



Push-To-Talk for LEX L10i

FEBRUARY 2016

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- Before any software reload.
- To confirm troubleshooting results and analysis before removing and replacing a Field Replaceable Unit (FRU) and Field Replaceable Entity (FRE) to repair the system.

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Document History

Version	Description	Date
MN002822A01-A	Original release of <i>Push-To-Talk</i> for LEX L10i manual.	February 2016

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About This Manual

This manual provides information about using the Push-To-Talk (PTT) application.

What is Covered in This Manual?

This manual contains the following chapters:

- [PTT Application Description on page 19](#) provides a high-level description of the Push-To-Talk (PTT) application and its features.
- [PTT Application Operation on page 27](#) describes how to use the PTT application

Helpful Background Information

Motorola offers various courses designed to assist in learning about the system. For information, go to <http://www.motorolasolutions.com/training>.

Related Information

See the documents in the table for information about the LEX L10i and Push-To-Talk.

Unless otherwise specified, the Motorola documents listed here are available from Motorola Online at <http://businessonline.motorolasolutions.com>. If you are new to Motorola Online, follow the on-screen instructions to sign up for an account. To access Public Safety LTE infrastructure manuals, select **Resource Center Product Information** → **Manuals** → **Private Broadband Solutions**, and select the appropriate release. The Resource Center also provides a Search function.

Table 1: Motorola Documentation

Related Information	Purpose
<i>LEX L10i Quick Start Guide</i>	Provides basic user information for mobile computer and cradle accessories and user safety information.
<i>LEX L10i User Guide</i>	Provides basic information for the operation of the product accessories as well as how to use the various applications.

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Chapter 1

PTT Application Description

This chapter provides a high-level description of the Push-To-Talk (PTT) application.

1.1

PTT Application Overview

This section gives an overview of the Push-To-Talk (PTT) application.

The PTT application enables PTT services over a broadband network. The PTT application offers a powerful range of capabilities including individual (barge) calls and alerts to individual contacts, group calls, as well as Talk Group monitoring and scanning. Individual contacts can be defined by the PTT App User (Personal Contact) or by the Enterprise Administrator (Enterprise Contact). Talk Groups are always defined and managed by the Enterprise Administrator. Calls to individual contacts are referred to as Private calls while calls to talk groups are referred to as Talk Group calls. PTT over broadband can also be interconnected to Project 25 Land Mobile Radio (LMR) networks to enable PTT interoperability between broadband and P25 radio users.

System Requirements

The PTT application requires that the Motorola LEX L10i is running the Android 4.4 Operating System or a later release.

Provisioning Requirements

The handheld must be provisioned for PTT services on a Motorola Solutions PTT server.

Supported Features

The following features are supported:

- Personal Contacts Management and Personal Group Management including: adding, editing, and deleting contacts and groups
- Contact and Talk Group management by system administrators including: downloading, adding, editing, and deleting contacts and groups
- Setting personal status
- Monitoring individual Contact and Personal Groups status
- Single Talk Group Monitoring
- Scan List management including: programming, editing, and deleting Scan Lists
- Scanning of multiple Talk Groups (Scan Lists) set at Primary and Secondary levels
- Nuisance-deletion of a Talk Group from a Scan List
- Easy disabling of Talk Group Monitoring, Auto-scan, and PTT service
- Making and receiving one-to-one secure/clear Alert and Barge calls
- Making and receiving secure/clear Personal Group, Talk Group, and Broadcast Group calls
- Making and receiving Temporary Group calls
- Session Logs
- Control of the PTT audio level

- Routing of audio to speakerphone, wired-headset, handheld speaker, or Bluetooth devices
- Support of WiFi, LTE, and 3G data connections
- Secure calls
- Make or receive clear barge or alert call to Personal Contact
- PTT call support when device is in Vibrate Mode
- Push-To-Talk button (on the side of the handheld device) usage to start a PTT call or to grab the floor (become a talker) during a PTT call

The LEX L10i has a **PTT** hard button on the side of the handheld.

The PTT Client application has a **PTT widget** that can be placed on the **Home** screen and/or on the **Lock** Screen. The **PTT widget** shows the current ongoing PTT call. Depending on where you tap on the **PTT widget**, the PTT client application opens up in one of the application views it provides. For example, if you tap on the upper **Talk Group** zone of the widget, the PTT application opens in the **Talk Group** tab or view. If you tap on the **Private Call** zone of the widget, the PTT application opens in the **Contacts** tab or view. If a barge call is ongoing and you tap on the **Private Call** zone of the widget, the PTT application opens in the **In-session** screen.

Secure Capable Compared to Non-Secure Capable Devices

To set up your device to support secure PTT calls, or not to support secure PTT calls, your device technician refers to the *LEX 10i Service Provisioning Guide*.

- When your device technician has paired your device with a CRYPTR micro card:
 - Device logon is required after bootup.
 - Device logon fails if CRYPTR micro card is removed.
 - Encrypted and clear PTT calls are enabled.
- When your device technician has not paired your device with a CRYPTR micro card:
 - Device logon is not required after bootup.
 - Only clear PTT calls are supported.

PTT and Telephone Call Interaction

PTT has the following rules:

- Incoming telephone calls preempt PTT calls (including a Broadcast Group call).
- While in any PTT call, the handheld user can initiate a telephone call. At the end of the telephone call, the handheld user rejoins the PTT call if the call is still active (in scanning or TG monitoring mode).
- While in a telephone call, the handheld user cannot participate in any PTT calls.
- While in a telephone call, the handheld user cannot place the telephone call on hold, switch to a PTT call, then resume the telephone call.

1.2

PTT Application Call Capabilities

This section summarizes the call capabilities of the Push-To-Talk (PTT) application.

All PTT calls are half-duplex; only one party can talk at a time. The handheld user presses and holds the **PTT** button to transmit (talk). The handheld user releases the **PTT** button to receive (listen). The PTT button on the device is used for starting a PTT call or for becoming a talker in any ongoing PTT call.

The following calls can be made:

- Secure or clear calls between two or more PTT handhelds
- Clear calls between PTT handhelds and ASTRO® P25 Land Mobile radios, if your organization has implemented PTT on both networks

1.2.1

Calls Between PTT Handhelds

This section defines the differences between various types of Push-To-Talk (PTT) calls.

Between handhelds, the PTT application supports one-to-one calls and enterprise-wide group calls. Everyone in a group call can either talk or listen after someone initiates the group call.

The PTT application supports the following PTT handheld calls:

- One-to-One Barge Calls
- One-to-One Alert Calls
- Temporary Group Calls
- Personal Group Calls
- Broadcast Group Calls

Both parties must be secure for a secure PTT call. This table lists combinations of secure or clear (unsecure) Talk Group member and the resultant security status.

Table 2: Secure Call Combinations

Calling Party	Called Party	Call Security Status
Secure	Clear	Clear
Secure	Secure	Secure
Clear	Clear	Clear
Clear	Secure	Clear

The PTT application supports the Talk Group calls which involve PTT handhelds and/or ASTRO® 25 handhelds.

One-to-One Barge Calls

A PTT handheld calls another PTT handheld. When the call is established, the transmitting handheld sends voice and the receiving handheld plays voice.

One-to-One Alert Calls

A PTT handheld calls another PTT handheld by first sending an Alert message. The receiving handheld has the option of accepting or rejecting the call. If the call is accepted, the call proceeds as a regular one-to-one barge call.

Temporary Group Calls

A PTT handheld user selects multiple contacts from the contact list and presses the **PTT** button to make the group call. The group is only temporary and not saved in the handheld or the PTT server after the call is complete. The temporary group call ends when the initiator ends the call or drops after inactivity.

Personal Group Calls

A PTT handheld user selects group members and saves the group in the PTT contact list. The handheld that created the group is the only one that can initiate a call to the group and modify the group (rename, add/remove members, and more). Other group members can only receive and respond to calls by the handheld that created the group. The personal group call ends when the owner/initiator ends the call or after call time-out.

Talk Group Calls

The system administrator defines and manages all Talk Groups. Scanning and monitoring can be done only on Talk Groups. Scanning refers to monitoring of a list of Talk Groups whereas monitoring refers to a single Talk Group. In either case, the app user is pulled automatically into a Talk Group which becomes active. The Talk Group call ends when all members leave the call or no member takes the floor for a configured duration of time.

Broadcast Group Calls

The system administrator sets up all Broadcast Groups. Certain members have the right to initiate a call and only certain members can transmit during the call. All members can hear the call but cannot transmit during the call. The Broadcast Group call ends when the initiator ends the call.

Broadcast Group calls have the highest priority. When a handheld receives a Broadcast Group call, any active call is dropped.

1.2.2

PTT to ASTRO 25 Radio Calls

Push-To-Talk (PTT) group calls can be made to ASTRO[®] 25 clear (non-encrypted) Frequency Division Multiple Access (FDMA) talkgroups.

1.3

PTT Application Main Screens

These figures show examples of the main screens of the Push-To-Talk (PTT) application on the LEX L10i.

Figure 1: Talk Groups Screen

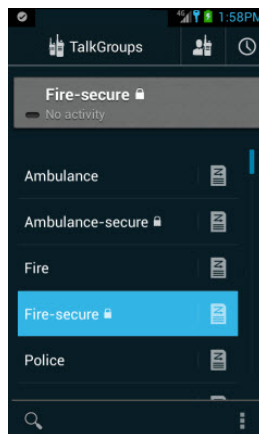


Figure 2: Session Log Screen

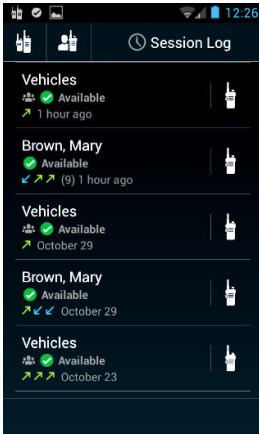


Figure 3: Contacts — Favorites Screen

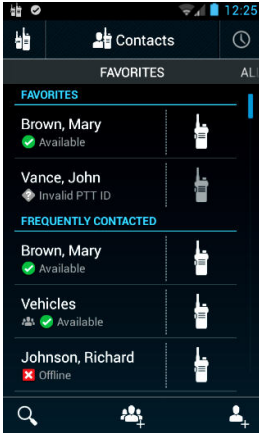


Figure 4: Contacts — ALL Screen

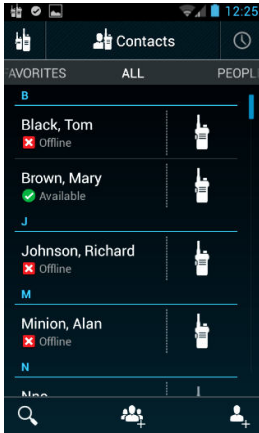


Figure 5: Contacts — PEOPLE Screen

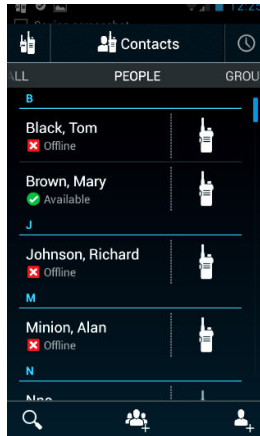


Figure 6: Contacts — GROUP Screen

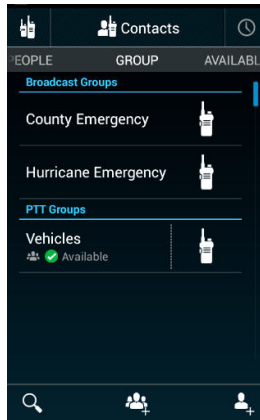
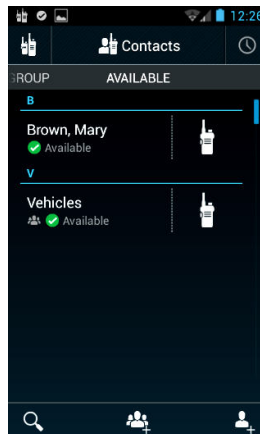


Figure 7: Contacts — AVAILABLE Screen
















1.4

Common Icons

Table 3: Common Icons

This table shows common icons used in the Push-To-Talk (PTT) application. Not all icons used are shown.

Icon	Name	Use
	Talk Groups	Displays the  screen.
	Contacts	Displays the  screen.
	Session Log	Displays the  screen.
	Search	Enables the search function for the screen that is displayed.
	Add Group	Starts the process of adding a Personal Group or initiating a Temporary Group call.
	Add Contact	Starts the process of adding a contact.
	Contact	Starts a PTT call.
	Secure Contact	Starts a PTT call with a secure contact.
	Secure Group	Indicates a secure group.
	Menu	Shows more options for the screen being displayed. The selector could be a hard button on the phone or one of a couple icons, depending on the operating system and the phone manufacturer.

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Chapter 2

PTT Application Operation

This chapter covers operating the Push-to-Talk (PTT) application.

2.1

Turning the PTT Application On and Off



This section covers how to turn on the application, verify that the application has turned on, turn off the application, and verify that the application has turned off.

2.1.1

Turning the PTT Application On

When the Push-to-Talk (PTT) application turns on, it connects and registers with the PTT server. Depending on network traffic, a delay may occur before successful registration.

Prerequisites:

Ensure that the handheld is connected to a broadband network by viewing the signal strength indicators  and .

Procedure:

1

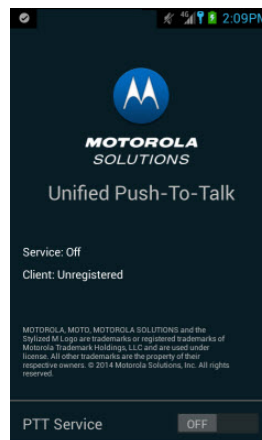
In the handheld **Application Launcher Screen**, tap the **PTT Application** icon .

The **PTT Service Screen** displays.

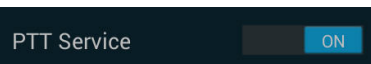


NOTICE: The PTT application may also be started by tapping the PTT widget if it is installed on the Home Screen or the Lock Screen.



Figure 8: Service Off Screen



2 In the **PTT Service** switch, tap **ON**.



One of the following occurs:

- If the registration is successful, the application starts, the last PTT screen viewed before the PTT application was turned off is displayed, and the status icon  is displayed at the top of the screen. The status icon  is not displayed at the top of the **TalkGroups** screen.
- If the registration is not successful, an error message appears on the **PTT Service Screen** and the **PTT Service** switch goes back to **OFF**.

2.1.2

Turning the PTT Application Off

When the Push-to-Talk (PTT) Application is turned off, it disconnects with the PTT server.

Prerequisites: The PTT application is currently running on the handheld.

Procedure:

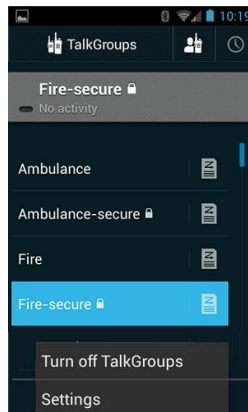
- 1 In the PTT application, tap one of the following:
 - **Contacts**
 - **Session Log**
 - **TalkGroups**

A screen associated with the selection is displayed.

- 2 Tap **Menu**.

A set of selections is displayed that includes **Settings**. This example is for the **TalkGroups** selection.

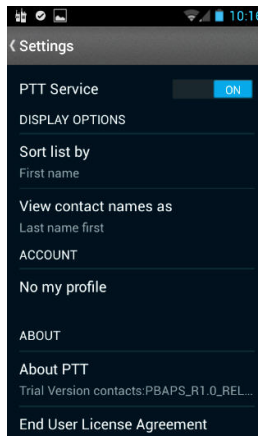
Figure 9: TalkGroups - Menu Screen



- 3 Tap **Settings**.

The **Settings** screen displays.

Figure 10: Settings — Service On Screen



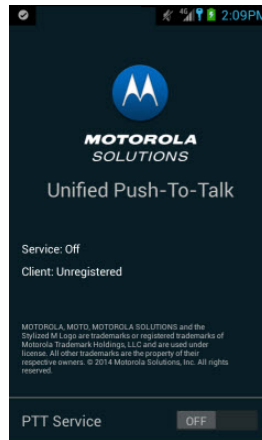
4 In the **PTT Service** switch, tap **OFF**.



5 Tap **Settings**.

The **PTT Service** screen is displayed.

Figure 11: Service Off Screen



6 Continue to use the handheld.

2.2 Working With Status

Push-to-Talk (PTT) handheld users work with status in two ways: setting their own status (Available or Busy) and viewing the status of their PTT contacts.

The status displayed for their PTT contacts answers two questions:

- Is the PTT contact offline? This display is call system status or network presence.
- Did the PTT contact set their own status to Available or Busy?

My Status

The handheld user sets the value of **My Status** to **Available** or **Busy**. This status is shown in the **Contacts** and **Session Log** screens of other PTT handheld users.

The Available status:

- Is the default “sign-on” state.
- Indicates that the handheld user is willing to send and receive PTT calls.

The Busy Status indicates that the handheld user is busy but the handheld is still able to send and receive PTT calls.

Status of Contacts

The status of PTT contacts is shown in the PTT **Contacts** screens, the PTT **Session Log** screens, and can be shown in the Android people list. The status of a contact can be:

- Offline
- Available
- Busy

If the contact is not connected to and registered with a PTT server, the status shown is Offline.

If the contact is connected to and registered with the PTT server, the My Status value (Available or Busy) of the contact is shown.

When the PTT contacts are synchronized with the Android people list (see [Turning the PTT Application On and Off on page 27](#)), the PTT contacts are added to the Android people list contacts. The Android people list contacts are not added to the PTT contacts. The status of the PTT contacts is shown in both the Android people list and the PTT application.

2.2.1

Changing My Status

Perform this procedure to set the status of the Push-to-Talk (PTT) handheld user to either Available or Busy.

No matter what the status is set to, calls are still received. This status is shown to other PTT users.

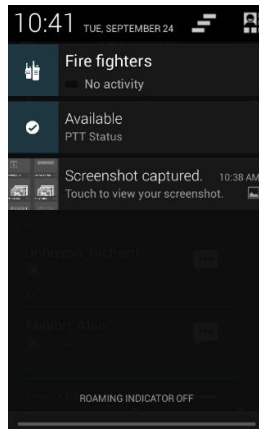
Procedure:

- 1 At the top of any screen, drag-down.

Information is shown that can be selected, including the PTT Status.

Figure 12: Pull Down Screen

This example is generic. Information shown on the screen varies.



2 Tap **PTT Status**.



3 Tap **Available** or **Busy**.

Status is immediately set to the selected state. **Set My Status** goes away and the initial screen is displayed.

2.3

Administration of Personal Contacts

The Contacts collection contains the following lists and each list is a separate screen:

- **FAVORITES**
- **ALL**
- **PEOPLE**
- **GROUPS**
- **AVAILABLE**

Within each of the screens except for **GROUP**, a personal contact can be added to the Push-to-Talk (PTT) application. When the personal contact is added, it automatically appears in the **PEOPLE** and **ALL** lists. If the contact is available, it automatically appears in the **AVAILABLE** list. Personal contacts are added only to the contact lists in the handheld. They are not shared with others.

Within all the screens except for **GROUP**, a personal contact can be deleted and the personal contact information can be edited.

Some Contacts are controlled by the system administrator and added to the handheld that come from the PTT server. These Contacts cannot be edited or deleted, and they will show up on the Contact list as “not editable”.

2.3.1

Adding a Personal Contact


Perform this procedure to add a personal contact. The procedure can be started from any of the **Contacts** screens. The **PEOPLE** screen in Contacts is used as the starting point for this procedure description.

Prerequisites: Ensure that:

- The name of the contact is known.
- The Push-to-Talk (PTT) number of the contact is known. Obtain this number from the system administrator; it is often the phone number.
- The following are optional:
 - E-mail address of the contact is known.
 - Address of the contact is known.
 - Company name and Title of the contact is known.
 - Phonetic name of the contact is known.
 - Photo for the contact is available on the phone.

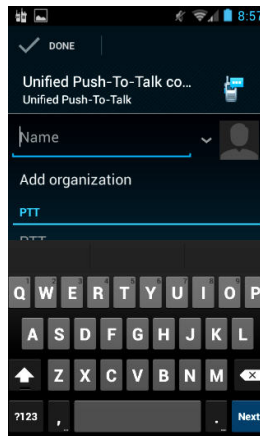
When and where to use: This procedure is optional. Personal contact information can be added when available to make contacting the personal contact easier in the future.


Procedure:

- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **PEOPLE**.
- 3 At the bottom of the screen, tap **Add Contact**. 

The add contact screen displays.

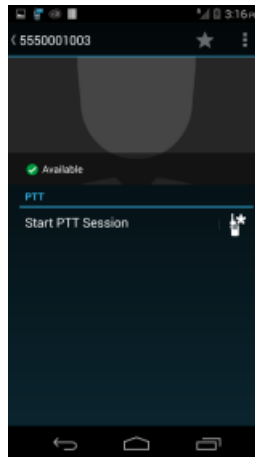
Figure 13: Add Contact Screen



- 4 Enter the name of the contact using the on-screen keyboard. Tap **Next**.
- 5 Enter the PTT number using the on-screen keyboard. Tap **Next**.
- 6 Optional: Tap **Add another field**. Select and enter the desired information.
- 7 Optional: Tap **Add organization**. Select and enter the desired information.
- 8 Optional: Tap the **portrait** icon. Follow the directions and select the photo.
- 9 Tap **Done**. 

The contact selected screen displays. An adding contact message is displayed.

Figure 14: Contact Selected Screen



10 At the top of the screen, tap the name of the contact to return to the **PEOPLE** list.

2.3.2

Editing or Deleting a Personal Contact

Perform this procedure only with personal contacts. Do not use this procedure with contacts added by the system administrator. The procedure can be started from any of the Contacts screens except **GROUP**. The **PEOPLE** screen in Contacts is used as a starting point for this procedure description.

Procedure:


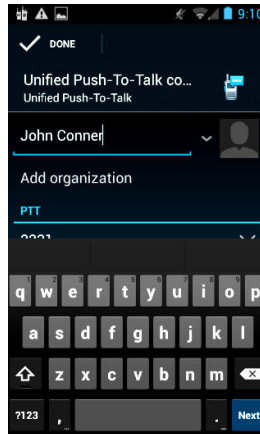
- 1** Tap **Contacts**.
- 2** Swipe across the menu bar to **People**.
- 3** Tap the name of the contact, not the icon  .
The contact selected screen is displayed.
- 4** Tap **Menu**.
- 5** Perform one of the following:
 - If editing contact information, skip this step.
 - If deleting the contact, tap **Delete**. Tap **OK**. The contact is deleted and the **PEOPLE** list is displayed. The procedure is complete.
- 6** Tap **Edit**.
The add contact screen is displayed.

Figure 15: Add Contact Screen



- 7 Make the edits. Tap **Done**.




The procedure is complete and the **PEOPLE** list is displayed.

2.3.3

Making a Contact a Favorite

You can perform this procedure with both personal contacts and contacts added by the system administrator. The procedure can be started from any of the Contact screens except **GROUP**. The **PEOPLE** screen in Contacts is used as a starting point for this procedure description.

Procedure:

- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **People**.
- 3 Tap the name of the contact, not the icon  .

The contact selected screen is displayed.

- 4 Tap the **star** icon. 

The contact is added to the **FAVORITE** list.

- 5 At the top of the screen, tap the name of the contact.

The procedure is complete and the **PEOPLE** list is displayed.

2.3.4

Turning PTT Contacts and Groups Synchronization On and Off

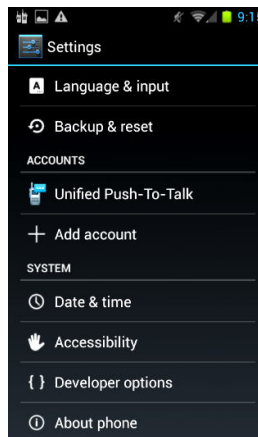
Synchronizing the Push-To-Talk (PTT) contacts and groups to the Android people list adds PTT contacts and groups to the Android people list. It does not add Android information to the PTT contacts and groups. Synchronizing can be automatic by leaving synchronization turned on.

Procedure:

- 1 On the handheld applications screen, tap **Settings**.

- 2 Click the **Setting** screen until **Push-To-Talk** is shown under accounts.

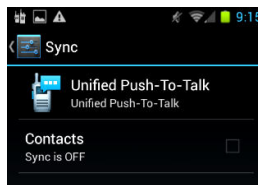
Figure 16: Android Settings — Accounts Screen



- 3 Tap **Push-To-Talk**.

The **Sync** screen displays.

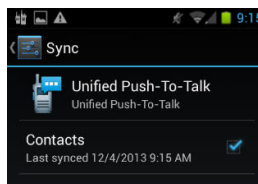
Figure 17: Android Settings — Accounts — PTT Sync Screen



- 4 Tap **Contacts**.

Synchronization turns on. The contacts and groups are synchronized and the **Sync** screen shows the date and time of the last synchronization.

Figure 18: Android Settings — Accounts — PTT Sync Screen



- 5 Perform one of the following:
 - For automatic synchronization, leave synchronization on and exit the procedure.
 - To turn off synchronization, tap **Contacts**.

2.4 Administration of Personal Groups

Handheld users define Personal Groups and save them in the Push-To-Talk (PTT) Contacts **GROUP** list in the handheld. One or more PTT contacts can be added to the group, even if the contact is Offline. The handheld user who defined the Personal Group is the only one who can initiate a PTT call

to that group. Group members can receive the PTT group call and group members can talk during the call, but group members cannot initiate a new PTT call to the group.

The handheld user can modify the Personal Group (rename, add/remove members, and more) at any time, except during a call.

The status of the Personal Group is determined by the status of the members. The Personal Group status is:

- Available if at least one member of the group is available.
- Offline if all of the group members are offline.

2.4.1

Adding a Personal Group

You can start this procedure from any of the Contacts screens. The **GROUP** screen in Contacts is used as the starting point for this procedure description.

Procedure:

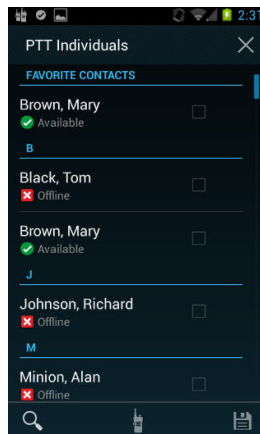
- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.

- 3 Tap **Add Group**.



The **PTT Individuals** screen displays.

Figure 19: PTT Individuals Screen



- 4 Select the check box for each contact to add to the group.

Contacts can be added to the group even if the status of the contact is Offline. The **Search** feature can be used to find contacts.

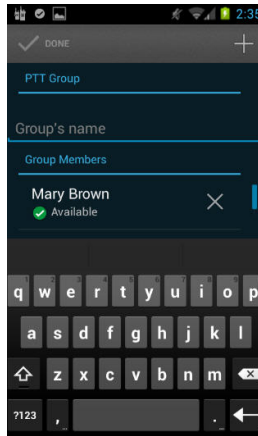


- 5 Tap **Save**.



The **PTT Group** details screen displays.

Figure 20: Personal Group Details Screen



- 6 Enter the Personal Group name using the on-screen keyboard.
- 7 Review the selected contacts. If needed:
 - Remove contacts by tapping the **X** by the name.
 - Add more contacts by tapping the plus (+) icon at the top of the screen. The **PTT Individuals** screen displays.

- 8 Tap **Done**. 

The Personal Group is saved and added to the Contacts **GROUP** list. The Contacts **GROUP** list is displayed.

2.4.2

Deleting a Personal Group

Perform this procedure to delete a Personal Group.

Procedure:


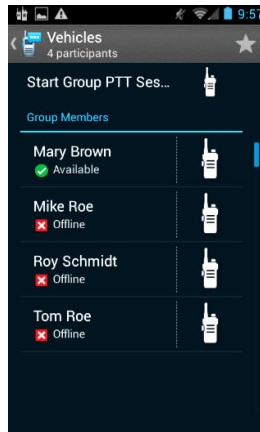
- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.
- 3 Tap the name of the group. Do NOT tap the icon  .
The **Start Group** screen displays.

Figure 21: Personal Start Group Screen



4 Tap Menu.

The **Edit** and **Delete** options are displayed.

5 Tap Delete.

The group is deleted and no confirmation message is displayed. The **GROUP** list in Contacts is displayed.

2.4.3

Editing a Personal Group

Perform this procedure to edit a Personal Group.

Procedure:

1 Tap Contacts.

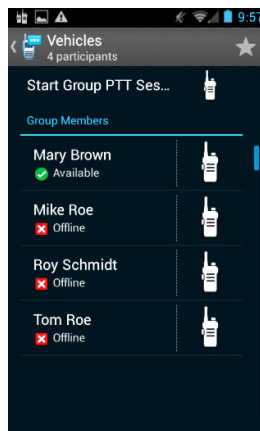
2 Swipe across the menu bar to GROUP.

3 Tap the name of the group. Do NOT tap the icon



The **Start Group** screen displays.

Figure 22: Personal Start Group Screen



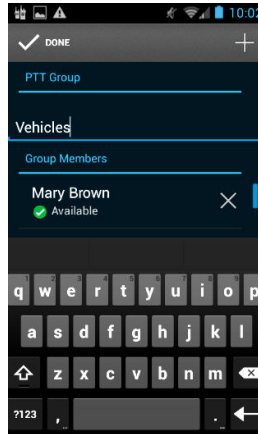
4 Tap **Menu**.

The **Edit** and **Delete** options are displayed.

5 Tap **Edit**.

The **Personal Group** details screen displays.

Figure 23: Personal Group Details Screen



6 Make the edits. Tap **Done**.



The modifications of the Personal Group are saved. The **GROUP** list of Contacts is displayed.


2.4.4

Making a Personal Group a Favorite

Perform this procedure to make a Personal Group a Favorite.

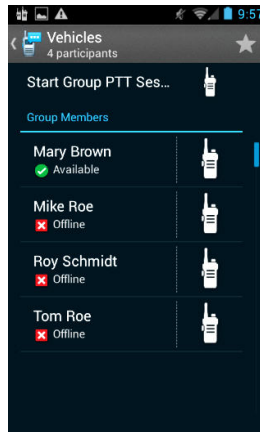
Procedure:

- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.

- 3 Tap the name of the group. Do NOT tap the icon .

The **Start Group** screen displays.

Figure 24: Personal Start Group Screen



- 4 At the top of the screen, tap the star icon .

The Personal Group is added to the **FAVORITES** list in Contacts.

2.5

Working With Talk Groups

Talk Groups enable handheld users to monitor and scan group traffic and place group calls across the system. Talk Groups are defined and managed on a Motorola Push-to-Talk (PTT) Server by a system administrator.

2.5.1

Talk Group Monitoring and Scanning

This section describes the concepts and interactions of monitoring, scanning, Talk Groups, and Talk Group Scan Lists.

Talk Groups

The Push-to-Talk (PTT) server sets up and controls Talk Groups and members of Talk Groups. Talk Groups and members are set up on the server and pushed down to specified users. Not all users have access to all Talk Groups. An individual user cannot add, delete, or modify a Talk Group.

Secure Talk Groups

A Talk Group is considered secure if all of the members in the Talk Group are secure. The Talk Group is listed with a lock icon if it is secure. Only secure users have access to secure Talk Groups.

Monitoring Talk Groups

The user can have access to many Talk Groups but activity can be monitored only for one Talk Group at a time. In the **TALKGROUPS** screen, the Talk Group is selected and the selected group is monitored. The user uses the device normally, and when there is a call for that one monitored Talk Group, the user hears the call and can respond to it. If there is a call for a Talk Group that the user has access to but is not monitoring, the user does not hear the call. The user can change the monitored Talk Group at any time. The Talk Group being monitored is referred to as the Priority group.

When Talk Groups are turned off in the application by the user, there is no monitoring of Talk Groups for that specific user.

Scan Lists

There is a maximum of ten Scan Lists in the app for a particular user. In a single Scan List, there is a maximum of nine members plus the selected Talk Group for a total of ten.

A Scan List is created for a Talk Group. Any Talk Group can have a list and more than one Talk Group can have a list at the same time. A Talk Group can only have one list. A Talk Group that has a list is called a Priority Talk Group.

The members of a Scan List are other Talk Groups. The Scan List may contain both secure and non-secure Talk Groups. The user decides which Talk Groups have a Scan List and which Talk Groups are members of the list. The user creates, deletes, and edits Scan Lists.

Scanning

Scanning refers to monitoring the Talk Groups that are part of a specific Scan List. Scanning can be turned on and off for each individual list. It has no effect on monitoring the Priority Talk Group.

When a Talk Group is selected, monitoring of that Priority Talk Group starts (if Talk Groups are turned on). If that Talk Group has a Scan List, then scanning of the groups on the Scan List also starts. The user can turn scanning off for that scan list.

Call Interaction

When a Talk Group is being monitored and the associated Scan List is being scanned, the user hears any calls made to the Priority Talk Group and to any of the Talk Groups on the list. The Priority Talk Group has highest priority and overrides a call from a group on the list. The groups on the list all have equal priority and cannot override each other.

When a Priority Talk Group Call is in progress, the user does not hear any calls from any of the other groups on the list. The Priority Talk Group is auto-joined (above all other ongoing PTT calls) whenever it becomes active. All other Talk Groups will be auto-joined in order as they become active.

Nuisance Delete

Nuisance delete refers to temporarily placing a member of a Scan List on the Nuisance Deleted Talk Group List. The activity for a Talk Group on the Nuisance Deleted Talk Group List is ignored. When the Talk Group is removed from the Nuisance Deleted Talk Group List, it is automatically placed back on the Scan List.

2.5.2

Turning On Talk Groups

Talk Groups are turned on by default. Talk Groups must be turned on to communicate with the selected group. All Talk Groups are turned on or off at the same time.



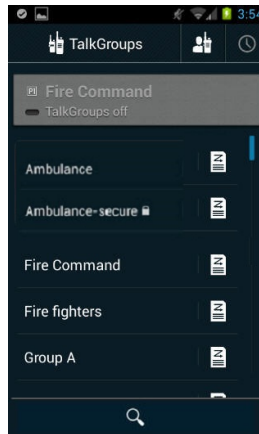
NOTICE: When the Talk Groups are off, tapping any Talk Group in the **TalkGroups** screen automatically turns the Talk Groups on and selects that Talk Group.

Procedure:

- 1 Tap **TALKGROUPS**.

The **TalkGroups** screen is displayed.

Figure 25: TalkGroups Screen



2 Tap Menu.

Menu selections are displayed including Turn On TalkGroups.

3 Tap Turn on TalkGroups.

Talk Groups are turned on. The **TalkGroups** screen is displayed.

2.5.3

Selecting a Talk Group

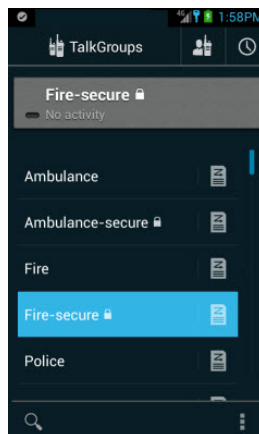
Perform this procedure to select a Talk Group.

Procedure:

1 Tap TALKGROUPS.

The **TalkGroups** screen is displayed.

Figure 26: TalkGroups Screen



2 Tap the desired Talk Group.

The Talk Group is highlighted and the name is placed at the top. The **PTT** button is activated. Any activity for the Talk Group is indicated at the top next to the name.

2.5.4

Turning Off Talk Groups

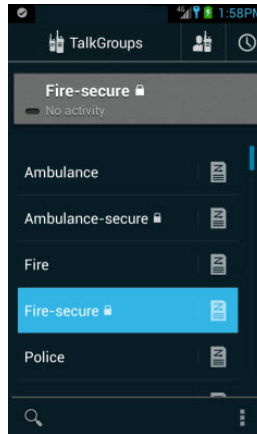
Talk Groups are turned on by default. Turn off Talk Groups to stop scanning and communicating with the groups. All Talk Groups are turned off or on at the same time.

Procedure:

- 1 Tap **TalkGroups**.

The **TalkGroups** screen is displayed.

Figure 27: TalkGroups Screen



- 2 Tap **Menu**.

Menu selections are displayed including **Turn off TalkGroups**.

- 3 Tap **Turn off TalkGroups**.

The Talk Groups are turned off and the **TalkGroups** screen is displayed.

2.5.5

Creating a Talk Group Scan List

Only a Talk Group can have a scan list. A scan list can contain both secure and non-secure groups.

Procedure:

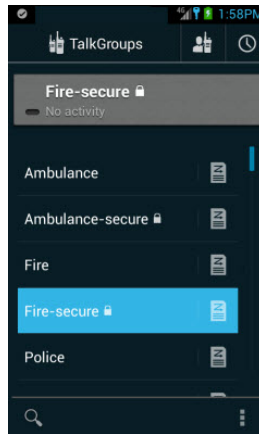
- 1 Tap **TalkGroups**.


The **Talk Groups** screen displays.

- 2 Tap a Talk Group.

The Talk Group is selected.

Figure 28: TalkGroups Screen



A scan icon  next to the group name at the top indicates that there is a scan list for this Talk Group. When the scan icon is not displayed, it indicates that there no scan list for this Talk Group. This example figure indicates that there is no scan list for the **Fire fighters** Talk Group.


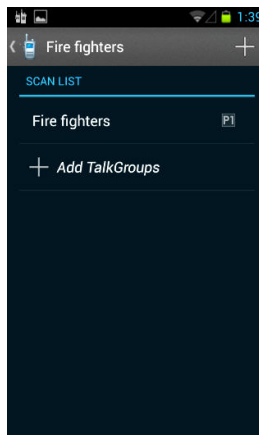

- 3 Tap the **Scan List** icon  next to the Talk Group name.
The **SCAN LIST** screen displays.

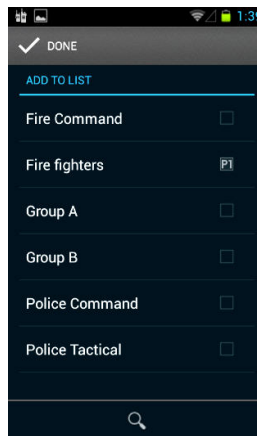
Figure 29: Talk Groups — SCAN LIST Screen



- 4  **IMPORTANT:**
 - A Talk Group can have only one scan list.
 - There is a maximum of 10 scan lists.
 - In a scan list, a maximum of 9 non-priority Talk Groups can be added.

Tap **Add TalkGroups** or the plus “+” at the top of the screen.
The **ADD TO LIST** screen displays.

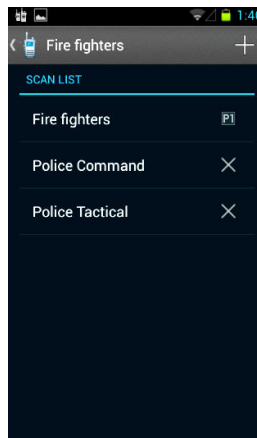
Figure 30: Talk Groups — ADD TO LIST Screen



- 5 Select the check box for each group to add to the list. Tap **Done**.
The groups are added to the list and the **SCAN LIST** screen displays.

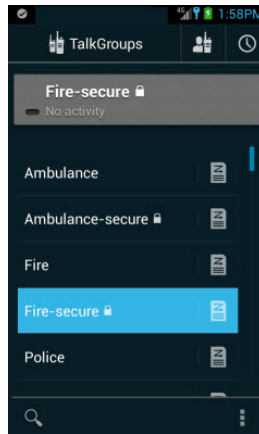


Figure 31: Talk Groups — SCAN LIST Screen



- 6 At the top left, tap the group name. Do not tap the plus “+” icon.
The **TalkGroups** screen is displayed and indicates that a scan list is now associated with the Talk Group.

Figure 32: TalkGroups Screen



2.5.6

Viewing a Talk Group Scan List

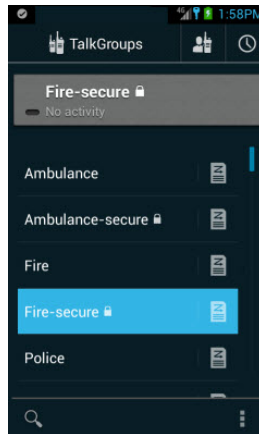
Perform this procedure to view a Talk Group scan list.

Procedure:

- 1 Tap **TalkGroups**.

The **TalkGroups** screen displays.

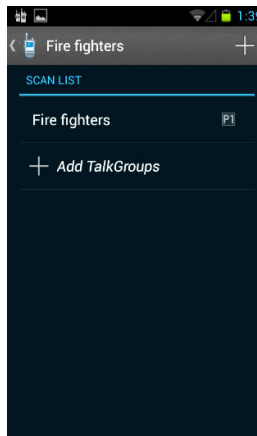
Figure 33: TalkGroups Screen



- 2 Tap the scan list icon  for a Talk Group.

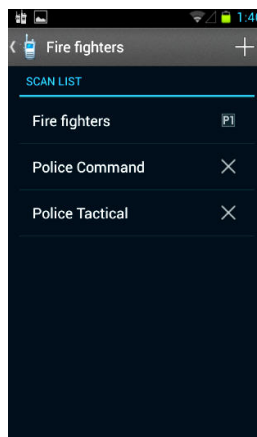
- If the Talk Group does not have a scan list, the **SCAN LIST** screen displays but does not show any Talk Groups.

Figure 34: Talk Groups — SCAN LIST Screen



- If the Talk Group does have a scan list, the **SCAN LIST** screen displays and shows the Talk Groups in the list.

Figure 35: Talk Groups — SCAN LIST Screen



- 3 At the upper left of the screen, tap the name of the Talk Group.
The **TalkGroups** screen displays.

2.5.7

Editing a Talk Group Scan List

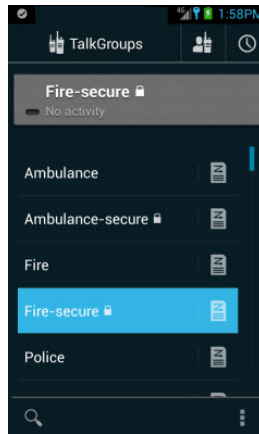
Perform this procedure to edit a Talk Group scan list.

Prerequisites: A Talk Group exists that has a scan list.

Procedure:

- 1 Tap **TalkGroups**.
The **TalkGroups** screen displays.

Figure 36: TalkGroups Screen




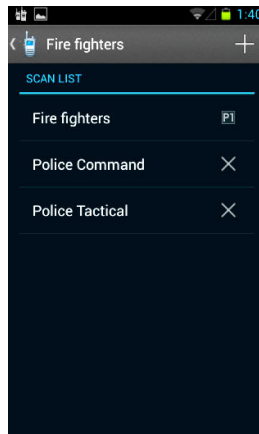
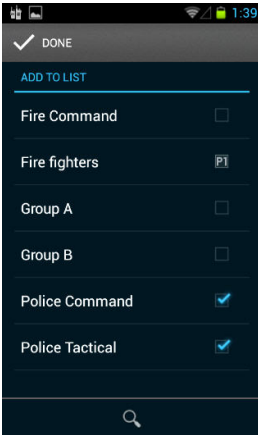

- 2 Tap the scan list icon  for the desired Talk Group.
 The **SCAN LIST** screen displays showing the groups in the list.

Figure 37: Talk Groups — SCAN LIST Screen



- 3 Perform the following:

If...	Then...
If only deleting groups,	perform the following actions: <ol style="list-style-type: none"> a Tap the “X” by the group name. The group is deleted. b In the upper left of the screen, tap the Talk Group name. The TalkGroups screen displays
If adding groups, or adding and deleting groups,	perform the following actions: <ol style="list-style-type: none"> a In the upper right of the screen next to the Talk Group name, tap the plus “+”. The ADD TO LIST screen displays showing the available Talk Groups and indicating which Talk Groups are already selected for the list.

If...	Then...
	<p data-bbox="526 239 1159 275">b Figure 38: Talk Groups — ADD TO LIST Screen</p>  <p data-bbox="526 741 1403 804">c Select a check box to add a Talk Group to the list. Clear a check box to remove a Talk Group from the list.</p> <p data-bbox="526 825 997 926">d Tap Done.  The SCAN LIST screen is displayed.</p> <p data-bbox="526 936 1365 1014">e In the upper left of the SCAN LIST screen, tap the Talk Group name The TalkGroups screen displays</p>

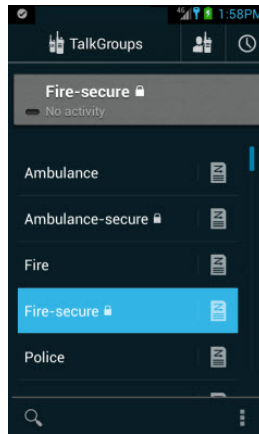
2.5.8 Turning Scanning On and Off

This section provides the procedure to turn scanning on to auto-join calls from the Talk Groups in the scan list or to turn scanning off. When scanning is off, primary Talk Group calls are still automatically joined.

Procedure:

- 1 Tap TalkGroups.**
The **TalkGroups** screen displays.
- 2 Tap a Talk Group.**
The Talk Group is selected.



Figure 39: TalksGroups Screen



- 3 Tap the **Scan** icon.



Tapping the icon toggles the scanning state between on and off.

Scanning is on when the icon is bright . Scanning is off when the icon is dim .



2.5.9

Placing a Talk Group on the Nuisance Deleted List

This procedure is also referred to as a Nuisance Delete. A member of the scan list is made temporarily inactive. Activity on the specified Talk Group is ignored. The specified Talk Group can be added back to the scan list. This procedure is only for a member of the scan list and not for the Primary Talk Group.

Prerequisites: The prerequisites are:

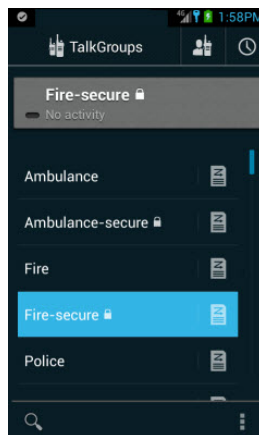
- Scanning is on.
- The Primary Talk Group is not active.
- A Talk Group that is a member of a scan list is currently active.


Procedure:


- 1 Tap **TalkGroups**.

The **TalkGroups** screen displays, showing the active member of the scan list at the top.

Figure 40: TalksGroups Screen



For this example, Fire Command is the Primary Talk Group and the Police Command Talk Group is a member of the scan list. The **Nuisance Delete** icon  is to the left of the Police Command name.

- 2 Tap the **Nuisance Delete** icon .

The Talk Group is designated as a Nuisance Delete Talk Group and is not scanned when the scan list is scanned.



NOTICE: This situation has no effect when the Police Command Talk Group is being monitored as a Primary Talk Group.

2.5.10

Placing a Nuisance Deleted Talk Group Back on the Scan List

To restore a Nuisance Deleted Talk Group back to the scan list perform one of the following:

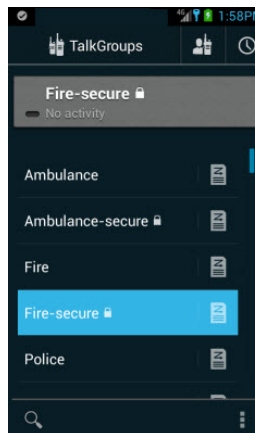
- Toggle scanning off and on.
- Toggle Talk Group monitoring off and on.
- Exit the application.
- Shut down the handheld.
- Manually restore the Talk Group to the scan list by performing the following procedure.


Procedure:

- 1 Tap **Talkgroups**.

The **TalkGroups** screen displays.

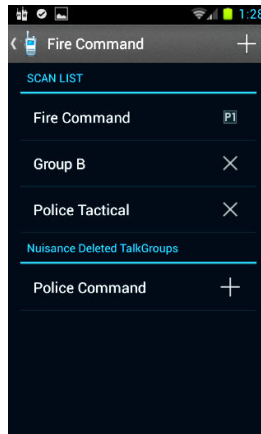
Figure 41: TalkGroups Screen



- 2 Tap the scan list icon  for the Primary Talk Group containing the scan list with the Nuisance Deleted Talk Group.

The **SCAN LIST** screen displays showing the Talk Groups on the SCAN LIST and the list of Nuisance Deleted TalkGroups.

Figure 42: Talk Groups — SCAN LIST Screen



This example shows Police Command as a Nuisance Deleted Talk Group.

- 3 Tap the plus + for the Nuisance Deleted Talk Group.
The group is added back to the list and the **SCAN LIST** screen is updated and remains displayed.
- 4 At the top of the screen, tap the name of the Talk Group.
The **TalkGroups** screen displays.

2.6

Call Handling

This section describes how to make and receive Push-to-Talk (PTT) calls.

2.6.1

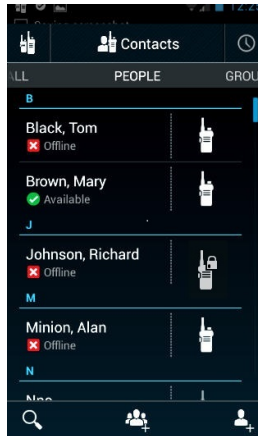
Making a One-to-One Private Call


Private (Barge) calls contact the called party as soon as the call is established. There is no option for the called party to accept or reject the call.

Procedure:

- 1 Tap **CONTACTS**. Swipe across the menu bar to **PEOPLE**.
The **PEOPLE** screen is displayed.

Figure 43: Contacts PEOPLE Screen



NOTICE: The  icon indicates that a contact is secure.



- 2 Find the contact.



The **Search** feature  can be used to find the contact.

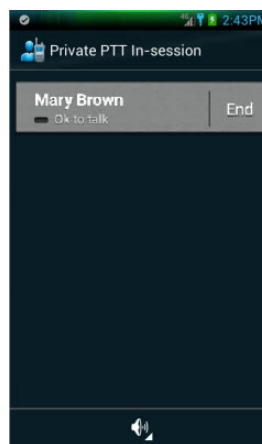
- 3 Verify that the contact is available.



- 4 Tap the icon  or  by the name of the contact. Do not tap the name of the contact.

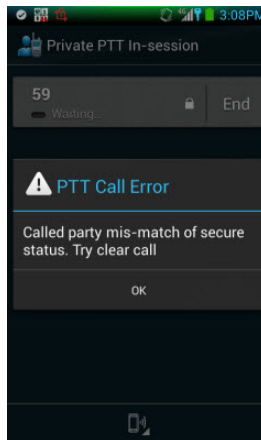
The **Private PTT In-session** screen displays.

Figure 44: Private PTT In-session Screen



- 5 Press and hold the **PTT** button and talk to the contact. Release the button to hear the contact.
- 6 If your handheld is secure and the called party is not secure, a warning is displayed. Tap **OK** to continue with a clear call.

Figure 45: PTT Call Error Warning for Secure Party Mismatch



- 7 To end the call, tap **End**.
The call ends and the **PEOPLE** screen displays.

2.6.2

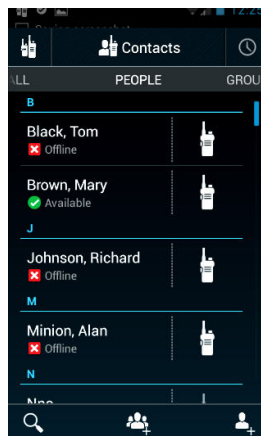
Making a One-to-One Alert Call

An Alert call contacts the called party and allows the called party to Ignore or Connect to the call. If Connect is selected, the call is accepted and the call proceeds like a One-to-One Private (Barge) call. If Ignore is selected, the call is not completed and the caller is informed that the call was rejected.

Procedure:

- 1 Tap **CONTACTS**. Swipe across the menu bar to **PEOPLE**.
The **PEOPLE** screen is displayed.

Figure 46: Contacts PEOPLE Screen



- 2 Find the contact.

The **Search** feature  can be used to find the contact.

- 3 Verify that the contact is available.




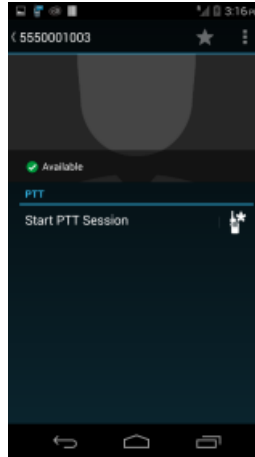

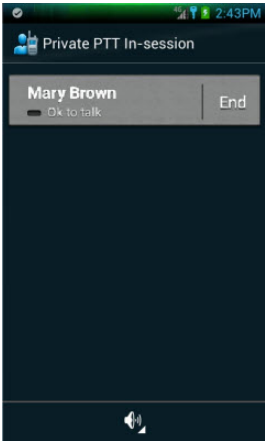
- 4 Tap the name of the contact. Do not tap the icon  near the name of the contact. The **Contact Selected** screen displays.

Figure 47: Contact Selected Screen



- 5 Tap the icon . Do not tap **Start PTT session**. An alert is sent to the contact. The contact is given the option to **Ignore** or **Connect**.
- 6 Perform the following:

If...	Then...
<p>If the contact does not select an option,</p>	<p>the following occurs:</p> <ul style="list-style-type: none"> • The call times out and the call is not completed. • The Contact Selected screen displays. <p>Tap Back or the contact name (in the top left corner) to return to the PEOPLE screen.</p>
<p>If the contact selects Ignore,</p>	<p>the following occurs:</p> <ul style="list-style-type: none"> • The caller receives a message indicating the caller has ignored the call. • The call does not complete. • The Contact Selected screen displays. <p>Tap Back or the contact name (in the top left corner) to return to the PEOPLE screen.</p>
<p>If the contact selects Connect,</p>	<p>the following occurs:</p> <ul style="list-style-type: none"> • The call is accepted. • The Private PTT In-session screen displays for both the contact and the caller.

If...	Then...
	<p data-bbox="496 239 1010 273">Figure 48: Private PTT In-session Screen</p>  <ul data-bbox="457 747 1360 947" style="list-style-type: none"><li data-bbox="457 747 1019 781">• Call proceeds like a One-to-One Private call. <p data-bbox="457 793 716 827">Perform the following:</p> <ol data-bbox="457 840 1360 947" style="list-style-type: none"><li data-bbox="457 840 1360 905">a Press and hold the PTT button and talk to the contact. Release the button to hear the contact.<li data-bbox="457 917 781 947">b Tap End to end the call.

2.6.3

Making a One-to-One Private or Alert Call Using the Android People List

The Android people list is used to start a one-to-one call.

Prerequisites: The Push-to-Talk (PTT) contacts are synchronized to the Android people list. See [Turning the PTT Application On and Off on page 27](#).

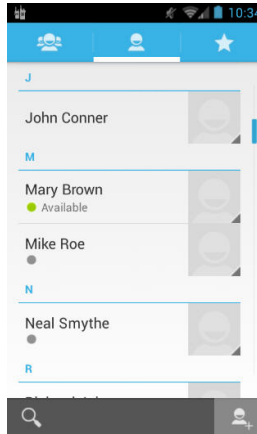
Procedure:

- 1 Tap the Android people icon

The icon is determined by the operating system and the phone manufacturer.

The **Android People** screen displays. PTT contacts show a circle and status under their name. The status shown is either Available or nothing.

Figure 49: Android People Screen

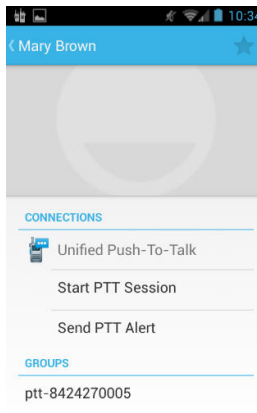


NOTICE: The people list does not indicate whether a contact is secure or not.

- 2 In the people list, tap the name of a person that is a PTT contact.

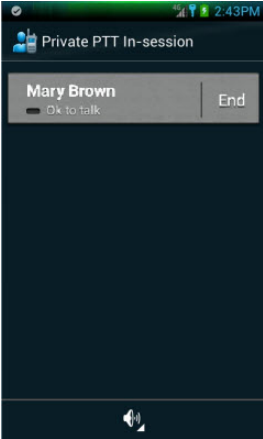
The **Contact Details** screen displays.

Figure 50: Contact Details View



- 3 Perform one of the following:

If...	Then...
<p>If a one-to-one alert call is wanted,</p>	<p>perform the following actions:</p> <ul style="list-style-type: none"> a Tap Send PTT Alert. b Proceed as a normal one-to-one alert call.
<p>If a one-to-one private call is wanted,</p>	<p>perform the following actions:</p> <ul style="list-style-type: none"> a Tap Start PTT Session. <p>The Private PTT In-session screen displays.</p>

If...	Then...
	<p data-bbox="821 243 1338 275">Figure 51: Private PTT In-session Screen</p>  <p data-bbox="784 747 1344 779">b Proceed as a normal one-to-one private call.</p>

2.6.4 Calling a Personal Group

The individual handset user creates a Personal Group and it is stored in the handheld. Only that handheld can initiate a call to the Personal Group. The group members can receive the Push-to-Talk (PTT) group call, the group members can talk during the call, but group members cannot initiate a new PTT call to the group.

The group is Available if one or more members of the group are Available or Busy. The group is Offline if all the members are Offline.

Personal Groups are listed in the PTT Groups section of the **Contacts GROUP** screen.

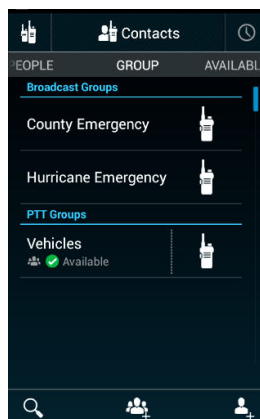
To create a Personal Group, see [Adding a Personal Group on page 36](#).

Procedure:


- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.

The **Contacts GROUP** screen displays.

Figure 52: Contacts GROUP Screen


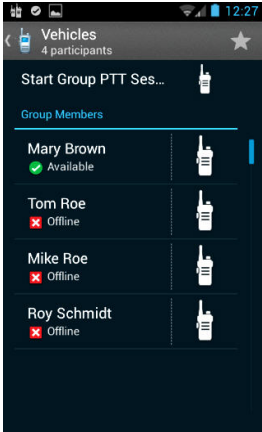



3 Find the Personal Group in the PTT Groups area.

The **Search** feature  can be used to find the group.

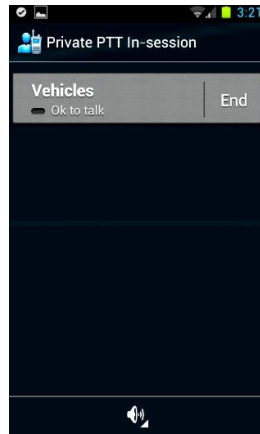
4 Verify the status of the group is Available.

5 Start the group call:

If...	Then...
<p>If member information is not wanted,</p>	<p>tap the  icon next to the group name.</p>
<p>If member information is wanted,</p>	<p>perform the following actions:</p> <p>a Tap the name of the group.</p> <p>The Personal Group Start screen displays and shows the members of the group and their status.</p> <p>Figure 53: Personal Group Start Screen</p>  <p>b Tap the  icon next to the Start Group PTT Sess... text.</p>

The **Private PTT In-session** screen for a group displays.

Figure 54: Private PTT In-session Screen for a Group



- 6 Press and hold the **PTT** button to start the session and talk to the group. Release the button to listen to other group members.

If any members are Available or Busy, an active session starts. The caller sees an **OK to Talk** message. The called group sees the name or the PTT number of the caller and the number of members in the group. The caller is the only one who can speak at the beginning of the call.

When the caller releases the **PTT** button, everyone sees an **OK to Talk** message. When any member presses and holds the **PTT** button, they see a **Talking** message and the other members see a message showing the name of the member talking.

- 7 To end the call, tap **End**.

2.6.5

Creating and Calling a Temporary Group

The individual handheld user creates a Temporary Group and it is NOT stored in the handheld. Only that handheld user can initiate a call to the Temporary Group. The group members can receive the Push-to-Talk (PTT) group call, the group members can talk during the call, but group members cannot initiate a new PTT call to the Temporary Group. Both secure and non-secure members are allowed in the Temporary Group.

The procedure can be started from any of the Contacts screens. The **GROUP** screen in Contacts is used as a starting point for this procedure description.

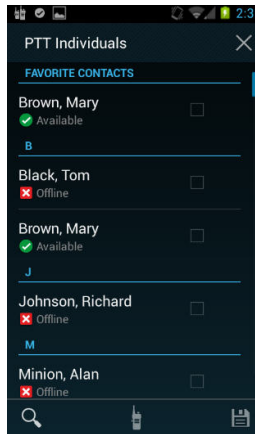
Procedure:

- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.

- 3 Tap **Add Group**. 

The **PTT Individuals** screen displays.

Figure 55: PTT Individuals Screen



- 4 Select the check box for each contact to add to the group.

Contacts can be added to the group even if the status of the contact is Offline. The **Search** feature can be used to find contacts.

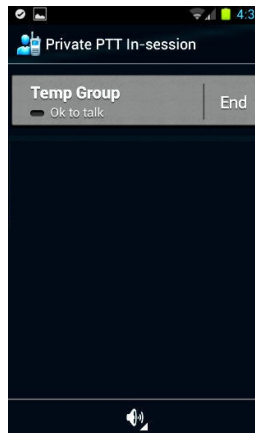


- 5 At the bottom of the screen, tap  to call the group.



The **Private PTT In-session** screen for a Temporary group displays.

Figure 56: Private PTT In-session Screen for a Temporary Group




- 6 Press the **PTT** button to start the session and talk to the group. Release the button to listen to other group members.

If any members are Available or Busy, an active session starts. The caller sees an **OK to Talk** message. The called group sees the name or the PTT number of the caller and the number of members in the group. The caller is the only one who can speak at the beginning of the call. When the caller releases the **PTT** button, everyone sees an **OK to Talk** message. When any member presses the **PTT** button, they see a **Talking** message and the other members see a message showing the name of the member talking.

- 7 To end the call, tap **End**.

The **PTT Individuals** screen displays with the contacts still selected.



NOTICE: The Temporary Group can be saved by tapping **Save**  and entering the requested information. The Temporary Group becomes a Personal Group.

- 8 At the top right of the screen, tap the **X**.
The Temporary Group is canceled and the **GROUP** screen displays.

2.6.6

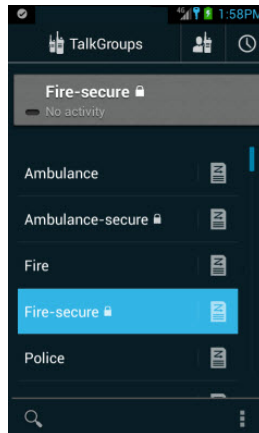
Calling a Talk Group

Perform this procedure to call a Talk Group.

Procedure:

- 1 Tap **Talk Groups**.
The **TalkGroups** screen displays.

Figure 57: TalkGroups Screen



- 2 Tap the name of a Talk Group.
The group name and the activity status displays at the top.
- 3 Press and hold the **PTT** button.
The call remains in the `Waiting` state until a member joins the call.
If no members join before the call times out, the session ends and a `No Activity` message displays.
If the server cannot process the call, a `temporarily unavailable` message displays.
If at least one member joins before the call times out, an active session starts. The caller sees a `Talking` message. The called group sees the name or the PTT number of the caller and the number of members in the group. The caller is the only one who can speak at the beginning of the call. When the caller releases the **PTT** button, everyone sees an `OK to Talk` message. When any member presses and holds the **PTT** button, they see a `Talking` message and the other members see a message showing the name of the member talking.
- 4 To end the call, stop talking (there is no `End` button).
The session times out and all the members see a `No Activity` message. The **Talkgroups** screen remains displayed.

2.6.7

Calling a Broadcast Group

A system administrator determines the members of a Broadcast Group, which members can start a Broadcast Group call, and which members can talk after a call is started. All members in a Broadcast Group can listen but not all are allowed to talk. Broadcast calls are always non-secure.

When a Broadcast Group session is started, all active sessions for all group members are terminated.

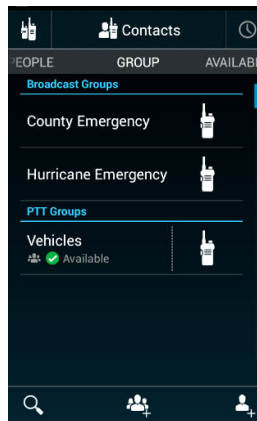
Prerequisites: The Broadcast Group member using the handheld has been enabled to start a Broadcast Group call.

Procedure:

- 1 Tap **Contacts**.
- 2 Swipe across the menu bar to **GROUP**.

The **GROUP** screen displays.

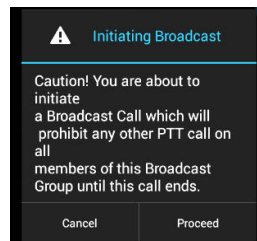
Figure 58: Contacts GROUP Screen



- 3 Tap a **Broadcast Group**.

The *Initiating Broadcast* message displays.

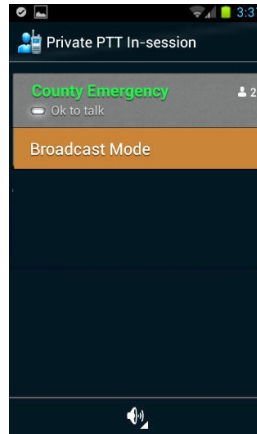
Figure 59: Broadcast Group Call - Initiating Broadcast Message



- 4 Perform one the following:
 - Tap **Cancel**. The session is not started and the procedure is over.
 - Tap **Proceed**.
 - Wait for the message to time out.

If the message timed out or **Proceed** was selected, the **PTT Private In-Session** screen for a Broadcast Group session displays.

Figure 60: Private PTT In-session Screen for a Broadcast Group Call



- 5 Press and hold the PTT button and talk to the group.

The caller sees a **Talking** message. The called group sees the name or the PTT number of the caller and the number of members in the group. The caller is the only one who can speak at the beginning of the call. When the caller releases **Push to Talk**, members that are enabled to talk see an **OK to Talk** message. When any talk-enabled member presses and holds the PTT button, they see a **Talking** message and the other members see a message showing the name of the member talking.

- 6 To end the call, stop talking (there is no End button).

The session times out and the Contacts **GROUP** screen displays.

2.6.8

Methods of Dropping Out of Talk Group Calls

To drop out of a Talk Group:

- Select a new Talk Group. This method applies to dropping out of calls from both the primary Talk Group and Talk Groups on the scan list. See [Selecting a Talk Group on page 42](#).
- Turn scanning off. This method applies to dropping out of calls from Talk Groups on the scan list. See [Turning Scanning On and Off on page 49](#).
- Place the Talk Group on the Nuisance Deleted list making the Talk Group temporarily inactive. This method applies to dropping out of calls from Talk Groups on the scan list. See [Placing a Talk Group on the Nuisance Deleted List on page 50](#).

2.6.9

Information on Receiving Calls

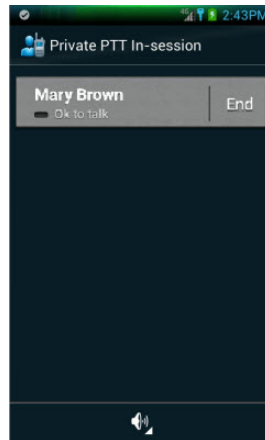
This section provides a short description of what to expect when a Push-to-Talk (PTT) call is received.

Receiving a One-to-One Private Call

This information applies to a handheld that is locked or unlocked.

When a call is received, the **Private PTT In-Session** screen automatically displays. The receiver can hear the caller and can talk to the caller. When the call ends, the original screen is displayed.

Figure 61: Example Private PTT In-Session Screen



Receiving a One-to-One Alert Call

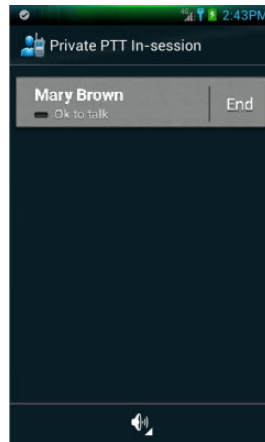
This information applies to a locked or unlocked handheld.

When the alert is received, a PTT call Invitation message is displayed. Also **Ignore** and **Connect** are displayed.

If **Ignore** is selected, the call does not complete and the original screen is displayed. The sender is informed that the target did not accept the call.

If **Connect** is selected, the **Private PTT In-Session** screen automatically displays. The receiver can hear the caller and can talk to the caller. When the call ends, the original screen is displayed.

Figure 62: Example Private PTT In-Session Screen

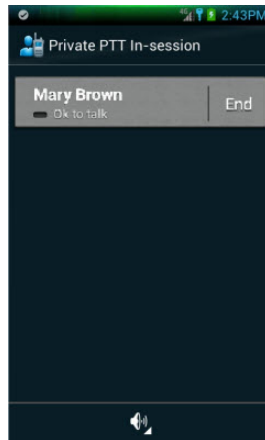


Receiving a Personal Group Call

This information applies to a locked or unlocked handheld.

When a call is received, the **Private PTT In-Session** screen automatically displays and indicates that it is a group call. The receiver can hear the caller and can talk to the caller. When the call ends, the original screen is displayed.

Figure 63: Example Private PTT In-Session Screen

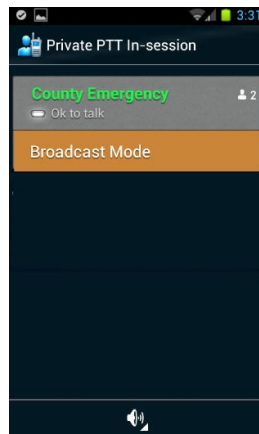


Receiving a Broadcast Group Call

This information applies to a locked or unlocked device.

When a call is received, any existing calls are canceled and the **Private PTT In-Session** screen automatically displays indicating it is a Broadcast Group call. The receiving handheld User is always a listener on the Broadcast Group call. Only if the User is allowed to talk during the call, the receiver will be able to talk by pressing the hard PTT button during the call. When the call ends, the original screen is displayed.

Figure 64: Example Private PTT In-Session Screen



Receiving a Talk Group Call

When the phone is locked and a call is received, the receiver can hear the caller but cannot respond. The handheld must be unlocked and **TalkGroups** selected to enable talking.

When the phone is not locked and a call is received, the screen does not automatically change but the caller is heard. To talk, **TalkGroups** must be selected.


2.7

Session Logs

This section describes the functions and features of a Push-to-Talk (PTT) Session Log.

Session Log Screen

The Session Log provides a history of recent barge (one-to-one), alert, Personal Group, and Temporary Group calls. The history includes outgoing, received, and missed calls. Talk Group and Broadcast Group calls are not logged. The log contains a maximum of 500 entries, with the newer entries replacing the oldest. The log entries can be filtered to show only missed, only outgoing, or only incoming.

Tap the **Session Log** icon  to view the session logs. The following is an example of a **Session Log** screen.


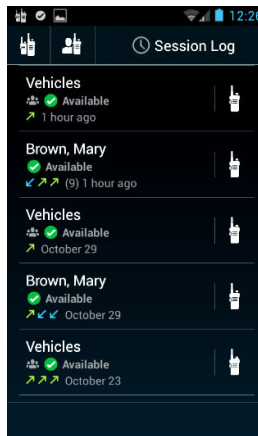
 **NOTICE:** Incoming calls from Personal Groups and Temporary Groups appear in gray. These groups can not be called from the Session Log.

Figure 65: Session Log Screen



Each log entry includes this information:

- Name of received or missed, outgoing or incoming contact or group
- Current availability status of the contact or group
- Icon showing incoming or out going call or alert
- If applicable, an icon indicating a group call
- Date of the call/alert or number of days since the call/alert

The main Session Log indicators and icons are shown in this table.

Table 4: Main Session Log Indicators and Icons









Indicator or icon	Description
	Incoming session or alert that was received. Color is blue.

Table continued...

Indicator or icon	Description
	Incoming session or alert that was missed. Color is red.
	Outgoing session or alert. No indication if it was received or missed by the receiver. Color is green.
	Group call.
	Start a call to the contact or group. Displays the Private PTT In-session screen to start the call.
	Start a call to the secure contact or group. Displays the Private PTT In-session screen to start the call.
Menu	Displays options including: Show missed only, Show outgoing only, Show incoming only, Clear call log, and Settings.

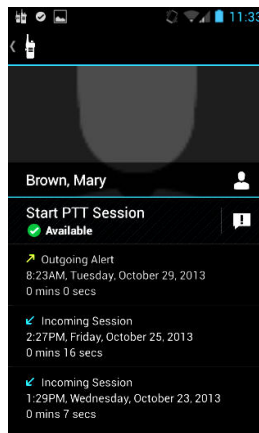
The following actions are possible from the **Session Log** screen:

- Tap  or  to display the **Private PTT In-session** screen and allow a call to the contact or group to start.
- Tap the name of the contact or group name to display the **Session Log Detail** screen.

Session Log Detail Screen

The **Session Log Detail** screen shows details for the calls and alerts for one entry in the Session Log. The details are for one contact or group. To view the **Session Log Detail** screen, tap the name of the contact or group in the **Session Log** screen. The following is an example of a **Session Log Detail** screen.



Figure 66: Session Log Detail Screen



Each entry in the **Session Log Detail** screen includes this information:

- Current availability status of the contact or group
- Incoming or outgoing and whether it is a session or an alert
- Date stamp including time, day of the week, and date
- Duration of the call or alert

The following actions are possible from the **Session Log Detail** screen:

- Tap the **Alert** icon , to start a one-to-one alert call to the contact.
- Tap **Start PTT Session** to display the **Private PTT In-session** screen and allow a call to the contact or group to start.
- Tap the group name to display the **Personal Group Start** screen to allow a call to the group or an individual of the group.
- Tap the handheld icon  to go back to the **Session Log** screen.

2.8

Push-To-Talk Audio

The audio for Push-To-Talk (PTT) can be routed to several different outputs and the volume is controllable for each output.

PTT audio can route to the following outputs:

- Handheld speaker
- Handheld earpiece
- Wired headset with or without built-in microphone
 - Handheld microphone is used if the headset has no microphone
 - **PTT** button is not available on the headset
- Bluetooth devices






IMPORTANT: To be selected and used, Bluetooth devices must have been previously mated to the handheld using the Android and handheld manufacturer procedure. The PTT application does not provide a mating procedure for Bluetooth devices.

The audio volume for each output is individually controlled. When PTT is being used (alerts, listening to a call, and more), the volume is automatically set to the last level set in PTT.

When the operator uses other functions of the phone, the volume resets to the previous non-PTT level.

PTT Audio Output Status Icons

In various screens, icons are shown to indicate the current output of the audio:

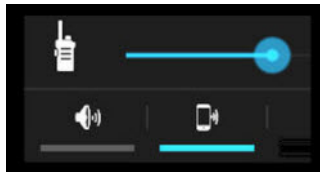
-  shows that audio is currently routed to the speaker phone.
-  shows that the audio is currently routed to the handheld earpiece.
-  shows that the audio is currently routed to a Bluetooth device.

PTT Audio Output Selection




Tapping an output status icon displays a volume and choice screen. This screen shows the volume setting (length of the slider line), allows the volume to be changed (using the slider), shows the current output of the audio (underlined icon), and allows the audio output to be changed (tapping a selection icon).

Figure 67: Volume and Choice Screen

This figure is an example screen showing that the normal handheld speaker/earpiece is selected. The exact display shown on the screen depends on the audio output selected.



Tap a selection icon to select the audio output:

- Tap  to route audio to the speakerphone.
- Tap  to route audio to the normal handheld speaker/earpiece.
- Tap  to route audio to a Bluetooth device.

PTT Audio Output Volume

Before a call has started, the hard-button on the handheld controls the volume for the PTT Alert tone. After a call has started, the hard-button on the handheld controls the PTT voice audio volume.

Controlling of the PTT voice audio volume is either by the hard-button on the handset, or adjusting the volume slider in the volume and choice screen. The volume slider in a volume and choice screen only controls the voice volume and does not control the Alert tone volume. The Android operating system volume controls do NOT control the PTT voice audio volumes.

The PTT application stores the volume setting for each output separately. When an output is selected, the last setting for that output is used.

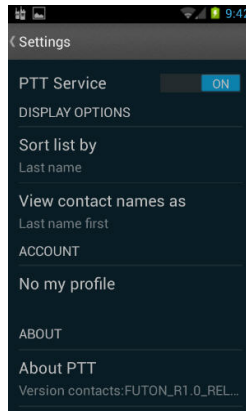
2.9

Push-To-Talk Settings

The **PTT Settings** screen allows the user to:

- View and change the Push-to-Talk (PTT) service state.
- Choose how to sort the lists of contacts in the Contacts screens.
- Choose how to display the name of a contact in the lists of contacts in the Contacts screens.
- Access the user profile.
- View information about the PTT application.
- View the End User License Agreement.

Figure 68: Example PTT Settings Screen



The same **PTT Settings** screen is displayed no matter which screen was used to select it.

PTT Service

This area displays the current state of the PTT service. It also allows the user to change the state.

Sort list by

This display applies to displaying contacts in the following Contacts screens:

- **ALL**
- **PEOPLE**
- **AVAILABLE**

The contact list shown is sorted based on the last name or the first name of the contact. The user selects the sorting type.

View contact names as

This display controls how the contact names are displayed (not sorted) in the Contacts screens.

The contact name is displayed as “last name first” (example: Smithbake, John) or “first name first” (example: John Smithbake). The user selects the display type.

Account

This display provides access to view and control the user account.

About PTT

This display provides the release and version identification of the PTT application.

End User License Agreement

This display allows the reading of the End User License Agreement.

Open Source Licenses

This display allows the reading of all the Open Source License agreements.

2.9.1

Displaying and Changing PTT Settings

Perform this procedure to display and change Push-to-Talk (PTT) settings.

Prerequisites: The PTT application is currently running on the handheld.

Procedure:

- 1 In the PTT application, tap one of the following items: (The same **PTT Settings** screen displays no matter which item is selected.)

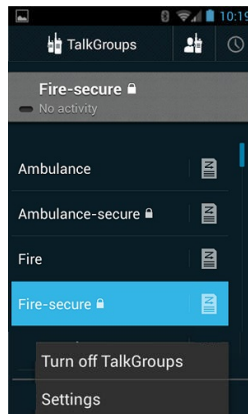
- **Contacts**
- **Session Log**
- **TalkGroups**

A screen associated with the selection is displayed.

- 2 Tap **Menu**.

A set of selections is displayed that includes **Settings**. This example is for the **TalkGroups** selection.

Figure 69: TalkGroups Menu Screen

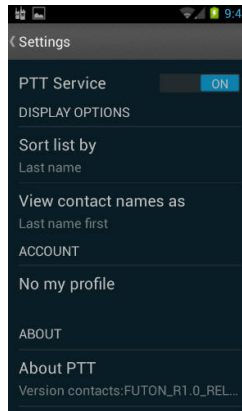


- 3 Tap **Settings**.

The same **PTT Settings** screen displays no matter which screen was used to select it. The setting information is not unique to the screen used to select it.

The **Settings** screen displays and shows the current values for the PTT settings.

Figure 70: Settings Screen



- 4 To change a setting, tap a setting name and select a new value. To view information, tap the name of the information.
- 5 At the upper left of the screen, tap **Settings** to return to the previous screen.

2.10

Troubleshooting of Unexpected Conditions

This table shows unexpected conditions and the recommended actions. See the *LEX L10i Mission Critical Handheld – User Guide* for more information.

Table 5: Troubleshooting

Condition	Result or Recommended Action
Screen goes black	The device could be in covert mode: <ul style="list-style-type: none"> • Verify the device is on. • Verify that Push-to-Talk (PTT) is running by exiting covert mode.
Handset is in covert mode	<ul style="list-style-type: none"> • Press and hold the power key. • If the menu comes up, take the handset out of covert mode.
Screen is locked	If the widget is installed on the lock screen, PTT is still operational.

See the *LEX 10i Mission Critical Handheld – User Guide* for more information on covert mode.

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