory.
	Chat – View Chat History.
:::	Dial Pad – Make calls.
	History – View incoming, outgoing, and missed calls.
	My Room – Join your personal room.



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

NOTE: Settings are available from the side navigation menu.

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 and it appears at the top of the Contacts list in the Favorites section.

Presence-enabled contacts are other Communicator users. 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.

Contacts can also be organized in Groups.

The *Contacts* tab contains the following:

- **Communicator Contacts**
 - ΑII
 - Online
- **Contact Directories**
 - Local Address Book
 - Directory

Local Address Book provides contacts from the device's local contacts. Directory provides contacts from the company directory.

4.1 **Contact Card**

The contact card displays information about a contact based on the contact type. This includes Communicator contacts, Local Address Book contacts, and contacts from directory search results.

The user can initiate a call or chat session directly from the contact card. This includes joining other contact's My Room or dialing a My Room audio bridge from a directory contact search result.

If the contact has an associated email address, then the application supports sending an email to the contact by launching the native email client on the mobile device.

Add Contacts 4.2

When you sign in for the first time, there are no contacts on your Contacts list. Add a new presence-enabled contact at any time by selecting the option Add Contact from the plus icon in the left bottom 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 select **OK**. By default, your presence information is always shared with a new presence-enabled contact.

If you receive a buddy request, you can decline or accept it. If you decline 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.



primus

Add a conference number by selecting the option Add Conference from the plus icon in the left bottom bar. 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 left bottom bar. The Add Local Contact option opens the native Address Book for adding a new contact in the local phone book.

Add a group in the Contacts list by selecting Add Group using the plus icon in the left bottom bar. Type a group name, select contacts that you want to be in the group, and then select **Done**.

4.3 **Edit**

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 nonpresence-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 44

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).

Sort and Display Order 4.5

The following options in *Preferences* control how contacts are displayed:

- Display by display First name or Last name first.
- Sort by sort by First name or Last name.
- Short name format format of the name to be used in chat lists.





5 Availability

For each contact to which you have subscribed, you can see their availability. Similarly, your contacts can see your availability on their Contacts list.

Availability, also referred to as presence status, means that your friends are able to see if you are available, for example, "I'm available" or "I'm busy".

Icon	What it means
available	The green availability icon indicates that the user is online and is ready for communication.
mobile	The green availability icon indicates that the user is online on the Communicator mobile client and is ready for communication. The icon is accompanied by the text "mobile".
away	The yellow availability icon indicates that the user is online on their Communicator client but has been idle or away from their computer for more than 10 minutes.
mobile	The yellow availability icon indicates that the user is online on their Communicator mobile client but has been idle or away from their mobile device for more than 10 minutes.
offline	The grey availability icon indicates that the user is offline in a call and the only available contact method is calling or leaving a chat message.
call	The grey availability icon indicates that the user is offline and the only available contact method is calling or leaving a chat message.
pending	The question mark indicates that a subscription is pending and the contact has not yet approved sharing their availability.
/// busy	The red availability icon indicates that the user is busy and does not want to be disturbed.
/// call	This icon indicates that the contact is busy due to a call. This is an automated availability status.
/// meeting	This icon indicates that the contact is busy due to a meeting. This is an automated availability status. The Busy – In Call status overrides the Busy – In Meeting status so this icon is only seen when there is a meeting but no call.

You can set your own availability by tapping on the availability icon from the status bar in all tabs view. Tapping the availability icon opens the My Status screen where you can change your avatar, personal message, and availability status.

Your avatar is the picture that represents you in your friends' Contacts list 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 in the area next to the avatar. This status text is shown in your friends' Contacts list.

If you see the error message, "Chat Unavailable", under any tab, it means that your device's connectivity to the Primus UC system has been lost for chat and availability; however, you can still make calls. This is typically temporary and caused by a brief network disruption or change in connection to another wireless access point.

The availability 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 an availability change to Busy - In Meeting.

Instant Messaging

6.1 **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 from the Chat list opens the Chat 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. Chats are not in alphabetical order and are always listed with the most recent first.

Tapping the Mark all as Read icon in the navigation bottom bar removes all notification badges from the Chat History list. Tapping the Start Group Chat icon opens the list of users to select for starting a group chat.



Figure 2 Instant Messaging

6.2 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.



primus

- From left bottom bar in Chat tab, select the start new chat icon.
- From search results, tap a contact to open the contact card and then choose the chat icon.

When you initiate a chat, the Chat view opens in the right pane. To open chat in full screen, tap the collapse icon to hide the left pane. Selecting any tab from the tab bar or tapping on the expand icon | opens the left pane view. 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 codes 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.

6.3 **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.
- From left bottom bar in the *Chat* tab, select the *Start Group Chat* icon.
- 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. The owner can dismiss participants from participant's list options.

A group chat works the same way as a one-on-one chat. All messages from anyone are sent to everyone else. All contacts must be online to be able to participate in a group chat.

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 from action overflow menu. 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.

Audio and Video Calls

7.1 **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. 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.

7.2 Make Audio or Video Calls

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

- Choose a contact from the Contact List to open the contact card 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 for a video call.
- Open the dial pad, enter a phone number, and then 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.

7.3 **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 may cause the line to sound busy at the caller's end or direct them to voicemail.

In Call Actions

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

- End a call
- Mute the microphone
- Open the key pad
- Adjust the volume
- Escalate from an audio to video call
- 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





- Add more participants (on conference call only)
- Merge two separate calls
- Swap two separate calls
- View participants (on a conference call)

7.5 Missed Calls and New Messages

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

The Mobile and Tablet clients also display local visual notification for unanswered calls and new voice mail messages.

The notification for unanswered call is displayed when there is call delivered to the device, and the application is alerted for the call but the call is not answered by the user. The feature does not provide indication for missed calls on other endpoints.

The notification for new voice mail message is displayed when there is a new voice mail message deposited on the server. The notification is accompanied with audio and vibration.

7.6 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.

7.7 **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: UC contact name, Enterprise directories and Local Contact. If the number matches one of the contacts, the name is shown on the *Incoming Call* screen.

N-Way Calling (Conference) 7.8

Communicator Mobile supports network-based conference calls. While on a two-way audio or video call, you can add more participants by using the Conference button. Communicator 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 conference call or to add participants in an existing conference is to make a *new* second call and select the *merge* option.

Call Waiting 7.9

You can have one active call at any one time if you receive a new incoming call and accept it. There is a dedicated Swap button. Also, tapping a call from the left-side list does the same.





7.10 New Call

The client supports starting a new call while in an ongoing call. To establish a call tap on a new call button or choose one of the options in section 7.2 Make Audio or Video Calls. After the new call is established, the first call is put on hold. You can swap the two calls or merge them into a conference.

7.11 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.

7.12 Call Pull

Call Pull can be used in scenarios where a user has two endpoints, for example, a Primus HPBX desk phone and a mobile phone with 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 Pull button pulls audio only. The user can pull video calls directly by dialing the feature access code *11 and then selecting the video call button.

7.13 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.

7.14 Swipe Between Chat, Audio/Video, and Screen Share Communication Views

Communicator provides the ability to switch between Chat and Audio/Video communications sessions for own My Room, other users' My Room, or 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.

7.15 Seamless Call Handover for VolP Calls

Communicator for Android Mobile and Tablet clients support seamless call handover for VoIP calls between WiFi and cellular data networks.

If the data connection drops during an ongoing VoIP call, then the application tries to use another data connection, if available, or waits for a short period of time, (for example, one minute) for the data connection to be re-established. At that point, the call is retried on the new or re-established connection.

During the transition, there is a beeping sound played to the user and an indication in the user interface that the application is trying to reconnect the call.



primus

Note that if a user has multiple ongoing calls, only the active calls are retrieved after restoring the data connection and the other calls are terminated. In which case, the user is notified about the terminated calls.

A typical use case is when a call is started on a WiFi network in the office and the user leaves the office while on the call. In this case, the call is transferred to the 4G/LTE data network, if one is available.

Another use case is when the device loses data coverage for a brief period of time while the user is on a VoIP call (for example, the user enters an elevator). In this case, the call is recovered when the data connection is re-established, provided it is within a period of one minute.





8 **Call History**

Call History can be accessed from the *History* tab. Communicator saves a call history for placed, received, 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.





9 Side Navigation

The side navigation contains the following items:

- My status
- Call settings
- **Preferences**
- About
- Help
- Sign out

9.1 My Status

You can set your own availability status 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 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.

NOTE: In order to set an avatar when Communicator is working inside an Android for Work profile, a camera application inside the Work profile should be installed on the device. The system administrator should provision such an application for the given Work profile and the user should install it prior to initiating an avatar change action.

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 your device's connectivity to the Primus UC system has been lost for chat and availability; however, you can still make calls. This is typically temporary and caused by a brief network disruption or change in connection to another wireless access point.

9.2 **Call Settings**

The client supports the following service management features, allowing supplementary Primus HPBX services to be turned on or off using the native client *Preferences* window:

- Do Not Disturb
- Always forward
- Forward when busy
- Forward when no answer
- Forward when not reachable
- Remote Office
- Block my caller ID
- Primus Anywhere
- Dialing service





- VoIP calls
- Simultaneous Ring
- This phone number

9.2.1 Do Not Disturb

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

9.2.2 **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.

9.2.3 **Remote Office**

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

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

9.2.4 **Block My Caller ID**

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".

9.2.5 **Primus Anywhere**

Primus Anywhere allows customers to enjoy fixed-mobile convergence (FMC) services without additional equipment.

Primus 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).

9.3 **Preferences**

The client supports the following Preferences:

Language





- Automatic sign-in
- **Troubleshooting**

9.3.1 Language Support

The client is prepared for localization and can be delivered in English and French (Canadian).

Mobile and Tablet clients support automatic detection of the device language. The client application detects and selects the language that is in use by the operating system on the device.

NOTE: The legacy method for selecting the language from the application Preferences is still available on the iOS clients. The Android clients support only the new mechanism for automatically using the device language.

9.3.2 **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. 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.

9.3.3 **Automatic Sign-in**

The user can choose to sign in automatically with the Communicator client 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.

9.4 About

The About screen includes three sub views:

- Info The Info view contains short information text, version, copyright, website URL, app ID, and build version.
- License The License view contains the End User License Agreement.
- Legal Notices The Legal Notices view contains third parties used by the application.

9.5 Help Page

The client provides web-based help that can be launched from the main menu.

9.6 Sign Out

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





10 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 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 clicking on your name in their Contacts list and by selecting Join Room from the contact card.

You can dial into another contact's My Room audio bridge from the directory contact card.

10.1 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 of Primus UC (ie: via email).

Guest users can join a session with audio in the web browser, or by calling the provided dial-in number and conference PIN. They can also use group chat and sharing inside the web browser. However, quest clients do not have the private chat possibility and they can only 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.



11 Search Enterprise Directory

The client supports a directory search of the Primus HPBX enterprise directory. The search is performed in a separate input field in the *Contacts* tab. Tapping the search icon opens the search view and after a search, the enterprise directory search results are displayed with the names and numbers.

The default starting screen for a search shows the screen when the user has pressed the search icon. Typing in characters starts the filtering process through the contacts. The search is performed in the directory list. Pressing the back key minimizes the keyboard, hides the search bar, and empties the search result.

A long press on a name opens the context menu and hides the keyboard but keeps the search bar with the characters. A short press opens the contact card.

The context menu contains the following options for the directory list:

- VoIP call
- Video call
- Contact details

NOTE: The clients do not perform directory searches, unless the user goes into the directory section itself, otherwise, the search just filters the Contact List.



12 Screen Share

Communicator for Android Tablet supports viewing a Screen Share session initiated on Desktop. When a Screen Share invitation is sent via Desktop Communicator, the badge notification appears on the main bar and in the chat list view. Selecting the entry with screen sharing from chat list opens a communication pane with the share by default. The user can return to the chat / call (if present) with a swipe. When the share is paused, the Screen Share view remains active showing the last image that was shared.

Viewing Screen Share is available in all communication modes:

- My Room
- One-to-one chat
- Ad Hoc group chat room (MUC)



13 Multi-Device Support

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

- Chat invitations are sent to all devices.
- 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.





14 Push Notifications for Calls

Communicator supports Push Notifications (PNs) for Incoming Calls.

This feature leverages support on the Primus Application Server to send Push Notifications to mobile applications over Google Cloud Messaging (GCM) services.

Mobile client applications use Push Notifications to get alerted for incoming calls and accepting the call as VoIP.

When there is new call, Primus UC sends a Push Notification to the client, which is presented to the user as either OS-specific visual notification or in the user interface of the client application.

From a user experience standpoint, accepting a call works in the same way for both pushenabled clients and non-push-enabled clients. On Android, the call is presented to the user with an application-specific *Incoming Call* screen with Answer and Decline buttons.

Outgoing VoIP calls are performed with SIP registration on demand, which is transparent to the user. The SIP registration is done only when the user initiates the VoIP call.

In addition to Push Notifications for new calls, the solution also supports Push Notifications for new voice mail.





15 Other Features

15.1 Version Control

Version control is supported using the Google Play mechanisms. When a new release is available, the old version is removed from the store and users of the previous version are notified about the update.

15.2 Privacy Management

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.

15.3 Firewalls and Network Address Translations

The client supports rport (RFC 3581) for Network Address Translation (NAT) traversal and using the client behind a firewall.

15.4 Privacy Policy

The Mobile and Tablet clients showing the Primus privacy policy via a clickable link in the About view opening into an external browser. The privacy policy can be viewed at https://primus.ca/privacy-policy.





16 Acronyms and Abbreviations

This section lists the acronyms and abbreviations found in this document. The acronyms and abbreviations are listed in alphabetical order along with their meanings.

FMC Fixed-Mobile Convergence

GCM Google Cloud Messaging

HTTP Hypertext Transfer Protocol

HTTPS Hypertext Transfer Protocol Secure Sockets

IM Instant Message

IM&P Instant Messaging and Presence

IP Internet Protocol

MUC Multi-User Chat

MWI Message Waiting Indicator

NAT Network Address Translation

PBX Private Branch Exchange

PN Push Notification

QoS Quality of Service

RTCP Real-Time Control Protocol

SAML Security Assertion Markup Language

SBC Session Border Controller

SIP Session Initiation Protocol

SSL Secure Sockets Layer

TN Telephone Number

ToS Type of Service

UC Unified Communication

UI User Interface

URL Uniform Resource Locator

VM Voice Mail

VoIP Voice Over IP

VPN Virtual Private Network

WebRTC Web Real-Time Communication

XMPP Extensible Messaging and Presence Protocol

Xsi Xtended Services Interface





17 Appendix A: Third-Party Software

This software uses Smack (http://www.igniterealtime.org/projects/smack/), license: http://download.igniterealtime.org/smack/docs/latest/README.html

This software uses DNSJava (http://www.dnsjava.org/), license: http://www.dnsjava.org/dnsjava-current/README

This software uses libphonenumber (https://github.com/googlei18n/libphonenumber), license: https://github.com/googlei18n/libphonenumber/blob/master/LICENSE

This software uses OpenSSL (http://www.openssl.org/), license: http://www.openssl.org/source/license.html

This software uses libjpeg (http://sourceforge.net/projects/libjpeg-turbo/files/1.4.0/), license: https://github.com/libjpeg-turbo/libjpeg-turbo/blob/master/LICENSE.md

This software uses libpng (http://sourceforge.net/projects/libpng/files/libpng16/1.6.17/), license: http://www.libpng.org/pub/png/src/libpng-LICENSE.txt

This software uses libwebp (https://developers.google.com/speed/webp/download), license: https://github.com/webmproject/libwebp/blob/master/PATENTS

This software uses libwebsockets (https://github.com/warmcat/libwebsockets/tree/v2.2stable), license: https://github.com/warmcat/libwebsockets/blob/v2.2-stable/LICENSE

This software uses libison (http://sourceforge.net/projects/libison/), license: https://github.com/GerHobbelt/libjson/blob/master/License.txt

This software uses WebRTC (http://www.webrtc.org/), license: https://webrtc.org/license/

This software uses OpenH264 (https://github.com/cisco/openh264), license: https://github.com/cisco/openh264/blob/openh264v1.6/LICENSE

This software uses SQLCipher (https://www.zetetic.net/sqlcipher/), license: https://www.zetetic.net/sqlcipher/license/