TRBOnet Mobile Client for iOS

User Guide

Version 2.9

Notices

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This document was last revised on September 9, 2022.

Contents

1   Introduction

1.1   About This Guide

This document is intended for end users of the TRBOnet Mobile Client software installed on an iOS mobile device. The document describes how to install and configure TRBOnet Mobile Client, make and receive radio network calls on a mobile device, exchange instant text messages with other radio network users, and manage jobs assigned to a user on the radio network.

1.2   About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

For more information about TRBOnet products, refer to our website.

1.3   Contacts

Region	Phone	Email & Support
EMEA	+44 203 608 0598	info@trbonet.com — general and commercial inquiries
Americas	+1 872 222 8726	support@trbonet.com — technical support
APAC	+61 28 607 8325	http://trbonet.com/kb/ — online knowledge base

2 About TRBOnet Mobile Client

TRBOnet Mobile Client is a software application for iOS smartphones that emulates the functionality of a two-way radio on a MOTOTRBO radio network monitored by the TRBOnet software.

With TRBOnet Mobile Client installed on your mobile device, you can interact with other two-way radios, iOS and Android devices, and TRBOnet control room personnel, transferring voice and data over Wi-Fi or mobile networks. Beyond the two-way radio capabilities, TRBOnet Mobile Client features job ticketing and vehicle location tracking on a mobile device.

2.1 Features

- PTT functionality to transmit and receive voice
- Group calls and private calls
- Control room operator calls
- Device-to-device private calls
- Incoming SIP phone calls
- Emergency alarms
- Call alerts
- Incoming voice messages
- GPS-based and beacon-based user positioning on a map
- Instant text messaging
- Job ticketing

2.2 Requirements

The hardware and software requirements to install and run TRBOnet Mobile Client 2.7 on an iOS mobile device include:

- iPhone 5S and later models
- iOS version: 10.0 and higher
- Network connection: Wi-Fi or 3G/4G/LTE

3 Installation

The latest version of the TRBOnet Mobile Client software application is available for download on the App Store.

3.1 Installing TRBOnet Mobile Client

To install TRBOnet Mobile Client:

1. Visit the App Store from your mobile device.
2. Type "TRBOnet" in the **Search** box and run the search.
3. Tap the TRBOnet Mobile Client application, then tap the **Install** button.

4 Voice Transmit Configurations

When connected to TRBOnet Server, the Mobile Client can transmit voice in two configurations:

- Via IP connection over repeater slots, or
- Through a dedicated Control Station

In the latter case, you need to additionally configure the control station and subscriber radios (see section 5, Configuring Control Stations and Subscriber Radios), as well as perform additional settings in TRBOnet Enterprise (see sections 6.1.3, Settings for CP and LCP systems and 6.2.5, Settings for IPSC systems).

5 Configuring Control Stations and Subscriber Radios

If the Mobile Client uses a dedicated Control Station to transmit voice, it is necessary to appropriately configure the control station and subscriber radios. To do this:
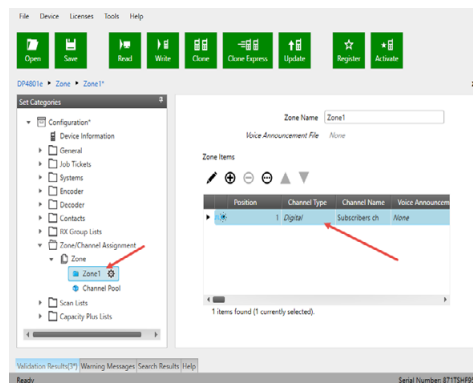
- Connect the radio to the PC.
- Run MOTOTRBO CPS.

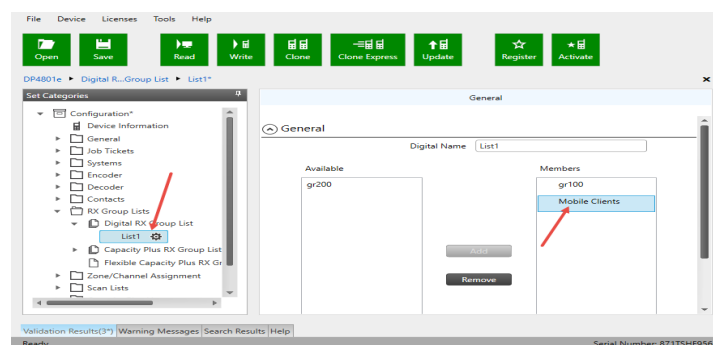## 5.1 Configuring Control Station

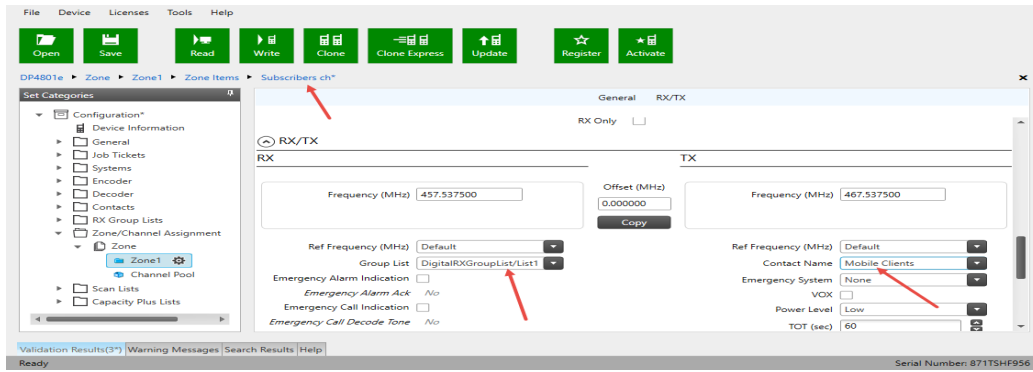- Add a Mobile Clients group contact to the control station's contacts.
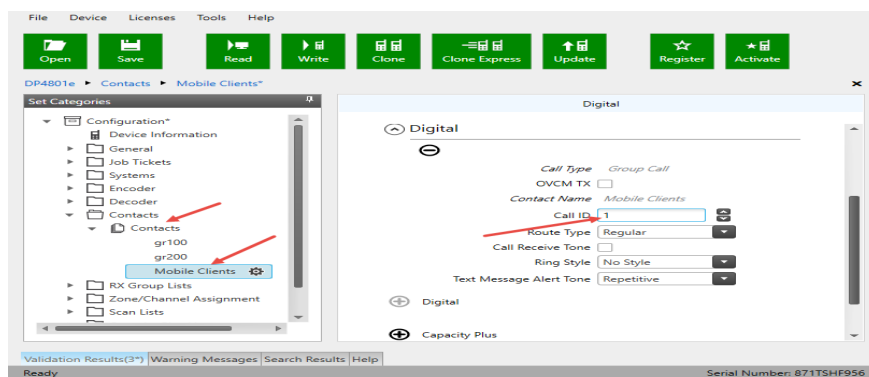
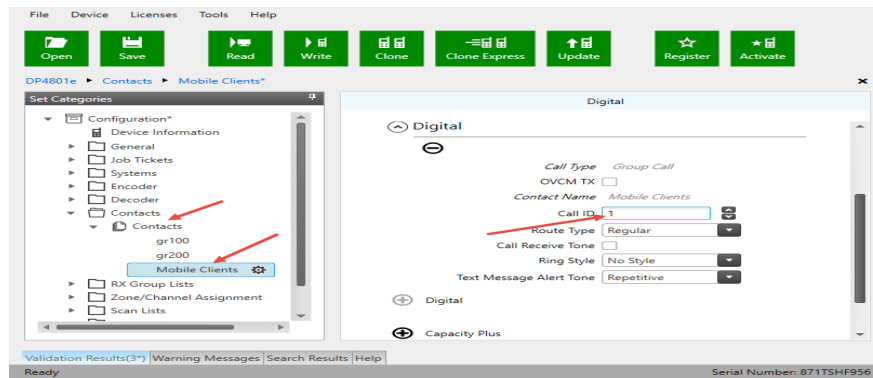- Add the channel the subscribers will operate on.

- Set this Mobile Client group as both RX and TX contact on this channel.
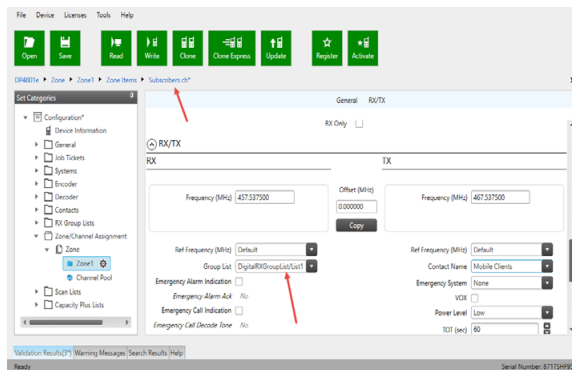
5.2   Configuring Subscriber Radio

- Add the Mobile Client group contact to the subscriber radio.

- Add the Mobile Client group contact to the RX group list the radio will use.

5 Configuring Control Stations and Subscriber Radios

6   Configuring TRBOnet Enterprise

Before connecting TRBOnet Mobile Client to TRBOnet Enterprise, make sure that the Internal PBX Server or, a Mobile System gateway (depending on the version number of TRBOnet Enterprise) have been configured in TRBOnet Server, and the corresponding TRBOnet Mobile Client account has been created in TRBOnet Dispatch Console.

6.1   Configuring TRBOnet Server

6.1.1   TRBOnet Enterprise 5.3.3 and earlier

This section describes how to configure TRBOnet Server of version 5.3.5 and earlier.

- Make sure the **Internal PBX Server** option is selected in the **Telephony** pane.

- In the **Configuration** pane, select **Internal PBX Server**.
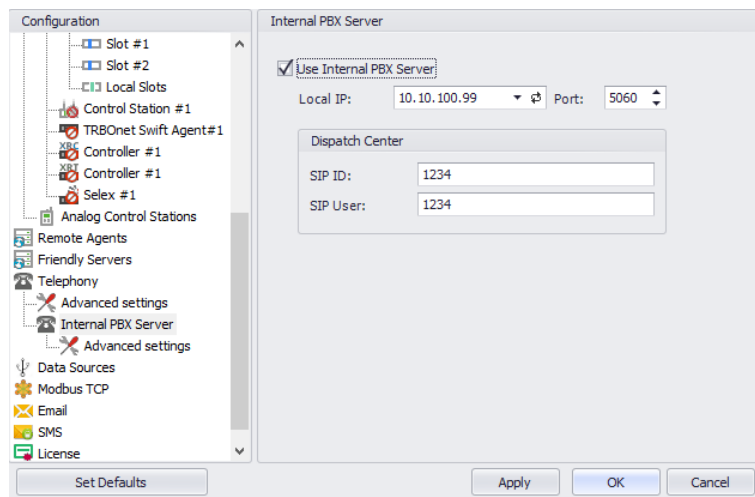
- In the **Internal PBX Server** pane, specify the following parameters:

  - **Local IP**
    Enter the IP address of the PC with TRBOnet Server.

  - **Port**
    Enter the local UDP port number for the SIP service (5060, by default).

Dispatch Center

  - **SIP ID**
    Enter the SIP ID that will be used by the Dispatch Center.

  - **SIP user**
    Enter the SIP user name that will be used by the Dispatch Center.
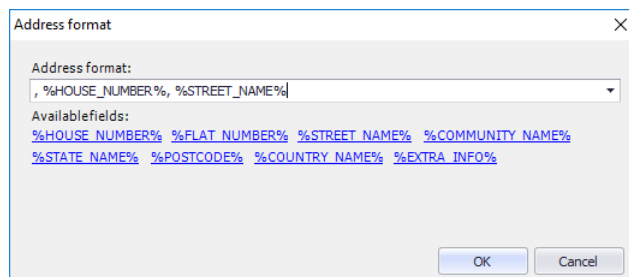
6.1.1.1 Advanced Settings

- In the **Configuration** pane, under **Telephony**, select **Advanced Settings**.
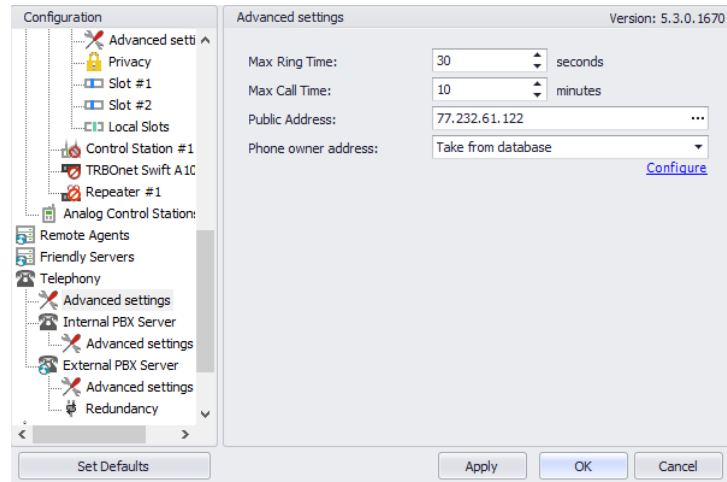
- In the **Advanced Settings** pane, specify the following parameters:

    - **Max Ring Time**
    Specify the maximum ringing time, in seconds.

    - **Max Call Time**
    Specify the maximum call time, in minutes.

    - **Public Address**
    This is the public IP address of your PC. To detect the public address, click the ellipsis (**...**) button.
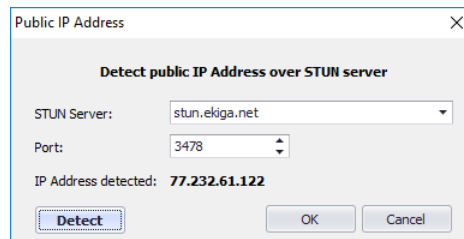
        - **STUN Server**
        From the drop-down list, select the STUN Server.

        - **Detect**
        Click this button to detect your public IP address.

    - **Phone owner address**
    From the drop-down list, select 'Take from database'. This will enable determining the street address of a caller.
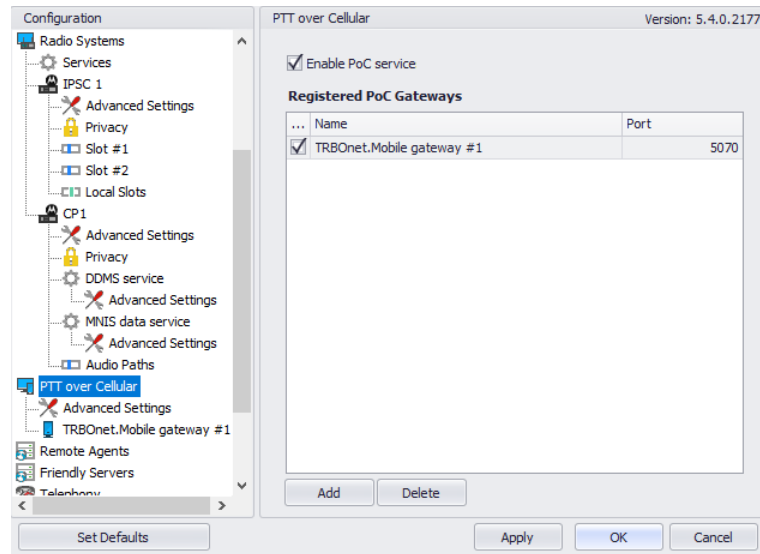   Click the **Configure** link.

6 Configuring TRBOnet Enterprise

- Add the required fields to the address information.

6.1.2 TRBOnet Enterprise 5.4 and later

This section describes how to configure TRBOnet Server of version 5.4 and later.

- In the **Configuration** pane, select **PTT over Cellular**.
- In the **PTT over Cellular** pane, select **Enable PoC service**.

6.1.2.1 Advanced Settings

- In the **Configuration** pane, select **PTT over Cellular > Advanced Settings**.
- In the **Advanced Settings** pane, specify the following parameters:

  - **Max Call Duration**
    Specify the maximum duration of a call, in minutes.

  - **Registration Interval**
    Enter the time interval, in seconds, to check the registration status of mobile subscribers.
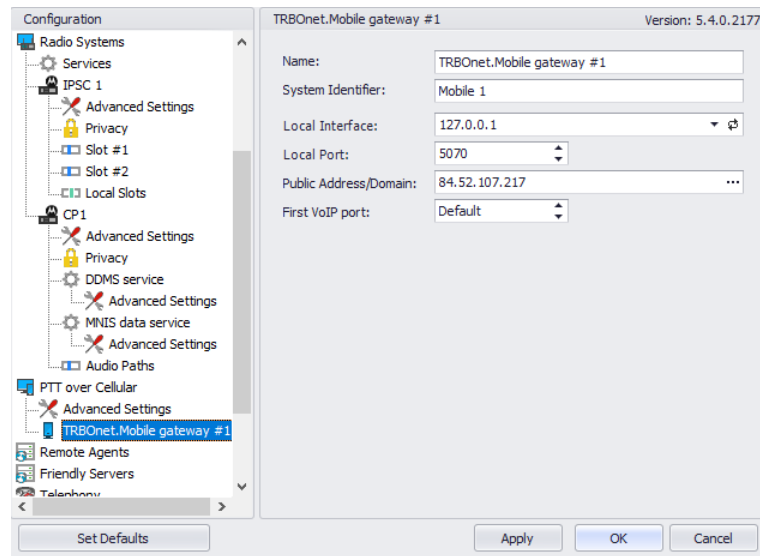
  Voice Call Hang Time

  - **Private Call**
    This value sets the duration, in ms, during which the private call setup is kept after a Mobile Client user releases the PTT button.

  - **TX Timeout**
    Enter the time, in seconds, to be used as a limit for PTT calls. When a Mobile Client user starts a PTT session, transmission will be interrupted after this TX Timeout expires.

6.1.2.2 Adding a Mobile Gateway

- In the **PTT over Cellular** pane, click **Add**.

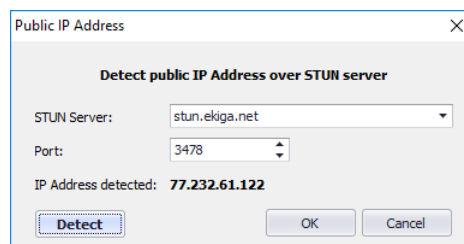- In the **Mobile Gateway** pane, specify the following parameters:

- ■ **Name**

  Enter the name of the mobile gateway.

- ■ **System Identifier**

  Enter the name of the mobile system to which the gateway will belong.

- ■ **Local Interface**

  Enter the IP address of the PC with TRBOnet Server.

- ■ **Local Port**

  Enter the local UDP port number for the Mobile service (5070, by default).

- ■ **Public Address/Domain**

  This is the public IP address of your PC. To detect the public address, click the ellipsis (**...**) button.

- • **STUN Server**

  From the drop-down list, select the STUN Server.

- • **Detect**

  Click this button to detect your public IP address.

- ■ **First VoIP port**

  Enter the number of the first VoIP port for audio communications. The default value is specified in **Configuration > Network**.

6.1.3 Settings for CP and LCP systems

If the Mobile Client uses a dedicated Control Station to transmit voice, it is necessary to appropriately configure audio paths on both the control station and master repeater.

- In the **Configuration** pane, under the corresponding **Control Station**, select **Audio Paths**.

  In the **Audio Paths** pane:

  - Add a Group Call with the same ID you entered when you created the Mobile Group on the radio (**Call ID**).

  - Add a Private Call if you want to perform private calls from a Mobile Client.
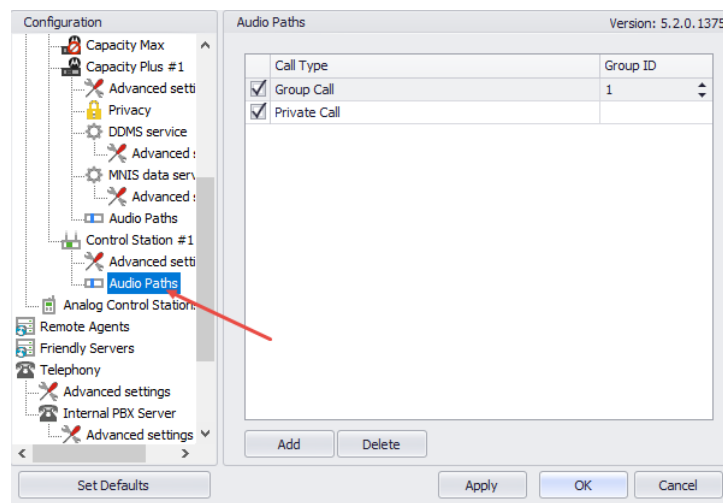
Note: Make sure that the Group Call with the corresponding Group ID and the Private Call are not present or deactivated in the repeater's audio paths.
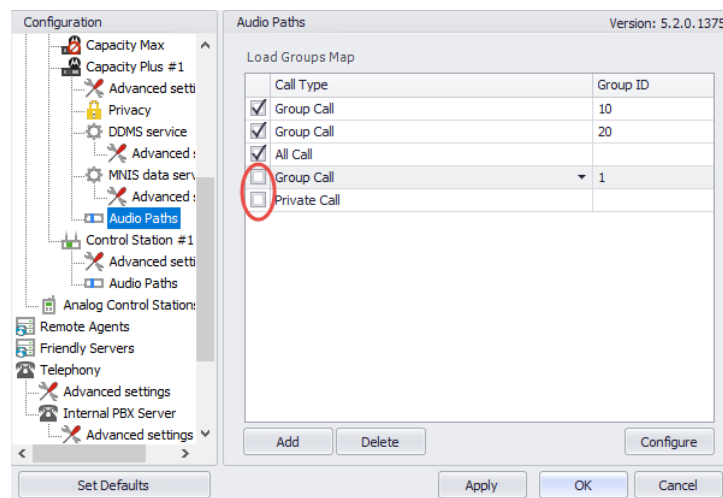
6.2 Configuring TRBOnet Dispatch Console

6.2.1 Adding TRBOnet Mobile

- Go to **Administration** (1), **Radios** (2) and click **Add TRBOnet Mobile** (3).

- **Radio Name**
  Enter the descriptive name of the mobile client to display in the Dispatch Console.

- **Login**
  Enter the login that will be used by the mobile client. Note that this is a case-sensitive value. See also section 7.1, Connecting to TRBOnet Server.

- **Password**
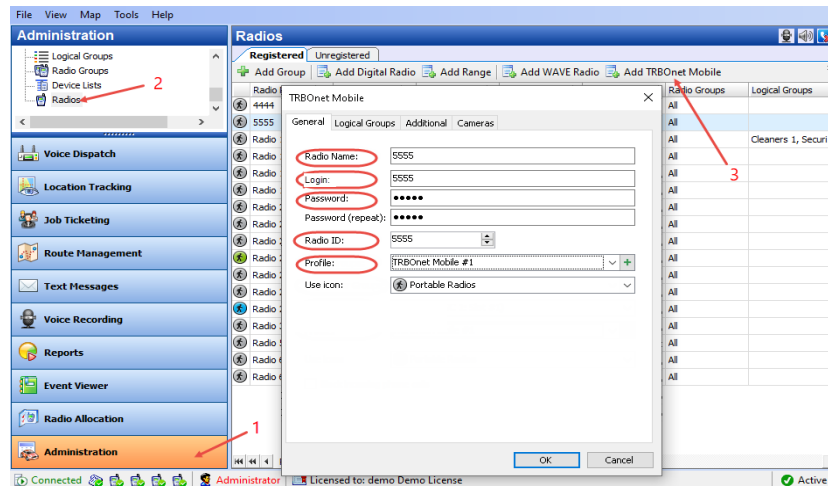 Enter the password for the authentication.

- **Radio ID**
  Enter the Radio ID for the mobile client. This ID is used by other calling radios when addressing the mobile client, for instance, when making a private call or sending a text message.

- **Profile**
  Select the location profile for the mobile client. See section 6.2.2, Adding Mobile Client Profile.

- On the **Logical Groups** tab, specify logical groups for the mobile client:
  - In the list of available groups, select desired group(s).

- On the **Additional** tab, specify additional information about the mobile client user:
  - **Route Color**
    Specify a color to display the route passed by the radio on the map.
  - **Load Image**
    Click this button and browse for the photo or image to assign to the radio.

6 Configuring TRBOnet Enterprise

- In the table below, specify the desired values for the custom fields.
- On the **Cameras** tab, select the check box beside the camera that will be associated with the mobile client.
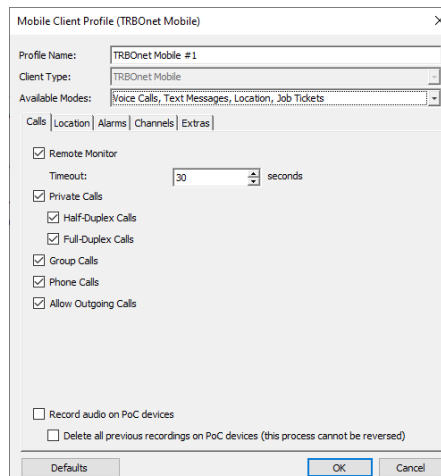
6.2.2 Adding Mobile Client Profile

The Mobile Client Profile feature allows configuring different location profiles that can be applied to the Mobile Client app running on a smartphone.

- Go to **Administration > Mobile Client Profile (TRBOnet Mobile)**.

  You can see the default Mobile Client Profile settings in the **Mobile Client Profile** pane.

To add a Mobile Client Profile:

- In the **Mobile Client Profile** pane, click the **Add** button.
- In the **Mobile Client Profile (TRBOnet Mobile)** dialog box, specify the following parameters:
  - **Profile Name**
    Enter a name for the mobile client profile.
  - **Available Modes**
    In the drop-down list, select/unselect the features that will be available to the associated Mobile Client.

- Click the **Calls** tab.
  - **Remote Monitor**
    If you select this option, the dispatcher will be able to activate the device's microphone in hidden mode.

  > Note: The Mobile Client app running on iOS 13 and later must be in the foreground and the screen must be on for this feature to work.

  - **Timeout**
    Specify the remote monitor duration, in seconds.

- **Private Calls**
  Select this option to allow the Mobile Client app to make private calls. In addition, you can select to allow:
    - **Half-Duplex Calls**
    - **Full-Duplex Calls**
- **Group Calls**
  Select this option to allow the Mobile Client app to make group calls.
- **Phone Calls**
  Select this option to allow the Mobile Client app to make and receive phone calls.
- **Allow Outgoing Calls**
  Select this option to allow the Mobile Client app to make outgoing calls.

  > Note: If this option is cleared, the Mobile Client app will still be able to send RTTs and respond to incoming radio calls within the call hang time.

- **Record audio on PoC devices**
  Select this option to save audio recordings on mobile devices running the Mobile Client app.
- **Delete all previous recordings on PoC devices**
  Select this option to delete all previous audio recordings from mobile devices.
- Click the **Location** tab.
  - **Show locations of other devices**
    Select this option so that the Mobile Client will receive locations of other radios (mobile clients).
  - **Use GPS location**
    Select this option to enable sending GPS data to TRBOnet Server.
    - **Trigger interval**
      Specify the time interval, in seconds, that will be used to send GPS location data.
    - **Emergency interval**
      Specify the time interval, in seconds, that will be used to send emergency messages.
  - **Use Indoor location**
    Select this option to enable sending iBeacon data to TRBOnet Server.
    - **Trigger interval**
      Specify the time interval, in seconds, used to send iBeacon location data.

- **Emergency interval**
  Specify the time interval, in seconds, that will be used to send emergency messages.

- **Number of iBeacons**
  Specify the number of the most recently detected iBeacons whose data will be included in the data packet sent to TRBOnet.

- **iBeacons filter**
  Click the **Add** link and enter the UUID of the beacons that will be used by the mobile client.

Note: If you don't specify the **iBeacon UUID**, the Mobile Client app running on an iOS device won't detect any iBeacons.

- **Positioning mode**
  This option determines which GPS coordinates to show on the map and display in the device's movement history when TRBOnet Server receives a data packet containing both iBeacon and GPS data.

  - ✓ **iBeacon Indoor/Outdoor**
    The coordinates of the iBeacons will be positioned on the indoor and outdoor maps.

  Use case: When a person enters a building, the accuracy of the GPS location reported by their mobile device is likely to deteriorate. This may cause TRBOnet to show the device's location outside the building. Using coordinates of iBeacons positioned on the floor plan will prevent this from happening, and the route travelled by the person will also be correct. This is especially useful for reinforced concrete or high-rise buildings.

  - ✓ **iBeacon Indoor/GPS Outdoor**
    The coordinates of the iBeacons will be positioned on the indoor map while the coordinates of the device will be positioned on the outdoor map.

> Use case: This option is used to show the route travelled by the person based on the GPS coordinates received from their mobile device rather than from a detected beacon, or when the speed and/or altitude of the device are used for some purpose. The user's icon will appear on the map twice, one icon will show their actual GPS location, whereas the other icon will appear over a detected beacon. Only iBeacon-based location will be displayed on the floor plan. When the device's GPS coordinates become unavailable, the device will be displayed over the detected beacon on both the map and the floor plan.
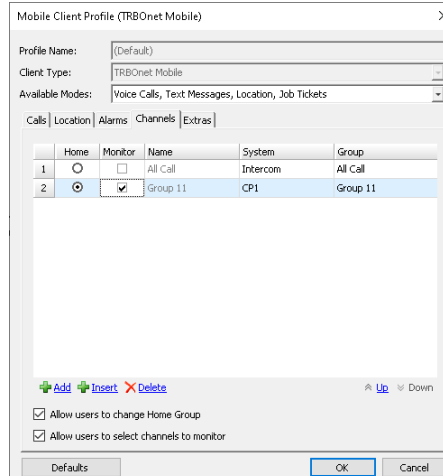
✓ **iBeacon Indoor/No Outdoor**
Only iBeacon-based location tracking will be used, GPS coordinates of devices and iBeacons will be ignored.

- Click the **Alarms** tab.

  ▪ **Emergency Button**
  Select this option so that the Mobile Client app will be able to send Emergency Alarms to the Dispatch Console.

  ▪ **Sensor Alerts**
  Select the desired sensor alert buttons (**Man Down**, **No Movement**, **Shake Detection**) to be shown in the Mobile Client app.

  ▪ **Show alarms from other devices**
  Select this option so that the Mobile Client app will receive alarms from other radios (mobile clients).

  ▪ **Allow users to enable or disable selected sensor alerts**
  Select this option so that the mobile app users will be able to enable or disable selected sensor alerts.

  > Note: If this check box is cleared, the selected sensor alerts will always be activated on mobile app devices and cannot be deactivated by mobile app users.

- Click the **Channels** tab.

- In the table, choose the Home Group channel on which the mobile app will transmit if the user presses the PTT button (**Home**). You can also check channels to be monitored (**Monitor**). To add/insert a channel (Radio Group) to the table, click the **Add/Insert** link and specify the **Name**, **System** and **Group**.

- **Allow users to change Home Group**
  Select this option to allow users to change Home Group in their Mobile Client apps.

- **Allow users to select channels to monitor**
  Select this option to allow users to select the channels they can listen to in their Mobile Client apps.

- Click the **Extras** tab.

  - **Battery Level**
    Select this option so that the smartphone's battery level will be sent to the Dispatch Console.

    Note: Mobile apps send the battery information as soon as they are connected to TRBOnet. After successful connection, mobile apps pass the battery level to the server with every location update, voice transmission and text message. Regardless of its activity, a mobile app will update the battery charge level when it goes down to 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 15%, 10%, 5%.

  - **Do Not Disturb**
    Select this option so that the DND mode will be enabled on the Mobile Client app.

6.2.3 Adding Mobile Group

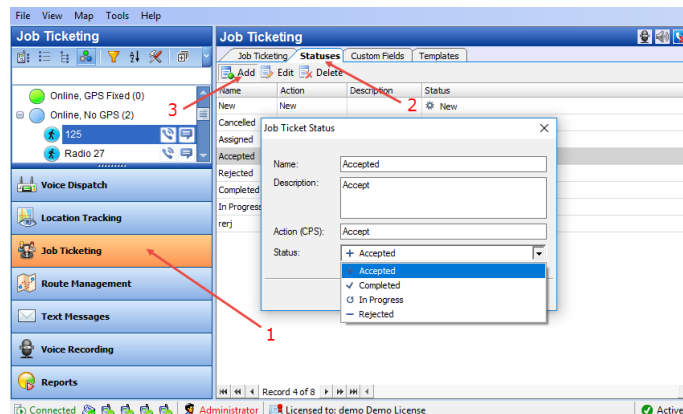- Go to **Administration** (1), **Radio Groups** (2) and click **Add** (3).
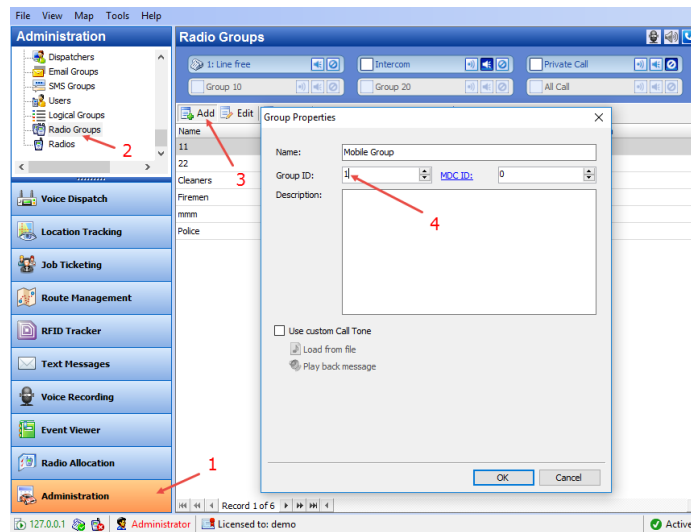
  - **Group ID**
    Enter the same ID you entered when you created the Mobile Group on the radio (**Call ID**).

6.2.4 Adding Job Ticket Statuses

- Go to **Job Ticketing** (1), **Statuses** (2) and click **Add** (3).

  - **Name**
    Enter the Job Ticket status name to display in the system.

  - **Description**
    Add a description for the job ticket status.

  - **Action (CPS)**
   Enter the action name as specified in MOTOTRBO CPS.

  - **Status**
    From the drop-down list, select the Job Ticket status (Accepted, Completed, In Progress, or Rejected).

6.2.5 Settings for IPSC systems

If the Mobile Client uses a dedicated Control Station to transmit voice, it is necessary to appropriately configure talk groups on both the repeater slots and control station.

#### 6.2.5.1 Disabling Mobile Group on Repeater Slots

- Go to **Administration** (1), **Radio Systems** (2).
- In the **Radio Systems** pane, double-click the IP Site Connect Repeater/Slot.
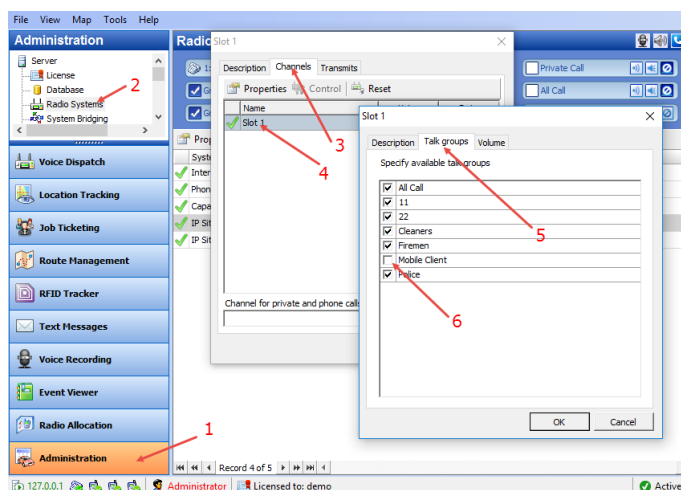
- In the dialog box, select the **Channels** tab (3) and double-click the slot (4).
- In the dialog box, select the **Talk groups** tab (5) and make sure the Mobile Client group is unchecked (6).

6.2.5.2 Enabling Mobile Group on Control Station

- Go to **Administration** (1), **Radio Systems** (2).

- In the **Radio Systems** pane, double-click the Control Station.
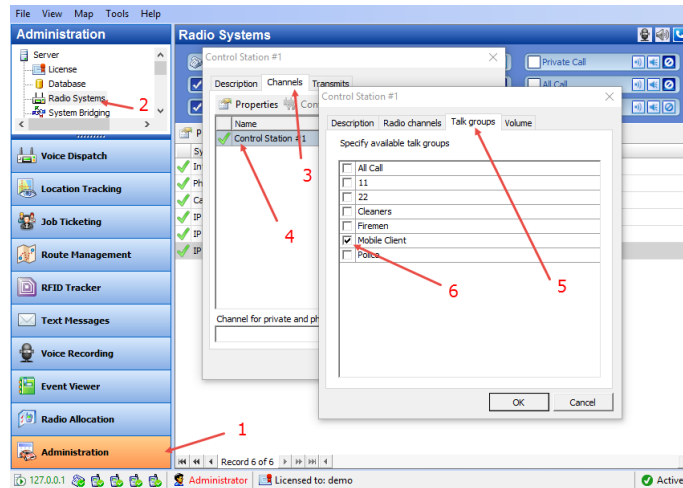
- In the dialog box, select the **Channels** tab (3) and double-click the Control Station (4).

- In the dialog box, select the **Talk groups** tab (5) and make sure the Mobile Client group is checked (6), while the others are unchecked.

7 Getting Started

To launch TRBOnet Mobile Client on your mobile device, tap the TRBOnet Mobile icon on the screen. The login page appears on the screen.
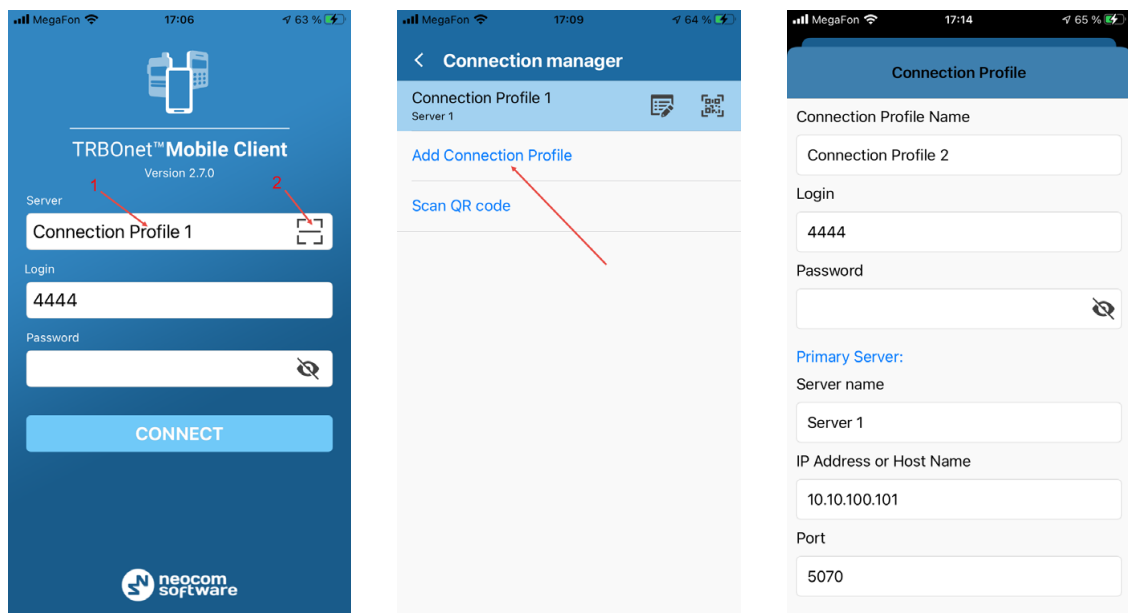
7.1 Connecting to TRBOnet Server

On the login page, make sure the connection profile and credentials are correct, and click Connect.

> Note: If the connection cannot be established, make sure that your mobile device is connected to the network.

7.1.1 Adding Connection Profile

To add a connection profile:

- Tap on the **Connection Profile Name** (1).
- In the **Connection Manager** page:
  - Tap **Add Connection Profile**, and in the box that pops up, enter the following information:
    - **Connection Profile Name**
      Enter the name of the profile.
    - **Login**: The login for your TRBOnet Mobile Client application. See also section 6.2.1, Adding TRBOnet Mobile.
    - **Password**: The password for your TRBOnet Mobile Client application.

Primary Server

- **Server Name**
  Enter the name of the primary server.
- **IP Address or Host Name**: The IP address or the host name of the TRBOnet Mobile Gateway.
- **Port**: The local port of the TRBOnet Mobile Gateway (by default, 5070, see sections 6.1, Configuring TRBOnet Server and 7.1.3, Recommended Port Numbers).
- Tap **OK**.

Or, to add a connection profile with the QR code:

- Tap the button on the right (2).
- While in the **Scan QR code** page,
  - Point the camera at the QR code and wait for the QR code to scan. As a result, the corresponding connection profile will be added to the list of connection profiles.

7.1.2   Editing Connection Profile

To edit the connection profile:

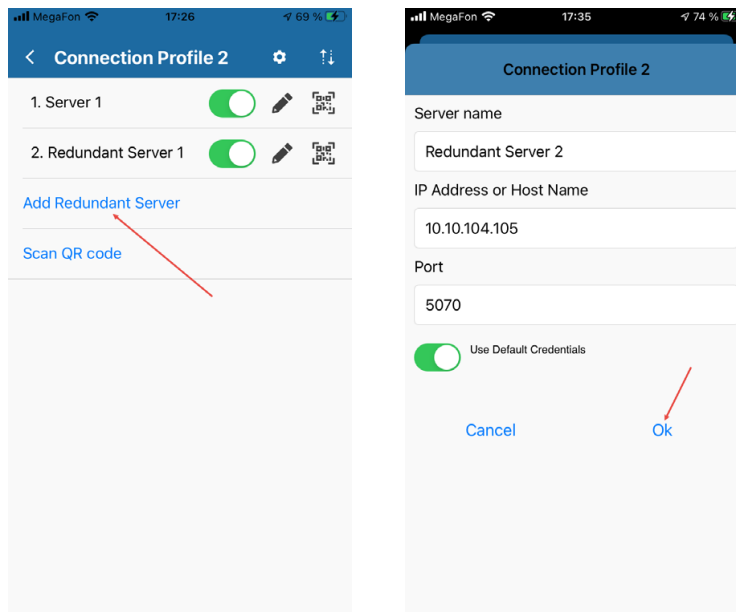- In the **Connection Manager** page, tap the Edit button.
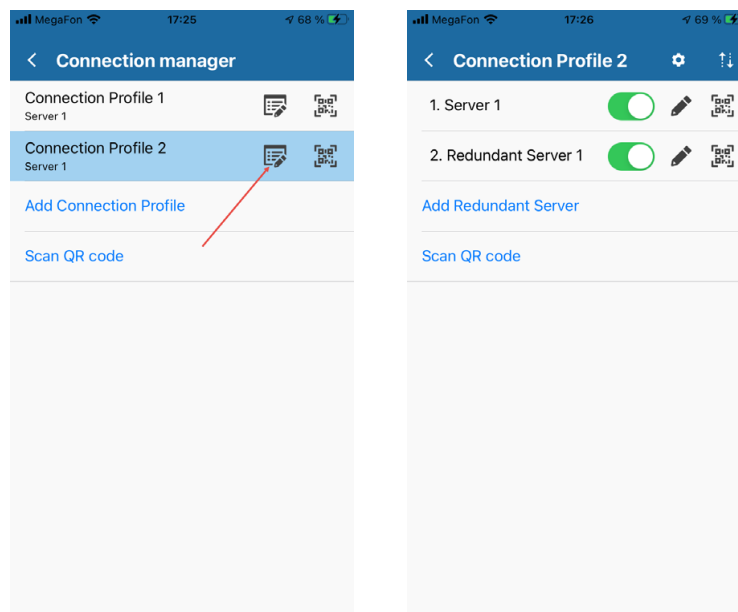
To get the profile's QR code:

- In the list of connection profiles, tap the right-most button ▦, and in the box that pops up, tap **Print** to print this QR code. You can also save the QR code on your device.

7.1.2.1 Redundant Servers

To add a redundant server to the connection profile:

- In the **Connection Profile** page, tap **Add Redundant Server**.

- In the box that pops up, enter the following information:

- **Server Name**
  Enter the name of the redundant server.

- **IP Address or Host Name**: The IP address or the host name of the TRBOnet Mobile Gateway.

- **Port**: The local port of the TRBOnet Mobile Gateway (by default, 5070, see sections 6.1, Configuring TRBOnet Server and 7.1.3, Recommended Port Numbers).

- If you want to use credentials other than the default credentials for the profile, uncheck the **Use Default Credentials** check box, and enter the desired **Login** and **Password**.

- Tap **OK**.

Or, to add a redundant server with the QR code:

- Tap **Scan QR** code.

- While in the **Scan QR** code page,

  - Point the camera at the QR code and wait for the QR code to scan. As a result, the corresponding server will be added to the list of servers.

To exclude the server from the list, tap the corresponding switch on the right of the server's name.
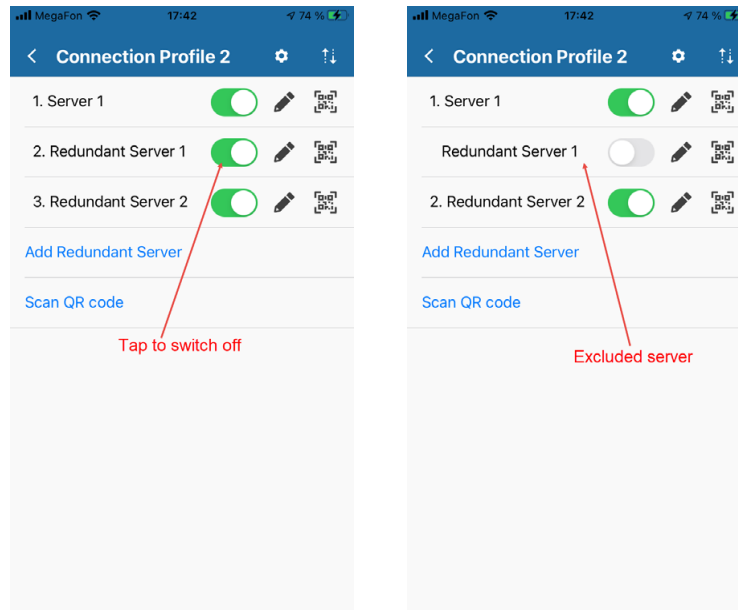
To edit the server properties, tap the pencil button on the right of the server's name, and in the box that pops up, enter the desired server information (Server name, IP Address, and Port).

To get the profile's QR code: In the list of servers, tap the right-most button ▦, and in the box that pops up, tap **Print** to print this QR code. You can also save the QR code on your device.

To change the priority of the servers, tap the right-most button in the title of the connection profile. In the **Change Priority** screen that opens, use the up and down arrows on the right.

> Note: The first checked server in the list will be used as the primary server, whereas the others will be used as redundant servers in their respective order.

7.1.2.2 Modifying Profile Properties

To change the profile name and default credentials:

- Tap the gear wheel button in the title of the connection profile.
- In the box that pops up, enter the desired parameters and tap **OK**.
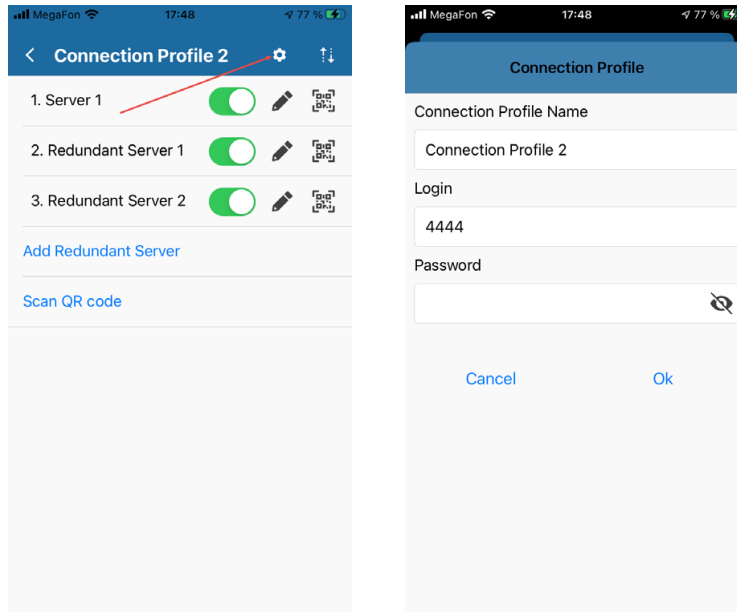
7.1.3 Recommended Port Numbers

Available port range: 1024 - 65535

Recommended port value: **5070**.

Network/First VoIP port

Available VoIP port range: 16384 - 32665

Recommended VoIP port range: **24576 - 32665**

Required VoIP port range: **at least 100 ports**

Recommended First VoIP port value: **24576**

Important notice for the iOS TRBOnet Mobile of version 1.8 and earlier:

For full compatibility of the iOS and Android versions, use the First VoIP port **20000** on Android devices. In addition, the required VoIP port range must be **20000 - 20100**.

7.2   Main Page

The main page of TRBOnet Mobile Client includes the following elements.
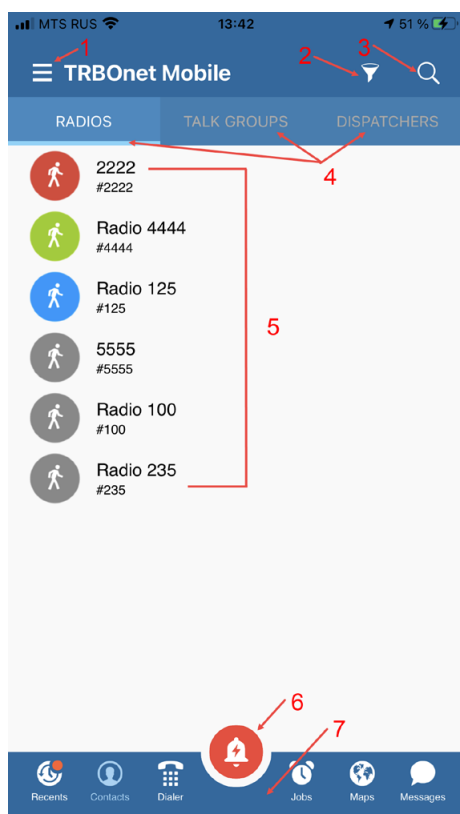
1. **Menu** button. Tap this button to expand the menu.

2. **Filter** button. Tap this button and specify the range of radio IDs to display in the list of radios.

3. **Search** button. Tap this button to display only those contacts that include the specified text pattern in their names and in smaller text below.

4. Contact lists. Tap **RADIOS**, **TALK GROUPS**, or **DISPATCHERS** to open the respective list of contacts.

5. Contacts. Tap a contact to open a submenu from where you can initiate a call, send a text message, or send a request to talk. Active contacts are marked with a green, blue, or red icon.

6. **Alarm** button. Long-press this button to send an alarm to all active radio network users.

7. **Navigation Bar**. Tap on one of the icons to switch to the corresponding screen. See section 7.4, Navigation Bar.

7.3 Menu

To expand the menu, tap the **Menu** button. The menu items are as follows:
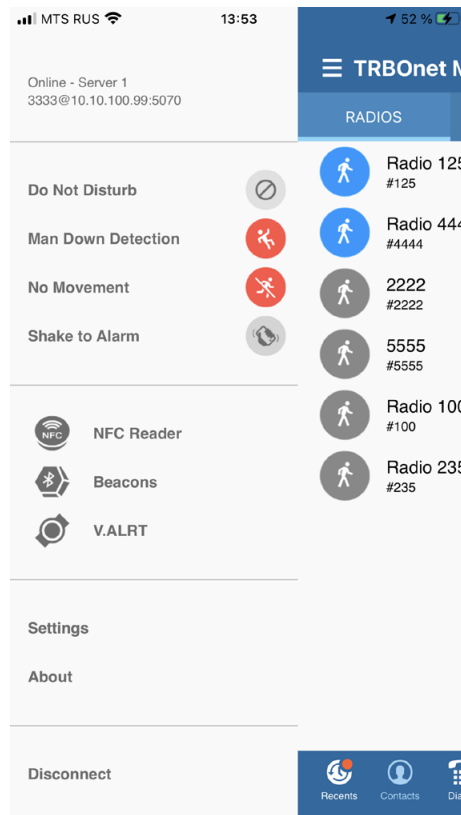
- **Do Not Disturb**: If you select this option, radio calls to your Mobile Client will not be accepted. Instead, you will receive text notifications about missed calls. In addition, while in the DND mode, the PTT button is disabled and you can't make voice calls.

- **Man Down Detection**: If you select this option, then Man Down alarm events will be triggered when the smartphone's tilt angle is below the threshold angle for a time longer than the pre-alarm duration.

- **No Movement**: If you select this option, then No Movement alarm events will be triggered when the smartphone's acceleration is below the threshold for a time longer than the pre-alarm duration.

- **Shake to Alarm**: If you select this option, then Shake alarm events will be triggered when you physically move your smartphone from side to side a couple of times.

> Note: The above three options appear if the corresponding
> options are selected in the associated Mobile Client
> Profile (see section 6.2.2, Adding Mobile Client Profile,
> Events tab).
> You can also modify the corresponding parameters in
> the application settings (see section 16, Settings, Safety
> parameters).

- **NFC Reader**: Tap for instructions on scanning NFC tags with your smartphone. Note that automatic scanning works when the app is in the foreground and the screen is on.

- **Beacons**: Tap to open the **Beacons in Range** page (see section 14, Beacons).

- **V.ALRT**: Tap to connect a V.ALRT device (see section 15, V.ALRT Device).

- **Settings**: Tap to open the **Settings** page on which you can adjust the application settings (see section 16, Settings).

- **About**: Tap to learn about the software.

- **Disconnect**: Tap to log out.

7.4   Navigation Bar

The Navigation Bar is located at the bottom of the Main Page. Tap one of the icons below to switch to the corresponding screen.

- **Recents**
  Tap this icon to switch to the Recent Calls screen. See section 7.8, Recent Calls.

- **Contacts**
  Tap this icon to switch to the Contacts screen.

- **Dialer**
  Tap this icon to open the SIP Dialer screen. See section 9.3, Sending DTMF Tones in a Call

While in the call, you can send DTMF tones for some purposes.

- Tap the **Keybord** icon (⊞) on the top right of the screen.

- In the **Send DTMF** window that pops up, tap the digits that you want to send as DTMF tones.
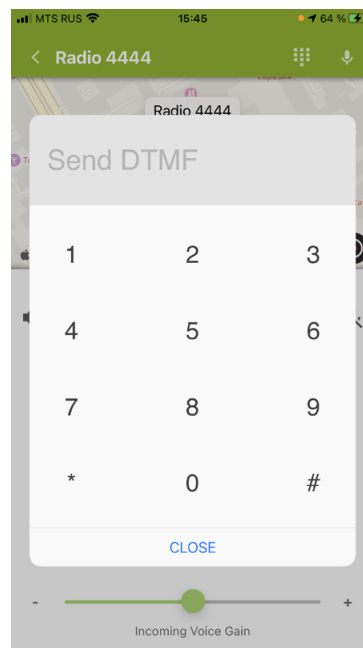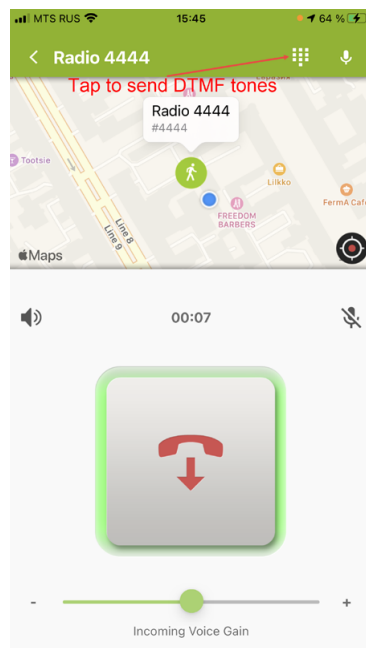
- SIP Dialer.

- **Jobs**
  Tap this icon to switch to the Jobs screen. See section 12, Jobs.

- **Maps**
  Tap this icon to switch to the Map screen. See section 13, Map.

- **Messages**
  Tap this icon to switch to the Text Messages screen. See section 11, Messages.

7.5 Radios

Tap **RADIOS** to open the list of radio and TRBOnet Mobile Client users registered on the network.
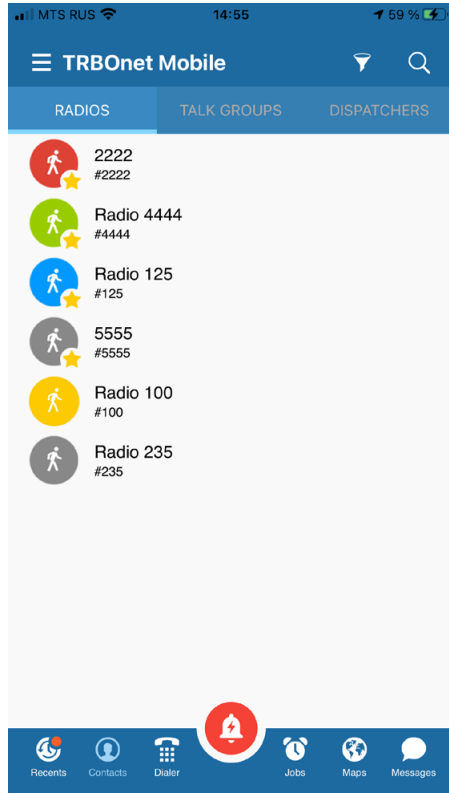

Each user appears in the list with the user name and identification number (radio ID) in a smaller font. The color of the icon indicates the network status of the user:

- **Gray**: Offline
- **Green**: Online, GPS enabled
- **Yellow**: Online, beacon detected
- **Blue**: Online, GPS disabled
- **Red**: Online, in Alarm

User names are sorted alphabetically. Online users are displayed on top.

Note: To narrow the range of displayed radio IDs, tap the **Filter** button and specify the range of radio IDs to display in the list of radios.

Tap a user on the **RADIOS** page. As a result, a submenu will appear:
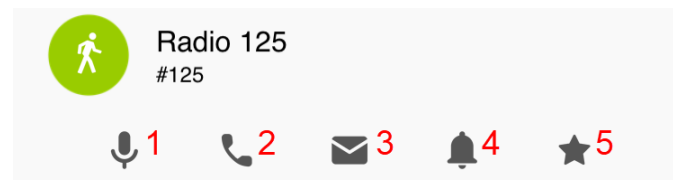
1. Tap this icon to open the user's page (PTT box). Or, just long-press a user on the **RADIOS** page. See section 8, PTT Calls.
2. Tap this icon to start a full-duplex call with the user. See section 9, Full-Duplex Calls.
3. Tap this icon to send a text message to the user. See section 11, Messages.
4. Tap this icon to send a request to talk to the user. See section 8.6, Sending a Request to Talk to a Radio.
5. Tap this icon to add the radio to the Favorites list (selected star turns yellow).

Tap the mic icon (1) to open the user's page. The user's page displays the physical location of the user on the map. The color of the icon indicates the actual network status of the user. You can call and send a text message to an online user as described in sections 8, PTT Calls (page 36) and 11, Messages (page 51).

If the user is offline, the text above the PTT button will read **Disabled** and the user cannot be called. Still you can type a text message and resend it later as described in section 11, Messages (page 51).
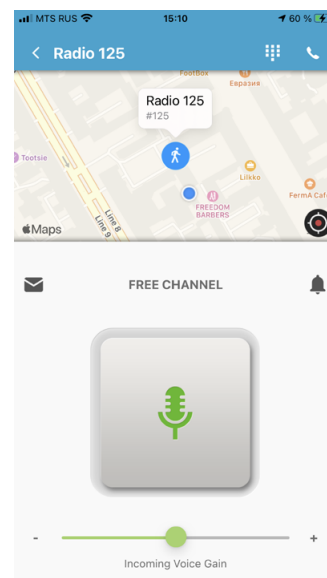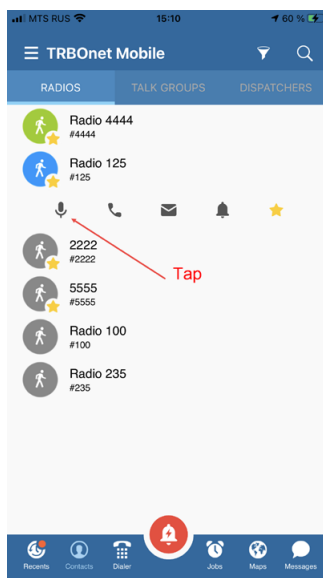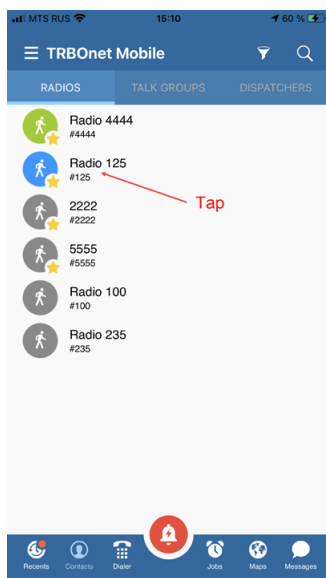
7.6   Talk Groups

Tap **TALK GROUPS** to open all talk groups to which you are registered as a member.
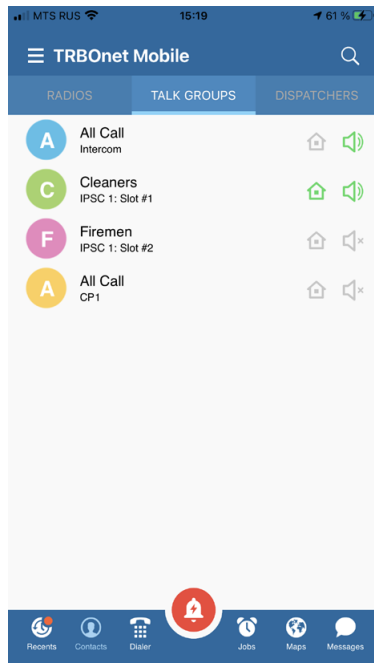
A talk group appears in the list with the group name and with the channel in a smaller font. Some talk groups use multiple channels and appear in the list more than once.

> Note: To learn how to hide the channel information, refer to section 16, Settings, Appearance.

The icon in front of a talk group shows the first letter of the group name. The color of the icon has no special meaning.

The **Sound** icon next to the group name works as a button, helping you select one talk group for listening.
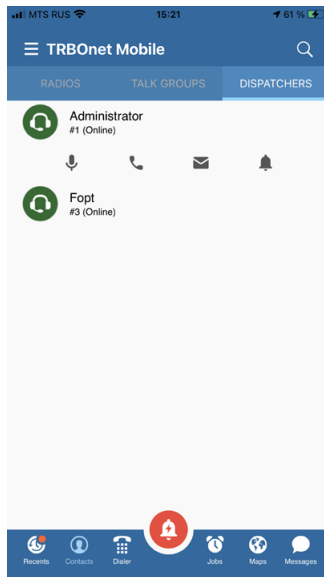
- Tap the **Sound** icon to start to listen to the talk group. The color of the icon changes to green.

- Tap the **Sound** icon again to stop listening. The icon becomes pale-gray.

The green **Home** icon next to the group name indicates the selected Home Group. Tap the **Home** icon to toggle its state.

7.7 Dispatchers

Tap **DISPATCHERS** to open the list of online TRBOnet operators.

Offline operators do not appear in the list.

Each operator appears in the list with the name and with the identifier of the session in a smaller font.

Tap an operator on the **DISPATCHERS** page. As a result, a submenu will appear from where you can make a call, send a text message or a request to call. Or, long-press an operator on the **DISPATCHERS** page to open the operator's page (PTT box).

For details, see sections 8, PTT Calls (page 36) and 11, Messages (page 51).

7.8 Recent Calls

To open the list of recent calls, tap the **Recents** icon in the Navigation bar (see section 7.4, Navigation Bar).

The **Recents** list contains private calls, group calls, dispatcher calls, alarms and requests to talk.

The colored arrow icons at the bottom-right of each call icon have the following meaning: red – missed calls, blue – answered calls, green – outgoing calls.
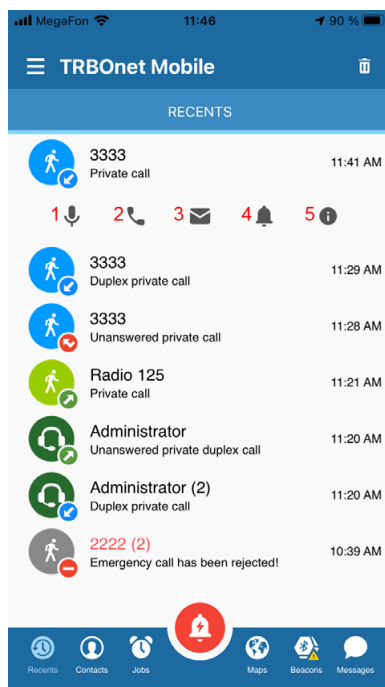
Tap an entry in the **Recents** list. As a result, a submenu will appear:

1. Tap this icon to open the user's page (PTT box). Or, just long-press an item in the **Recents** list. See section 8, PTT Calls.
2. Tap this icon to start a full-duplex call with the user. See section 9, Full-Duplex Calls.
3. Tap this icon to send a text message to the user. See section 11, Messages.
4. Tap this icon to send a request to talk to the user. See section 8.6, Sending a Request to Talk to a Radio.
5. Tap this icon to see details for each call made to the user, like when it happened, how long it was, and whether it was incoming or outgoing, etc. See section 7.8.1 Viewing Detailed Call Info.

7.8.1 Viewing Detailed Call Info

To view the detailed info in the **Recent Calls** list:

1. Tap an item in the **Recents** list.
2. On the menu that appears, tap the "**i**" icon.
3. See the detailed information about the calls to/from the corresponding user on the **Details** page.
4. Tap an item on the **Details** page to see the **Conversation Details** page.
5. To listen to the call recording, tap the tape reel icon on the right.

> Note: The amount of memory to store voice recordings is specified in **Settings > Audio** > **Voice recording**.
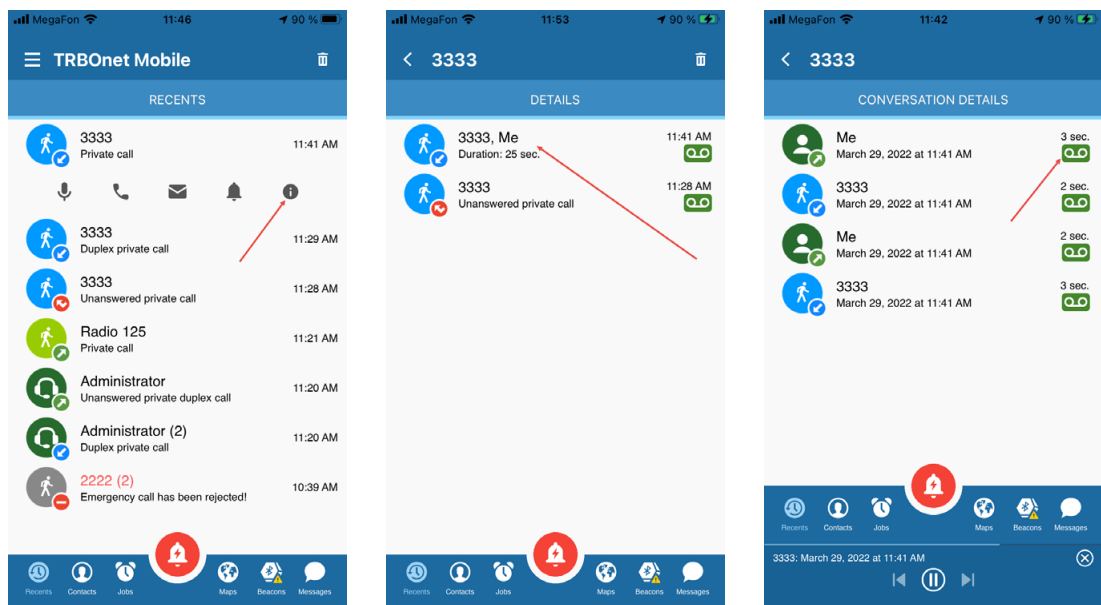
7.9 Logging Out

To log out, open the menu and tap **Disconnect**.

> Note: The TRBOnet Mobile Client app will also be disconnected from the TRBOnet Server when you close the app in the Multitasking menu.

8   PTT Calls

8.1   Making a Private Call

A private call is a one-to-one voice call between a calling party and a called party. You can make a private call to any active user on the **RADIOS** page or to any operator on the **DISPATCHERS** page.

To make a private call:

1. Tap **RADIOS** or **DISPATCHERS**. Then tap the preferred user or operator, respectively. On the submenu that appears, tap the mic icon. Or, just long-press the user in the list.

2. On the user's or operator's page, tap and hold the **PTT** button.
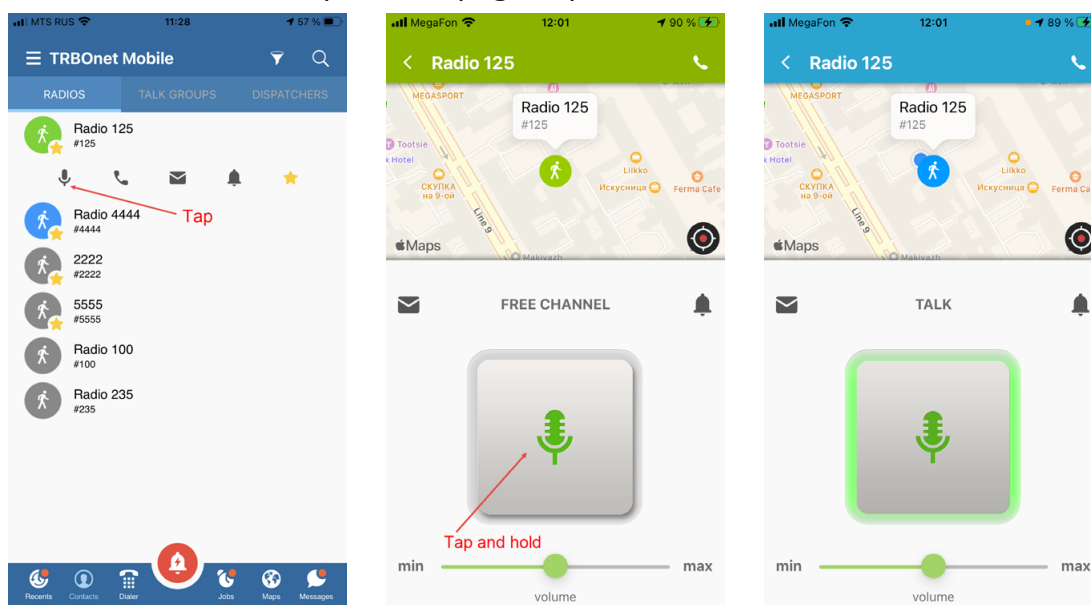
The private call is established when the text above the button changes from **FREE CHANNEL** to **TALK**.

> Note: If the line is busy, then the text above the button will read:
> **Channel busy. Repeat call after channel clearing (603)**

3. To have a conversation, do the following:
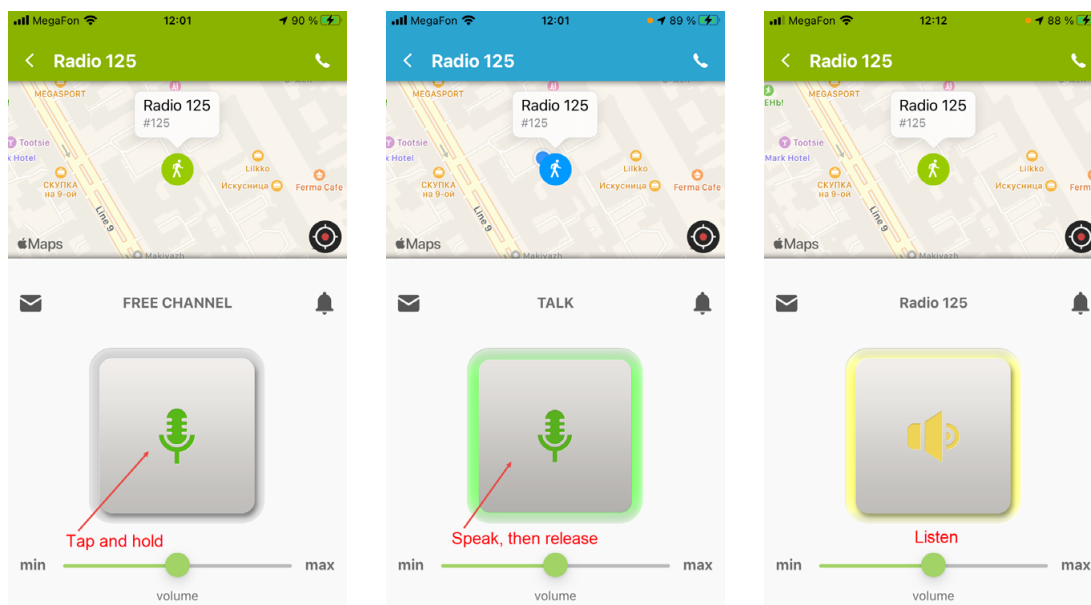
- To speak, tap and hold the PTT button.
- To listen to the other party, release the PTT button. When the PTT button turns yellow, you can only listen and the other party can speak.

4. To terminate the call, tap the **Back** button on the top bar to leave the called party's page. If the other party terminates the call, you see the **FREE CHANNEL** text above the **PTT** button on the called party's page.

Note: If there is no activity on the channel during the hangtime (typically, six seconds), the call terminates automatically.

8.2 Receiving a Private Call

You can receive a private call from a radio user, a TRBOnet Mobile Client user, or any operator.

Note: A radio user can make a private call to the TRBOnet Mobile Client user only if the Private Call Confirmed option is not selected for the radio channel on which the call is being made.

When you are called, TRBOnet Mobile Client receives an incoming call automatically. You start to hear voice and see the calling party's name on the screen.

Note: TRBOnet Mobile Client apps running in the background on iOS 13 and later won't be able to receive a Private Call. In this case, an incoming call will be rejected and a corresponding missed call notification will appear. By contrast, regardless of whether the app is running in the background or not, a Group Call will get through as long as the respective group subscription is valid.

A conversation with a mobile user or operator

When you see the calling party's name on the central button, you can only listen. When the central button reads **PTT**, tap and hold the button to speak, then release the button.
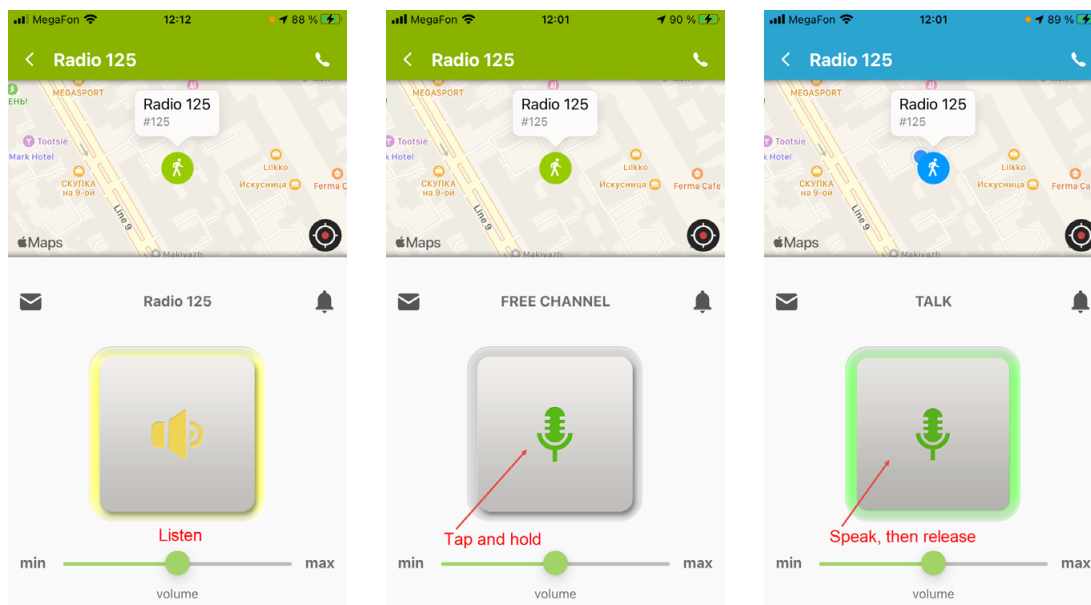
Call termination

To terminate an incoming private call, tap the **Back** button on the top bar. When the call is finished by any party, you are redirected to the last visited page automatically.

Missed calls

If you didn't answer a call, you will see the corresponding missed call notification in the **Recents** list (see section), as well as in the **Messages** list (see section).

8.3   Listening to a Talk Group

The **TALK GROUPS** page shows all talk groups in which you are registered as a participant.

All talk groups on the **TALK GROUPS** page are mute by default. You can select up to three talk groups whose voice traffic you will be listening to on your mobile device. To select a talk group, tap the **Sound** button next to the preferred group on the **TALK GROUPS** page.
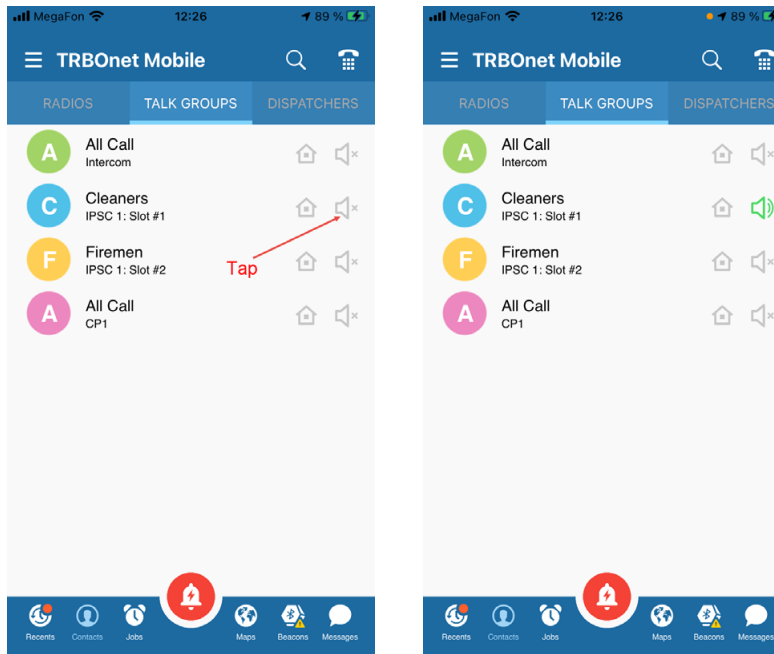

To mute the selected talk group, tap the **Sound** button again.

8.4   Making a Group Call

To make a group call:

1. On the **TALK GROUPS** page, tap the preferred talk group. On the submenu that appears, tap the mic icon. Or, just long-press the talk group in the list.

2. To speak, tap and hold the central button until the **PTT** text changes to **Talk**. Release the central button to let other call participants speak.

3. To leave the call, tap the **Back** button on the top bar.
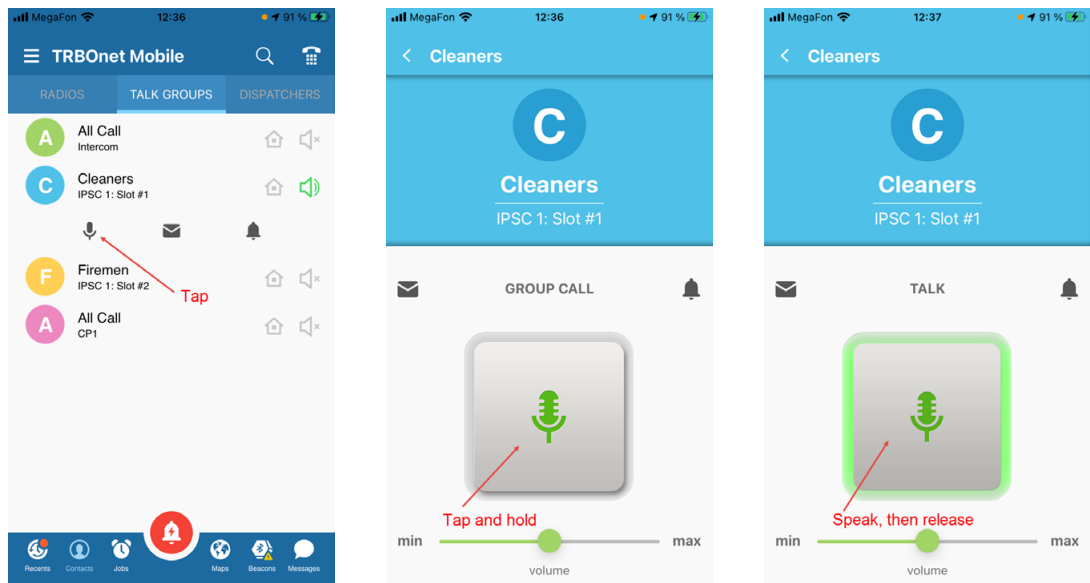
When you speak to a talk group, all group listeners hear your voice. They do not see any identification of a speaker unless they join the call by opening the talk group page:
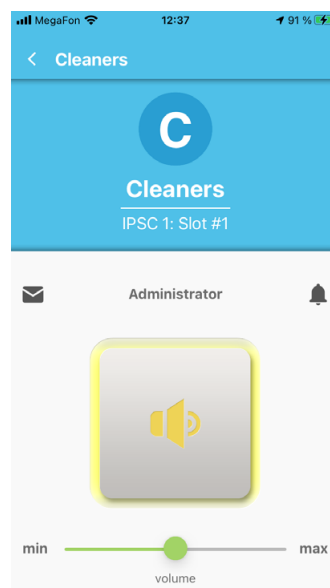
The talk group listeners who are busy having other calls do not hear your group call.

8.5 Sending an Alarm Message

An alarm message is a data call that a radio user or a TRBOnet Mobile Client user can send to their co-workers to notify them about an emergency.

You can broadcast an alarm message to all operators on the **DISPATCHERS** page and all active TRBOnet Mobile Client users on the radio network. Radio users do not receive alarm messages.

To send an alarm message:

- Long-press (tap and hold) the **Alarm** button until it vibrates thrice. This button is available from most pages on your TRBOnet Mobile Client application.
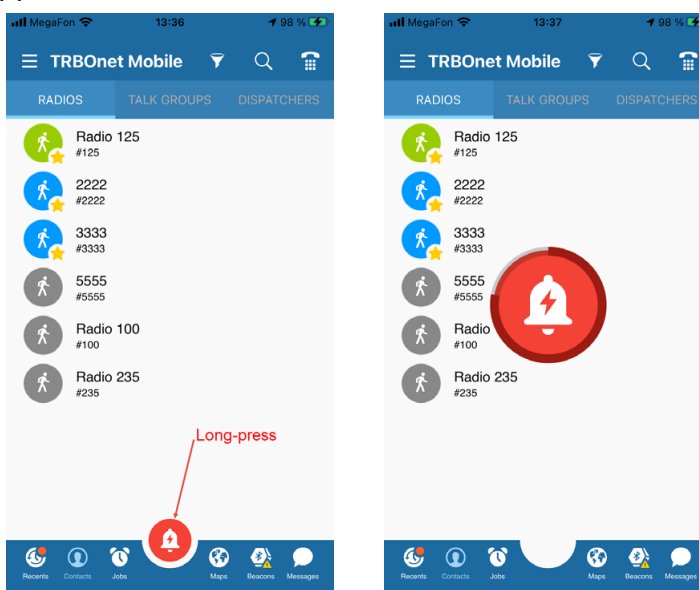
Once done, you'll see the delivery confirmation on the screen. All participants will see your alarm notification on their devices. A participant can ignore your alarm or serve it by initiating a private call to you.

> Note: In addition, alarms can be sent automatically, if appropriately configured (see section 6.2.2, Adding Mobile Client Profile, Alarms tab).
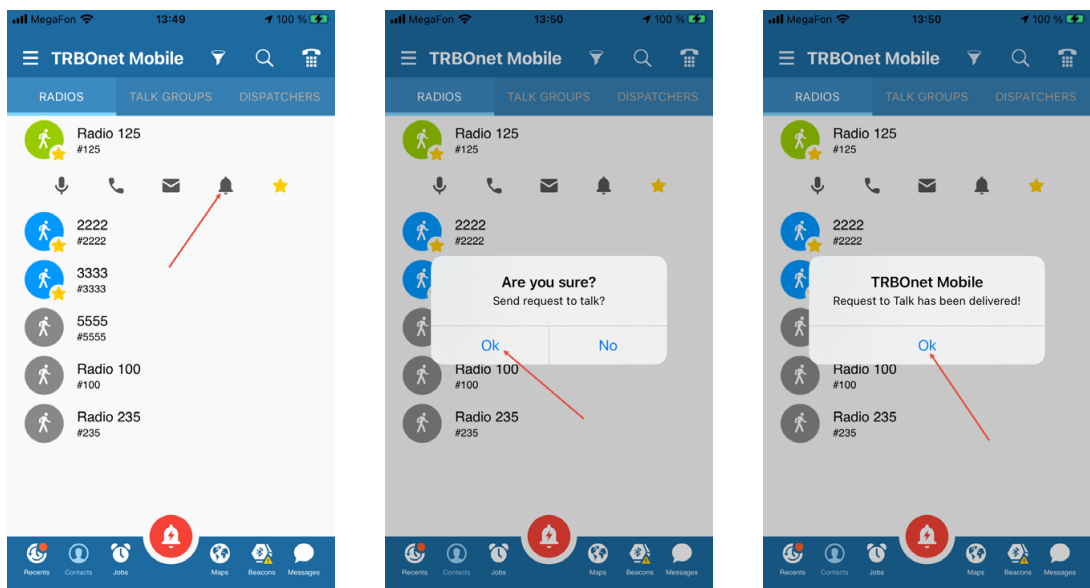
8.6 Sending a Request to Talk to a Radio

A request to talk is a request for a private call that you direct to any radio on the **RADIOS** page.

Note: A radio user can respond to a request to talk from the TRBOnet Mobile Client user only if the Private Call Confirmed option is not selected for the radio channel on which the request is received.

To send a request to talk:

1. On the **RADIOS** page (or **Recent Calls** page), tap a contact. On the submenu that appears, tap the bell icon.

2. Tap **OK** to confirm sending the request to talk.
3. Tap **OK** to close the message box with the delivery confirmation.

8.7 Receiving a Call Alert from a Radio

When someone on the radio network sends a call alert to you, you will get a Request to Talk notification on the screen. If you are having a voice call, an incoming alert will terminate it automatically.

Note: The TRBOnet Mobile Client user can respond to a request to talk from the radio only if the Private Call Confirmed option is not selected for the radio channel on which the request was sent.

You have the following options:

- To ignore the call alert, tap **Dismiss**.

- To respond to the call alert, tap **Open PTT**. Then tap and hold the **PTT** button to initiate a private voice call with the person who sent you the call alert.
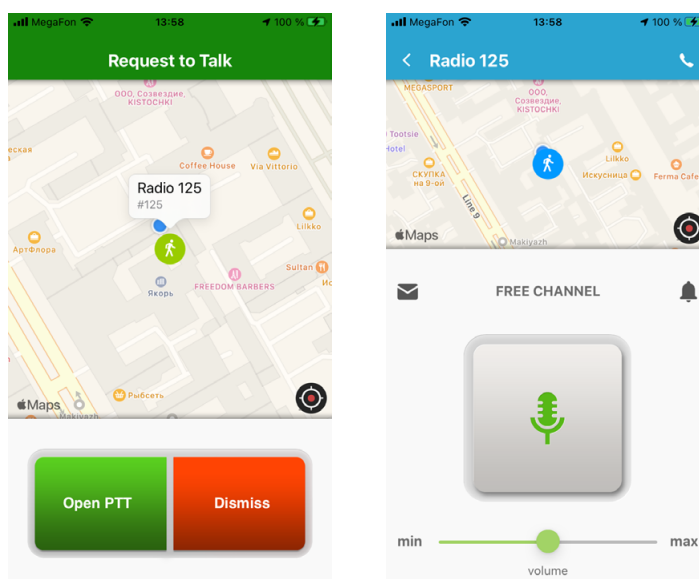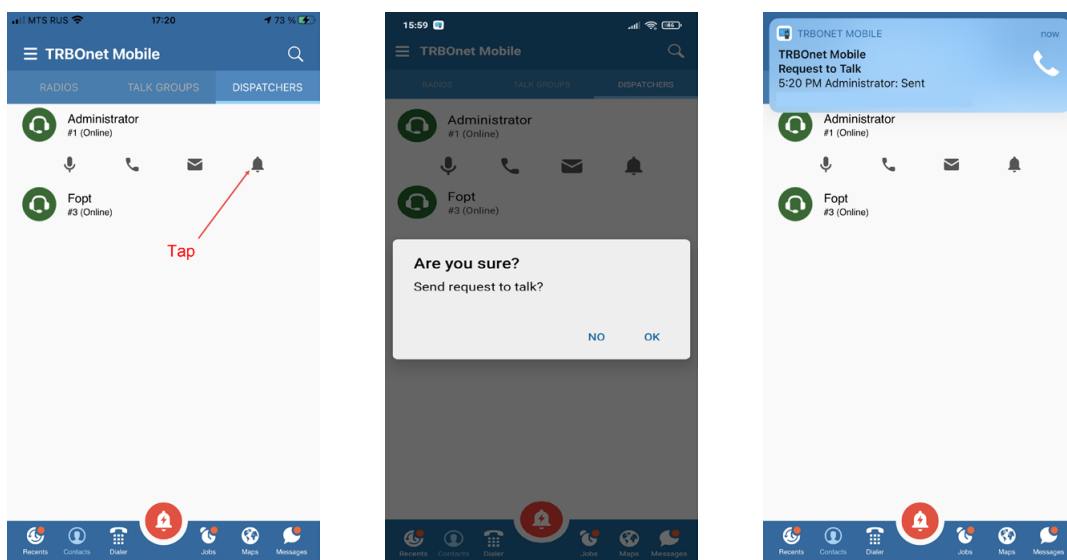

8.8 Sending a Request to Talk to a Dispatcher

A request to talk is a request for a private call that you direct to any operator on the **DISPATCHERS** page.

To send a request to talk:

1. On the **DISPATCHERS** page, tap an operator. On the submenu that appears, tap the bell icon.

2. Tap **OK** to confirm sending the request to talk.
3. See a notification on top of the screen saying "Request to Talk. Sent".
4. The called operator can accept your request to talk or reject it with a note.

- If your request to talk is accepted, you will receive a private call from the operator.
- If your request to talk is queued, you will see the Queue icon at the bottom left of the screen. Tap it and see the dispatcher who keeps your request to talk queued.
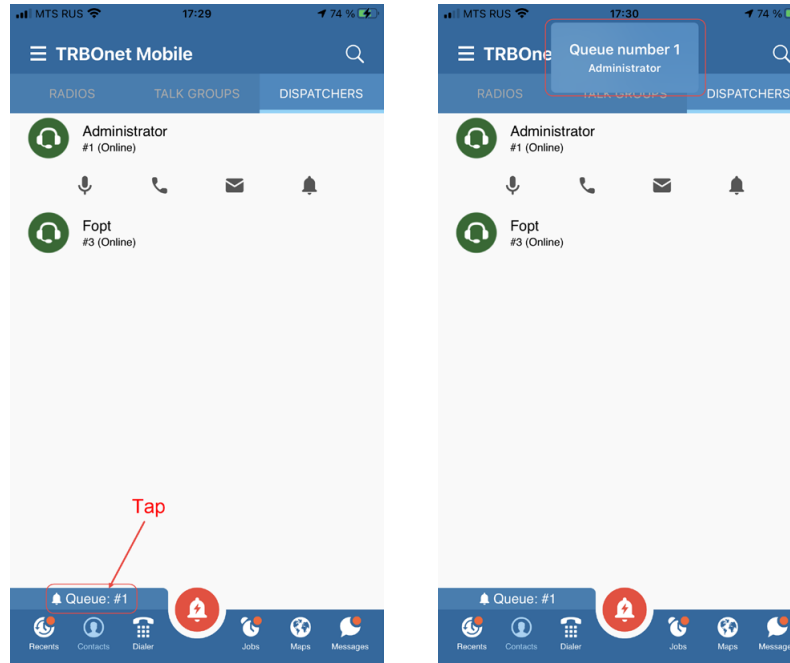
In addition, you will see the queue number of your RTT in all PTT boxes. In the PTT box of the dispatcher (talk group) to whom you have sent your RTT, the bell icon turns green.
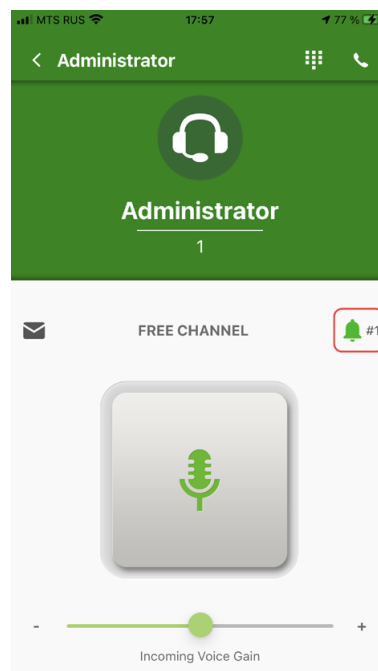
If you send an RTT to another dispatcher, your previous RTT will be removed from this queue.

- If your request to talk is rejected, you will get a push notification saying "Request to Talk. Call rejected".

> **Note:** You can also send a request to talk to a Talk Group. Just click the **Call Alert** button while in a Talk Group. In this case, the request to talk will be received by the dispatchers that have access to this Talk Group.

8.9 Receiving a Request to Talk from a Dispatcher

You can receive a request to talk (a request for a private call) from any operator displayed on the **DISPATCHERS** page.
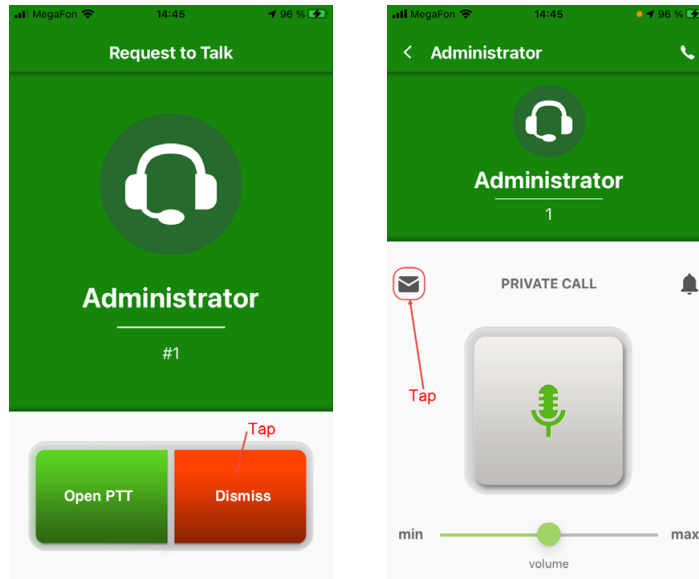
When your line is not busy

If your line is not busy, an incoming request to talk appears on the screen automatically. You have the following options:

- To accept the request to talk, tap **Open PTT**. On the operator's page, tap and hold the **PTT** button to initiate a private call.
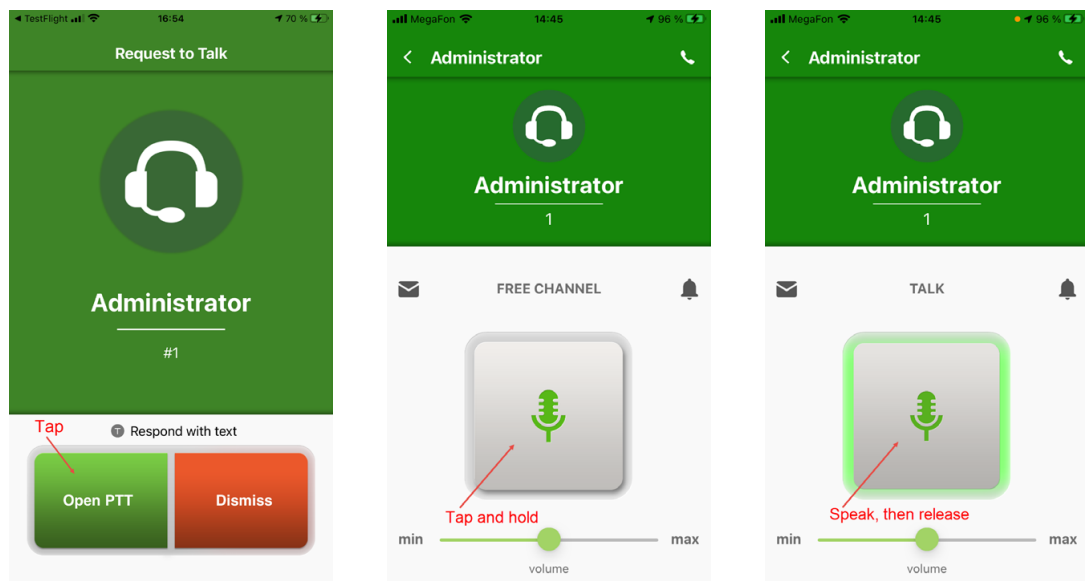
- To decline the request to talk, tap either **Respond with text** or **Dismiss**. A text notification about the rejected request to talk will be automatically delivered to the operator.

When your line is busy

If you are busy having a voice call, you are notified about an incoming request to talk with a text message.

To learn who is requesting for a call, tap the **Recents** icon in the Navigation bar, then tap an item with missed requests to talk (displayed in bold).

From the menu that opens, you can either make a voice call (mic icon, 1), make a full-duplex call (phone receiver icon, 2), send a text message (envelope icon, 3), or send a request to talk (bell icon, 4).
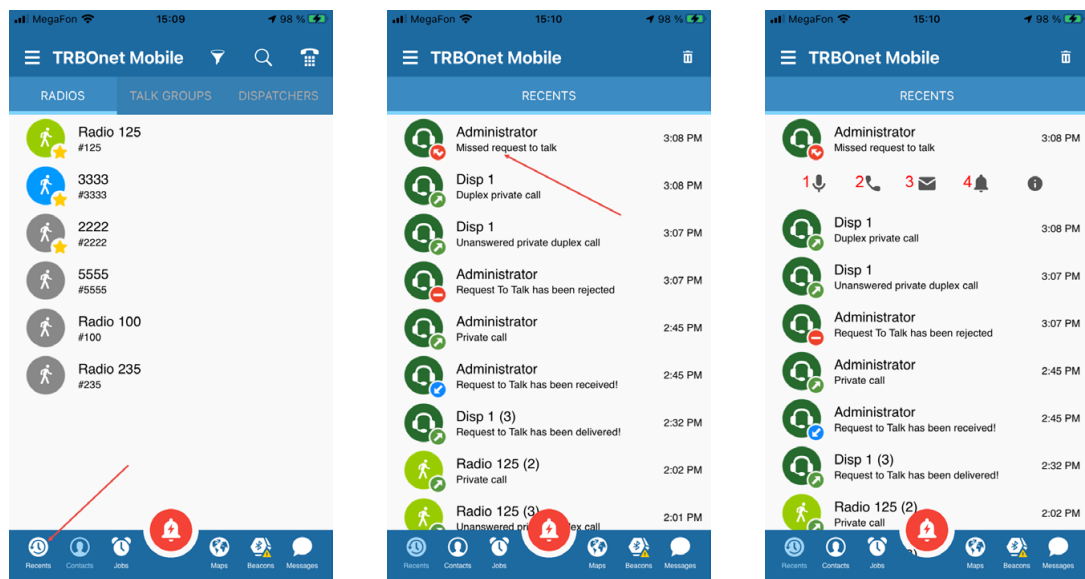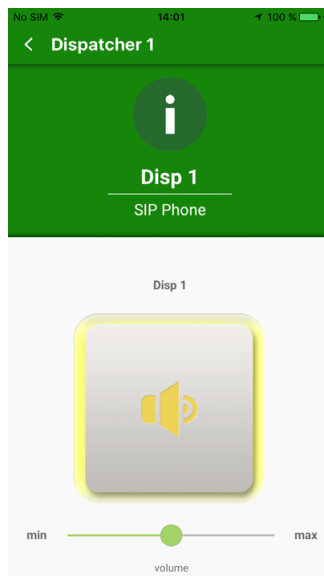

8.10   Listening to a Voice Message

Your mobile device can receive and play voice messages from a TRBOnet control room.

Private voice messages

When you receive a private voice message, you start to hear voice and see the voice message page on the screen. A voice message can be played in a loop. To terminate the voice message, tap the **Back** button on the top bar.
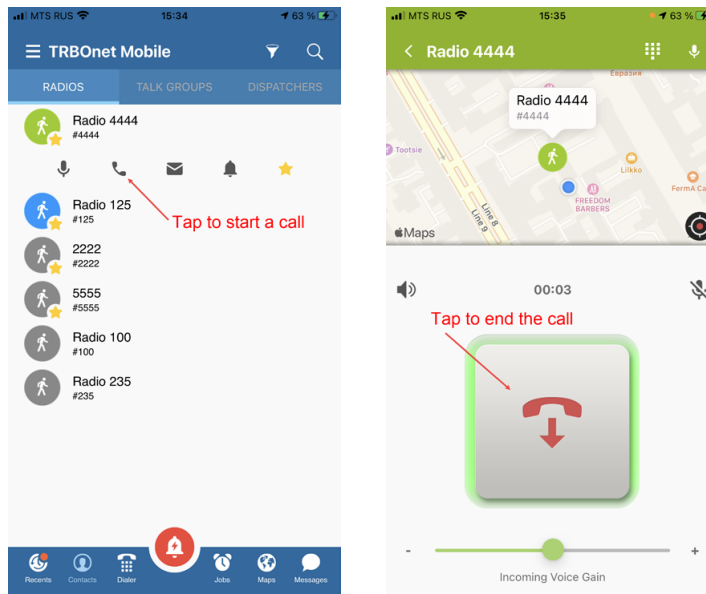
9 Full-Duplex Calls

This section describes how to make and receive full-duplex calls on the Mobile Client app.

9.1 Making a Full-Duplex Call

- Tap **RADIOS** or **DISPATCHERS**. Then tap the preferred user or operator, respectively. On the submenu that appears, tap the phone receiver icon.

9.2 Receiving a Full-Duplex Call

When you receive a full-duplex call, the Incoming Call screen appears. To answer the call, tap **Accept**.

To decline the call, tap either **Remind Me** or **Decline**. A text notification about the rejected call will be automatically delivered to the operator.
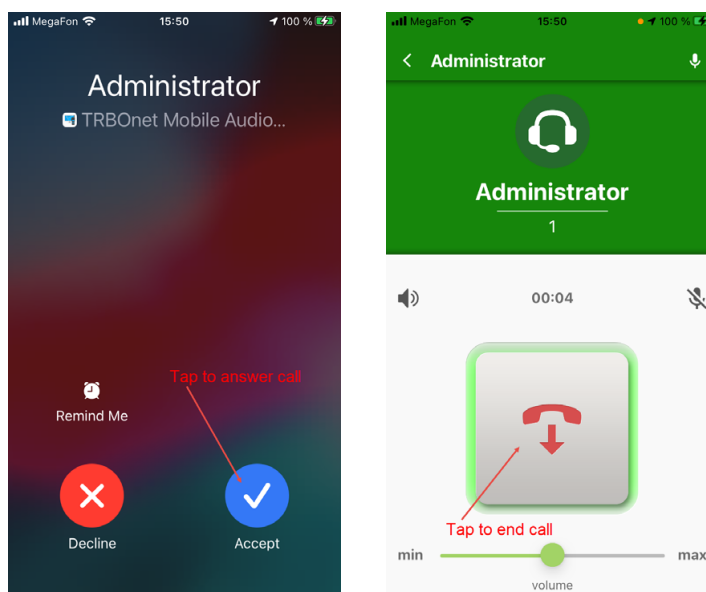
9.3 Sending DTMF Tones in a Call

While in the call, you can send DTMF tones for some purposes.

- Tap the **Keybord** icon (⊞) on the top right of the screen.
- In the **Send DTMF** window that pops up, tap the digits that you want to send as DTMF tones.
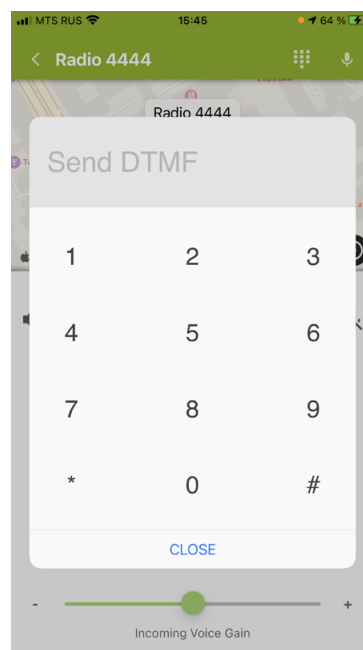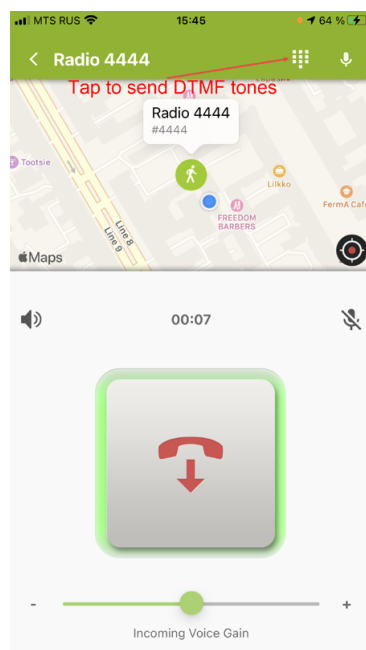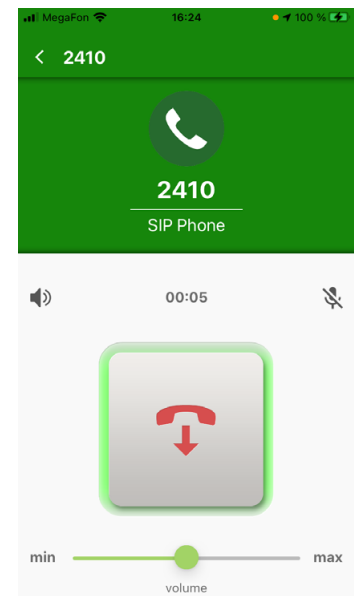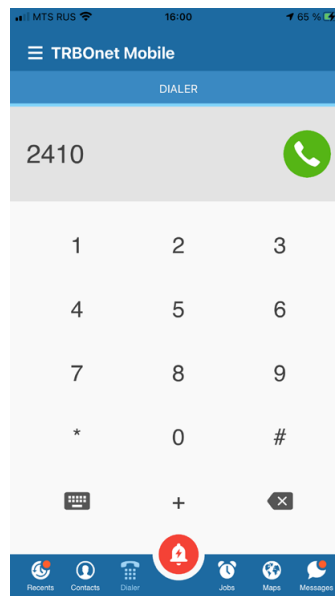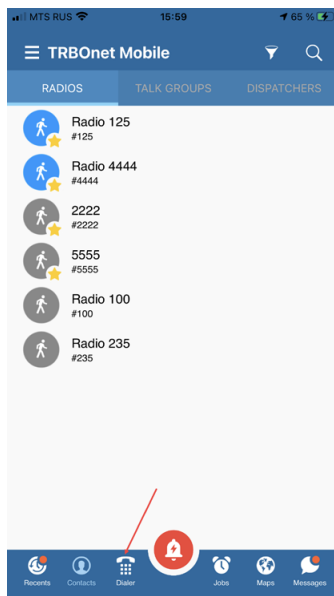
10 SIP Dialer

This section describes how to make phone calls to registered SIP phone users by using the built-in SIP dialer. In addition, if TRBOnet Server is configured to use a SIP-to-PSTN gateway, you can make calls to normal phone numbers.

- Tap the **Dialer** icon ( ) in the Navigation bar.
- In the SIP Dialer screen that opens, enter the phone number and tap the Call button ( ).

11   Messages

You can have a text conversation with any radio user or TRBOnet Mobile Client user from the **RADIOS** page, with a talk group from the **TALK GROUPS** page, and with an operator from the **DISPATCHERS** page.

11.1   Text Conversation

To start a text conversation, tap a contact, a talk group, or a dispatcher, and on the submenu that appears, tap the envelope icon. Type your message in the edit box, then tap the **Send** button ( ). You can also insert quick messages by tapping the **T** icon on the left of the text box and selecting predefined messages from the list (see section 11.1.1, Quick Messages).
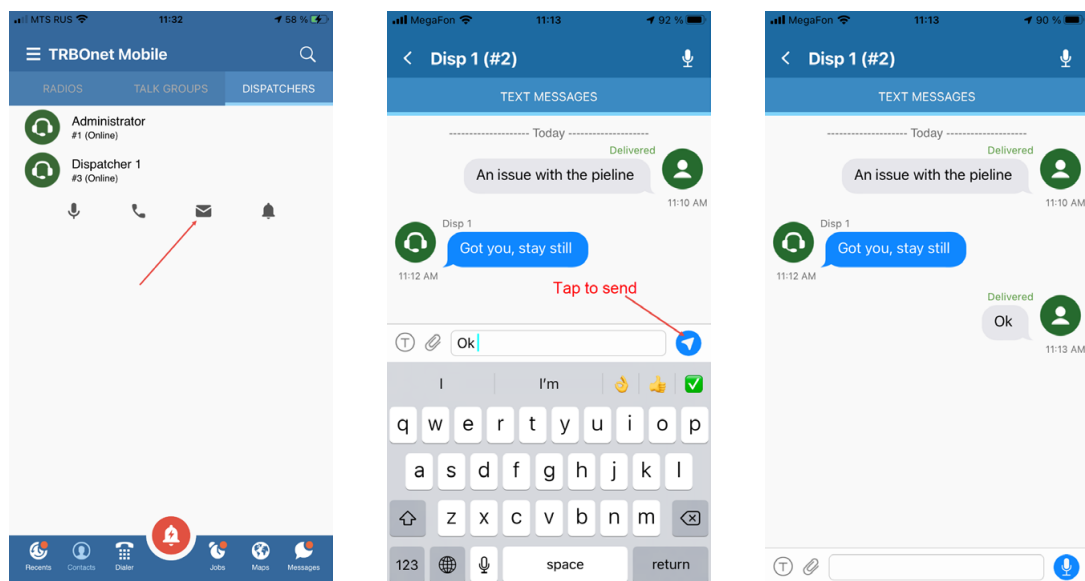
> **Note:** A text message can be typed in any language. The length of a text message is restricted to 105 characters. Messages that exceed the maximum allowed length will be truncated.

If the recipient is online, the sent message appears on the wall as **Delivered**. When the recipient responds, the incoming message appears next to yours on the wall.

If the recipient is offline, your message appears on the wall as undelivered. You can resend it later by tapping it and choosing **Yes** in the confirmation dialog.
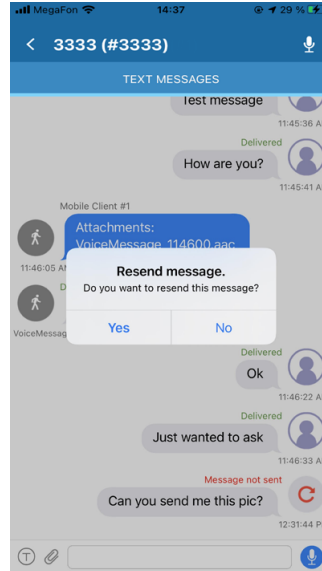
> Note: If the recipient is an operator, you cannot resend a text message. Instead, copy the text and send a new message.

11.1.1 Quick Messages

To send a quick message, tap the **T** icon on the left of the text box and select one of the predefined messages from the list.
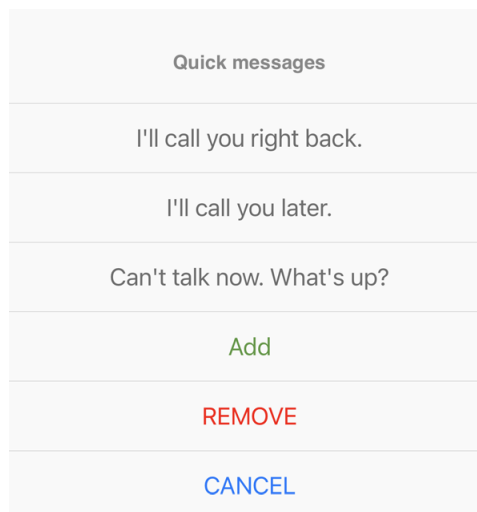
To create a new quick message, tap **Add** and enter the new message.

To remove a quick message, tap **Remove,** then tap the quick message you want to delete and confirm with OK.

11.2 Incoming Text Messages

When you get an incoming message, you hear a sound notification. To check the incoming messages, open the menu and tap **Messages**.

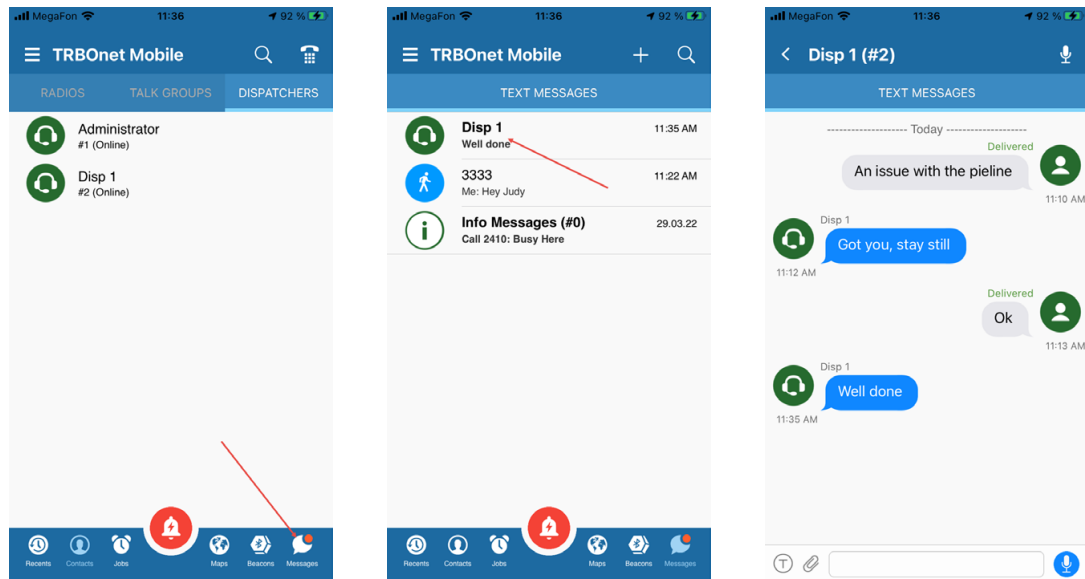A conversation with unread messages is displayed in bold. Tap the conversation to see all included messages. To reply, type your text in the edit box and tap the **Send** button.

11.3 Attachments

You can attach pictures to messages that are sent to an operator or to a TRBOnet Mobile Client user. A radio user cannot receive attachments. If you send a picture without text, a radio user will receive an empty message.

To attach a picture to a message, tap the paperclip icon on the left ( ), and then choose from where (Photo, Video, Gallery, or Files) to take the picture. You can also specify how to compress and resize images in **Settings > Messages > Image Quality/Image Size** (see section 16, Settings).

When you receive a message with attached pictures, you see them as links. Tap the cloud icon on the left of the link to download the picture from the server.
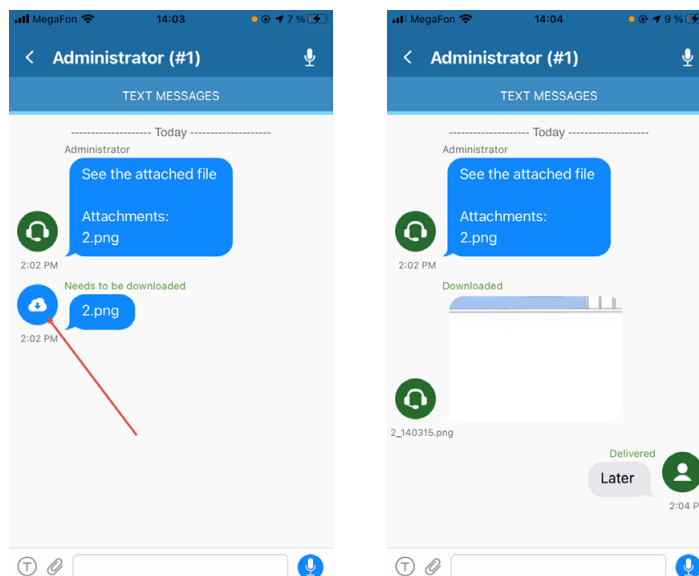
11.4 Voice Messages

You can also send voice messages to your contacts by tapping and holding the mic icon on the right (). When held, the mic icon turns red and you speak. Once you release the mic icon, the recorded voice message will be sent to the recipient. To cancel sending the voice message, drag the held mic icon to the left until the delete sign appears on the right.

11.5 Clearing Message History

To delete the entire conversation with a certain contact, long-tap it in the list and tap OK in the confirmation dialog box.

12 Jobs

A job is a task that you can receive from an operator of the Dispatch Console. To check if you have new jobs, tap the **Jobs** icon in the Navigation bar.
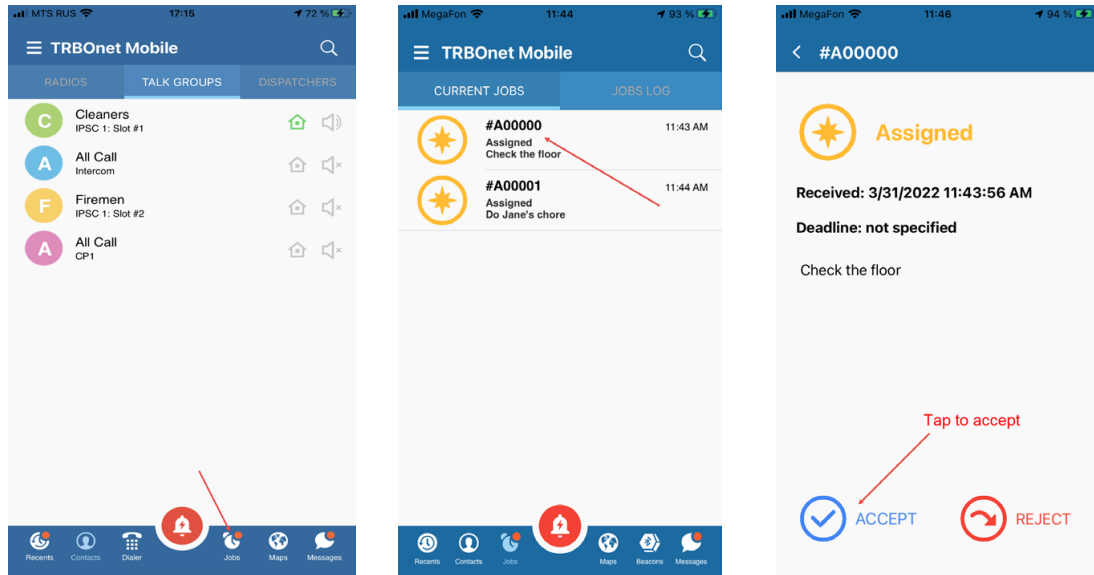
New jobs are added to the **CURRENT JOBS** page with the **Assigned** status. Unopened jobs are displayed in bold. Tap a new job, then tap **ACCEPT** or **REJECT**.

> Note: Job ticket statuses must be appropriately configured in TRBOnet Dispatch Console (see TRBOnet Enterprise/PLUS Job Ticketing User Guide).

12.1 Accepted Job

An accepted job appears on the **CURRENT JOBS** page with the **Accepted** status. Once you have accepted a job, it remains on the **CURRENT JOBS** page until completed.

To process a job, change the job status on your mobile device as follows:

- When you start work on an accepted job, open the job page and tap **PROGRESS**. The job status on top of the page changes to **In Progress**.

- When you finish the job, open the job page and tap **COMPLETE**. The job status changes to **Completed**.

To delete the completed job from the **JOB LOG** page immediately, tap **REMOVE FROM LOG**. To keep the completed job in the log, tap the **Back** button on the top bar.
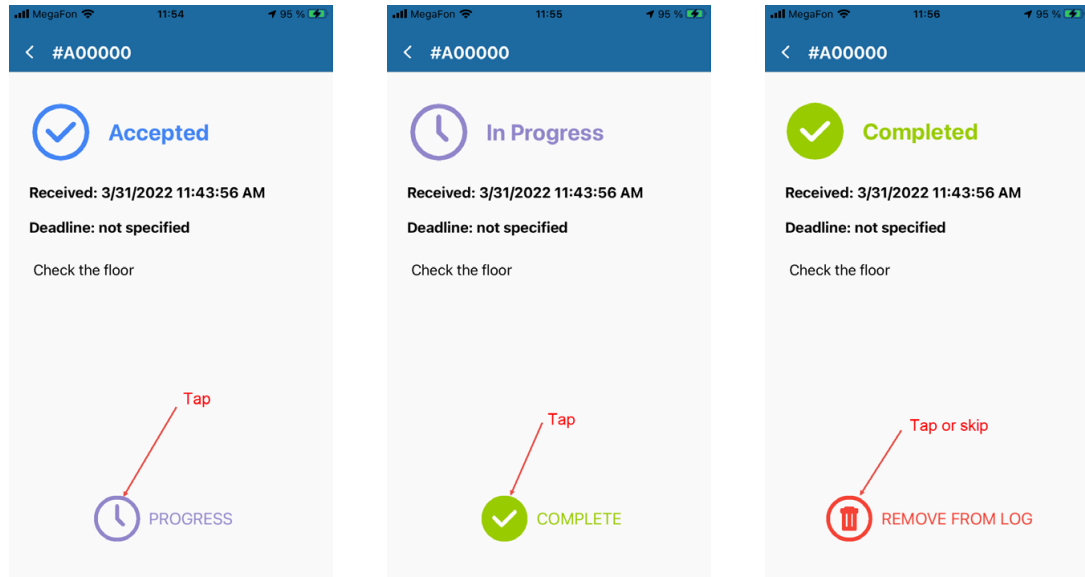
12.2 Rejected Job

A rejected job moves to the **JOB LOG** page. It remains on this page until you delete it or until the operator reassigns it to you or to someone else. A reassigned job disappears from **JOB LOG**. If reassigned to you, the job appears on the **CURRENT JOBS** page with the **New** status.

12.3 Job Log

Completed and rejected jobs move to the **JOB LOG** page. To delete a job from the **JOB LOG** page, tap the job and then tap **REMOVE FROM LOG**.
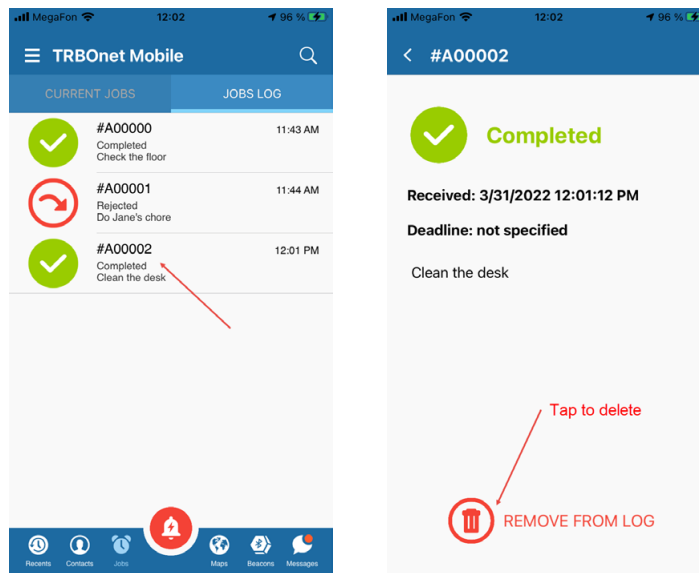
13   Map

On the map, you can see the locations of all users currently available on the
RADIOS page. o open the map, tap the **Maps** icon in the Navigation bar.
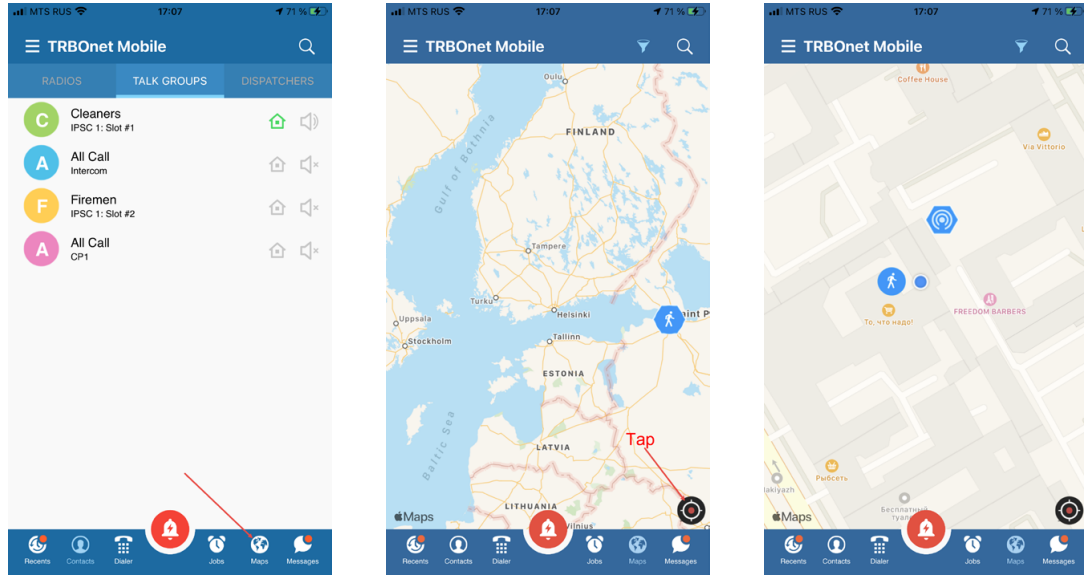
The map displays the last selected area. Tap the **Pan** button. All located users
appear on the map with icons. The color of the icon indicates the network
status of the user:

- **Gray**: Offline
- **Green**: Online, GPS enabled
- **Blue**: Online, GPS disabled
- **Red**: Online, in Alarm

Note: Offline users and users with disabled GPS are displayed on the
map with their last known coordinates.

To learn the name of a user indicated by the icon, tap that icon on the map. The
user's name appears next to the icon.

13.1 Filtering Radios on Map

By default, the map displays all users available on the **RADIOS** page. To display users with a particular network status, tap the **Filter** button and select one or several options required. For example, you may select to display only radios that are online and have fixed GPS signal. Tap **OK** to apply the filter.
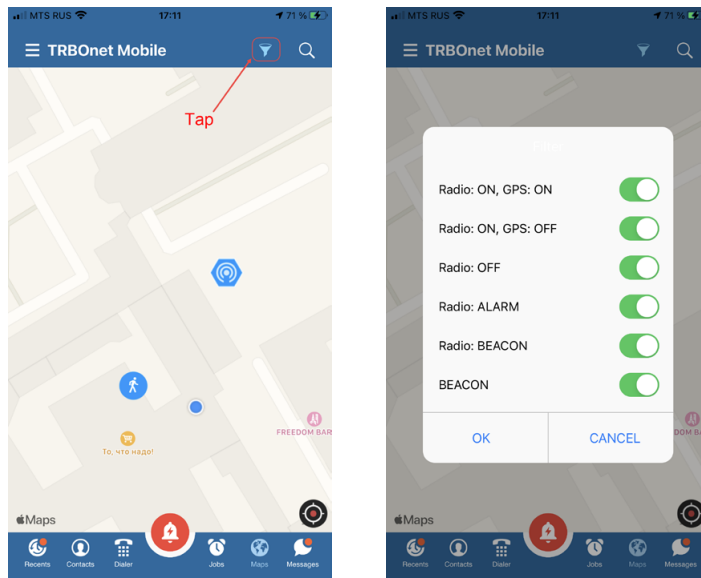
14 Beacons

On the **Beacons in Range** page, you see a list of the beacons in the coverage zone of which the smartphone is located.

- Tap the menu button ( ) on the left of the title bar, and on the menu that opens tap **Beacons.**

Note: The **Beacons** menu item is available only if the **Use Indoor location** option is enabled in the Mobile Client profile associated with the Mobile Client account (see sections 6.2.1, Adding TRBOnet Mobile and 6.2.2, Adding Mobile Client Profile).
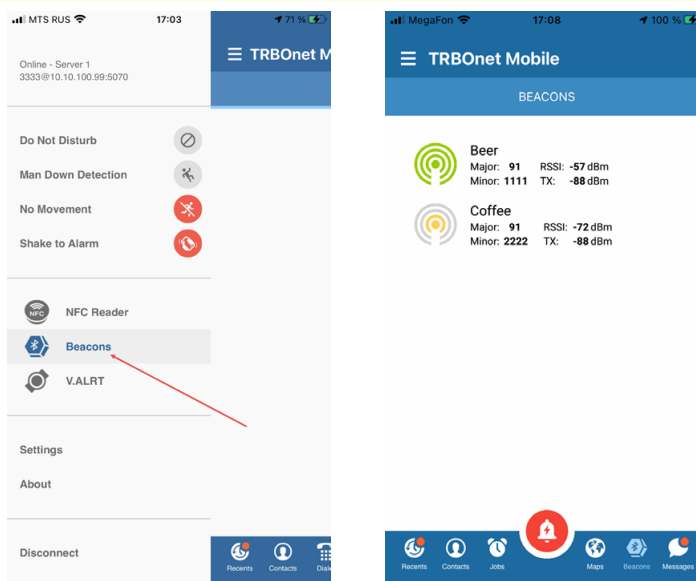
14.1 Beacon Info

Information on a beacon includes its Major and Minor IDs, and RSSI level.

15   V.ALRT Device

You can also use your V.ALRT device connected to the smartphone. You can configure the V.ALRT button to send alarms to TRBOnet. In addition, the V.ALRT device can be used for Man Down detection.

15.1   Configuring V.ALRT Device

- Tap the **Menu** button, and select **V.ALRT**.

  In the pup-up window that opens:

  - Set the module to **On** (1).
  - Enable the **Man Down** feature (2).
  - Tap **Search** (3) to search for available V.ALRT buttons.
  - Tap the paired V.ALRT device (4) you want to connect to.
  - Tap **OK** (5).
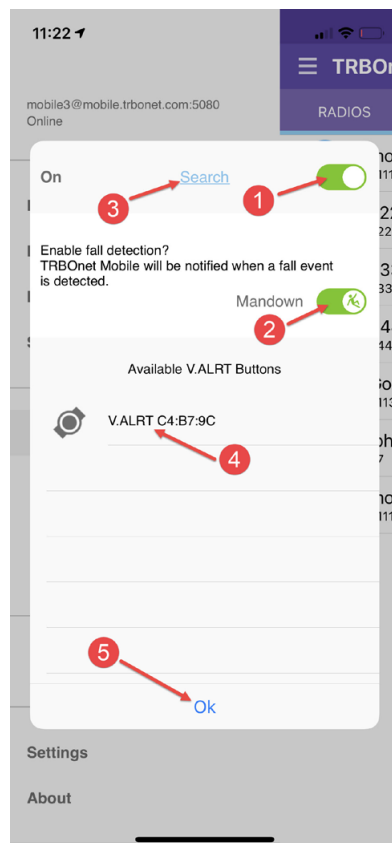
16 Settings

To configure your TRBOnet Mobile Client application, tap the **Menu** button and then tap **Settings**. Scroll the **Settings** page and tap the option that you need to configure. Tap the **Back** button on the **Settings** page to save the settings and leave the page. The updated settings apply immediately.

Below is the list of available settings:

16.1 Audio

- **Voice Recording**
  Select the maximum memory size that will be used to store voice recordings.

- **Filters**
  Select the filters to be applied to the audio stream (AEC, VAD, etc.).
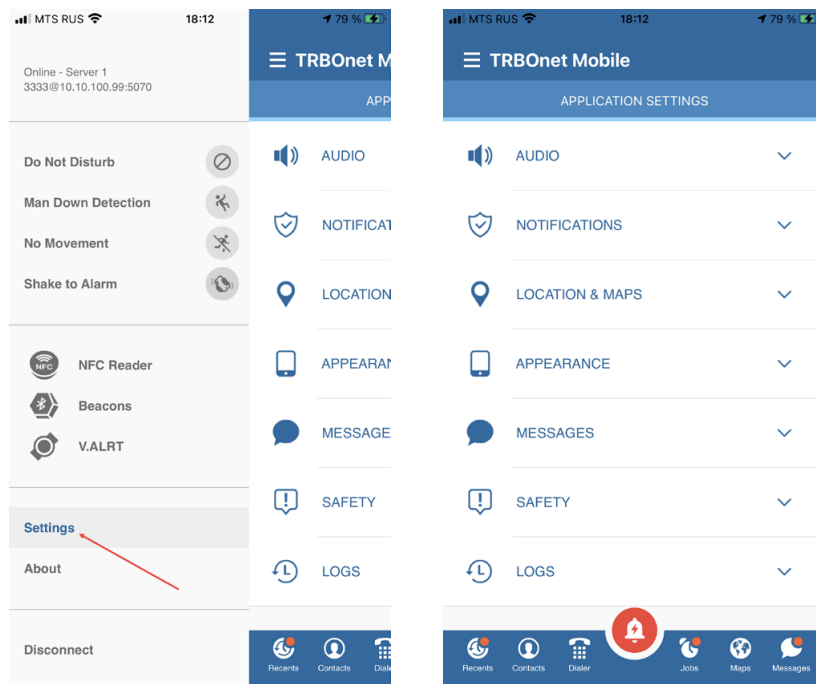
- **Talk Permit Tone**
  Select this option so that a tone will be played when you tap the PTT button to start speaking.

- **Connection Lost Tone**
  Select this option so that a sound will be played when a connection is lost.

- **Bluetooth Headset**
  Select this option if you will use a Bluetooth headset (speaker and microphone).

16.2 Notifications

- **Flash Blinking**
  Select this option to enable flash blinking when an Alarm or Call Alert arrive.

- **Vibrate**
  Select this option to enable vibration for notifications, PTT button, etc.

- **Silent Mode**
  Select this option to disable all sound notifications.

- **Job Status Confirmation**
  Select this option to display a confirmation box when the user changes a job's status.

- **Information Toasts**
  Select this option to display information toasts in the app.

16.3 Location & Maps

- **MAP TYPE**
  Choose one the map types below:

  - **Hybrid**
    A combination of satellite and cartographic imagery.

  - **Hybrid Flyover**
    A flyover that combines satellite and cartographic imagery.

  - **Satellite**
    Photos taken from space.

  - **Satellite Flyover**
    A flyover using satellite images.

  - **Standard**
    Standard cartographic imagery.

16.4 Appearance

- **Long-Press on Contact**

  - **PTT Box**
    Choose this item to open the PTT Box when long-pressing on a contact.

  - **Message Box**
    Choose this item to open the text message box when long-pressing on a contact.

- **Auto-Close PTT box**
  Choose the time interval for closing the PTT box when the screen is locked or the app is minimized.

> Note: When the app is in the active mode, the PTT box will always be open regardless of what is chosen here.

- **Language**
Tap to choose the application language.

- **Keep Screen ON**
Select this option to prevent the screen from falling asleep. If selected, this setting increases the battery usage.

- **Hide System Names**
Select this option so that system information is not displayed below a group name in the Talk Groups page.

- **Pin home and active channels**
Select this option so that the home group and active channels will be shown on top of the list of talk groups.

16.5   Messages

- **Delete history**
Choose when to delete messages and attachments from your device.

- **Maximum amount**
Choose the maximum number of messages to be stored for each contact. (**50**, **100**, **300**, **500**, or **1000 messages**).

- **Image quality**
Choose the quality of the images that will be attached to messages.

- **Image size**
Choose the maximum size of the images that will be attached to messages.

- **Video size**
Choose the maximum size of the videos that can be attached to messages.

- **Optimization confirmation dialog**
Select this option to always compress and resize image size (as specified by the above two parameters) when attaching images to messages, so that there will be no confirmation dialog.

16.6   Safety

> Note: This section appears if the corresponding options are selected in the associated Mobile Client Profile (see section 6.2.2, Adding Mobile Client Profile, Alarms tab).

- **Man Down Detection**
These are the settings for Man Down Detection when the device is carried in a pocket.

- **Vertically oriented**
  Choose this option when the device is oriented vertically in the pocket.

- **Horizontally oriented**
  Choose this option when the device is oriented horizontally in the pocket.

- **Orientation doesn't matter**
  Choose this option when the device may be oriented either vertically or horizontally in the pocket. Note that choosing this option may result in a decreased sensitivity.

- **Not used**
  Select this option the device is not carried in a pocket. Note that choosing this option may result in a decreased sensitivity.

- **Shake Detection**
  These are the sensitivity grades for Shake Detection. There are five sensitivity grades: Very-High, High, Medium, Low, and Very-Low.

- **Pre-Alarm Interval**
  Choose the time interval, in seconds, between triggering the event and sending the corresponding alarm.

- **Pre-Alarm Effects**
  Select one or all of the effects (Vibrate, Sound, and Flash Blinking) that will take place when the corresponding alarm event is triggered on the device.

- **Man Down Automatic Cancellation**
  Select this option to automatically cancel a Man-Down alarm once the device is rotated back to its normal position.

16.7   Logs

- **Incoming messages**
  Select this option to include incoming messages in the log file.

- **Outgoing messages**
  Select this option to include outgoing messages in the log file.

- **System info messages**
  Select this option to include Info messages in the log file.

- **Error messages**
  Select this option to include received error messages in the log file.

- **Send Logs**
  Tap this link to send the log file to TRBOnet Server.