

TRBOnet

TRBOnet Mobile User Guide

Version 1.2

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1. Introduction

1.1. About This Document

This document is intended for end users of the TRBOnet Mobile software installed on an Android mobile device. The document describes how to install and configure TRBOnet Mobile, 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 the MOTOTRBO digital two-way radio networks. TRBOnet manages voice, text and data communication paths to network endpoints and provides a unified graphical dispatcher workbench interface for all the messaging and workforce orchestration 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 22 28 726	support@trbonet.com – technical support
APAC	+61 28 6078325	http://kb.trbonet.com – online knowledge base

2. About TRBOnet Mobile

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

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

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 alarm
- Call alert
- Incoming voice messages
- GPS-based user positioning on a map
- Instant text messaging
- Text message attachments
- Job ticketing

Requirements

The hardware and software requirements to install and run TRBOnet Mobile 2.1 on a mobile device include:

- Android version: 4.1 and higher
- Internet connection: Wi-Fi or 3.5G/4G/LTE
- Wi-Fi and Cellular Data options enabled in the mobile device settings

3. Installation

The latest version of the TRBOnet Mobile software application is available for download on Google Play (play.google.com).

To install TRBOnet Mobile:

1. Visit play.google.com from your mobile device.
2. Type “TRBOnet” in the **Search** box and run the search.

3. Tap the TRBOnet Mobile application, then tap the **Install** button.

4. Getting Started

4.1. Running TRBOnet Mobile

To launch TRBOnet Mobile on your mobile device, tap the TRBOnet Mobile icon on the screen. The login page appears on the screen.

On the login page, enter the following connection settings:

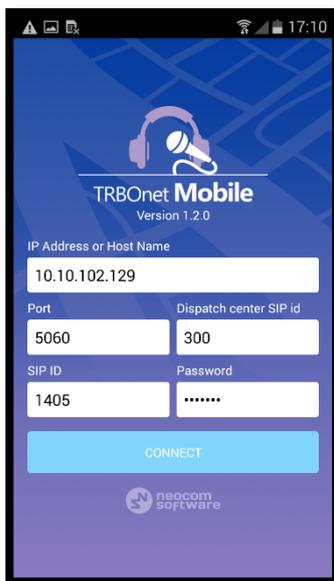


Figure 1: Login page

- **IP Address or Host Name:** The IP address or the host name of the SIP server.
- **Port:** The local port of the SIP server.
- **Dispatch center SIP id:** The SIP ID of the server.
- **SIP ID:** The SIP ID of your TRBOnet Mobile application.
- **Password:** The SIP password of your TRBOnet Mobile application.

Note: The connection settings on Figure 1 serve as an example. Contact your administrator to get the actual connection settings.

Tap the **Connect** button. The main page of the application appears on the screen.

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

4.2. Main Page

The main page of TRBOnet Mobile includes the following elements.

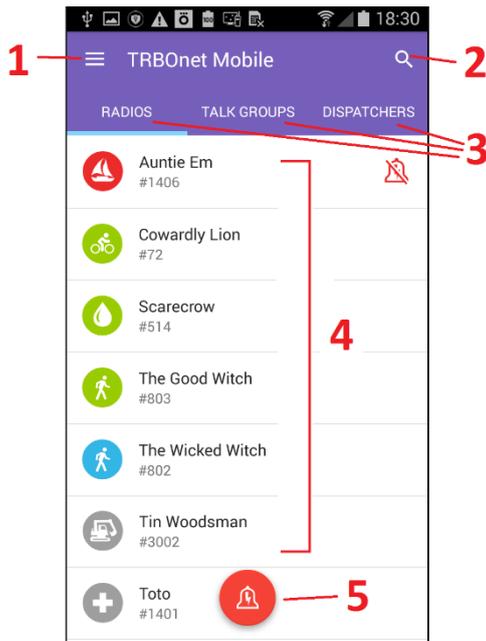


Figure 2: Main page

1: **Menu** button. Tap this button to expand the menu.

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

3: Contact lists. Tap **RADIO, TALK GROUPS,** or **DISPATCHERS** to open the respective list of contacts.

4: Contacts. Tap an active contact to open the contact's page from which you can initiate a call or send a text message. Active contacts are marked with a green, blue, or red icon.

5: **Alarm** button. Tap this button to send an alarm to all active radio network users.

4.3. Menu

To expand the menu, tap the **Menu** button. The menu items are as follows:

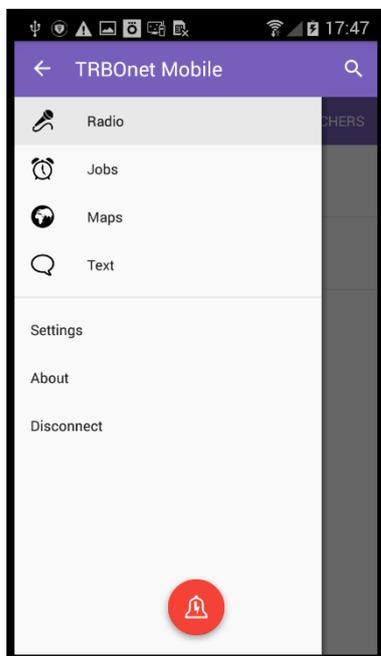


Figure 3: Menu items

- **Radio:** Tap to open the main page.
- **Jobs:** Tap to open your jobs.
- **Maps:** Tap to open the map and see the location of all users displayed in your **RADIO** contact list.
- **Text:** Tap to open your text conversations.
- **Settings:** Tap to open the **Settings** page on which you can adjust the application settings.
- **About:** Tap to learn about the software.
- **Disconnect:** Tap to log out.

When you tap a menu item, you are redirected to the respective page. To collapse the menu, tap the **Back** button on top.

4.4. Search

Tap the **Search** button and type the text pattern to be searched on the page. Entries that do not contain the text pattern are hidden. Tap the **Close** button to reset the filter.

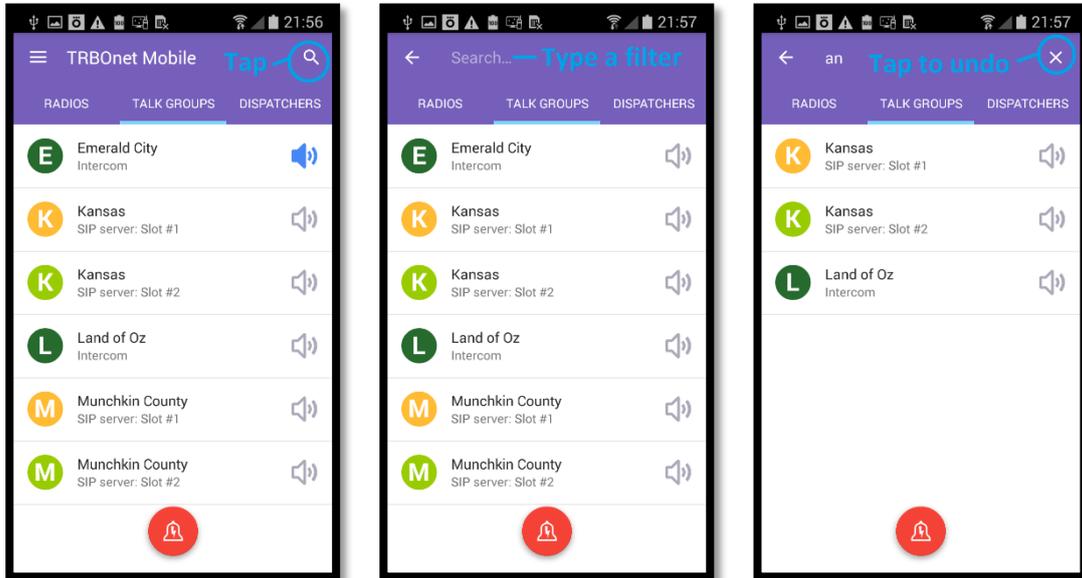
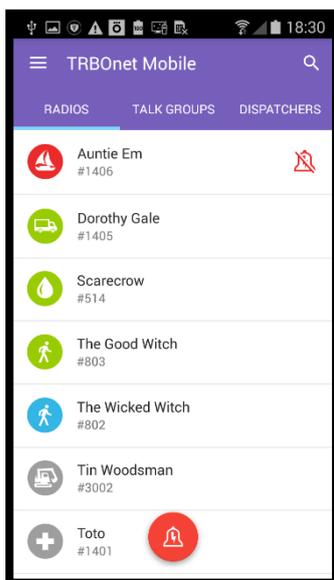


Figure 4: Searching contacts

4.5. Radios

Tap **RADIO**S to open the list of radio and TRBOnet Mobile 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
- **Blue:** Online, GPS disabled
- **Red:** Online, in emergency

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

Note: To learn how to narrow the range of displayed radio IDs, refer to section 9. *Settings* (page 26).

Figure 5: List of users

Tap a user on page **RADIO**S. The user's page is displayed on the screen.

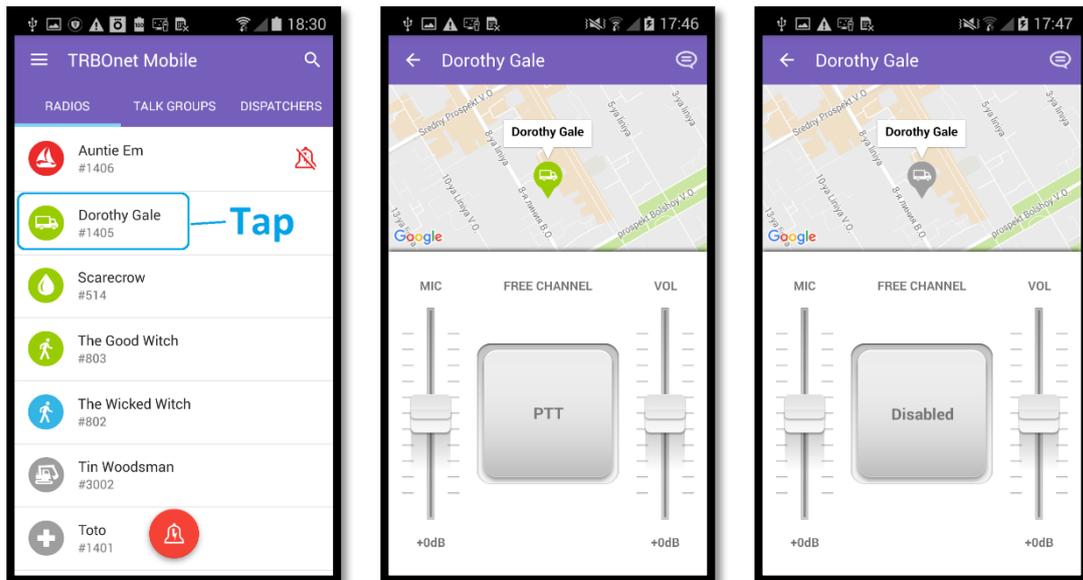


Figure 6: Opening the user's page

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 5. *Calls* (page 7) and 6. *Text Messages* (page 19).

If the user is offline, the central button shows **Disabled** and the user cannot be called. Still you can type a text message and resend it later as described in section 6. *Text Messages* (page 19).

4.6. Talk Groups

Tap **TALK GROUPS** to open all talk groups in which you are registered as a member.

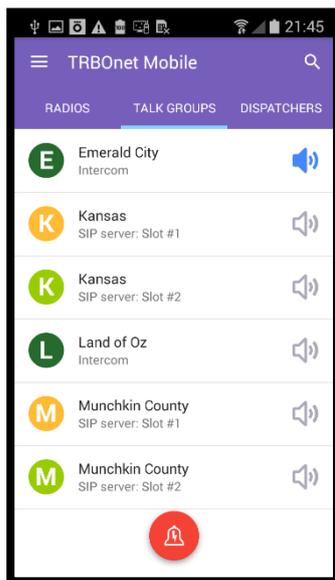


Figure 7: List of talk groups

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 9. *Settings* (page 26).

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

4.7. Dispatchers

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

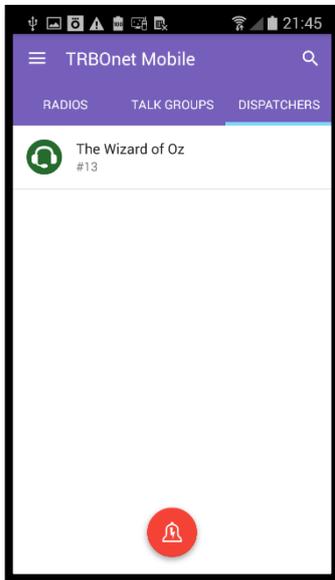


Figure 8: List of operators

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 page **DISPATCHERS** to open the operator's page from which you can make a call or send a text message. Find the details in sections 5. *Calls* (page 7) and 6. *Text Messages* (page 19).

4.8. Logging Out

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

5. Calls

5.1. 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.
2. On the user's or operator's page, tap the **PTT** button and hold it.

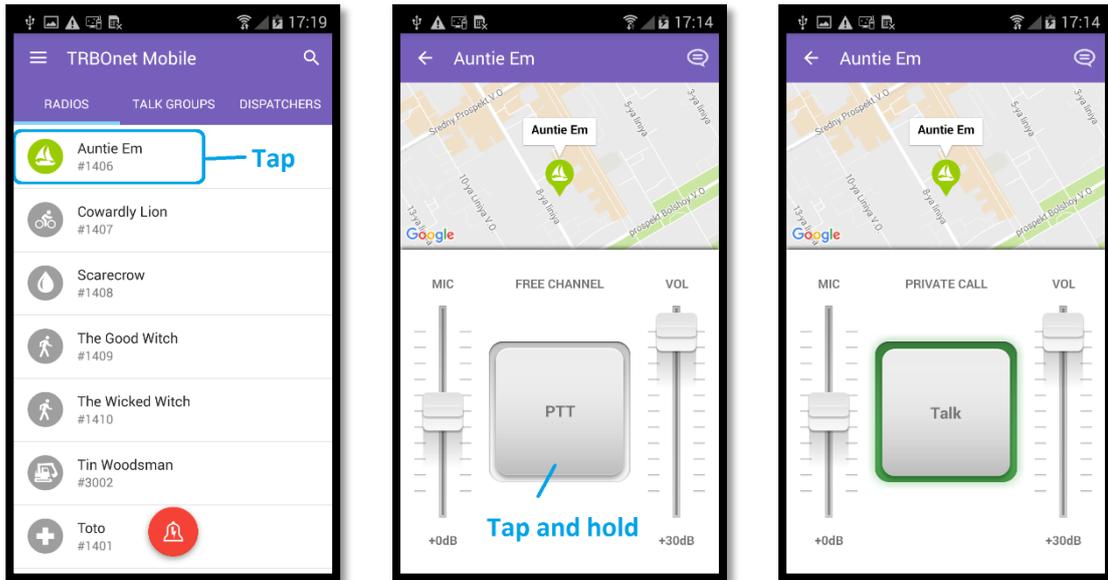


Figure 9: Initiating a private call

The private call is established when the text above the button changes from **FREE CHANNEL** to **PRIVATE CALL**.

3. To have a conversation, do the following:

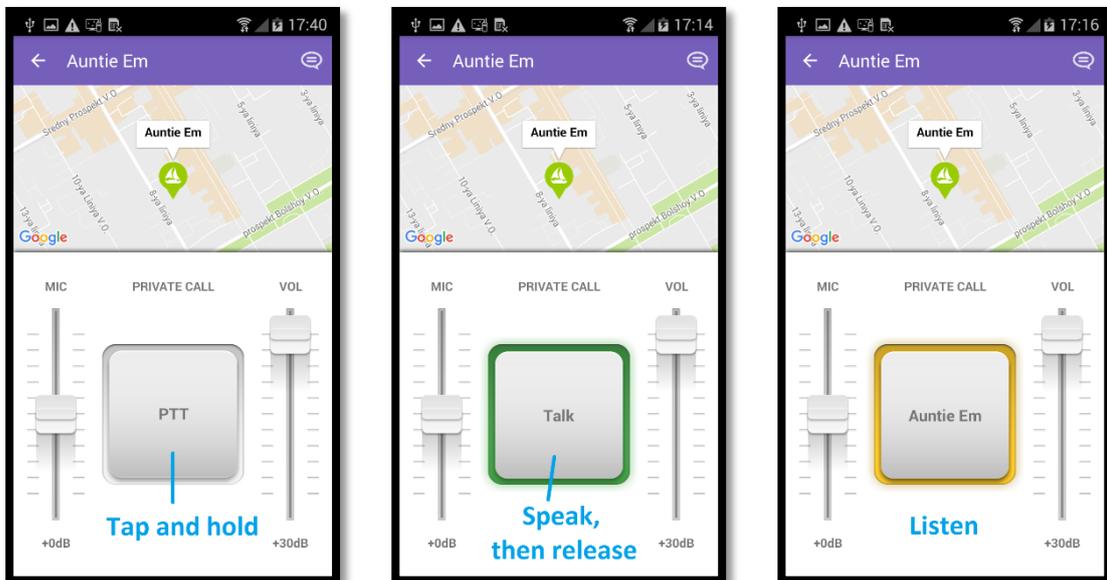


Figure 10: Having a conversation

- To speak, wait until the central button changes its text to **PTT**. Then tap and hold the button to speak.
- To listen to the other party, release the central button. When you see the other party's name on the central button, you can only listen and the other party can speak.

- To terminate the call, tap the **Back** button 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.

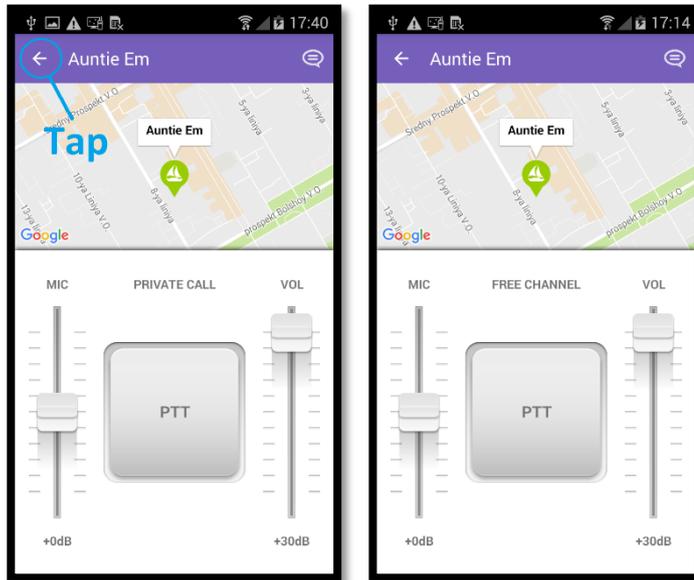


Figure 11: Terminating a private call

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

5.2. Receiving a Private Call

You can receive a private call from a TRBOnet Mobile user, from a SIP phone, or from any operator on the **DISPATCHERS** page. Radio users cannot give you a private call.

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

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 shows **PTT**, tap and hold the button to speak, then release the button.

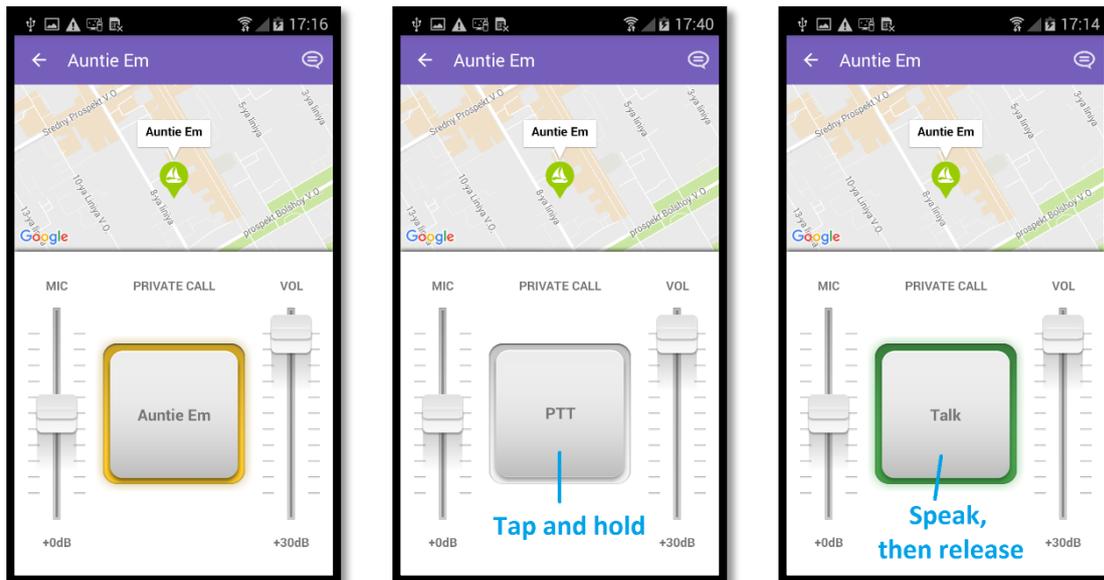


Figure 12: An incoming call with a user or operator: listen (left), hold the button (middle), speak (right)

A conversation with a SIP phone user

The calling party can speak to you all the time until the call is finished. You can speak to the calling party only when you tap and hold the central button.

When you tap and hold the central button, it changes the text from the calling party's name to **Talk**. When you release the button, you see the calling party's name on the button again.

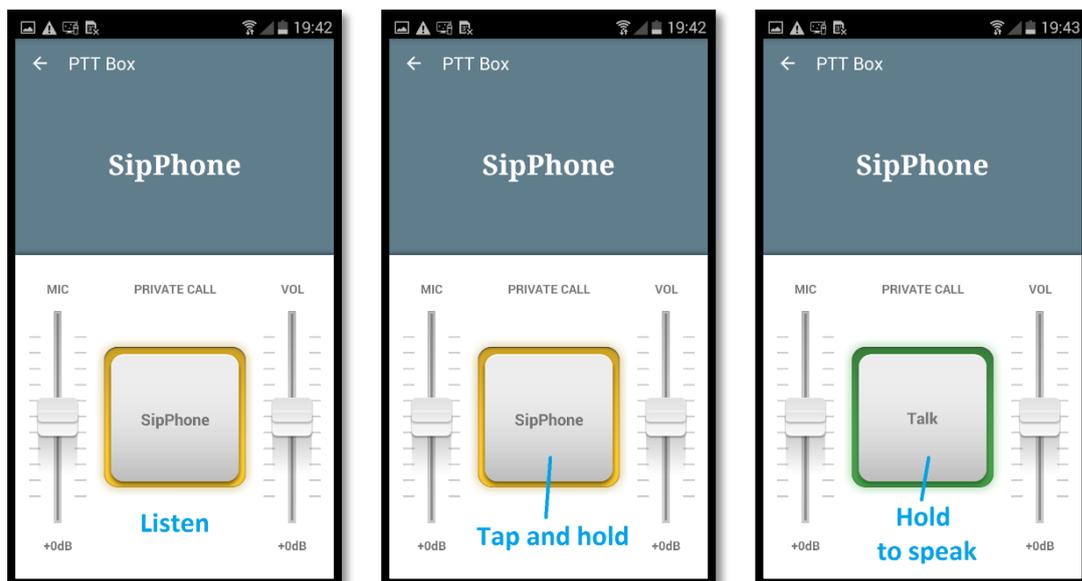


Figure 13: An incoming call with a SIP phone: listen (left), speak (middle and right)

Call termination

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

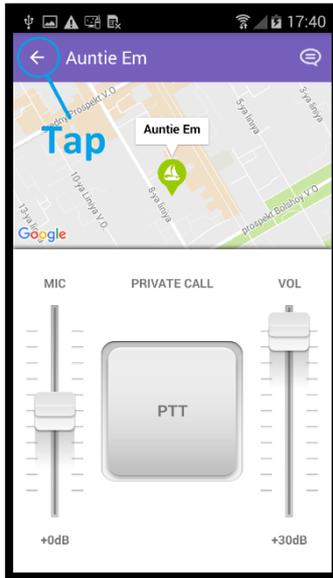


Figure 14: Terminating a private call

When your line is busy

When your line is busy, nobody can give you a private call. You get no notification of a private call attempt made by a TRBOnet Mobile user or operator.

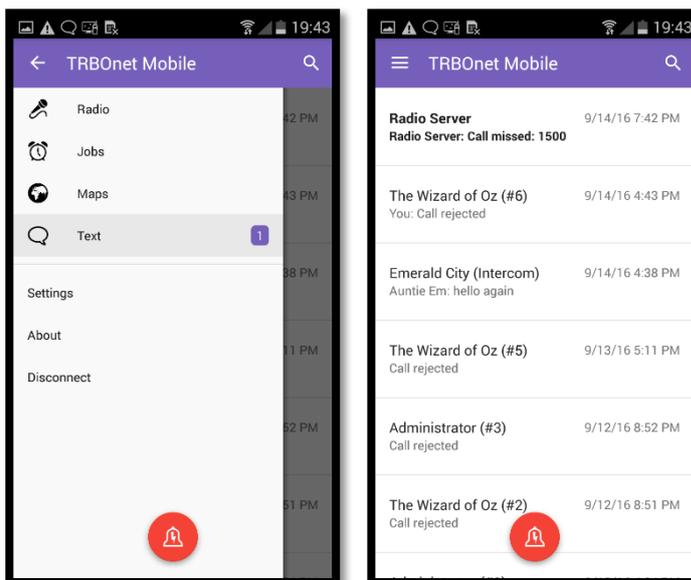


Figure 15: Reading a notification about a missed call

At a call attempt from a SIP phone, you get a sound notification. Open the menu and tap **Text** to read the text message about a missed call.

5.3. Listening to a Talk Group

Page **TALK GROUPS** shows all talk groups in which you are registered as a member.

All talk groups on page **TALK GROUPS** are mute by default. You can select one talk group (one channel) 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 page **TALK GROUPS**.

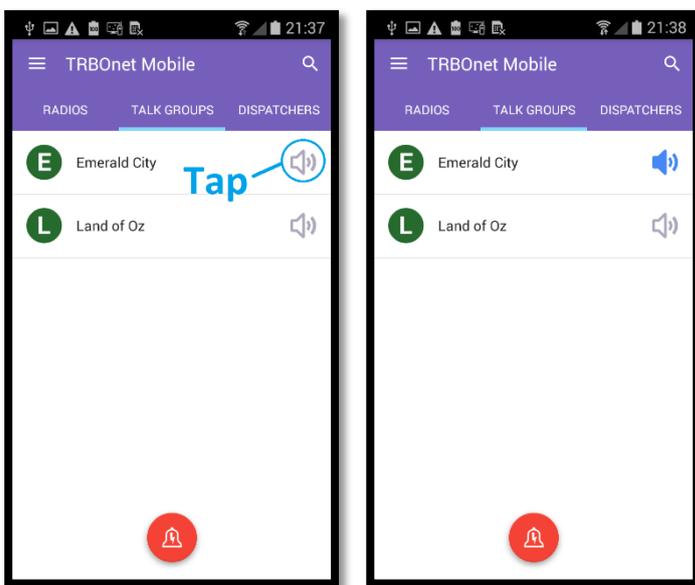


Figure 16: Selecting a group call to listen to

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

5.4. Making a Group Call

A group call is a voice call that you can make to a talk group (one channel) on the **TALK GROUPS** page.

When someone initiates a group call, all the talk group listeners start to hear voice on their devices. Any user or operator on the TRBOnet network can join a group call by selecting the talk group channel. When a group call has several participants, only one of them can speak at a time.

A group call participant can leave the group call at any moment. A group call ends when all participants leave it, or when there is no activity on the channel during the hangtime (typically, six seconds).

To make a group call:

1. On the **TALK GROUPS** page, tap the preferred talk group.
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.

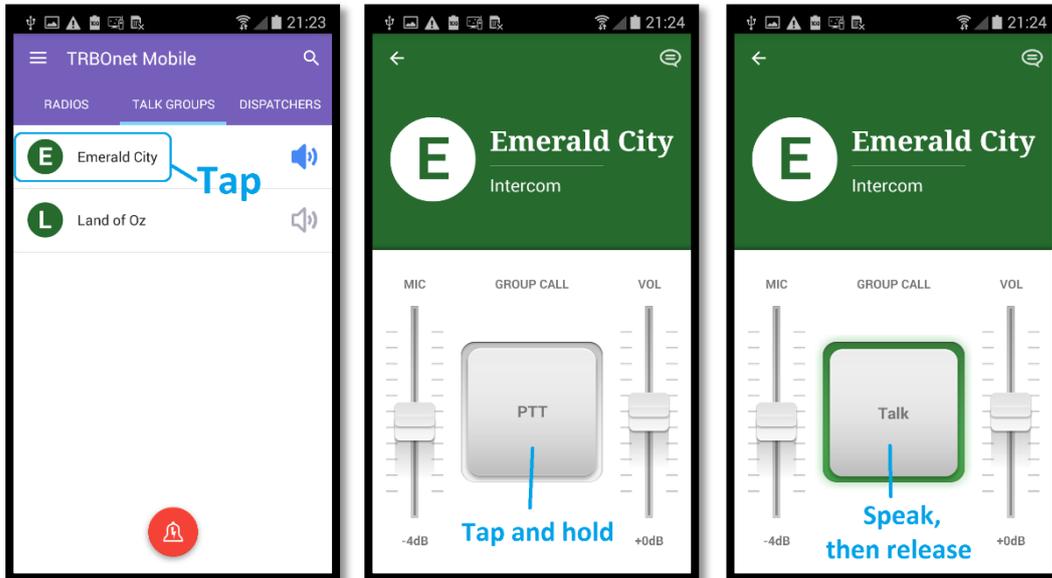


Figure 17: Making a group call

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:



Figure 18: A group call speaker (displayed on the central button)

The talk group listeners who are busy having other calls do not hear your group call.

5.5. Making an Emergency Call

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

You can broadcast an emergency call to all operators on page **DISPATCHERS** and all active TRBOnet Mobile users on the radio network. Radio users do not receive emergency calls.

To send an emergency call:

1. Tap the **Alarm** button. This button is available from most pages on your TRBOnet Mobile application.
2. In the popup window, tap **Yes** to confirm sending an alarm.

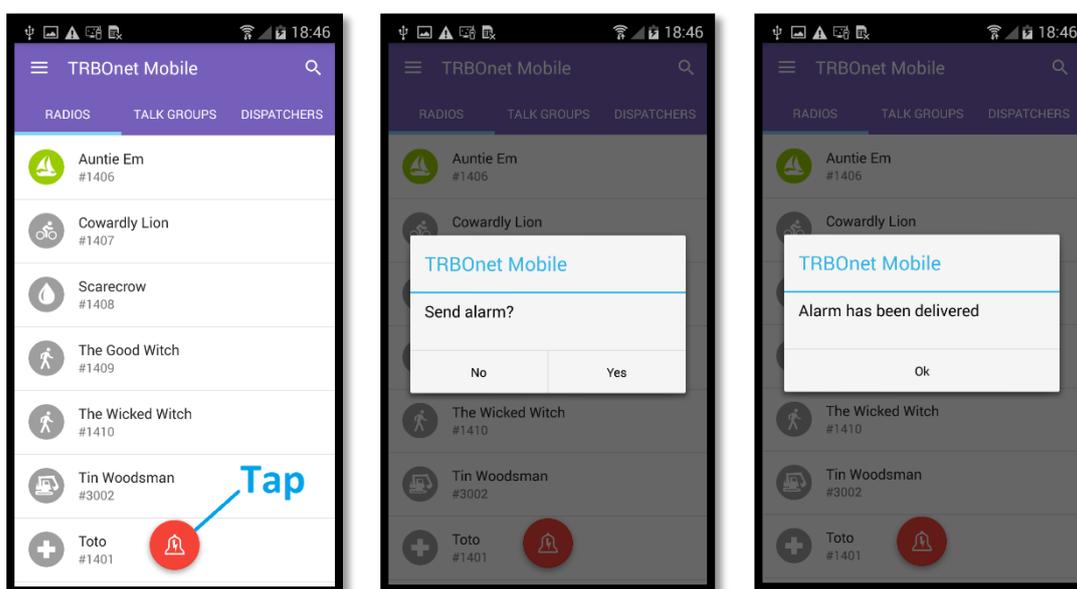


Figure 19: Sending an emergency call

Once done, you see the delivery confirmation on the screen. All participants see your alarm notification on their devices. A participant can ignore your alarm or serve it by initiating a private call to you.

Note: To learn how to suppress the delivery confirmations, refer to section 9. Settings (page 26).

5.6. Responding to an Emergency Call

When someone on the radio network makes an emergency call, you get an alarm notification on the screen. If you are having a voice call, an incoming alarm terminates it automatically.

You have the following options:

- To ignore an alarm notification, tap **CANCEL**.

- To respond to an alarm notification, tap **OPEN PTT BOX**. Then tap and hold the **PTT** button to initiate a private voice call with the person in emergency.

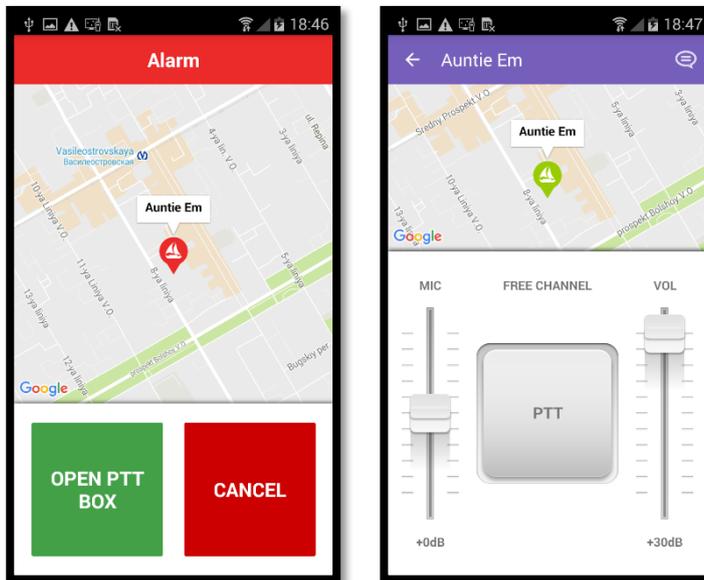


Figure 20: Responding to an incoming alarm notification

5.7. Sending a Call Alert

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

To send a call alert:

1. On page **DISPATCHERS**, tap a contact. On the operator's page, tap the **Call Alert** button.

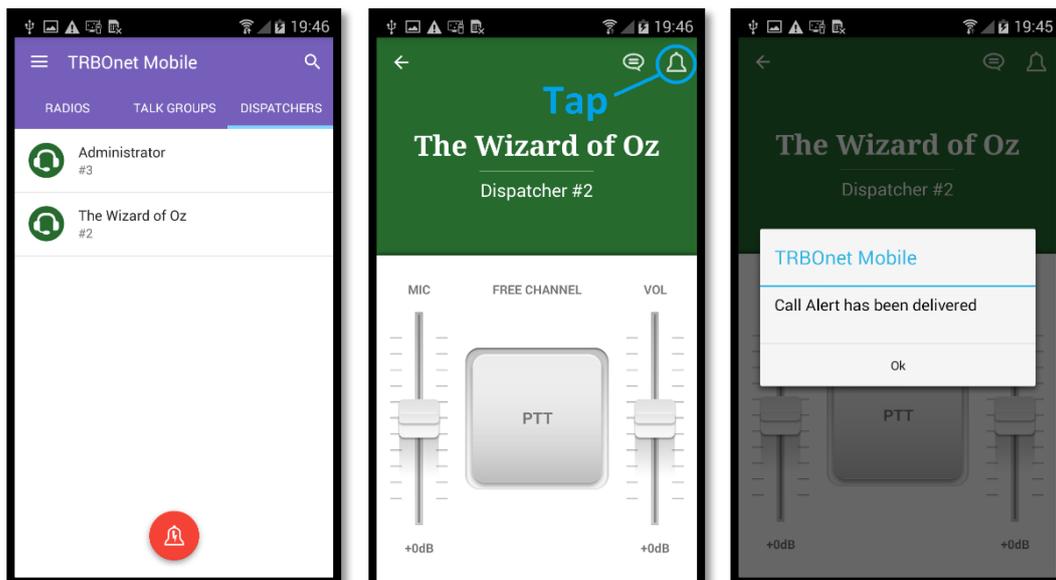


Figure 21: Sending a call alert

2. Tap **Ok** to close the message box with the delivery confirmation.
3. The called operator can accept your call request or reject it with a note.
 - If your call request is accepted, receive a private call from the operator.
 - If your call is rejected, you get a sound notification. To read a note from the operator, tap the **Text** button on the operator's page.

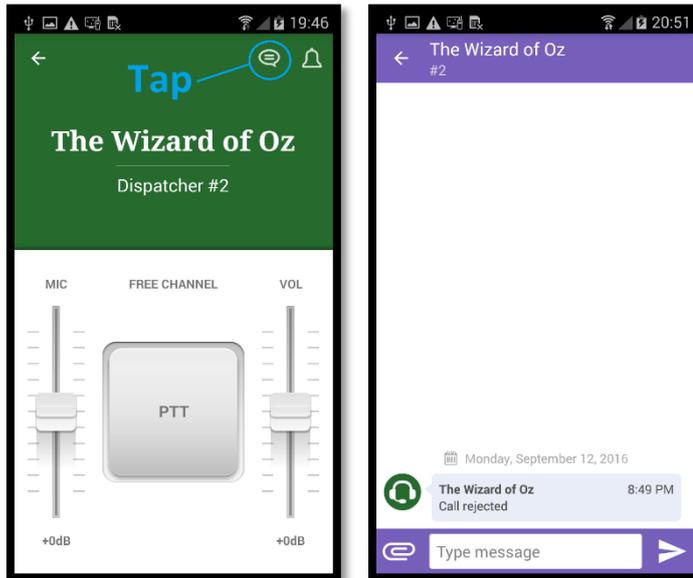


Figure 22: Reading a note when a call alert is rejected

5.8. Receiving a Call Alert

You can receive a call alert (a request for a private call) from any operator displayed on page **DISPATCHERS**.

When your line is not busy

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

- To accept an incoming call alert, tap **ACCEPT**. On the operator's page, tap and hold the **PTT** button to initiate a private call.

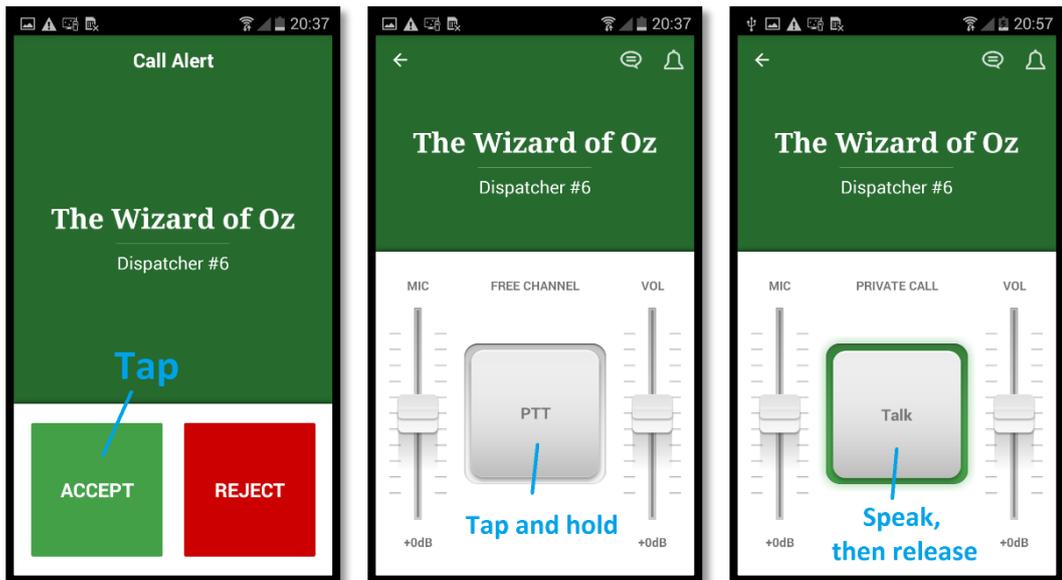


Figure 23: Responding to a call alert: accept (left), call (middle), speak (right)

- To decline an incoming call alert, tap **REJECT**. A text notification about the rejected call alert is delivered to the operator automatically. To see this notification, tap the **Text** button on the operator’s page.

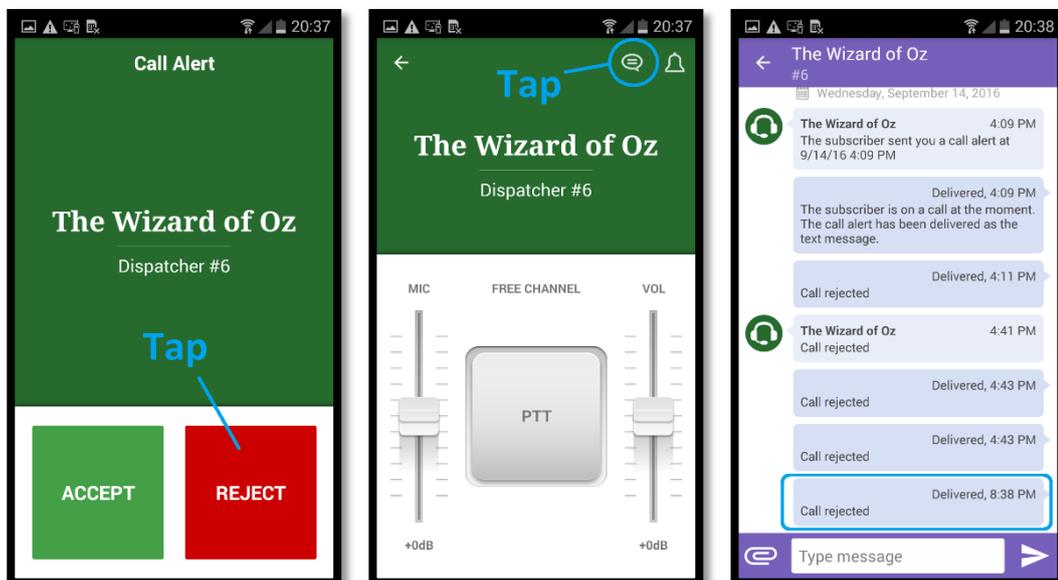


Figure 24: Rejecting a call alert (left) and checking the notification (middle, right)

When your line is busy

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

To learn who is requesting for a call, tap **Text** on the menu, then tap the conversation with unread messages (displayed in a bold style).

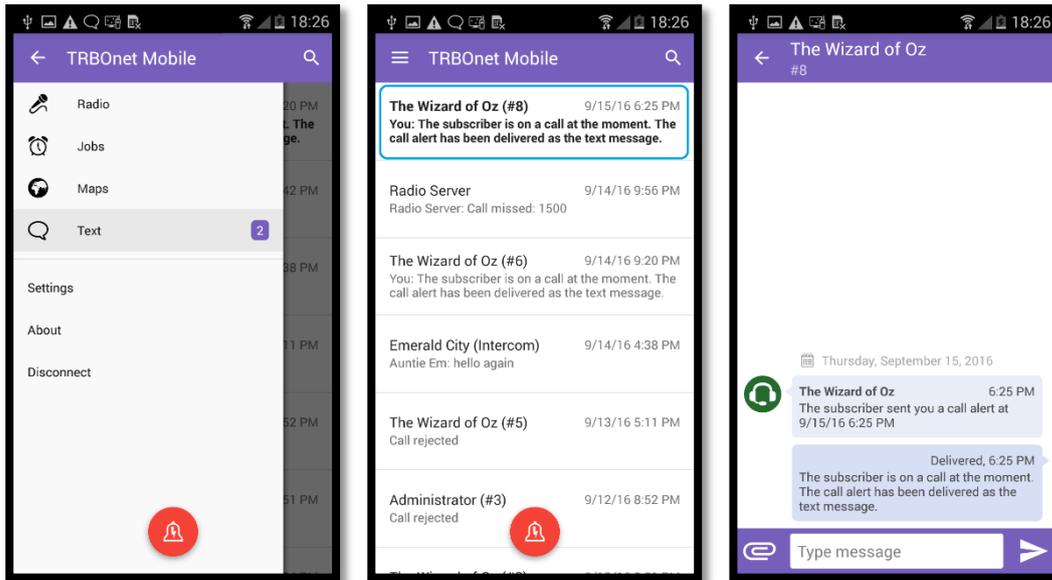


Figure 25: Reading a call alert notification

5.9. Listening to a Voice Message

Your mobile device can receive and playback 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 back in a loop. To terminate the voice message, tap the **Back** button.



Figure 26: Receiving a private voice message

Group voice messages

If you are listening to a talk group, you receive all voice messages intended for this group. When a voice message is played back to the group, you start to hear voice. The screen of your mobile device is not affected. You cannot terminate the voice message.

6. Text Messages

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

Text conversation

To start a text conversation, open the page of the recipient and tap the **Text** button. Type your message in the edit box, then tap the **Send** button.

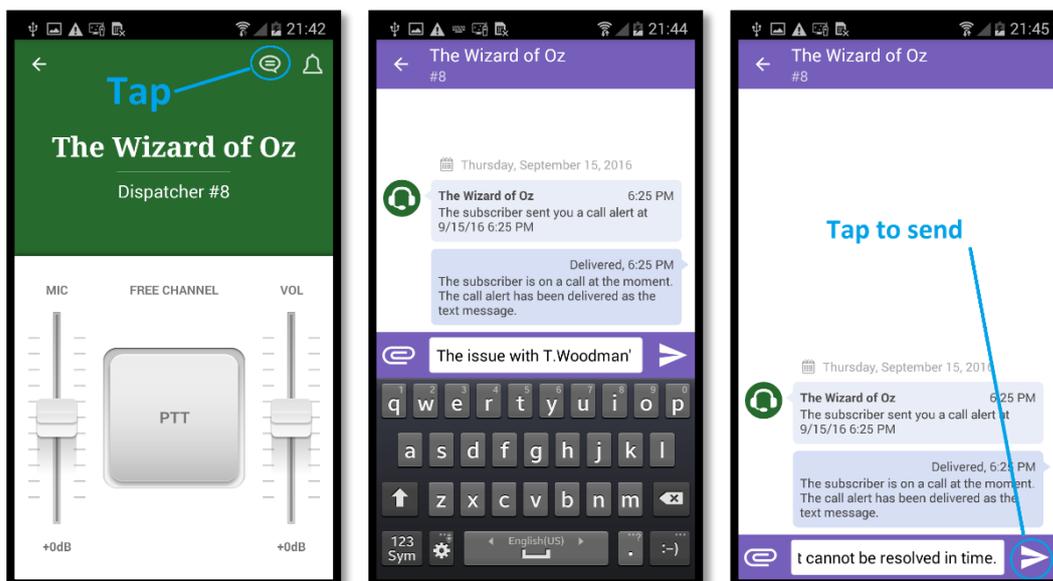


Figure 27: Sending a text message: open the editor (left), type (middle), send (right)

Note: A text message can be typed in any language. The length of a text message is restricted to 105 symbols. Messages that exceed the maximum allowed length are 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.

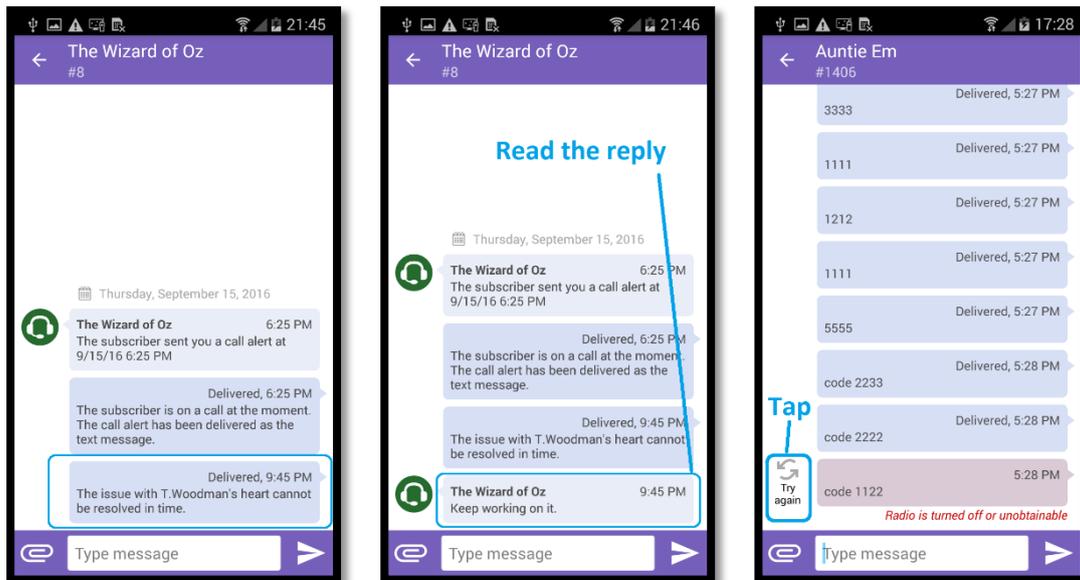


Figure 28: Receiving a text message (left, center) and resending an undelivered message (right)

If the recipient is offline, your message appears on the wall as undelivered. You can resend it later by tapping the **Resend** button.

Note: If the recipient is an operator, you cannot resend a text message. Instead, copy the text and send a new message.

Incoming text messages

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

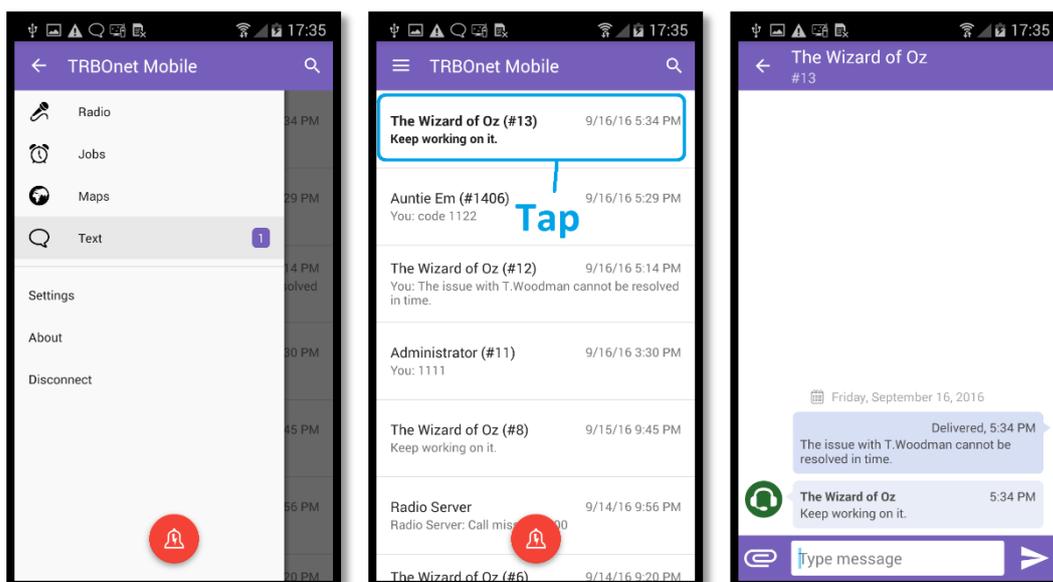


Figure 29: Checking incoming text messages

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

Attachments

You can send attached pictures to an operator or to a TRBOnet Mobile user. A radio user cannot receive attachments. If you send a picture without text, a radio user receives an empty message.

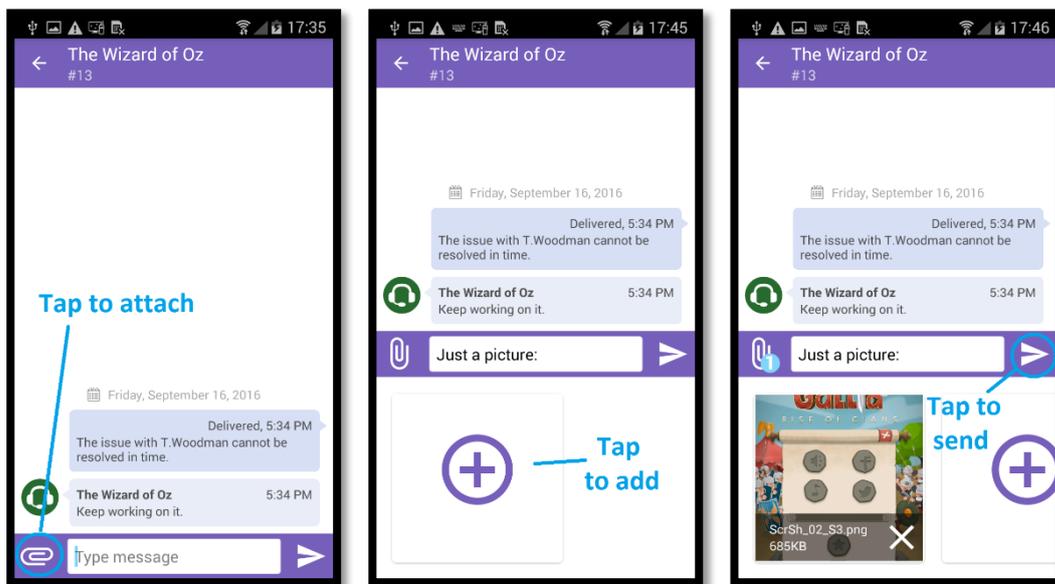


Figure 30: Sending a picture

To send a picture to a recipient, tap the **Attach** button, then tap the **Add** button. Select the picture from the **Gallery** or take it with a camera. Then tap the **Send** button.

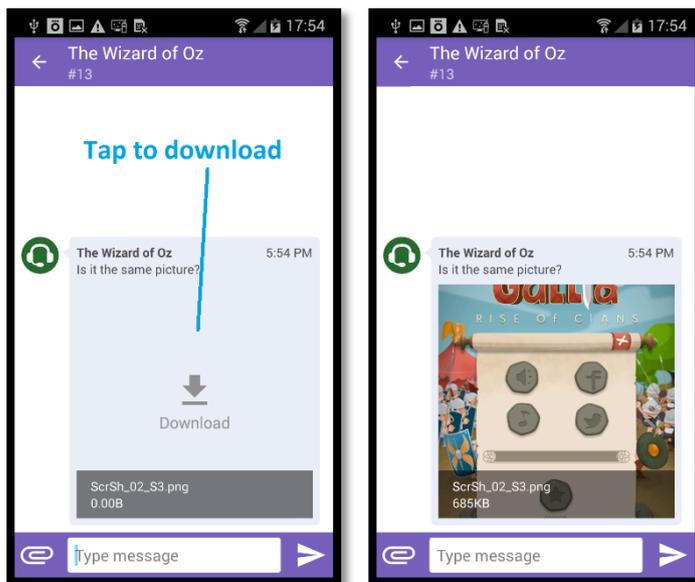


Figure 31: Receiving a picture

When you receive a message with attached pictures, you see them as links. Tap the link to download the picture from the server.

7. Jobs

A job is a task that you can receive from any operator from the **DISPATCHERS** page. To check if you have new jobs, open the menu. The **Jobs** menu item shows the number of unread jobs. Tap **Jobs** to see your jobs on the **CURRENT JOBS** page.

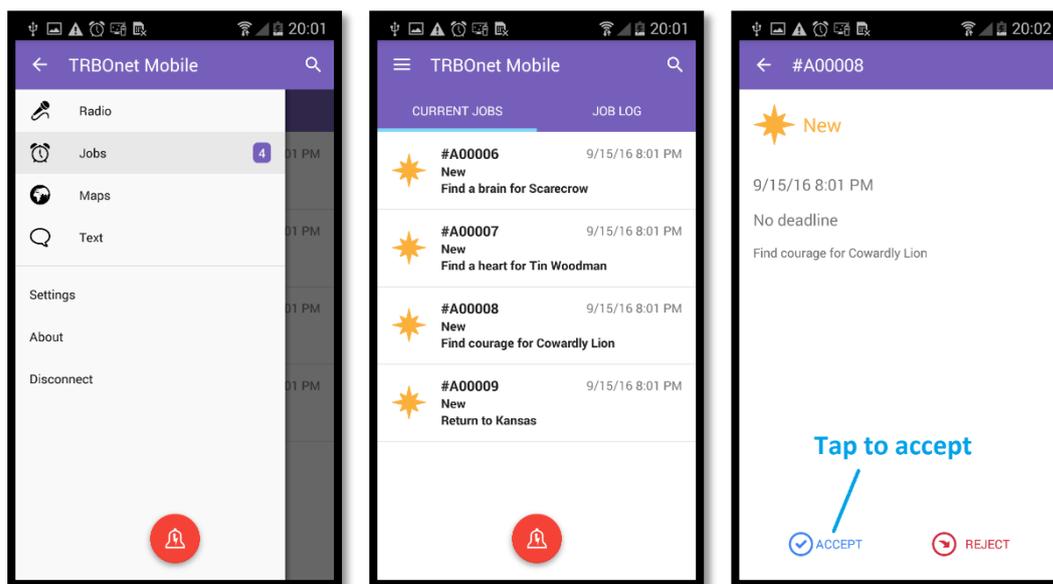


Figure 32: Taking a new job

New jobs are added to page **CURRENT JOBS** with the **New** status. Unopened jobs are displayed in a bold style. Tap a new job, then tap **ACCEPT** or **REJECT**.

ACCEPTED JOB

An accepted job appears on the **CURRENT JOBS** page with the **Accepted** status. Once you have accepted a job, it remains on page **CURRENT JOBS** 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 **IN PROGRESS**. The job status on top of the page changes accordingly.
- 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 **DELETE FROM THE LOG**. To keep the completed job in the log, tap the **Back** button.

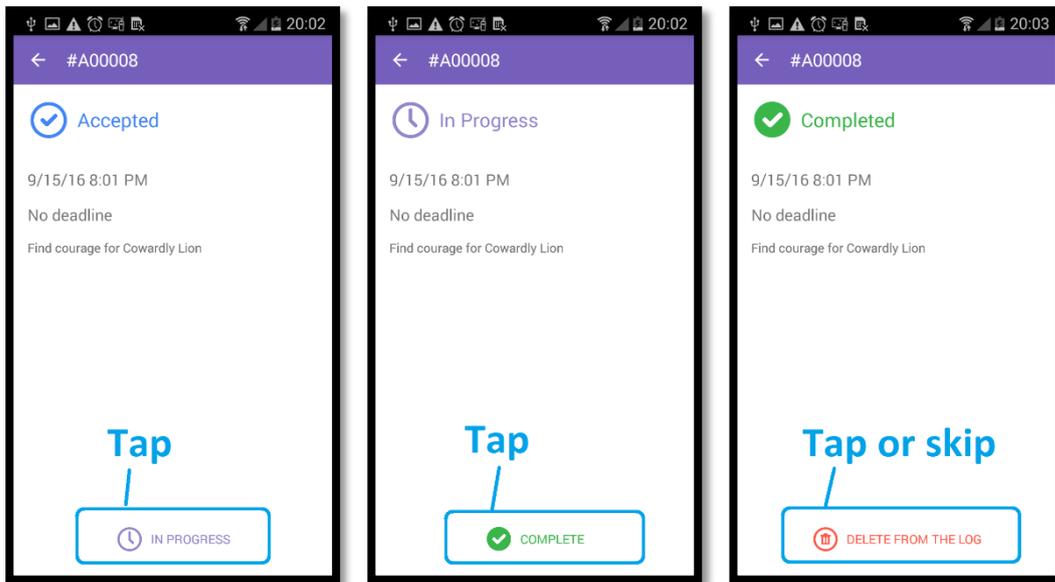


Figure 33: Updating job statuses

REJECTED JOB

A rejected job moves to page **JOB LOG**. 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 page **CURRENT JOBS** with the **New** status.

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 **DELETE FROM THE LOG**.

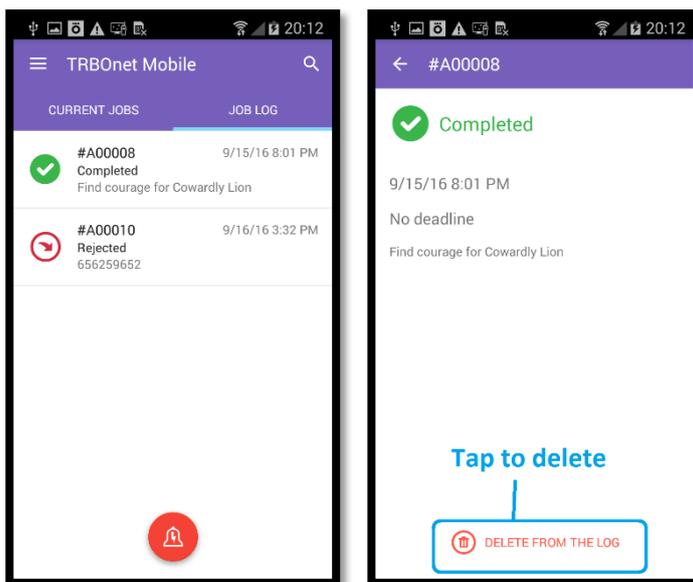


Figure 34: Deleting a job from JOB LOG

8. Map

On the map, you can see the physical location of all users currently available on page **RADIOS**. To do that, open the menu and tap **Maps**.

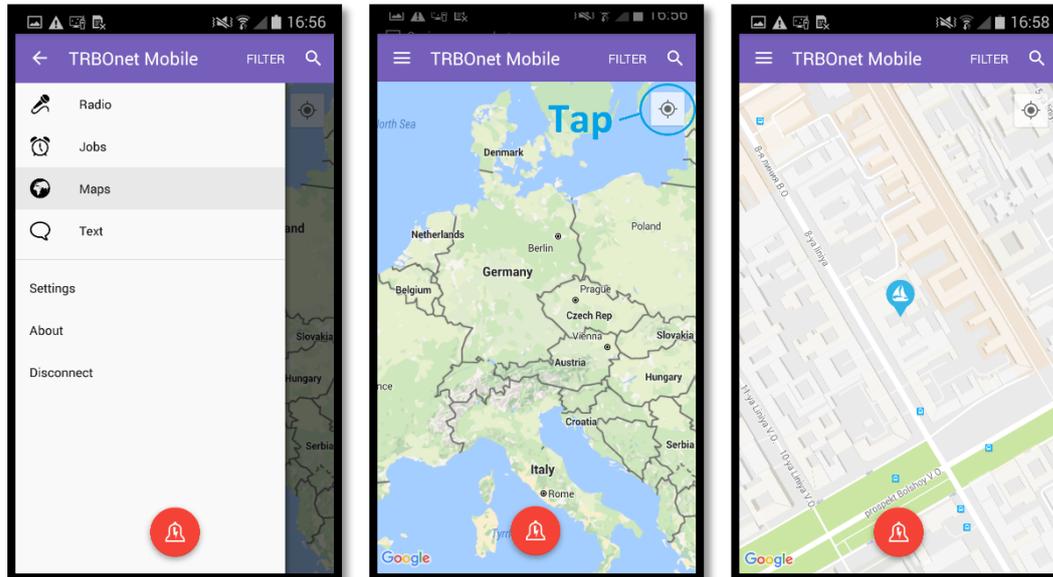


Figure 35: Finding the radio network users on the map

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 emergency

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.

FILTER

By default, the map displays all users available on page **RADIOS**. To display users with a particular network status, tap the **FILTER** button and select one or several options required. Tap **OK** to apply the filter.

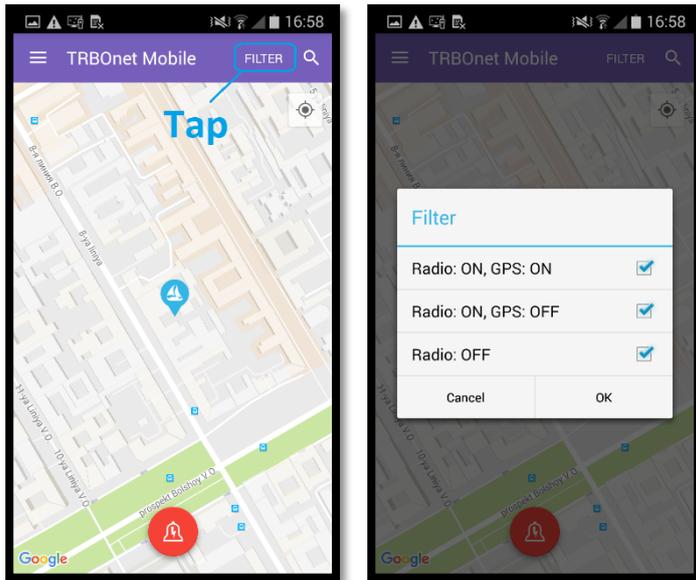


Figure 36: Finding radios and TRBOnet Mobile users on the map

SEARCH

To find a particular user on the map, tap the **Search** button. Start typing the user's name or the radio ID in the search field. The list of matching contacts appears below. Tap the contact that you want to find on the map. The respective icon displays the user's name above.

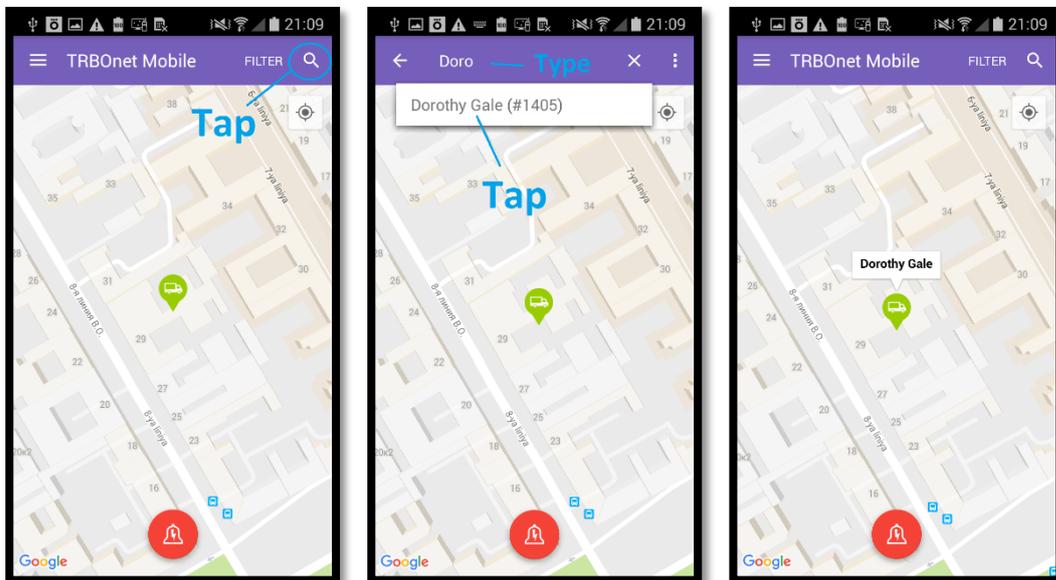


Figure 37: Searching a contact on the map

9. Settings

To configure your TRBOnet Mobile 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 page **Settings** to save the settings and leave the page. The updated settings apply immediately.

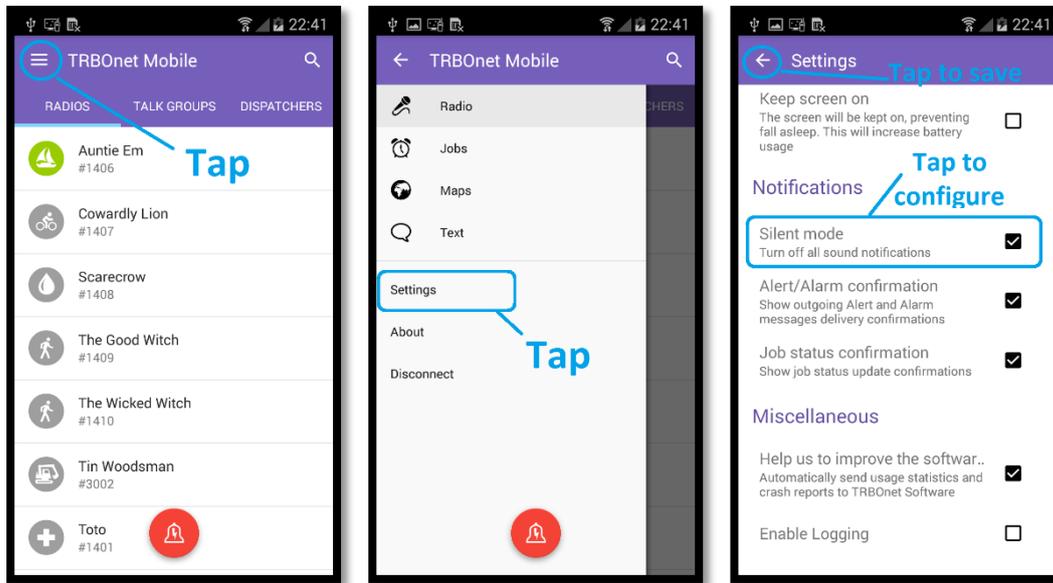


Figure 38: Setting up TRBOnet Mobile: open the settings (left, middle), configure and save (right)

The **Settings** page displays the following application settings (from top to bottom):

Table 1: TRBOnet Mobile application settings

Setting	Description
Active radios	Tap to adjust the range of radios displayed on page RADIOS . On the Active Radios page, move the buttons on the slider to narrow down the range of radios, then tap APPLY . To go back to the default range, tap RESET .
Run on startup	Tap to enable or disable automatic launch and login of the TRBOnet Mobile application. If the option is disabled, you need to launch TRBOnet Mobile manually.
Ping interval	Tap to specify the time period for checking the radio server connection. If the connection is lost, your network status changes to offline.

Setting	Description
Codecs	Tap to select the codecs for sound communication in a popup dialog box. Tap OK to confirm the choice.
Talk permit tone	Tap to enable or disable the playback of the talk permit tone.
Map type	Tap to select the type of the map tiles in a popup box. To quit the box, tap a different type or tap Cancel .
Hide system names	Tap to hide or show the channel information below the talk group name in the TALK GROUPS contact list.
Keep screen on	Tap to enable or disable keeping the screen on, preventing it from falling asleep. If enabled, this setting increases the battery usage.
Silent mode	Tap to turn off or on all sound notifications.
Alert/Alarm confirmation	Tap to show or suppress the delivery confirmations for outgoing alarms and call alerts.
Job status confirmation	Tap to show or suppress the job status update confirmations.
Help us to improve	Tap to automatically send usage statistics and crash reports to the TRBOnet Mobile software vendor.
Enable logging	Tap to enable or disable information logging.