

SmartPTT Mobile User Guide for Android

Revision History

Revision	Description	Date
3.0	Sixth release of the document. The document is compliant with SmartPTT Mobile 5.2.0.	July 2021
2.1	Fifth release of the document. The document is compliant with SmartPTT Mobile 5.1.1.	January 2021
2.0	Fourth release of the document. The document is compliant with SmartPTT Mobile 5.1.0.	November 2020
1.2	Third release of the document. The document is compliant with SmartPTT Mobile 5.0.2.	June 2020
1.1	Second release of the document. The document is compliant with SmartPTT Mobile 5.0.1.	April 2020
1.0	First release of the document. The document is compliant with SmartPTT Mobile 5.0.0 beta.	March 2020

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About This Document

The document explains how to install, configure and use SmartPTT Mobile.

The document uses the following conventions:

- **Bold** represents the names and titles of graphical user interface elements. For example, the **Message** field.
- *Italic* represents the names of referenced manuals.

1 Overview

SmartPTT Mobile is an application that provides the ability to integrate mobile devices and MOTOTRBO radios into a single communication network via SmartPTT Radioserver. SmartPTT Mobile users can receive and initiate individual and group voice calls from/to radios and talkgroups, as well as other SmartPTT Mobile users.

SmartPTT Mobile is also integrated with SmartPTT Dispatcher. Administration of virtual groups created in SmartPTT Mobile is also available to dispatchers. For information on integration with SmartPTT Dispatcher, see “SmartPTT Mobile” in *SmartPTT Installation and Configuration Guide*.

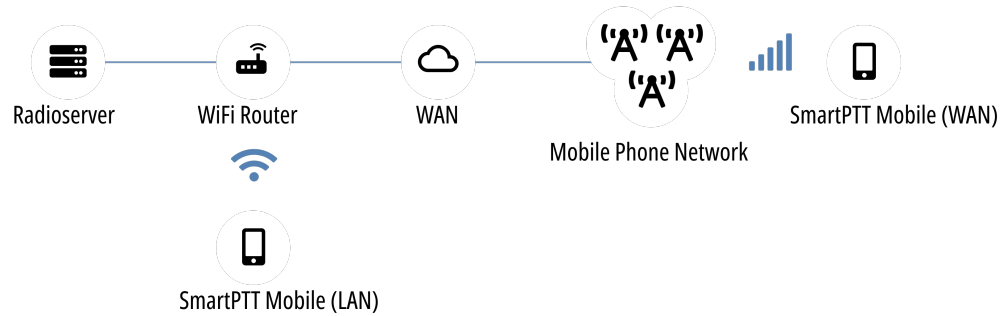


Fig. 1. SmartPTT Mobile Overview

SmartPTT Mobile requires a continuous connection to SmartPTT Radioserver to request and receive information. It operates only with the main SmartPTT Radioserver. The alternate/redundant SmartPTT Radioserver is not supported.

1.1 Features

SmartPTT Mobile provides the following features:

- Voice communication with radios and DMR talkgroups (group calls and private calls).
- Voice communication with other SmartPTT Mobile users (group calls and private calls).
- Ability to activate the emergency mode to notify SmartPTT Mobile users and a dispatcher about an emergency as well as to initiate higher priority transmissions during the emergency.
- Text messaging between SmartPTT Mobile users and chats in virtual groups.
- Ability to create virtual groups for simultaneous voice communication with SmartPTT Mobile users and DMR talkgroups.

NOTE

These groups can be managed both by SmartPTT Mobile users and by dispatchers. Virtual groups consisting only of SmartPTT Mobile users are represented in SmartPTT Dispatcher as dynamic groups. Virtual groups that include DMR talkgroups are presented as cross-patches between DMR talkgroups and dynamic groups (in SmartPTT Dispatcher) or as multigroups (in the SmartPTT Mobile application).

- Ability to display call history of the contact.
- Tracking users' online/offline status in real time.
- Ability to work in two modes: in high priority mode and in normal mode.
- Ability to assign the PTT button or the emergency button to one of the volume control buttons on a device.

- Ability to display on a map the location of SmartPTT Mobile users and DMR radios.

1.2 Requirements

For the best SmartPTT Mobile operation, the following requirements must be met:

Parameter	Value
Android Version:	6.0.0 or higher
SmartPTT Version	9.8 or higher
Processor Frequency:	1.4 GHz
Memory (RAM and ROM):	RAM — 1 GB; free disk space — 15 MB
Support 4G networks (LTE):	Yes
Display size:	5"

Networking Requirements

Parameter	Value
Bandwidth	> 65 kbps
Packet Loss	Good voice quality: 0.0–2.5%
	Poor voice quality: 2.5–15.0%
Two-Way Delay	< 90 ms
Jitter	< 90 ms

NOTE

These are minimal system requirements for SmartPTT Mobile. They can change depending on a device.

1.3 Tested Devices

SmartPTT Mobile functionality has been tested on the following devices:

Device	OS Version	Test Results
Xiaomi Redmi Note 7	Android 10	On Xiaomi Redmi Note 7 with MIUI 12 firmware, GPS coordinates are not sent when the device screen is blocked while SmartPTT Mobile is running if only the <i>When using the application</i> value is

		<p>selected in the device's geolocation settings.</p> <p>To resolve the problem, it is necessary to select the <i>Allow in any mode</i> value in the device's geolocation settings.</p>
LG D821 Nexus 5	Android 6.0.1	
LG Nexus 6P	Android 8.1.0	
Bittium Tough Mobile 2	Android 9	Bittium Tough Mobile 2 does not support hardware buttons except volume change buttons.
Motorola Lex L11e	Android 7.1.1	
Motorola Moto e5 play	Android 8.1.0	
Google Pixel 3	Android 11	<p>On Google Pixel 3, GPS coordinates are not sent when the device screen is blocked while SmartPTT Mobile is running if only the <i>When using the application</i> value is selected in the device's geolocation settings.</p> <p>To resolve the problem, it is necessary to select the <i>Allow in any mode</i> value in the device's geolocation settings.</p>
Sonim XP8800	Android 8.1.0	<ul style="list-style-type: none"> • Sonim XP8800 supports hardware PTT and Emergency buttons in addition to the hardware volume change buttons. • On Sonim XP8800, in high priority mode, it is not possible to answer a call during hangtime with a device screen turned off using the hardware PTT button. <p>To resolve the problem, it is necessary to set the Hold timer parameter on the device in the <i>Off</i> position.</p>

2 Installation and Configuration

SmartPTT Mobile is a mobile application distributed via Google Play. Once it has been installed, to operate correctly, it needs to be given permission to use the device microphone.

To support SmartPTT Mobile, you must configure client connection in SmartPTT Radioserver Configurator. For information on SmartPTT Radioserver configuration, see "Configuring SmartPTT Mobile Connection" in *SmartPTT Installation and Configuration Guide*.

Before using text chats in SmartPTT Mobile you must activate text chats in SmartPTT Radioserver Configurator. For details, see "Activating Text Message Sending and Receiving" in *SmartPTT Installation and Configuration Guide*.

Important

To access the SmartPTT Mobile functionality, you must have corresponding licenses.

For information on SmartPTT Mobile licenses, contact the Elcomplus LLC representative in your region.

You must also create a client account in SmartPTT Radioserver Configurator for logging in to SmartPTT Mobile. For details, see "Managing Client Accounts" in *SmartPTT Installation and Configuration Guide*.

SmartPTT Mobile can also interact with profiles, that are created in SmartPTT Radioserver Configurator and used to limit client access to radio networks and actions within available radio networks. Before using SmartPTT Mobile, you must consider if it is necessary to assign a profile to the client account. For details, see "Managing Profiles" in *SmartPTT Installation and Configuration Guide*.

3 Reconnection to Radioserver

When reconnecting SmartPTT Mobile to SmartPTT Radioserver, the following scenarios of the mobile application behavior are possible:

- If the reason for the loss of connection with SmartPTT Radioserver is the Internet disconnection, the mobile application start screen will be displayed and the mobile application will wait for the restoration of the Internet connection. As soon as the connection is restored, an attempt to establish a connection with SmartPTT Radioserver is automatically initiated.

NOTE

An attempt to automatically reconnect with SmartPTT Radioserver is initiated every 30 seconds. If the SmartPTT Mobile application operates normally, 3 attempts to automatically connect to SmartPTT Radioserver will be initiated. If the SmartPTT Mobile application is running in high priority mode, the number of such attempts is not limited until the connection is successfully established or until the SmartPTT Mobile user manually terminates the attempts.

Important

Automatic connection to SmartPTT Radioserver will be established if the previous client authorization on SmartPTT Radioserver was successful.

- If the connection with SmartPTT Radioserver is lost because SmartPTT Radioserver for some reason closes the connection, the mobile application start screen will be displayed, connection to SmartPTT Radioserver will not be restored automatically.
- If the mobile application operation is stopped by the Android operating system for some reason, and the application is unloaded from the device's memory, then the next time you start it manually, the mobile application start screen will be displayed, and an attempt to restore connection with SmartPTT Radioserver will be automatically initiated.
- If the device was rebooted, the mobile application start screen will be displayed, an attempt to restore connection with SmartPTT Radioserver will be automatically initiated.

NOTE

To connect the application automatically (without manual login) to SmartPTT Radioserver, when opening SmartPTT Mobile after its reboot, the autorun permission must be set in the device settings.

- After the client log out, or SmartPTT Radioserver closed forcibly the connection, connection to SmartPTT Radioserver will not be restored automatically.
- If the mobile application was closed by the SmartPTT Mobile user at the moment when connection with SmartPTT Radioserver was lost, then an attempt to restore connection with SmartPTT Radioserver will be automatically initiated at the next launch.

NOTE

If the mobile application was disconnected from SmartPTT Radioserver during an active session of the SmartPTT Mobile user and this user had the active emergency mode, then SmartPTT Mobile will restore the emergency mode automatically after the connection is restored or the mobile application is restarted, even if the SmartPTT Mobile user logs in to SmartPTT Mobile from another smartphone.

4 Using SmartPTT Mobile

This section describes SmartPTT Mobile functionality and provides instructions on using it.

4.1 Logging in to SmartPTT Mobile

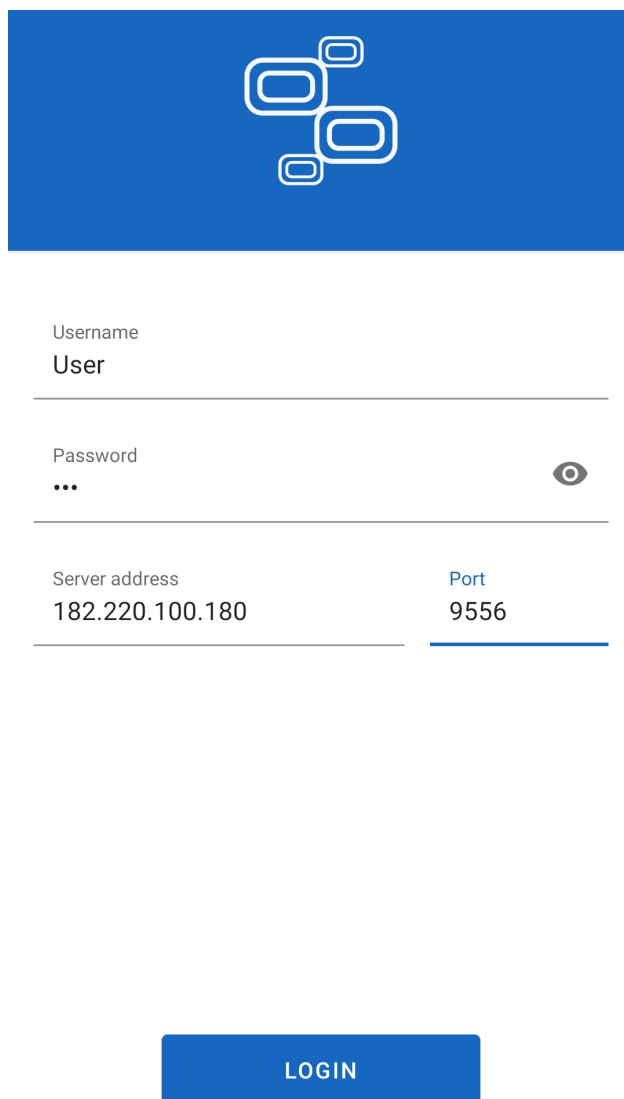
Follow the procedure to log in to SmartPTT Mobile.

Prerequisites:

- Obtain SmartPTT Radioserver IP address and HTTPS port number.
- Obtain a client user name and password.

Procedure:

1. Launch the SmartPTT Mobile application.
The login screen appears.



The login screen features a blue header with a white icon of three overlapping rounded rectangles. Below the header are three input fields: 'Username' with the value 'User', 'Password' with masked characters and a visibility toggle, and 'Server address' with the value '182.220.100.180' and 'Port' with the value '9556'. A blue 'LOGIN' button is positioned at the bottom.

Fig. 2. SmartPTT Mobile Login Screen

2. In the **Username** field, type a client user name configured in SmartPTT Radioserver Configurator.

3. In the **Password** field, type the client password.
4. (Optional) Tap **View Password** (👁) to display password.
5. In the **Server address** field, type the SmartPTT Radioserver IP address.
6. In the **Port** field, type the SmartPTT Radioserver HTTPS port number.
7. Tap **Login**.

Postrequisites:

To quit the SmartPTT Mobile application, you must log out.

4.2 Navigating Contact List

Contact List is the SmartPTT Mobile main window. It appears after a user logs in.

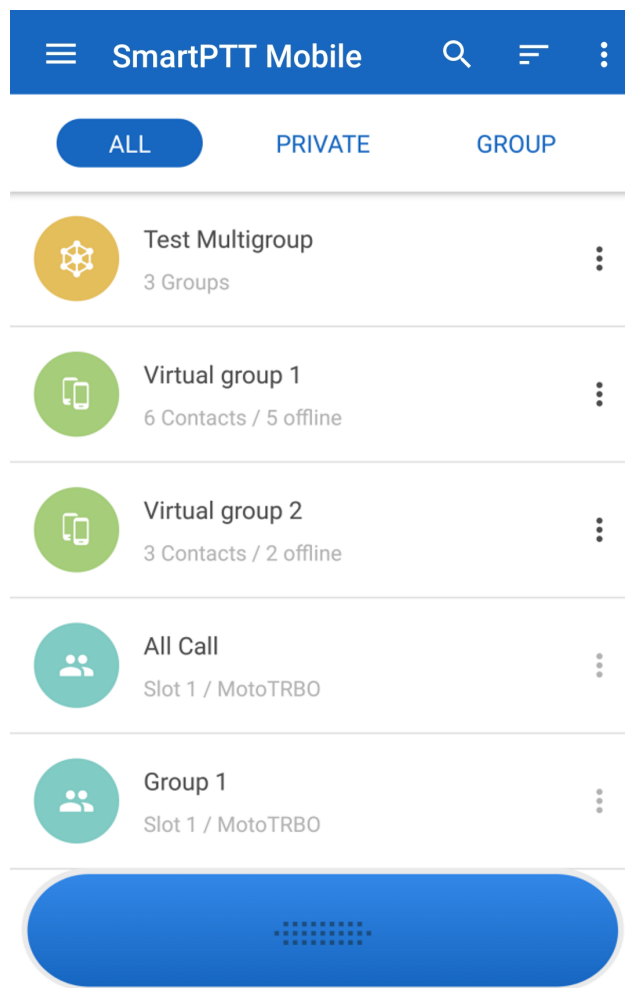


Fig. 3. Contact List

The toolbar that appears when scrolling up contains the following elements:

Menu (☰)

Opens the SmartPTT Mobile side menu.

Find contacts (🔍)

Provides the ability to search the desired contact from the Contact List by typing the beginning of a contact name in the search field.

Filter (≡)

Filtering the Contact List depending on the call sound settings:

- If the **Mute first** option is selected, the contacts with muted calls will be displayed first.
- If the **Unmute first** option is selected, the contacts that calls are not muted will be displayed first.
- If the **Default** option is selected, the filtering of contacts by the parameters applied above will be canceled.

Select group type (+)

Contains two parameters:

- The **Create Group** parameter provides the ability to create a virtual group or multigroup by opening a window for group creation. When you tap **Create Virtual group**, a window for creating a new virtual group consisting only of SmartPTT Mobile users appears. When you tap **Create Multi-group**, a window for creating a new multigroup consisting of virtual groups and DMR talkgroups appears.
- The **Unmute All** parameter provides the ability to unmute voice calls for all previously muted objects in the SmartPTT Mobile Contact List if the mute function for voice calls was previously enabled.






The filter panel below the Toolbar provides the following filters for the Contact List:

- **All** — the Contact List displays all contacts.
- **Private** — the Contact List displays only radios and SmartPTT Mobile users.
- **Group** — the Contact List displays only DMR talkgroups and virtual groups.

If the emergency mode is enabled, the red indication and the *Emergency* value are displayed above the filter panel.

The Contact List is displayed in the main area of the window. Tapping a contact assigns it to the PTT button at the bottom of the window. Tapping the button will initiate a call to the selected contact.

The icon to the left of the contact name indicates the type of the contact:

- DMR talkgroup ()
- DMR radio ()
- SmartPTT Mobile user ()
- Virtual group ()
- Multigroups ()

For radios and SmartPTT Mobile users, online/offline status is displayed in the bottom right corner of the icon as a green or gray circle respectively.

For different types of contacts, the following is displayed as their name:

DMR talkgroup	Talkgroup name (as configured in SmartPTT Radioserver Configurator) with its channel below
DMR radio	Radio ID with its channel below
SmartPTT Mobile user	SmartPTT Mobile user login
Virtual group	Group name
Multigroup	Group name

The PTT button at the bottom of the window provides voice call indication and the ability to initiate calls.

4.3 Emergency

SmartPTT Mobile supports the Emergency mode. This mode is used in case of emergency when the SmartPTT Mobile user needs to transmit in a higher priority mode.

The Emergency mode provides the ability to send an alarm signal as well as initiate an emergency call. This call type is available in SmartPTT Mobile only for group calls and has a higher priority over regular calls, providing the ability to interrupt them. However, emergency calls cannot interrupt other active emergency calls.

Important

In SmartPTT Mobile, the Emergency mode for private calls and All Calls is not available.

NOTE

In the SmartPTT Mobile side menu, tap the **Emergency** toggle to activate the emergency mode. For all SmartPTT Mobile users who have activated the emergency mode, the corresponding status is displayed in the application.

The Emergency mode can be assigned to the following objects:

- Radios.
In case of receiving an alarm signal or an emergency call from a radio, if the alarm signal was lost.
- SmartPTT Mobile user.
When the Emergency mode is activated in SmartPTT Mobile.
The Emergency mode is turned off for the SmartPTT Mobile user when they turn off the emergency mode in the SmartPTT Mobile side menu, after a hangtime set in the emergency settings or when the emergency mode is turned off by a dispatcher in SmartPTT Dispatcher.

NOTE

The alarm signal received from the SmartPTT Mobile user is displayed in the SmartPTT Dispatcher Event Log as well as on the **Emergencies** panel in SmartPTT Dispatcher.

- Talkgroup.
The Emergency mode is assigned to a talkgroup when a radio in the emergency mode makes a call to that talkgroup.
- Virtual group.
The Emergency mode is assigned to a virtual group if at least one of its members is in the emergency mode and they make a call to this virtual group.

NOTE

The Emergency mode cannot be assigned to a multigroup. However, when you make an emergency call to one of the virtual groups that are part of a multigroup, the call to the multigroup will be displayed as an emergency call to all members of the multigroup.

The Emergency mode in SmartPTT Mobile has special sound indication. Every 15 seconds, the mobile application plays a sound notification, that is only interrupted when receiving or initiating a call. The Emergency mode indication in SmartPTT Mobile is colored in red. An active emergency indication is displayed in the following places:

- Contact list
- Contact profile
- Call history log
- Text chats
- Map

4.4 Voice Calls

SmartPTT Mobile provides the ability to initiate half-duplex voice calls to the following radio system objects and receive calls from them:

- SmartPTT Mobile users
- Virtual groups (groups of SmartPTT Mobile users)
- Multigroups (groups of SmartPTT Mobile users and DMR talkgroups)
- Radios
- DMR talkgroups

Important

SmartPTT Mobile does not support telephone calls.

Important

To initiate voice calls to SmartPTT Mobile, the license for mobile client voice calls is required.

4.4.1 Color Indication of Voice Calls

SmartPTT Mobile provides the following color indication for voice calls:

- No voice call in progress, no contact is selected.



- No voice call in progress, a contact is selected. You can tap PTT to initiate a call.



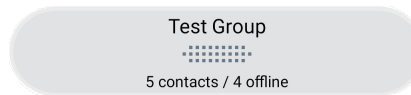
- Channel is busy, waiting for the channel to release. When the button becomes orange, start to speak.



- Outgoing voice call in progress. Recipient name is displayed on the button.



- Incoming voice call in progress. Voice call initiator name is displayed on the button.



- Hangtime. None of the parties are transmitting the voice call.




- The emergency call.



4.4.2 Performing Voice Calls

SmartPTT Mobile can initiate or receive only one voice call at a time. In order to receive a call, no action is necessary. Incoming voice is heard immediately and the voice call initiator's name is displayed on the PTT button.

In order to initiate a call, tap the desired contact in the Contact List, and then, depending on SmartPTT Mobile settings, either tap and hold, or single-tap the button. As soon as the outgoing call indication appears (the PTT button becomes orange), you can start speaking.

During an active voice call (including hangtime), on the SmartPTT Mobile main window, the icon () is displayed providing the ability to mute/unmute voice calls for the contact.

Important

In order to provide SmartPTT Mobile users the ability to correctly interact with radio networks and receive private calls from radios, it is necessary to redefine the SmartPTT Mobile user ID. Otherwise, private calls initiated from the radio to the SmartPTT Mobile user and vice versa will operate as group calls.

In Capacity Max systems, each mobile client requires a numeric identifier (Radio ID), which is set on the Capacity Max server (CMSS) and must be unique. It represents the unique identifier of a mobile client as a subscriber of the system. The mobile client receive calls initiated to this identifier. When SmartPTT Mobile initiates a call, the recipient of the call see this ID.

Important


The number of simultaneous calls that can be transmitted to third-party applications (such as SmartPTT Mobile and SmartPTT Dispatcher) are limited by the TalkPath license of Motorola Solutions. Consider this when planning your system.

4.4.3 Voice Call Mute

In SmartPTT Mobile, you can mute or unmute voice calls from the following objects:

- SmartPTT Mobile users
- Radio users
- DMR talkgroups
- Virtual groups
- Multigroups


This functionality provides the ability to hear voice call sound only from the desired object.

In the SmartPTT Mobile contact list, muted calls are marked with the mute icon ().

NOTE


Muting or unmuting a call for a multigroup will mute or unmute calls for all its members. If at least one DMR talkgroup or virtual group inside a multigroup is unmuted, the multigroup will also be unmuted.

If the SmartPTT Mobile user makes an outgoing call to an object with muted sound, the voice call for this object will be automatically unmuted.

To mute/unmute voice calls, in the object action menu (), tap **Mute/Unmute**.

4.4.4 Profile

A profile displays short information about the SmartPTT Mobile user, radio user, virtual group, or multigroup.

A profile opens when you tap **Profile** in the action menu () of the desired contact.

4.4.4.1 SmartPTT Mobile User or Radio Profile

The SmartPTT Mobile user or the radio user profile provides the following information:

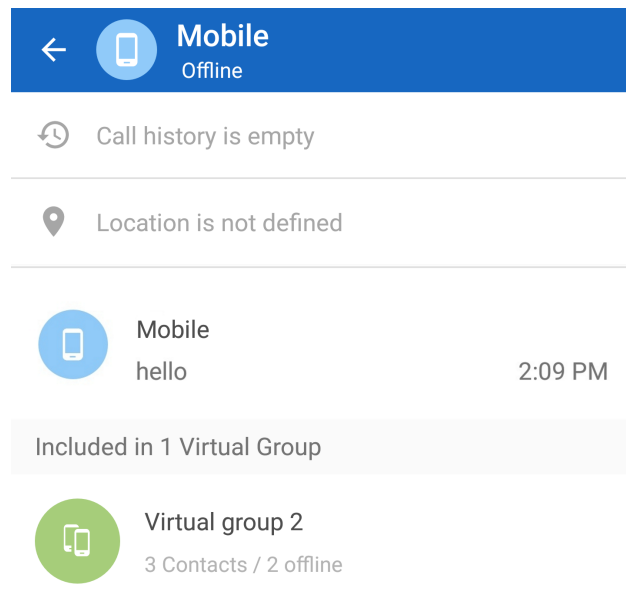


Fig. 4. SmartPTT Mobile User Profile

- Contact name.
- Mute icon (🔇) that is displayed if the call is muted for the user.
- Network status: online or offline.
- Call history.
- Information about the location with the time of last coordinates sending.

NOTE

When you tap the location information, SmartPTT Mobile will open the map and display the object icon on it.

- Last text message in a chat.

Important

It is displayed only for SmartPTT Mobile users.

NOTE

When you tap the text message, SmartPTT Mobile will open a chat with the SmartPTT Mobile user.

- List of contact groups.
- PTT button for initiating a call from the profile.

The profile action menu (⋮) contains the following elements:

Mute/Unmute

Provides the ability to mute/unmute voice calls.

Mute Others

Provides the ability to mute voice calls for all objects in the Contact List.

4.4.4.2 Virtual Group Profile

The profile of a virtual group consisting only of SmartPTT Mobile users provides the following information:

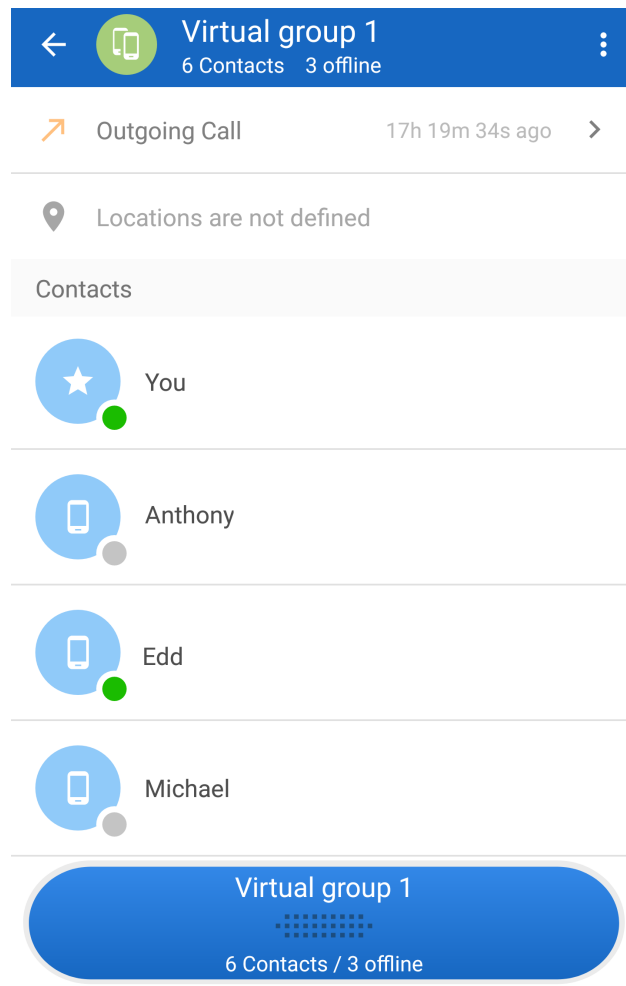


Fig. 5. Virtual Group Profile

- Group name.
- The total number of SmartPTT Mobile users in the group and the number of active users.
- Mute icon (📵) that is displayed if the voice call is muted for the virtual group.
- Call history.

- Information about the location indicating the name of the user who sent the coordinates last, his coordinates, as well as the time of last coordinates sending.
- List of SmartPTT Mobile users in the group.
- PTT button for initiating a call from the profile.

The profile action menu (⋮) contains the following elements:

Mute/Unmute

Provides the ability to mute/unmute voice calls.

Mute Others

Provides the ability to mute voice calls for all objects in the Contact List.

Edit

Opens the **Edit Virtual Group** window for editing virtual group name and changing its members.

4.4.4.3 Multigroup Profile

The multigroup profile provides the following information:

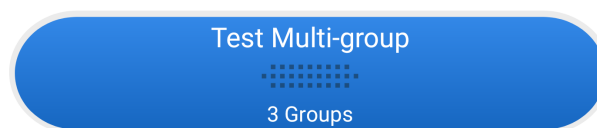
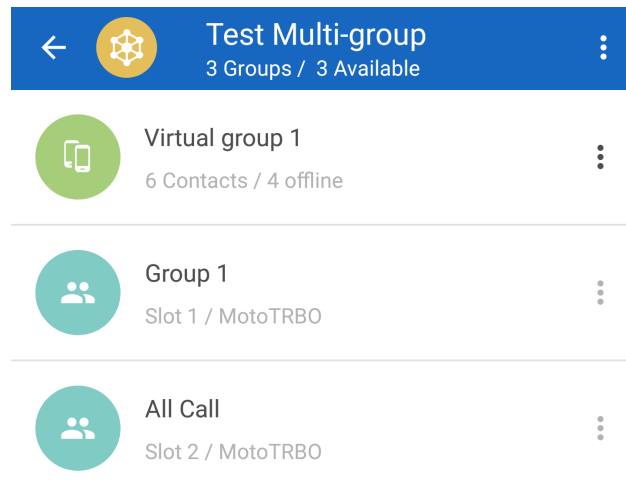



Fig. 6. Multigroup Profile

- Group name.

- The total number of groups in the multigroup and the number of active groups.
- Mute icon () that is displayed if voice calls are muted for a multigroup.
- List of groups included in the multigroup;
- PTT button for initiating a call from the profile.

The profile action menu () contains the following elements:

Mute/Unmute

Provides the ability to mute/unmute voice calls.

Mute Others

Provides the ability to mute voice calls for all objects in the Contact List.

Edit

Opens the **Edit Multi-group** window for editing multigroup name and number of members.

Leave the group

Allows to leave the group.

Delete

Allows to delete the group.




4.4.5 Call History

SmartPTT Mobile provides the ability to store and display short information about calls from the SmartPTT Mobile user contact list in the contact profile. Call history functionality is available for SmartPTT Mobile users, radios and virtual groups.

NOTE

Call history is displayed separately for each contact in the contact list.

Call history log entries provides the following information:

- Type of the event (indicated by the icon and signature under the contact's name). The following types are available:
 - () — incoming call.
 - () — outgoing call.
 - () — multiple call (with indicating the number of calls).

NOTE

Multiple calls provides the ability to reduce the number of log entries. A multiple call combines calls of the same type if the time interval between them does not exceed 10 minutes. The total duration of multiple call is not limited. Multiple call combines private calls initiated or received by the same SmartPTT Mobile user or radio and group calls initiated by any contact in the same group.

- Participant of the call.
- Start time of the call.
- Call duration.

NOTE

Call duration is considered as the time interval between the first PTT button tap and the end of the last hangtime or call interrupt.

4.4.5.1 Call History Window

The call history window appears after selecting **Call History** from the contact action menu ().

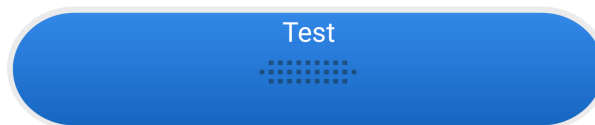
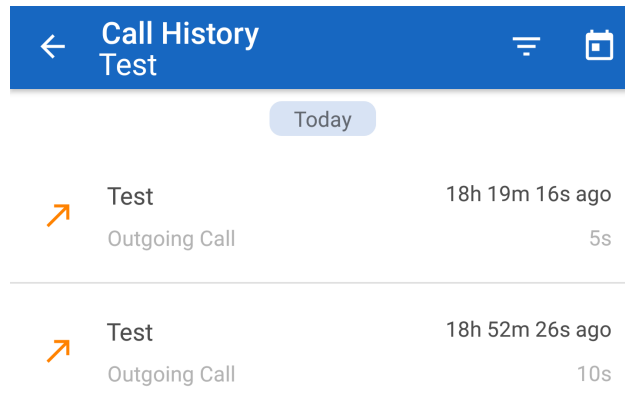



Fig. 7. Call History


The call history window toolbar contains the following elements:

Back ()


Returns to the contact list window.

Call History (contact name)

Displays the contact name from the Contact List whose call history window is open.

Filter ()

Opens the filtering window and provides the ability to filter calls by their type (incoming or outgoing). For virtual groups, you can also filter calls by individual group members.

Date ()

Opens the calendar and provides the ability to select the date to see the call history for the desired day.

Clear (X)

Cancels the call history filtering. The button appears only if a filter is used.

4.4.5.2 Displaying Call History


Follow the procedure to display the call history of the desired contact.


Prerequisites:

Select the contact whose call history you want to display.

Procedure:

1. Open the call history window in one of the following ways:

To open the call history window from the SmartPTT Mobile user or radio action menu (),

tap **Call History** in the action menu () of the desired contact.

The call history window appears.

To open the call history window from the SmartPTT Mobile user or radio profile,


tap the call history icon () in the profile of the desired contact.

The call history window appears.

2. *(Optional)* Filter calls:


To filter a list by incoming calls,

perform the following actions:

1. On the toolbar, tap the filter icon ().
2. Tap **Incoming Calls**.


To filter a list by outgoing calls,

perform the following actions:

1. On the toolbar, tap the filter icon ().
2. Tap **Incoming Calls**.

To filter a list by the virtual group member,

perform the following actions:

1. On the toolbar, tap the filter icon ().
2. In the **Subscribers** area, tap the desired group member.

3. To display call history for a specific date, perform the following actions:

- a. Tap the calendar icon () on the toolbar.

The calendar window appears to select the desired date.

- b. Tap the desired date.

The call history window appears to display calls for the desired date.

NOTE

If you want to see the call history for other years, tap the year in the title bar. The calendar opens the call history for January 1 of the selected year.

4.4.6 Text Chats

The mobile application supports text chats. The following types of text chats are available in SmartPTT Mobile:

- Chat with the SmartPTT Mobile user.
- Chat with a virtual group.
When a new SmartPTT Mobile user is added to a virtual group, all chat history of this virtual group will be available to this user. When the SmartPTT Mobile user is removed from the virtual group, the chat of this virtual group will be hidden from the user.

Important

To exchange text messages in SmartPTT Mobile, the mobile data license is required.

Important


In SmartPTT Dispatcher, you can download reports based on text chats between SmartPTT Mobile users. For details, see “Reports” in *SmartPTT Dispatcher User Guide*.

If the SmartPTT Mobile user receives a text message when SmartPTT Mobile is minimized and the smartphone screen is locked, a text notification as well as sound notification about the incoming message will appear on the smartphone screen.

If the **Vibration Control** toggle is enabled in the SmartPTT Mobile settings, the device will vibrate when a new text message is received.

The list of all text chats in SmartPTT Mobile is displayed after tapping **Chats** in the SmartPTT Mobile side menu.

Text chats with a specific SmartPTT Mobile user in the mobile application are opened from the following locations:

- Side menu **Chats**
- Contact list (from the contact action menu ())
- Contact profile

4.4.6.1 Text Chat List

A window with a list of all text chats appears when you tap **Chats** in the SmartPTT Mobile side menu.

The toolbar of the chat list window contains the following elements:

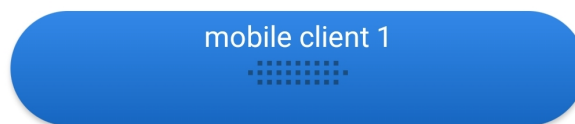
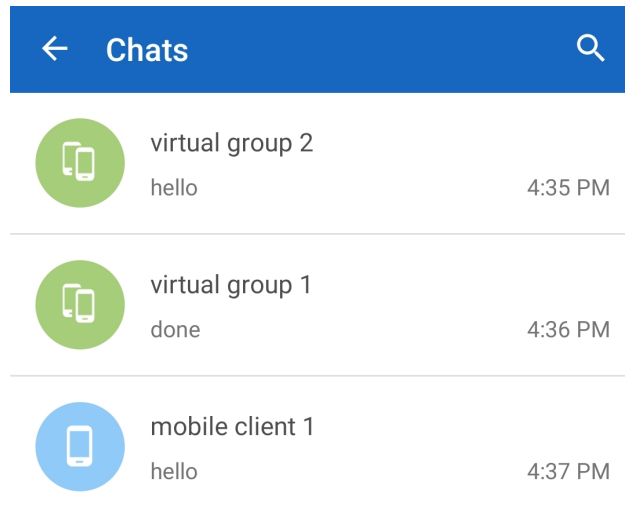


Fig. 8. Text Chats

Back (←)

Returns to the Contact List window.

Search (🔍)

Provides the ability to initiate a chat search by typing the names of SmartPTT Mobile users and virtual groups in the search field that appears in the middle of the toolbar.

Clear (✕)




Clears the search field. The button appears only if there are characters in the search field.

List of Chats

Contains a list of all currently available chats. Tapping a specific chat opens its chat window. The following information is displayed in the chat list:

- The SmartPTT Mobile username or virtual group name.
- SmartPTT Mobile user or virtual group icon.
- The counter of unread messages in this chat.
- Part of the last text message in a chat.
- The time when the last text message was sent.
- Outgoing message status.

The status is displayed if the last text message in a chat was outgoing. The following statuses are available in SmartPTT Mobile:

- Sent ()
- Delivered ()
- Read ()

4.4.6.2 Chat Window

The selected SmartPTT Mobile user or virtual group chat window contains the following elements:

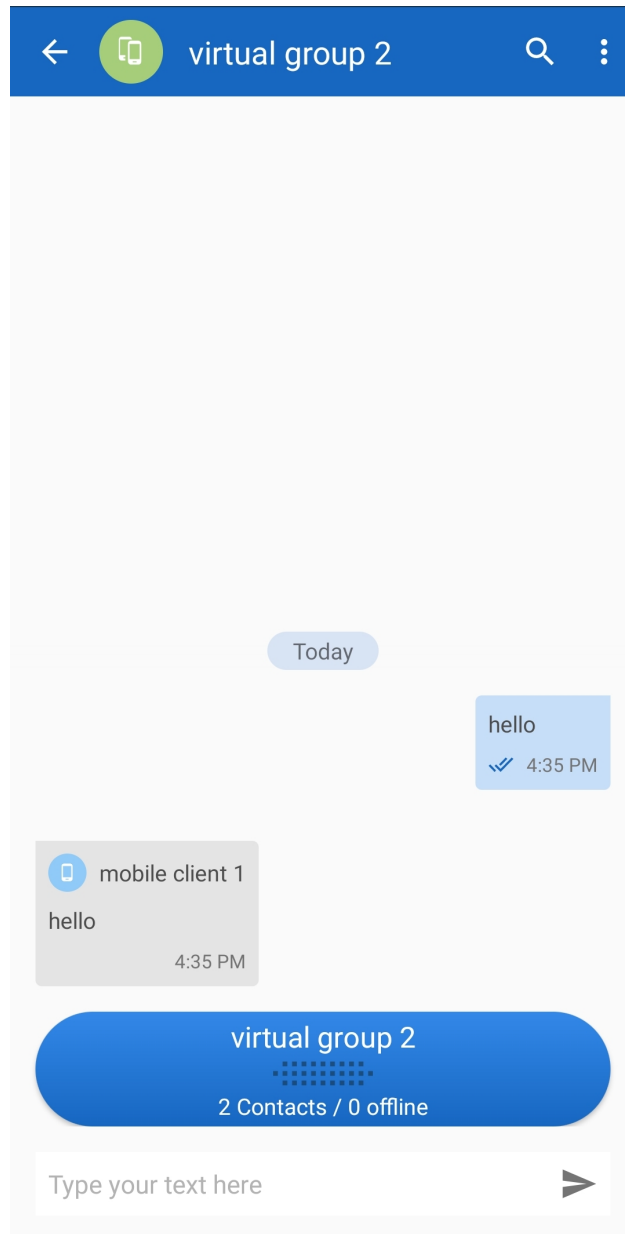


Fig. 9. Text Chat

Back (←)

Returns to the previous window.

Contact type icon

Displays the icon of the contact with whom the selected chat window is open.

Contact name

Displays the chat participant name.

Status

Displays the status of the SmartPTT Mobile user (online or offline).

Search (🔍)

Provides the ability to initiate a search on messages within a chat. Search becomes available only if there are any text messages in a chat.

Clear (✕)

Clears the search field. The button appears only if there are characters in the search field.

From the action menu (⋮) of the chat window, you can open the profile of the contact.

Message feed

Displays outgoing and incoming messages in the chat. Each message in the feed contains the following information:

- The name of the message sender (for chats with a virtual group).
- Message sender icon (for chats with a virtual group).
- Full text of the message.
- Outgoing message status.
- Time when the message was sent.

The date format follows the format set in the smartphone operating system.

NOTE

If a message is sent to a virtual group that has an inactive contact, the SmartPTT Mobile user will receive the message when they become active. When the message is sent, the message sender will receive a notification that not all members of the virtual group receive the message at the moment (*Some group members can't receive messages*).

The text area at the bottom of the screen contains the following elements:

- PTT button at the bottom of the window that provides a voice call indication and the ability to initiate calls
- Message input field
- Button for sending a message
- Message length counter
- Screen keyboard

4.4.6.3 Creating New Chat or Sending Message to Existing One

Follow the procedure to to create and send a message to a contact in a new or existing chat.


Prerequisites:

Determine the SmartPTT Mobile user or virtual group to which you want to send a text message in a chat.

Procedure:


1. Open a chat with the contact in one of the following ways:

To start a chat with a selected contact from the perform the following actions:
action menu (⋮),

1. Tap the Contact List.
2. Tap **Chats** in the action menu () of the desired contact.
An empty chat window or window with a previously created chat appears.

To start a chat with a selected contact from the profile window,

perform the following actions:

1. Tap the Contact List.
2. Tap **Profile** () in the action menu of the desired contact.
The contact profile window appears.
3. In the middle of the profile window, tap the field with the last text message sent to the chat (in the case of a new chat, the value will be *No messages*).
An empty chat window or window with a previously created chat appears.

To send a message to an already created chat,

perform the following actions:

1. In the SmartPTT Mobile side menu, tap **Chats**.
A window with all existing chats appears.
2. From the list, tap the desired chat.
The chat window of the desired contact appears with the messages sent earlier.

2. Tap the **Message** field at the bottom of the screen and start typing your message.
3. Tap the send button to send the message.
The message you typed appears in the chat window with the selected contact.

4.5 Location

SmartPTT Mobile supports online and offline maps. Offline maps located on a local server in the internal network of an enterprise are convenient for SmartPTT Mobile users working in an isolated network without access to the Internet. SmartPTT Mobile uses Google Maps and Baidu Maps as online maps. SmartPTT Mobile uses OpenStreetMap to work with offline maps.

NOTE

To work in SmartPTT Mobile with offline maps, type the OpenStreetMap address in SmartPTT Radioserver Configurator. The standard OpenStreetMap URL is the following: <http://b.tile.openstreetmap.org/>.

Important


SmartPTT Mobile does not provide the ability to use online and offline maps at the same time.

Important

To display the coordinates of SmartPTT Mobile users in the mobile application, the mobile client location license is required.

The Location feature in SmartPTT Mobile provides the ability to monitor the SmartPTT Mobile user location, as well as to find location of radios added to your contact list. SmartPTT Mobile also provides the ability to combine closely located contacts in a cluster.

This functionality can be accessed by selecting the **Location** option in one of the following menus or windows:

- The SmartPTT Mobile side menu.
- The contact action menu ().
- The contact profile.

NOTE

SmartPTT Mobile sends the device coordinates to SmartPTT Radioserver every 15 seconds.

4.5.1 Map

The map window appears after tapping **Location**.

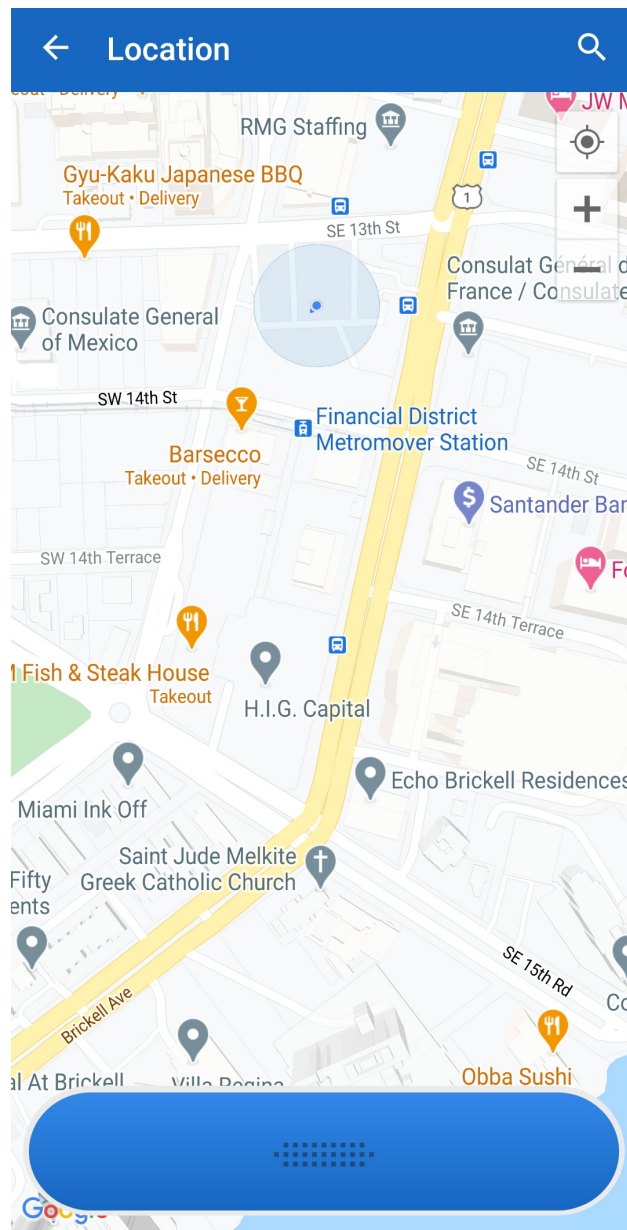


Fig. 10. Map

The map window toolbar contains the following elements:

Back (←)

Returns to the window with the contact list.

Find contacts (🔍)

Provides the ability to filter the Contact List by typing the beginning of a contact name in the search field that appears in the middle of the Toolbar.

Google or Baidu Maps

Displays in the application window Google or Baidu Maps for operation with online maps or OpenStreetMap for operation with offline maps.

The following objects are displayed on the map:

- Radios
- SmartPTT Mobile users

NOTE

The object also displays its status: online or offline. When you tap the object icon, a panel with information is displayed below it. The panel contains the contact name, location coordinates (width and longitude) in degrees, and the PTT button.

- Clusters (combination of closely located SmartPTT Mobile users and radios).

NOTE

The cluster icon displays the number of nearby objects. Clicking on the cluster icon below displays a panel with information about the number of contacts in the cluster and the number of inactive contacts.

Show me ()

Centers the map on the icon of the SmartPTT Mobile user who opens the map.
The button is activated if you move the map in any direction.

Zoom in/Zoom out ()

Provides the ability to change the scale of the map.

4.5.2 Finding User on Map

Follow the procedure to display location of the desired SmartPTT Mobile user or radio.

Prerequisites:


- Ensure the GPS feature is enabled on SmartPTT Radioserver.
- *(Optional)* If you are going to use offline maps, ensure that in SmartPTT Radioserver Configurator the OpenStreetMap address is typed.
- Edit the location settings in the app.
- Ensure you gave the permission to use geolocation on the device.
- Ensure the desired SmartPTT Mobile user or radio is in the SmartPTT Mobile contact list.


Procedure:

1. Open the map window in one of the following ways:

To open a map from the SmartPTT Mobile side menu,



tap **Location** in the SmartPTT Mobile side menu.
The map window appears.

To open the map from the action menu () of the SmartPTT Mobile user or radio,

tap **Location** in the action menu () of the desired contact.
The map window appears.

To open a map from the profile of the SmartPTT Mobile user or radio,

perform the following actions:

1. Tap **Profile** in the action menu () of the desired contact.
 2. Tap the location icon () in the profile of the desired contact.
The map window appears.
-
2. In the search field of the map window at the top of the toolbar, type the name of the contact whose location you want to find:
 - a. Type the beginning of the desired contact name to filter the list.
 - b. Tap the name of the desired contact to find it on a map.
 3. The map is centered on the object.

Postrequisites:

To see the detailed information of the contact, tap its icon again.
A panel with information appears under the object icon.


4.6 Settings

The **Settings** menu contains SmartPTT Mobile settings, including general, location, hardware and emergency settings.

4.6.1 Editing SmartPTT Mobile Settings

Follow the procedure to edit SmartPTT Mobile settings.

Procedure:

1. In the Contact List, swipe right or tap the Menu () button in the upper-left corner of the window.
SmartPTT Mobile side menu appears.
2. In the menu, tap **Settings** → **Application**.
The **Application** window appears.

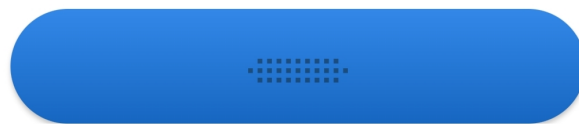
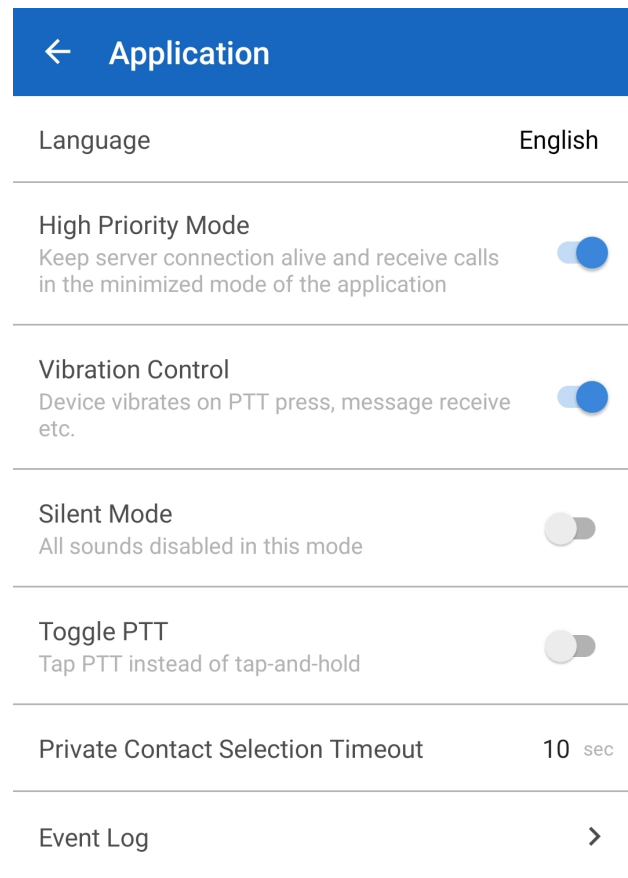


Fig. 11. Application Settings

3. In the **Language** list, select English as the interface language if you do not need Chinese.
4. Configure the desired priority of the SmartPTT Mobile operation mode:

To configure SmartPTT Mobile to work in high priority mode,

turn on the **High priority mode** toggle.

To configure SmartPTT Mobile to work in normal mode,

turned off the **High priority mode** toggle.

Important

Regardless of the selected operation mode, SmartPTT Mobile is always interrupted by incoming phone calls. When the emergency mode is enabled, SmartPTT Mobile that is operating in normal mode, goes into high priority mode. When the emergency mode is turned off, SmartPTT Mobile returns to work in normal mode.

NOTE

The priority of SmartPTT Mobile operation determines its behavior when minimizing application, switching to another application, or locking the screen when the application is active. In normal mode, connection with SmartPTT Radioserver is interrupted, the microphone and speaker are not used by the application. In high priority mode, connection with SmartPTT Radioserver is active, the application continues to use the speaker, but does not use a microphone.

5. To activate vibration when a SmartPTT Mobile user initiates or receives a call, as well as receives a text message, turn on the **Vibration Control** toggle.
6. To suppress tones when a call begins, ends or is interrupted, turn on the **Silent Mode** toggle.
7. Configure the PTT button behavior:

To initiate calls by tapping and holding PTT,	turn off the Toggle PTT toggle.
To initiate/end calls by single-tapping PTT,	turn on the Toggle PTT toggle.
8. In the **Private Contact Selection Timeout** line, move the slider to set the time in seconds during which a contact selected from a virtual group or a multigroup will be assigned to the PTT button. After that, the PTT button will revert to the virtual group or multigroup. Available values are *2, 4, 6, 8* and *10* seconds.
9. Tap **Event Log** to go to the SmartPTT Mobile Event Log.

NOTE

The SmartPTT Mobile Event Log represents a list of certain types events (errors and warnings) in the active session of the SmartPTT Mobile user. Logging out of SmartPTT Mobile leads the log to be cleared.

4.6.2 Editing Location Settings

Follow the procedure to edit SmartPTT Mobile location settings.

Procedure:

1. In the Contact List, swipe right or tap the Menu (☰) button in the upper-left corner of the window. SmartPTT Mobile side menu appears.
2. In the menu, tap **Settings** → **Location Settings**. The **Location Settings** window appears.

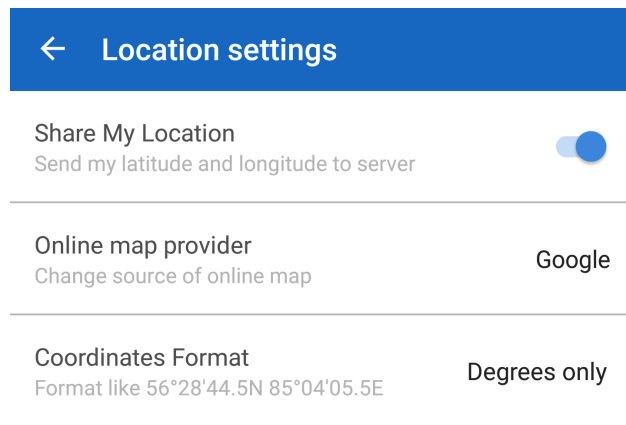


Fig. 12. Location Settings

3. Turn on or turn off the display of coordinates:

To display no coordinates, turn off the **Share My Location** toggle.

NOTE

By default the toggle is turned on.

To display coordinates, turn on the **Share My Location** toggle.

4. Select the map provider:

To use Google Maps, from the list **Online map provider**, select *Google*.

To use Baidu Maps, from the list **Online map provider**, select *Baidu*.

NOTE

When using offline maps, the **Online map provider** is hidden from the interface.

5. Set the format to display coordinates:

To display coordinates only in degrees, from the **Coordinates Format** list, select *Degrees only*.

To display coordinates in degrees, minutes and seconds,

from the **Coordinates Format** list, select *With min&sec*.

4.6.3 Editing Emergency Mode Settings

Follow the procedure to edit the emergency mode settings in SmartPTT Mobile.

NOTE

If SmartPTT Mobile is in the emergency mode, editing the emergency mode settings is not available.

Procedure:

1. In the Contact List, swipe right or tap the Menu (☰) button in the upper-left corner of the window. SmartPTT Mobile side menu appears.
2. In the menu, tap **Settings** → **Emergency settings**. The window **Emergency settings** appears.

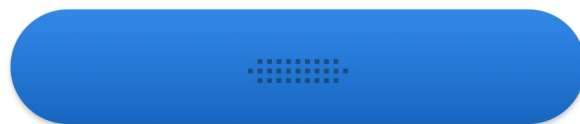
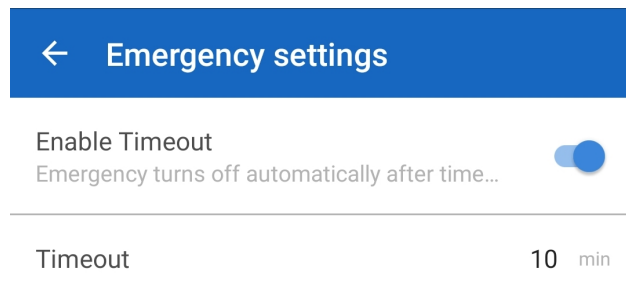


Fig. 13. Emergency Settings

3. Configure exit from the emergency mode by timeout:

To enable exiting the emergency mode after a certain period of time,

perform the following actions:

1. Turn on the **Enable Timeout** toggle. This toggle unblocks the **Timeout** parameter.
2. From the **Timeout** drop-down list, select the desired value in minutes, after which the emergency mode will be automatically disabled in SmartPTT Mobile. The range of available values is from 10 to 120 minutes in increments of 10 minutes.

To disable the exiting the emergency mode by timeout,

turn off the **Enable Timeout** toggle.

NOTE

In this case, the emergency mode will be disabled only after the SmartPTT Mobile user turns it off in the SmartPTT Mobile side menu or a dispatcher turns it off in SmartPTT Dispatcher.

4.6.4 Editing Hardware Settings

%FPP%> edit hardware settings in SmartPTT Mobile.

Procedure:

1. In the Contact List, swipe right or tap the Menu (☰) button in the upper-left corner of the window. SmartPTT Mobile side menu appears.
2. In the menu, tap **Settings** → **Hardware Settings**. The **Hardware Settings** window appears.

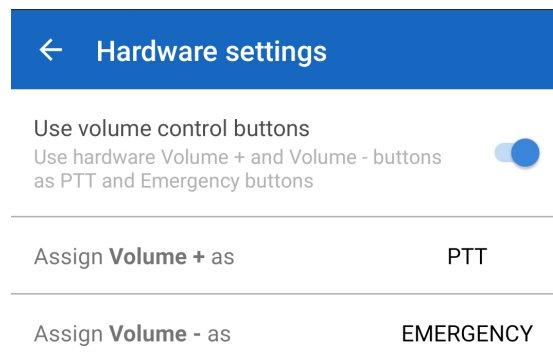


Fig. 14. Hardware Settings

- Turn on the **Use volume control buttons** toggle, to assign the PTT or Emergency button to one of the volume button on a device.

This action unblocks the **Assign Volume + as** and **Assign Volume - as** options.

NOTE

By default, the toggle is turned off.

- Perform one of the following actions:

To assign the PTT or Emergency button to a volume up button, tap **Assign Volume + as**.


To assign the PTT or Emergency button to a volume down button, tap **Assign Volume - as**.

The same button cannot be assigned to the volume up and down buttons at one time.

Important

The volume up and down buttons can be used as PTT and Emergency buttons only while SmartPTT Mobile is active.

Important

A call initiated by the hardware PTT button or volume button on the device ends when an object action menu () is opened.

4.7 Managing Virtual Groups

The SmartPTT Mobile application provides the ability to create virtual groups consisting only of SmartPTT Mobile users. These groups can be managed both by the mobile application and by SmartPTT Dispatcher. For details, see “Dynamic Groups” in the *SmartPTT Dispatcher Guide*.


When a virtual group is created, it appears in the contact lists of all SmartPTT Mobile users added to the group. If required, any member of the group can leave it.

Any member of the group can edit or delete a virtual group if it is created by the SmartPTT Mobile user. If a dispatcher edits a virtual group created by the SmartPTT Mobile user, the SmartPTT Mobile user does not lose the permission to edit the created group. However, SmartPTT Mobile users cannot edit or delete groups created by the dispatcher in SmartPTT Dispatcher. All changes made in the SmartPTT Mobile application are displayed in SmartPTT Dispatcher and vice versa.

4.7.1 Creating Virtual Groups

Follow the procedure to create a virtual group.

Procedure:

- In the upper-right corner of the Contact List window, tap Select group type ().
- Tap **Create Virtual group**.
Group creation window appears.

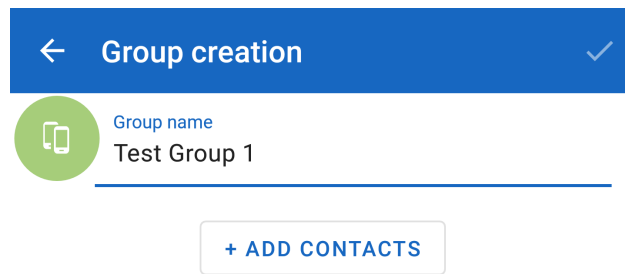


Fig. 15. Group Creation

3. In the **Group name** field, type the group name.
4. Add the desired contacts to the group:
 - a. Tap **Add Contacts**.
The **Add Contacts** window appears.

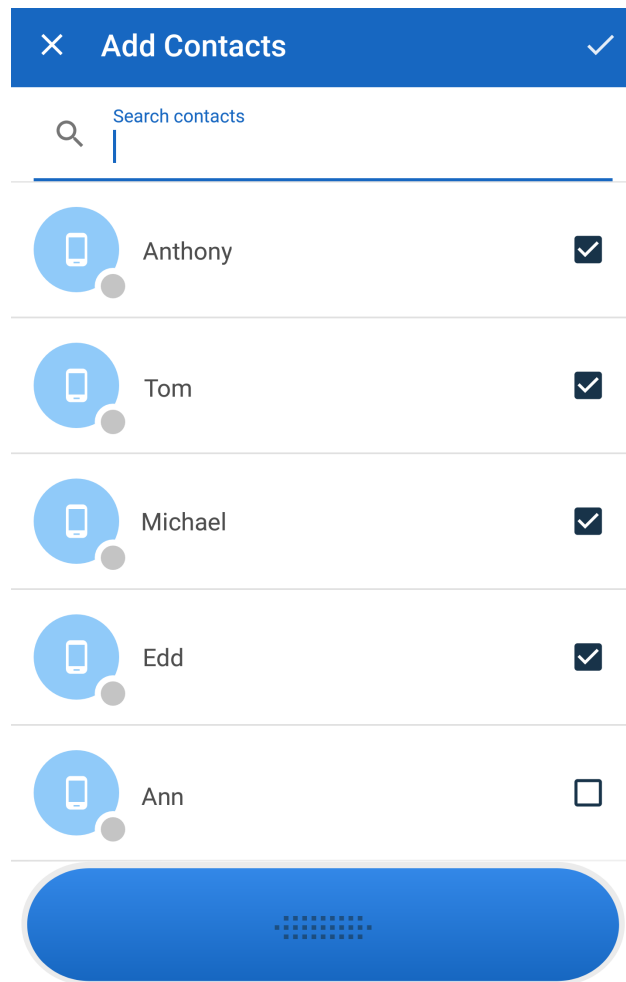


Fig. 16. Adding Contacts

- b. (Optional) In the **Search contacts** field, at the top of the window, type the beginning of a desired contact name to filter the list.
 - c. To add a contact to the group, select the check box to the right of its name.
 - d. At the top of the window, tap Confirm (✓) to accept changes or Discard (✕) to discard them.
5. In the upper-right corner of the **Group creation** window, tap Confirm (✓) to create the group.

4.7.2 Editing Virtual Groups

Follow the procedure to to edit a virtual group.

Procedure:

1. In the Contact List, in the action menu (⋮) of the desired virtual group name, tap **Profile**.
Virtual group profile appears.

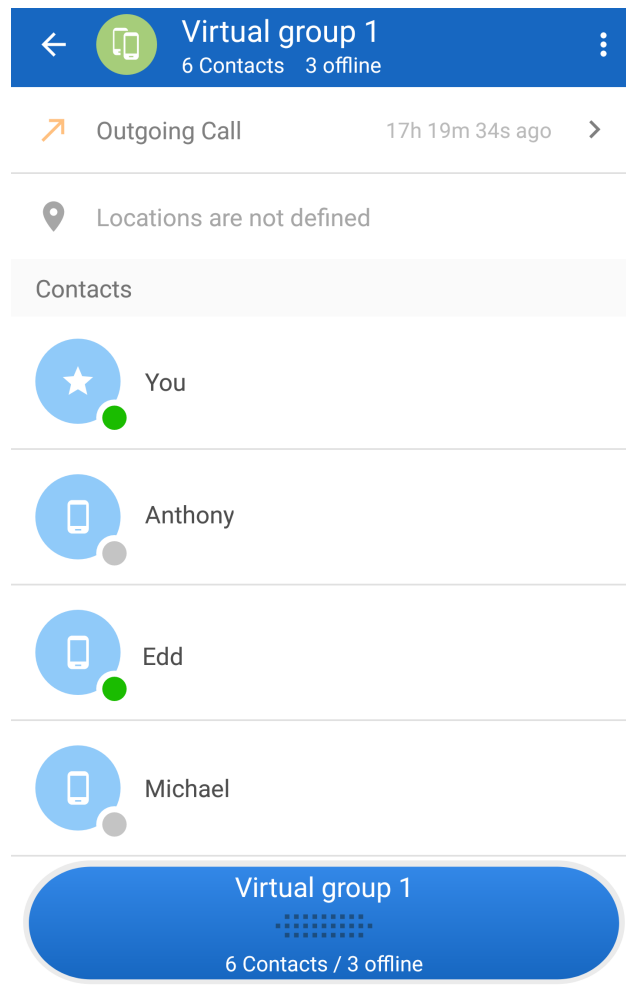



Fig. 17. Virtual Group Profile

2. In the action menu () of the virtual group profile, tap **Edit**.
The **Edit** window appears.

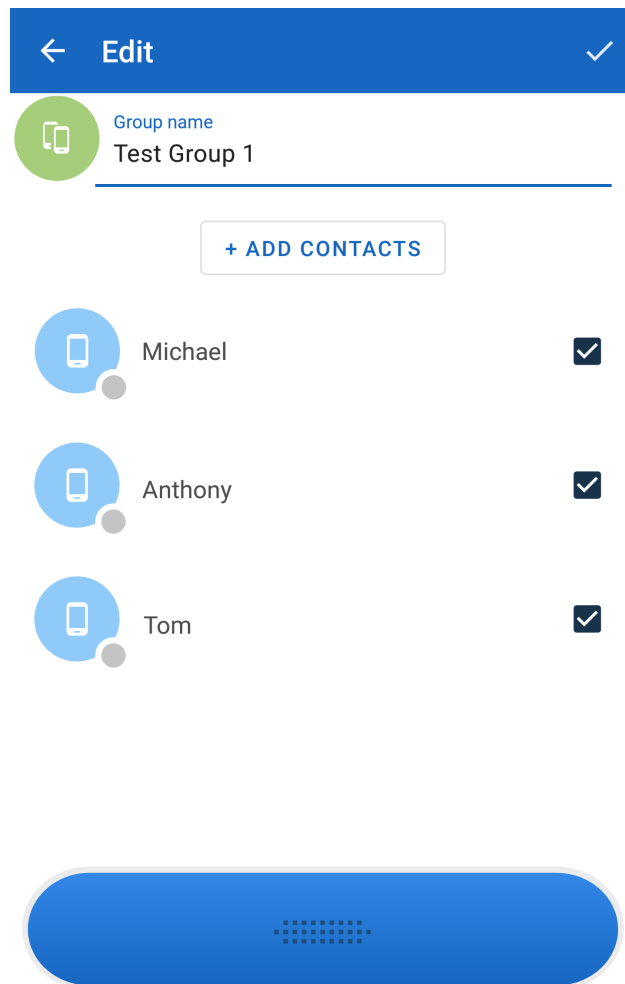


Fig. 18. Adding Contacts

3. Tap the group name to edit the name.
4. Perform one of the following actions:

To remove a group member,

clear the check box to the right of the group member name.

To add a group member,

perform the following actions:


1. Tap **Add Contacts**.
The **Add Contacts** window appears.
2. *(Optional)* In the **Search contacts** field, at the top of the window, type the beginning of a desired contact name to filter the list.
3. To add a contact to the group, select the check box to the right of the contact name.
4. At the top of the window, tap Confirm (✓) to accept changes or Discard (✕) to discard them.

-
5. In the upper-right corner of the **Edit** window, tap Confirm (✓) to save changes.
-

4.7.3 Deleting Virtual Groups

Follow the procedure to to delete a virtual group.

Procedure:

1. In the Contact List, in the action menu () of the desired virtual group name, tap **Profile**.
Virtual group profile appears.

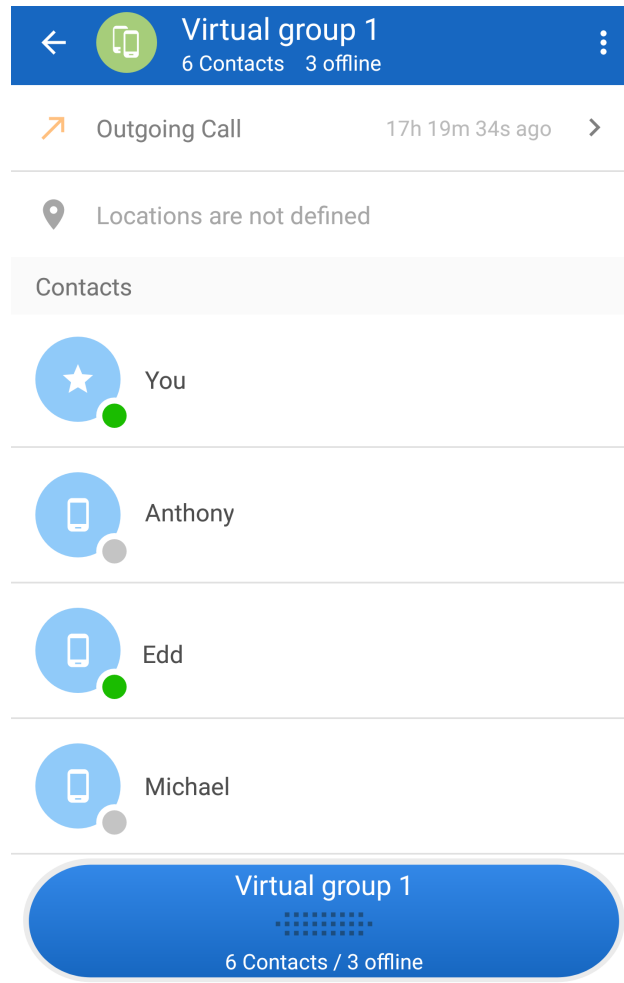



Fig. 19. Virtual Group Profile

2. In the action menu () of the virtual group profile, tap **Delete**.
3. In the dialog box that appears, confirm deletion.


NOTE

If the group is part of a multigroup, then it cannot be deleted.

4.7.4 Leaving Virtual Group

Follow the procedure to to leave a virtual group.

Procedure:

1. In the Contact List, in the action menu () of the desired virtual group name, tap **Profile**.
Virtual group profile appears.

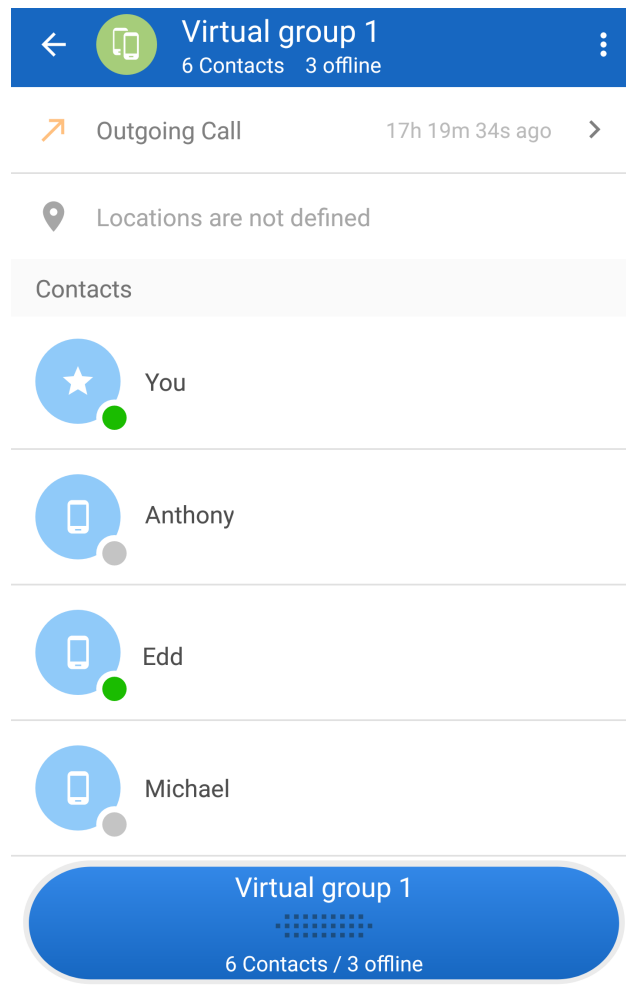


Fig. 20. Virtual Group Profile

2. In the action menu (⋮) of the virtual group profile, tap **Leave**.
3. In the dialog box that appears, confirm that you want to leave the group.

4.8 Managing Multigroups

The SmartPTT Mobile app provides the ability to create virtual groups consisting of SmartPTT Mobile user groups and DMR talkgroups. These virtual groups are called multigroups in the SmartPTT Mobile app. Multigroups can be managed both by the mobile application and by SmartPTT Dispatcher. For details, see "Cross-patches" in the *SmartPTT Dispatcher Guide*.

Important

In conventional systems, only one DMR talkgroup from each channel can be added to a multigroup.

Any member of the multigroup can edit or delete a multigroup if it is created by the SmartPTT Mobile user. If a dispatcher edits a multigroup created by the SmartPTT Mobile user, then the SmartPTT Mobile user does not lose the rights to edit the created group. However, SmartPTT Mobile users cannot edit or delete groups created by the dispatcher. All changes made in the SmartPTT Mobile application are displayed in SmartPTT Dispatcher and vice versa.

NOTE

If a virtual group created by the SmartPTT Mobile user has been included in a multigroup, it cannot be deleted until it is removed from the multigroup.

4.8.1 Creating Multigroups

Follow the procedure to create a multigroup.

Prerequisites:

- Ensure that you have created virtual teams consisting of SmartPTT Mobile users.
- Ensure your SmartPTT system configuration allows multigroup creation.

Procedure:

1. In the upper-right corner of the Contact List window, tap Select group type (+).
2. Tap **Create Multi-group**.
Group creation window appears.

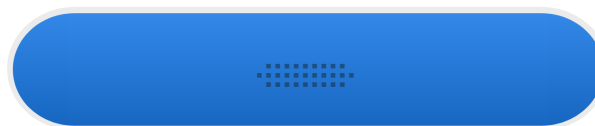
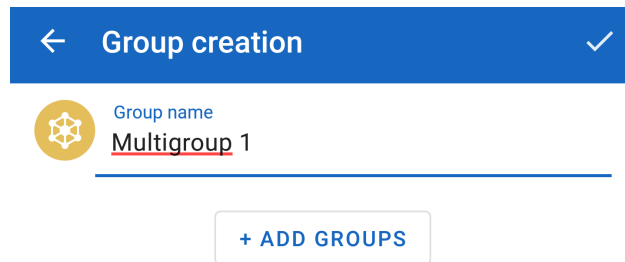


Fig. 21. Group Creation

3. In the **Group name** field, type the group name.
4. Add the desired groups to the multigroup:

- a. Tap **Add Contacts**.
The **Add Contacts** window appears.

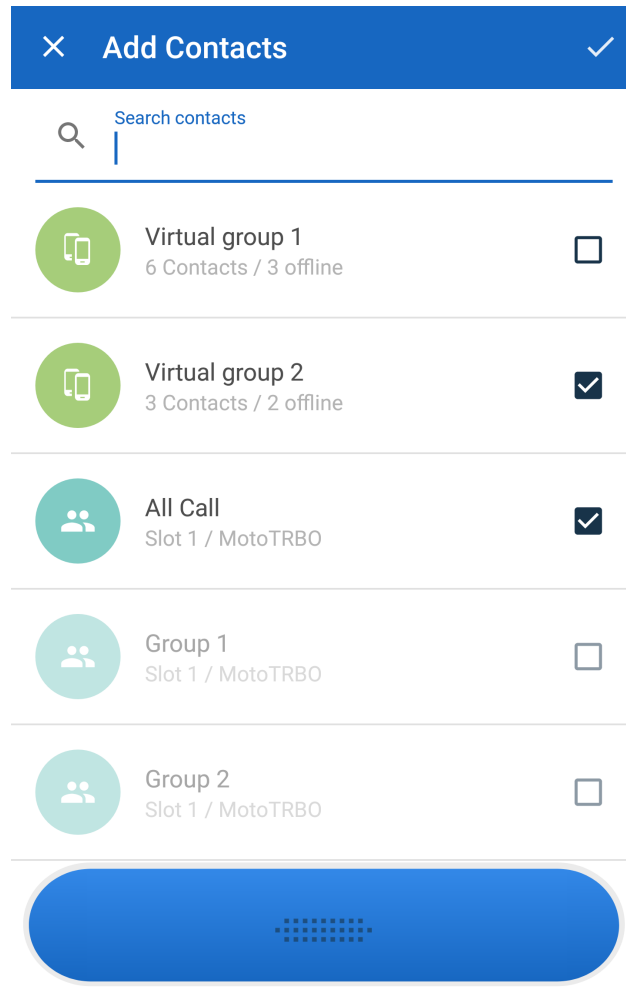


Fig. 22. Adding Contacts

- a. *(Optional)* In the **Search contacts** field, at the top of the window, type the beginning of the desired group name to filter the list.
 - b. To add a group to the multigroup, select the check box to the right of its name.
 - c. At the top of the window, tap Confirm (✓) to accept changes or Discard (✕) to discard them.
5. In the upper-right corner of the **Group creation** window, tap Confirm (✓) to create the multigroup.

4.8.2 Editing Multigroups

Follow the procedure to to edit a multigroup.

Procedure:

1. In the Contact List, in the action menu (⋮) of the desired multigroup name, tap **Profile**.
Multigroup profile appears.

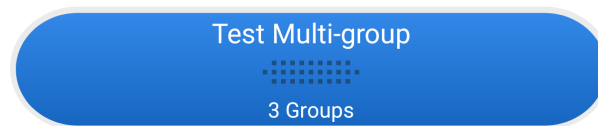
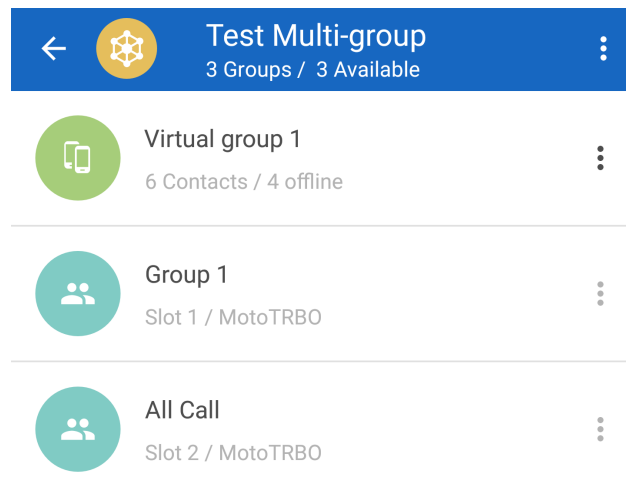




Fig. 23. Multigroup Profile

2. In the action menu () of the multigroup profile, tap More () → Edit. The **Edit** window appears.

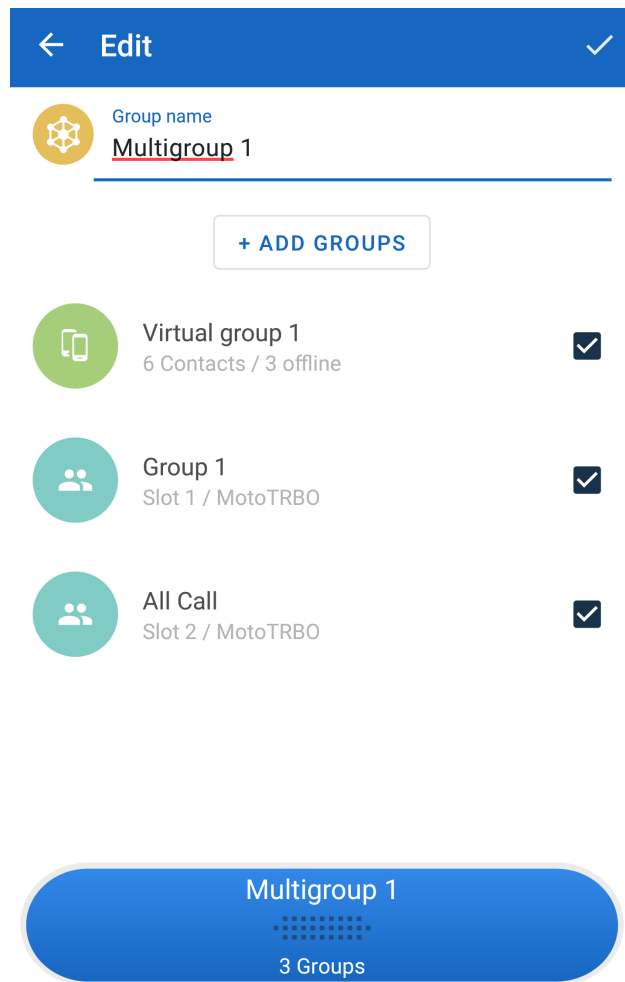


Fig. 24. Adding Contacts

3. Tap the group name to edit it.
4. Perform one of the following actions:

To remove a group from the multigroup,

clear the check box to the right of their name.

To add a group to the multigroup,

perform the following actions:


1. Tap **Add Groups**.
The **Add Groups** window appears.
 2. *(Optional)* In the **Search contacts** field, at the top of the window, type the beginning of a desired group name to filter the list.
 3. To add a group to the multigroup, select the check box to the right of its name.
 4. At the top of the window, tap Confirm (✓) to accept changes or Discard (✕) to discard them.
-

5. In the upper-right corner of the **Edit** window, tap Confirm (✓) to save changes.

4.8.3 Deleting Multigroups

Follow the procedure to delete a multigroup.

Procedure:

1. In the Contact List, in the action menu () of the desired multigroup name, tap **Profile**.
Multigroup profile appears.

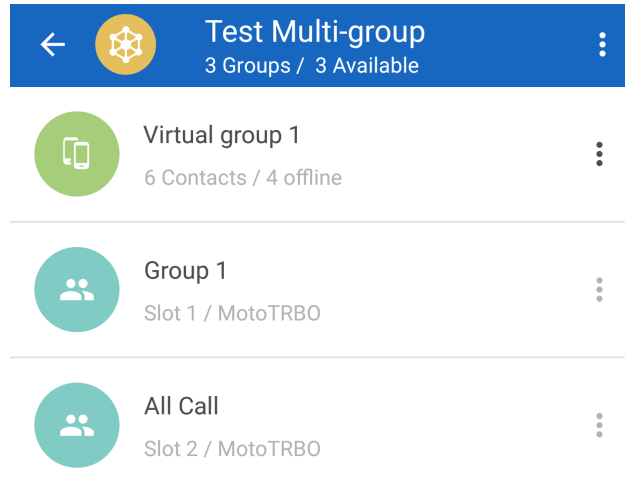



Fig. 25. Multigroup Profile

2. In the action menu () of the multigroup profile, tap **Delete**.
3. In the dialog box that appears, confirm deletion.

5 Troubleshooting

Typical problems you may encounter while installing and using the SmartPTT Mobile application and ways of their resolving are described in the “SmartPTT Mobile Using Problems” section in *SmartPTT Installation and Configuration Guide*.

If the suggested methods do not help to resolve your problem, contact [SmartPTT Technical Support Center](#).

Contact Information

The document describes the product developed by Elcomplus LLC. The official product website is www.smartptt.com.

For contact information of Elcomplus LLC representatives, see www.smartptt.com/contacts.

Technical Support

Customer support is provided by SmartPTT Technical Support Center. The official website of the Center is support.smartptt.com.

To contact a support engineer, perform one of the following actions:

- Fill in and submit a [support request](#) on the website.
- Email a support request to support@smartptt.com.

In America, customer support is also provided by Elcomplus, Inc. To contact support engineers, use the following contact information:

- Phone: +1 786-362-5525
- Email: miami@smartptt.com
- Mailbox: 290 NW 165th St, Ste P-200, 3rd Flr
Miami, FL, 33169, USA

SmartPTT Technical Support Center and Elcomplus, Inc. do not consult on deployment and maintenance of Motorola Solutions products except on settings related to SmartPTT connection and data communication. For technical support on Motorola Solutions products, please contact an authorized Motorola Solutions representative in your region.

Customer Documentation

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