

BK
InteropONE™
A BK ONE SOLUTION



Android User Manual

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1 Introduction

1.1 InteropONE™ differentiator

InteropONE™ is a Push-To-Talk over broadband service provided by BK Technologies, a leading P25 public safety communications manufacturer. With the InteropONE™ application on their smartphone, an emergency manager or event coordinator can create a dynamic group ‘on the fly’ including their coworkers as well as anybody with an active smartphone.

1.2 Target audience

Group Command and Emergency Management personnel, as well as first responders.

2 System requirements

2.1 Network requirements

As an Over-The-Top application, InteropONE™ works over Cellular 4G/5G or Wi-Fi networks. It has also been tested successfully over Starlink’s Low Earth Orbit satellite network.

2.2 Software requirements

The smartphone should have Android 10 or later.
The application language is English.

3 Getting started

As a new InteropONE™ user, you will receive an invitation SMS per this example: "Hi New User. Welcome to ‘organization name’. Your Organization ID is: 123456." In the event you do not receive this message, please contact your organization administrator to add you to the system by providing your phone number.

Download the application from the Google Play Store by searching for “InteropONE”. Also, a link to the application is provided in the invitation SMS.

3.1 How to access the application for the first time

Once the application is downloaded, open it and enter the organization ID received in your SMS message in the login screen. Next, enter your phone number in the login screen.

The system will validate the organization ID and phone number. Upon validation, you will receive another SMS message containing a 6-digit activation code. Enter this number in the login screen.

4 Feature and user flow

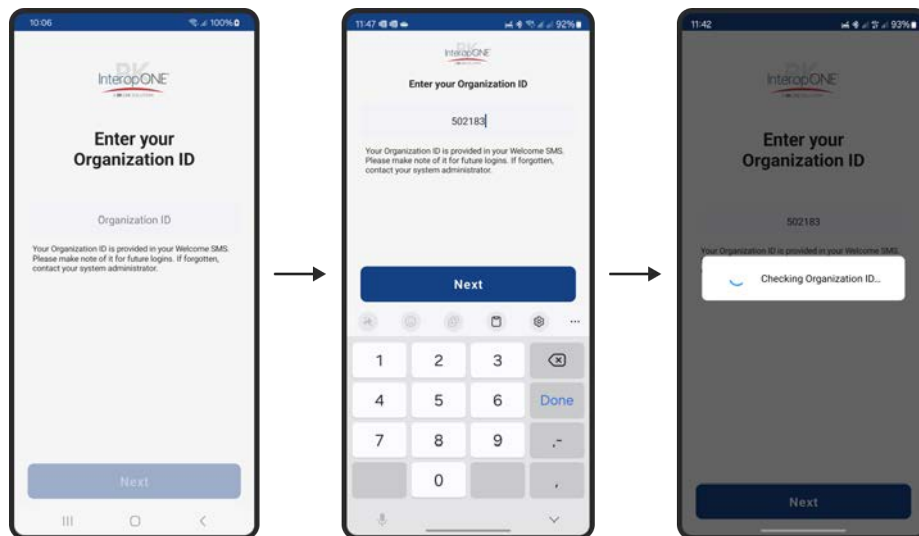
4.1 Core profiles of the application

The InteropONE™ mobile application has 3 main profiles:

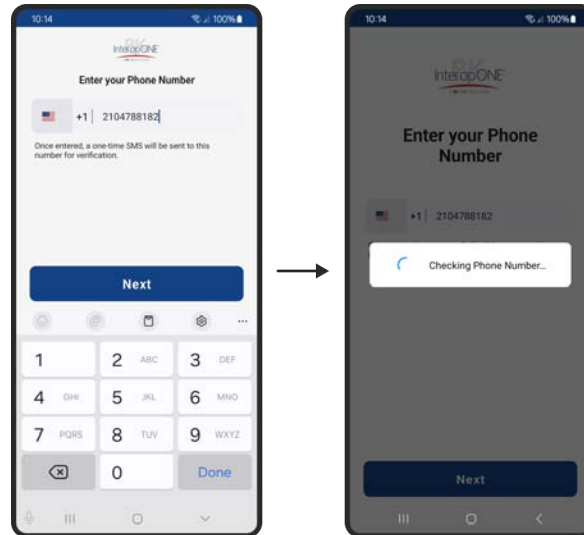
- 1- Primary User
- 2- Standard User
- 3- Guest User

4.2 Login flow

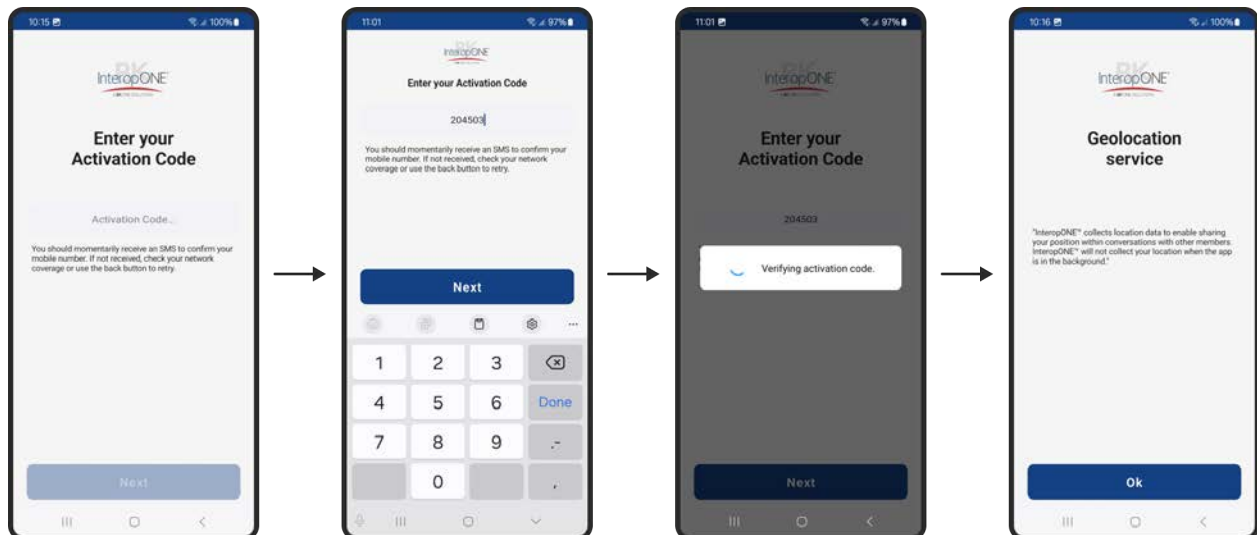
The below screens showcase the login steps



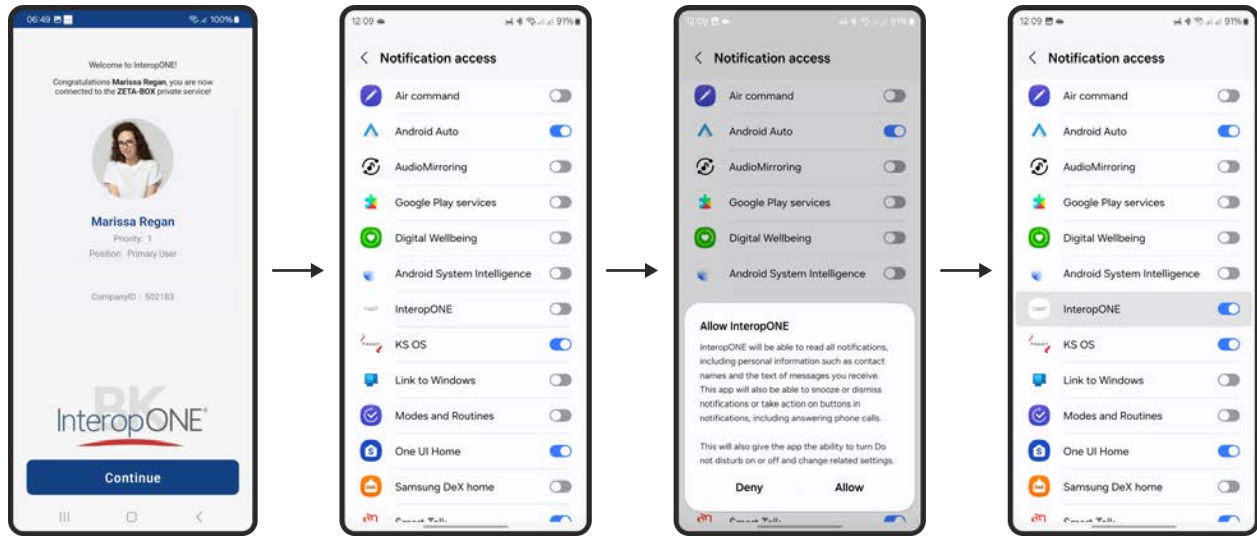
Once your organization ID is verified, you'll be presented with the following:



Upon verification of your phone number, you will receive an activation code by SMS. Enter or paste the 6-digit activation code into the input field.



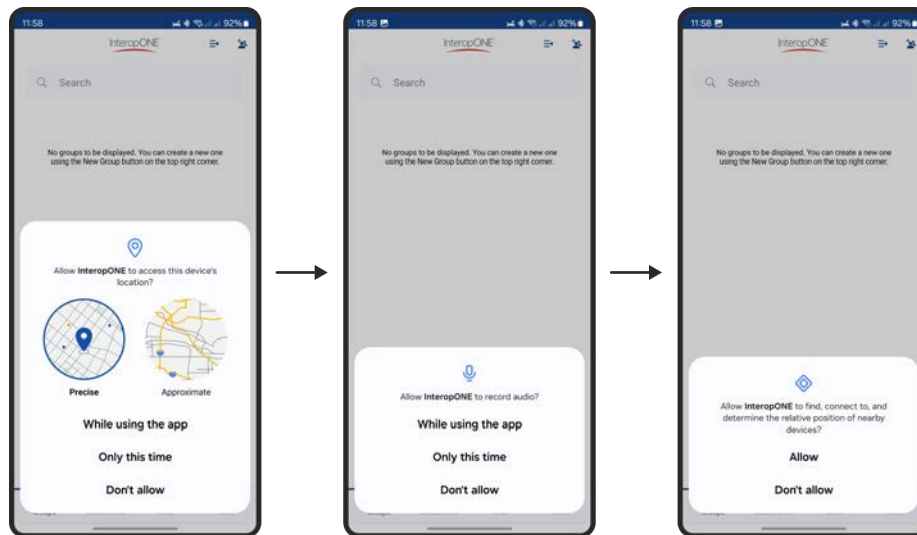
Upon verification of the activation code, your account will finish synchronizing and you'll be presented with a geolocation consent screen.

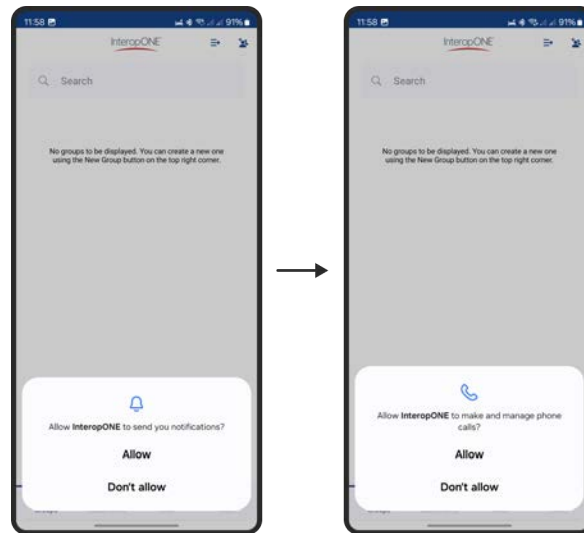


Next, you'll be presented by a welcome screen highlighting your organization and user details.

Pressing the Continue button will take through a system notification access where you can allow InteropONE™ to send you notification. This is added to adhere with Google's Android 14 policy.

PS: You can always get back to this screen through your Android phone settings.

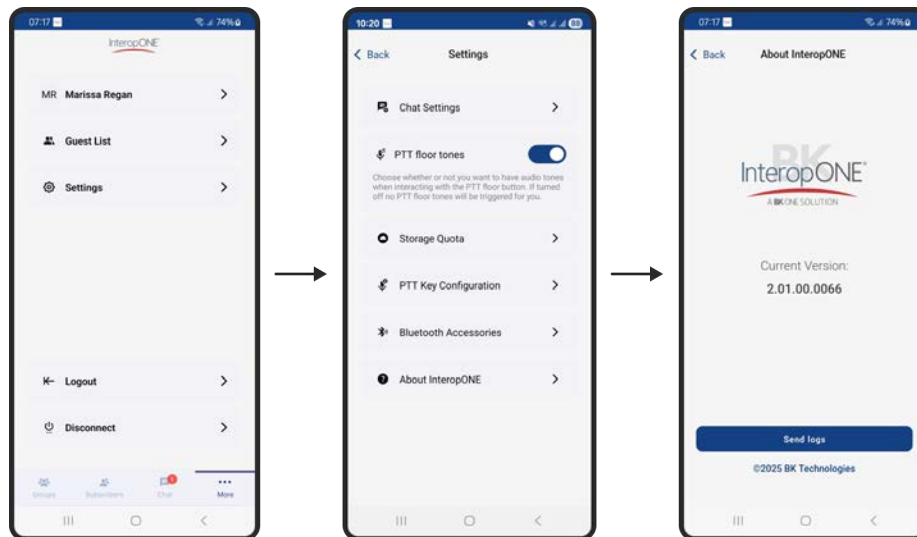




Finally, you'll be presented with a number of system permissions that are required for InteropONE™ to operate.

4.3 Access app version

To access the app version, go to the More menu, then choose Settings, then choose "About InteropONE" as shown below:

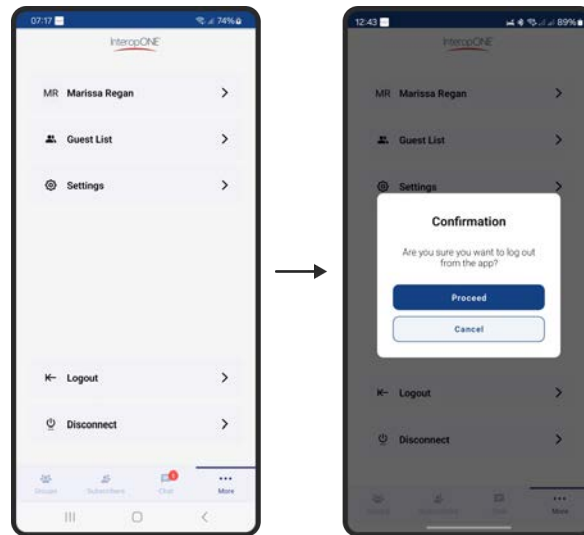


4.4 Logout and disconnect

There are two options available for session management:


- Disconnect
- Logout

For logging out, go to the More menu and choose Logout. Once you confirm as shown below, you'll be logged out from your session and redirected to the login screen.

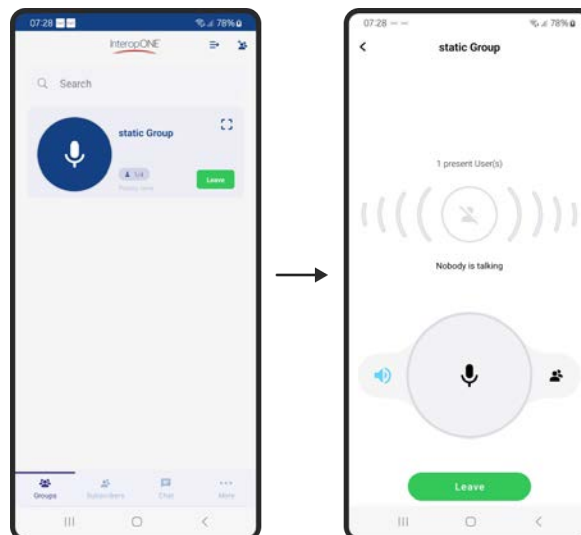


Disconnecting enables you to close the application without logging out from your session. If you disconnect while you are connected to one or more group(s) you'll be disconnected from them until you open the application again.

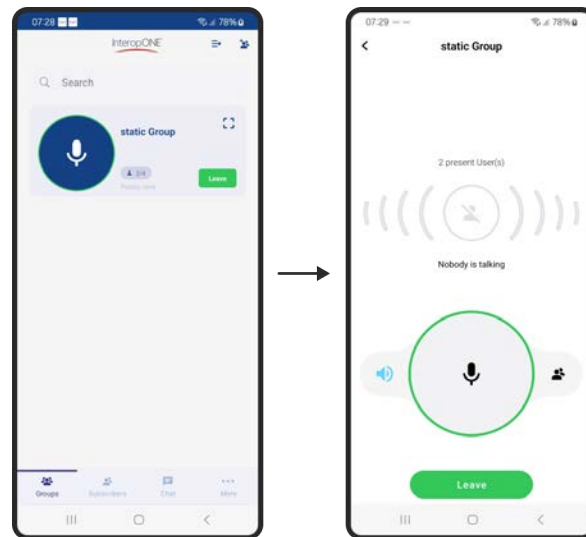
4.5 Push-To-Talk button states

When joined to a group you will be able to Push-To-Talk (PTT) from the Groups screen or the group detail screen. Tap the full screen button  on the group card to navigate to the detail screen.

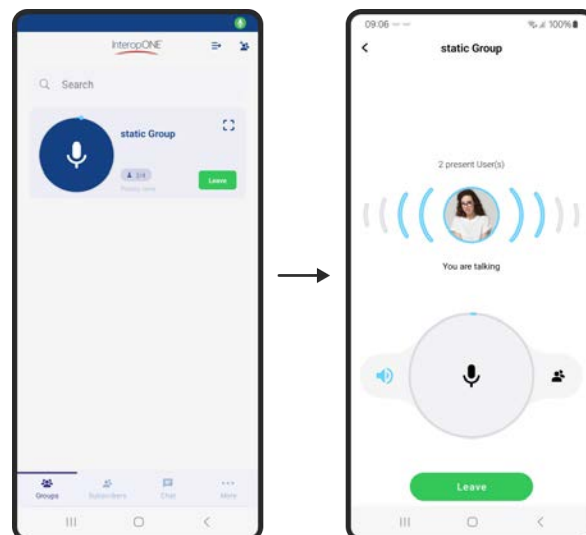
If you are the only user joined to the group, the PTT button will be displayed with a gray border, and you will not be able to take the floor if you attempt to do so.



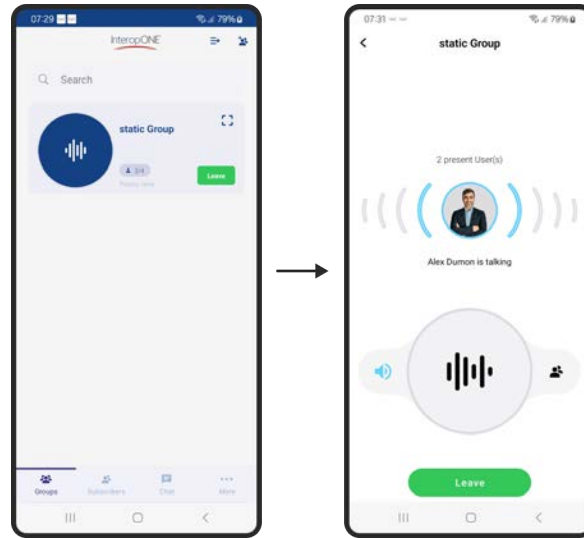
If more than one user is joined to the group, the PTT button is displayed with a green border and users can take the floor to speak.



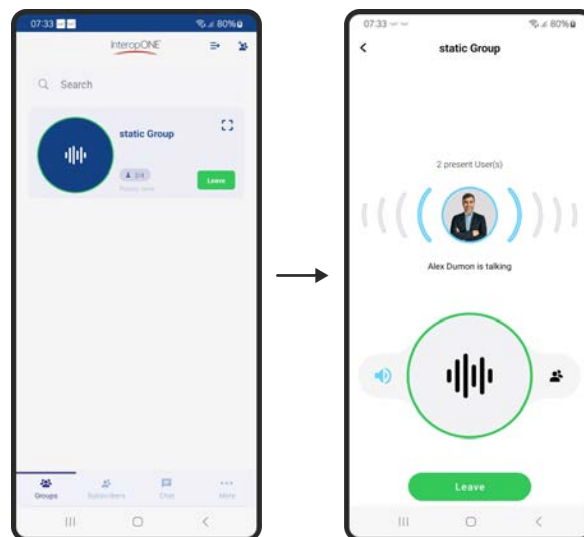
If you are the one taking the floor and talking, the PTT button will display a blue progress bar.



If someone else is taking the floor, the PTT button will display a sinewave animation.




Notice when you are at a higher priority level than the user that is speaking, the PTT button will have the green border indicating you can override the floor and talk.

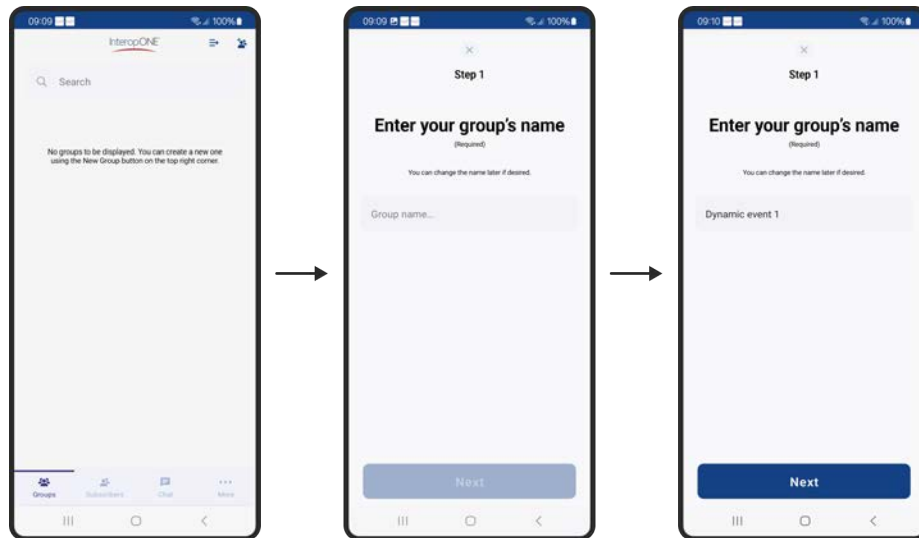


4.6 Primary User flow

The Primary User is an InteropONE™ subscriber that can create dynamic groups containing other InteropONE™ subscribers within the organization, as well as Guest Users (non-InteropONE™ subscribers). Once logged in, the Primary User is presented with 4 main menus: Groups, Subscribers, Chat and More.

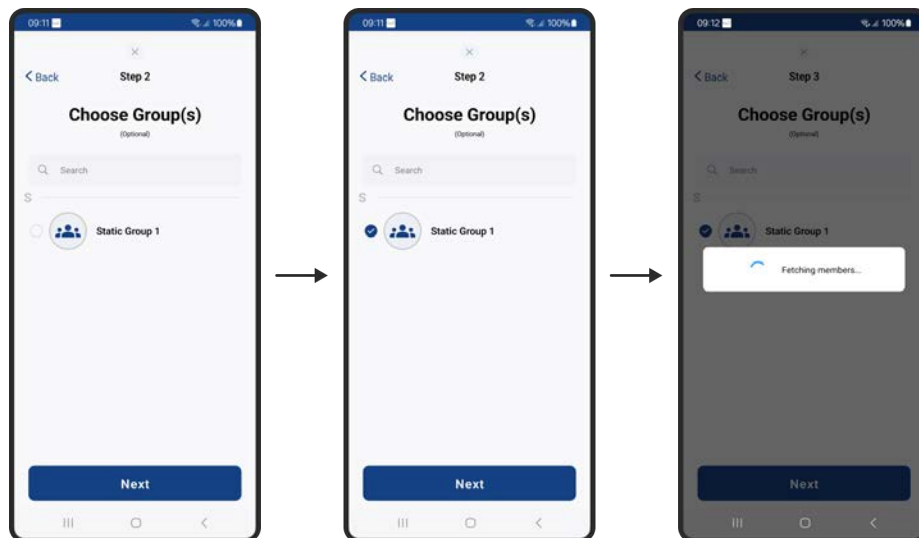
4.6.1 Create group

To create a dynamic group, as a Primary User, tap on the New Group  button from the top right corner of the Groups screen. Then you'll be presented with the following screen to enter your Group Name:

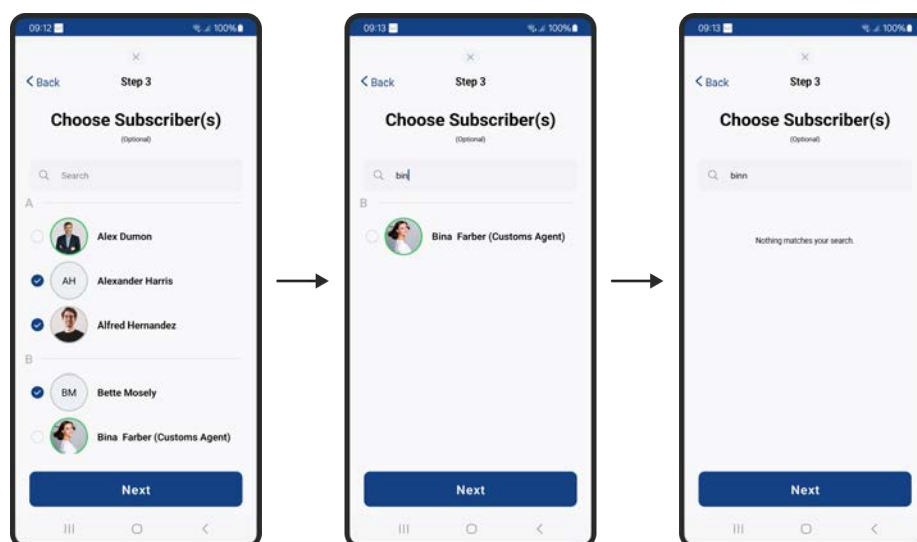


After you enter the Group Name, you'll be presented with the list of groups available to you within your organization. This short cut allows you to select members from existing groups to include in the new group. You can search by key words and select manually the desired group(s) as illustrated:

Note that this step is optional, and you can skip by pressing Next.

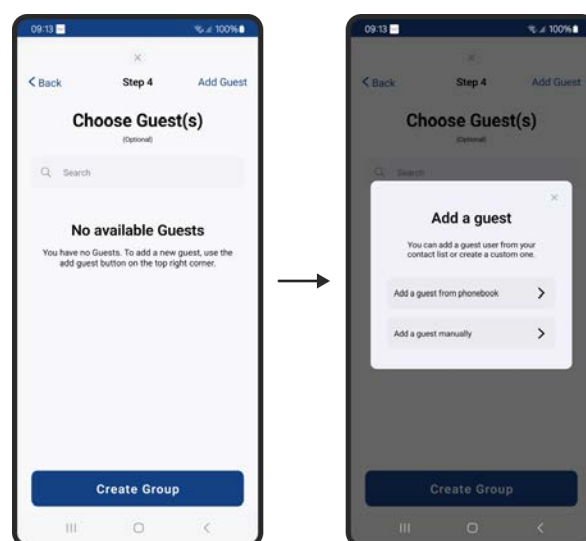


On step 3, you'll be presented with the list of subscribers within your organization. You can search by key words and select/unselect manually the target members of your group as illustrated:



The final step before creating a group is the option to choose a Guest User. Simply tap on the Add Guest button from the top right corner and you'll be presented with two options:

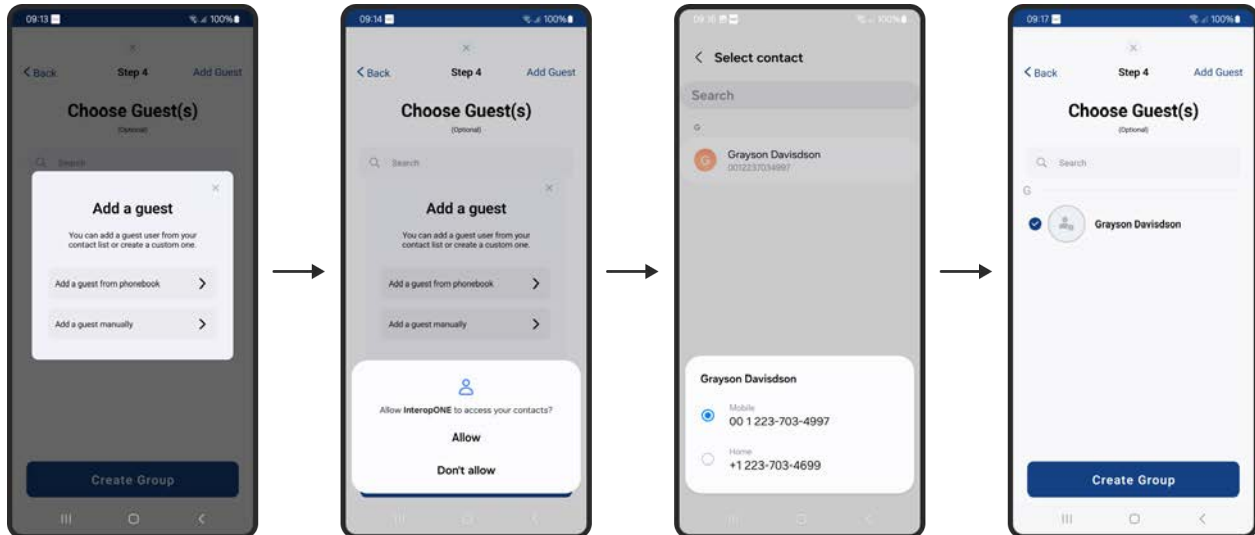
- Add a guest from phonebook
- Add a guest manually



4.6.1.1 Invite Guest User

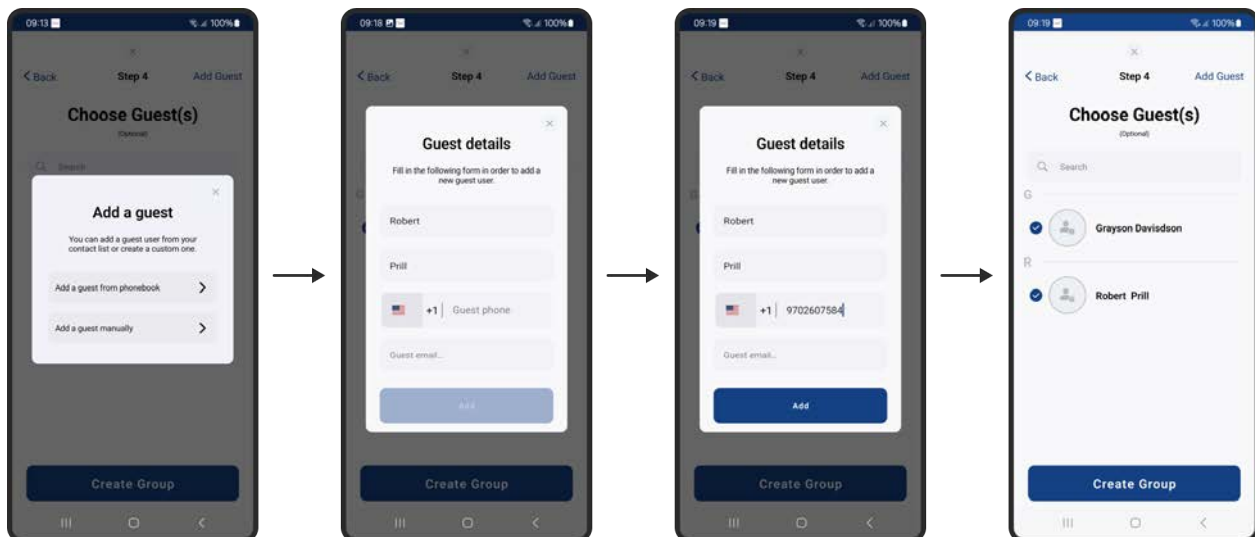
4.6.1.1.1 Phone book entry

If you proceed by adding a Guest User from the phone book, you'll be presented with the following screens. A permission is required so the app can access the Android native phone book. You can search by key words then select the desired contact(s) to be added.

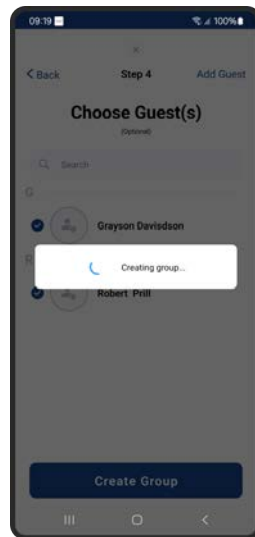


4.6.1.1.2 Manual entry

If you proceed by adding a Guest User manually, you'll be presented with the following screens. Remember that the email field is optional; only the first and last name and the phone number are required to add a guest user to the list.




Once you're done adding the desired members of your group you can proceed by tapping on the Create Group button.

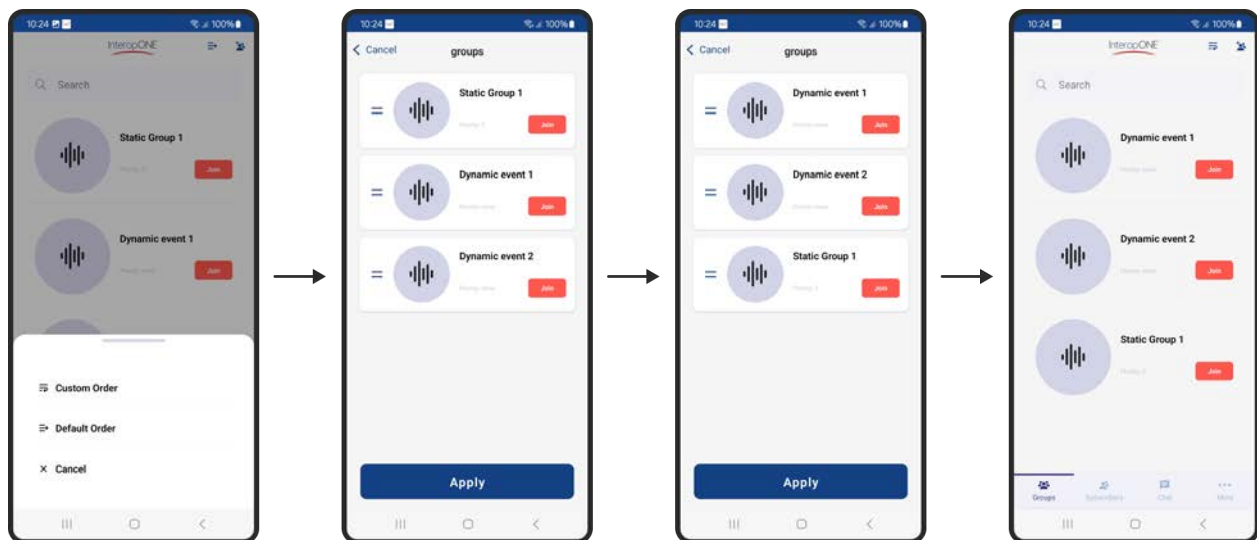


Group creation may take a few seconds. Once complete, you are returned to the Groups screen which displays a list of the groups to which you are assigned, including the newly created group.

4.6.2 Re-order groups

On your Group List screen, you'll be allowed to re-order them based on your personal preferences via this  button on the top right corner.

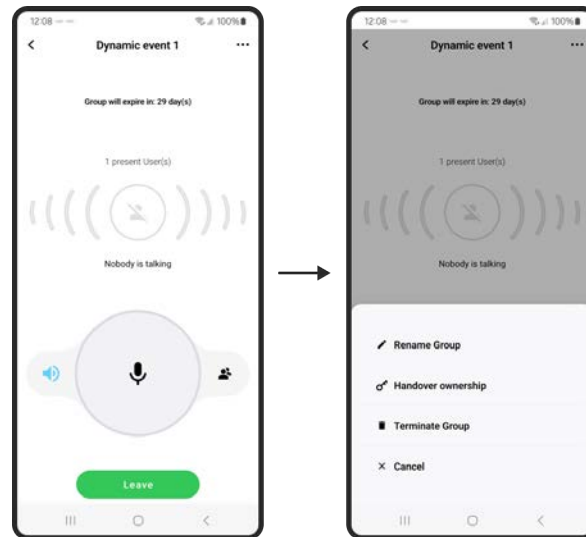
For this feature to work properly, you need at least two groups available on your list. Once this pre-condition is met, you'll be able to go through the following steps by pressing Custom Order, rearranging the group list as desired, and pressing Apply.



4.6.3 Dynamic Group management

Once a dynamic group is created, you as the group owner will have the ability to manage it through the “...” button on the top right corner of the group detail screen.

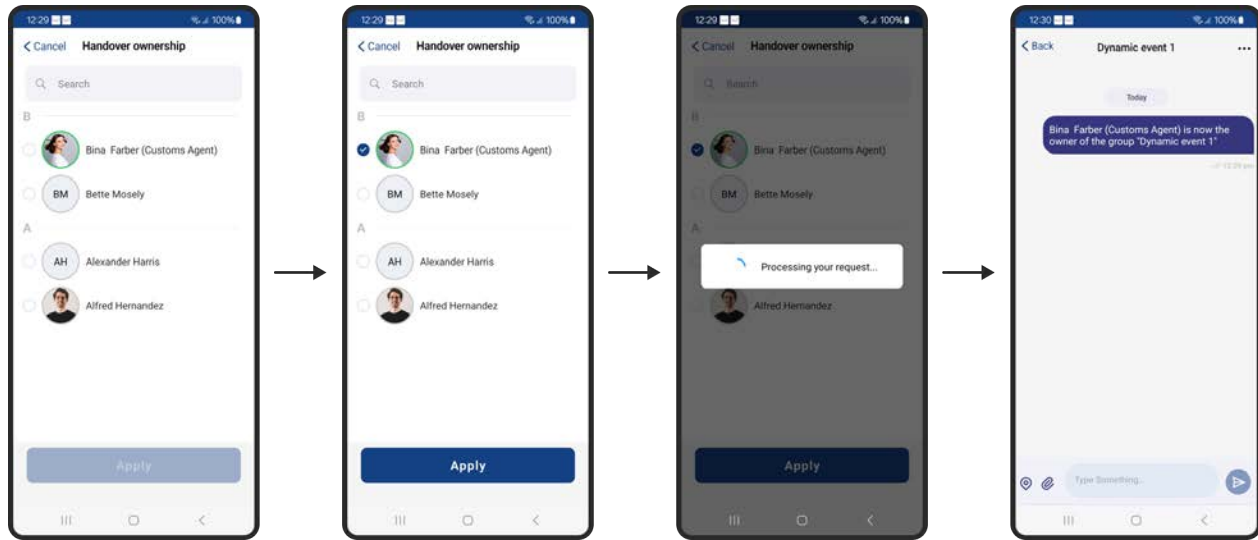
As shown below, these are the options available for the Primary User that owns a group:



4.6.3.1 Handover ownership

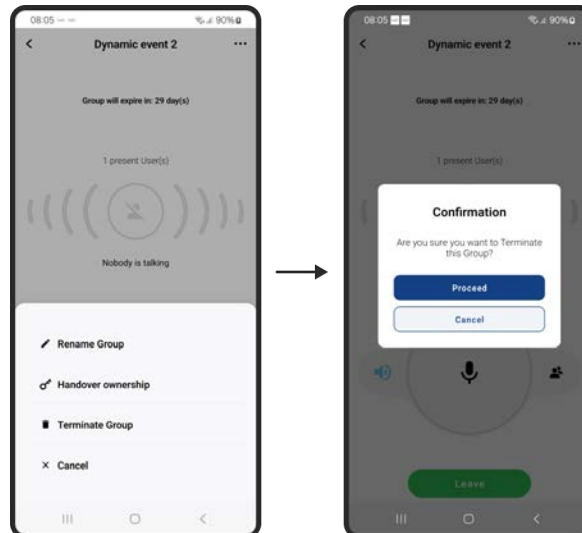
A Primary User may handover ownership to another Primary User on a group which they created, per the flow as illustrated below.

Once the handover is successful, a message will be sent to all members of the group indicating the handover has taken place.

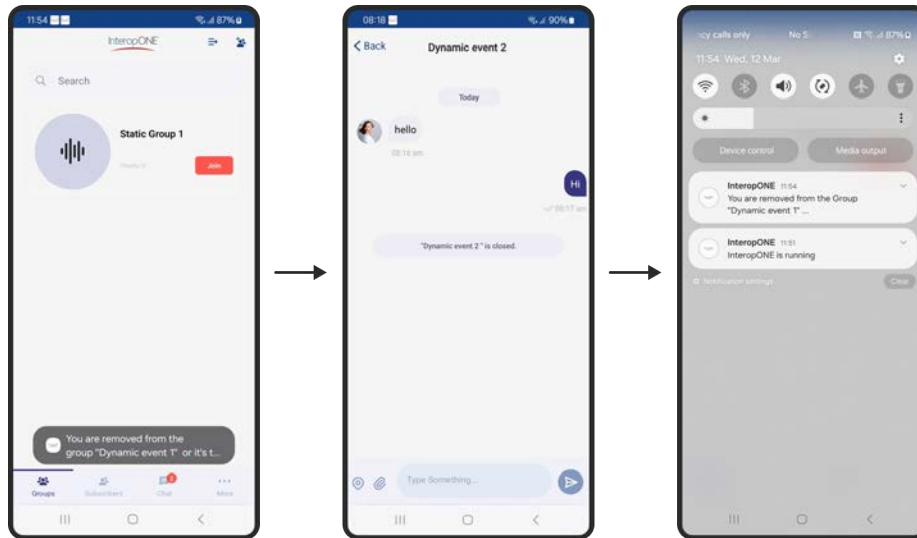


4.6.3.2 Group termination


A Primary User may terminate a group which they created, per the flow as illustrated below. Once confirmation is made, the group detail screen is dismissed, and the group is removed from the list of active groups on the Groups screen. Members will receive a notification that the group has been terminated.



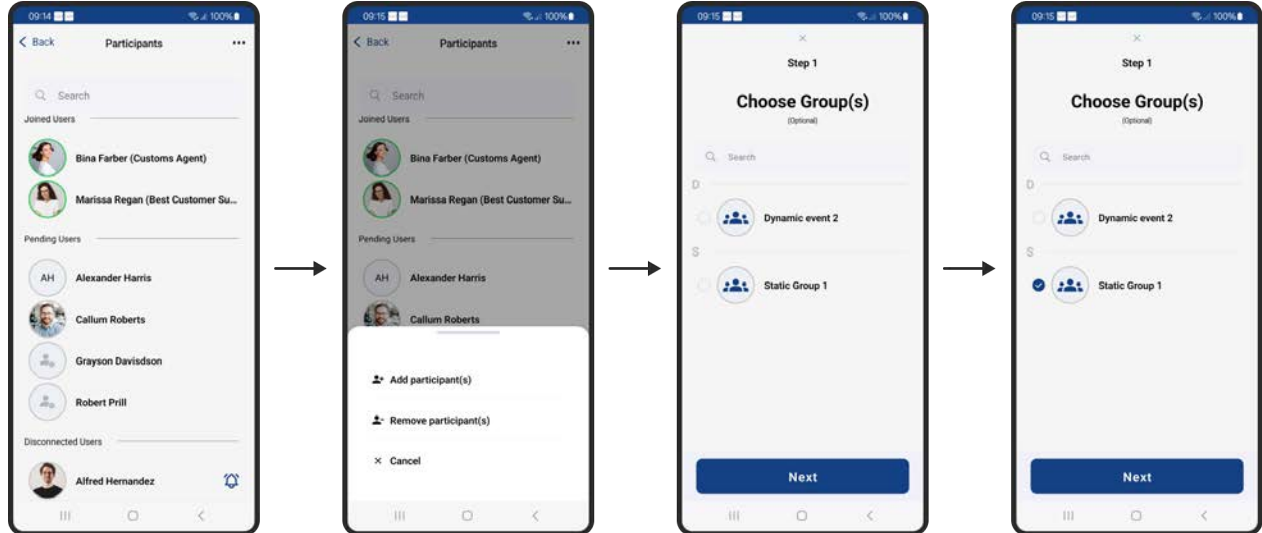
Note also that if there is a conversation opened on that group, it will be closed as shown below.

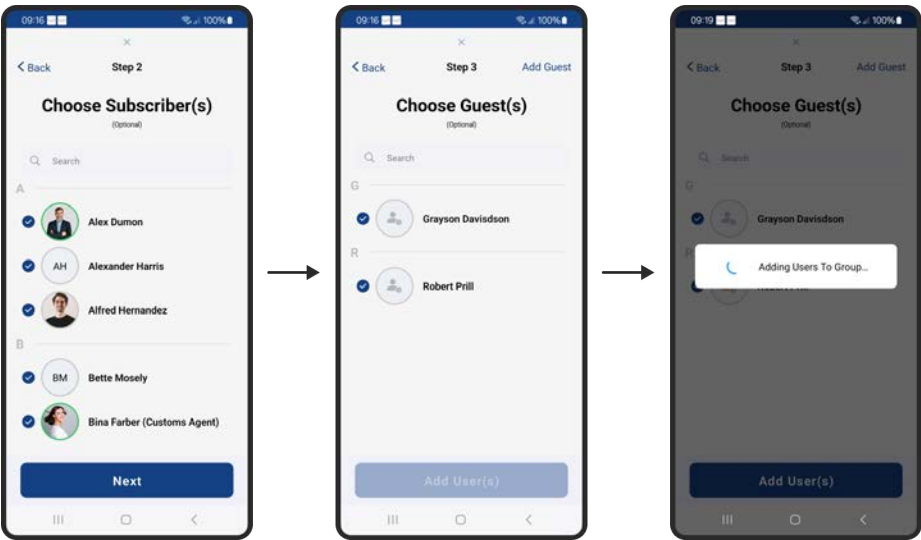


4.6.3.3 Group participant list

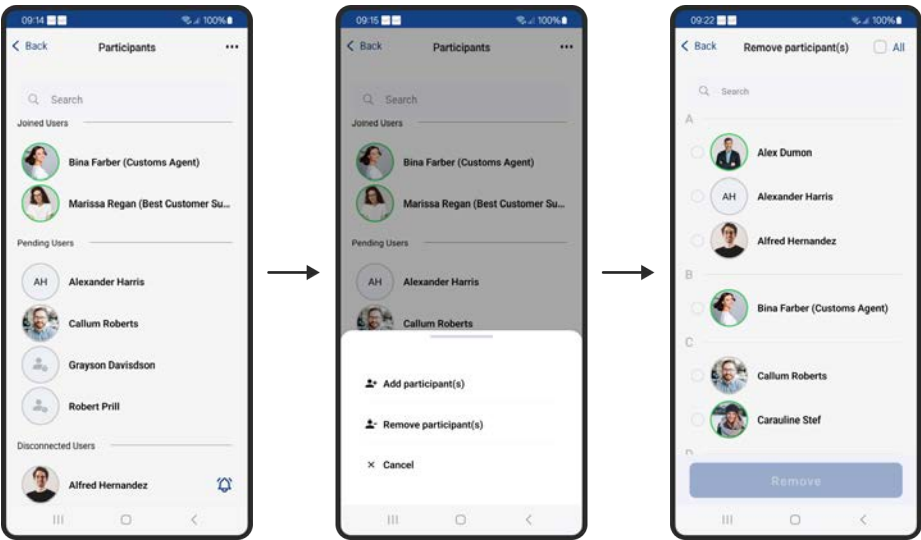
Here you can browse the list of participants and their current status by pressing the  icon from the group details screen. As a Primary User you can add/remove participants to/from your group.

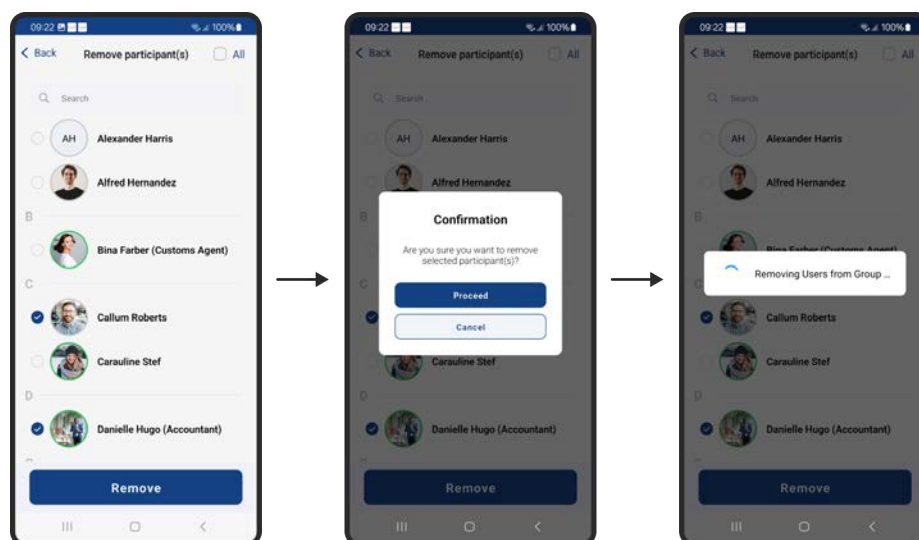
This is an example for the flow when adding participant(s):





This is an example flow for when removing participant(s):



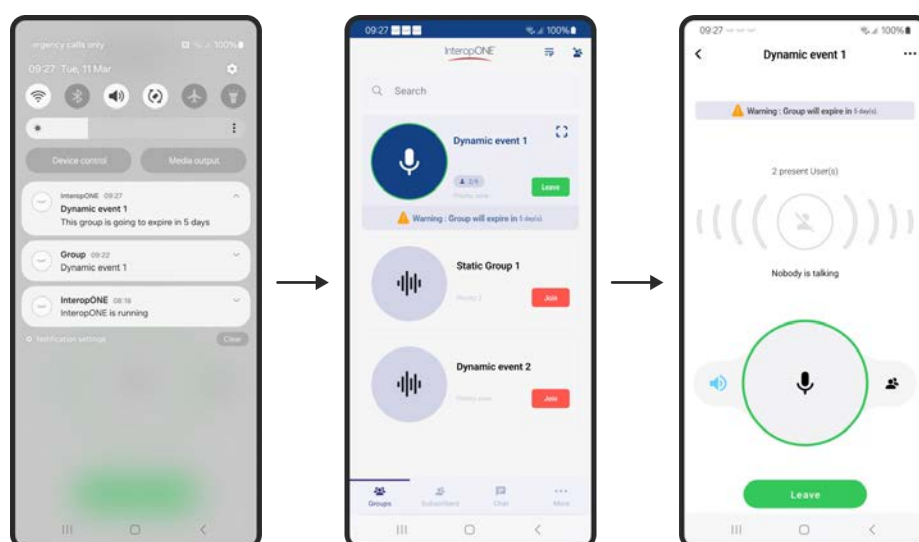


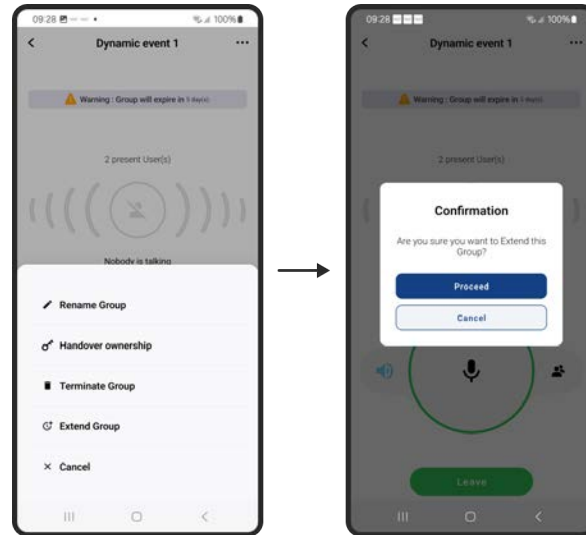
4.6.3.4 Extending a group

When a dynamic group is within 5 days of the 30-day expiration, the owner of the group will receive a notification for that matter and a warning is displayed on the group details screen as well as the Groups screen when joined to that group.

As the group owner, you'll notice a new option "Extend group" available on the action sheet when you tap the top right '...' button.

Once you confirm it, your group will be extended by 30 calendar days and the warning will be removed.



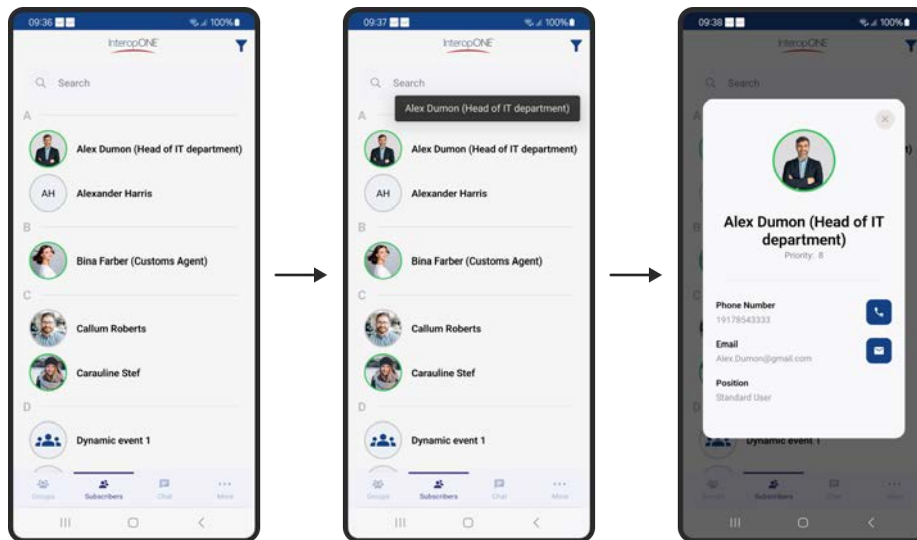


4.6.4 List of subscribers

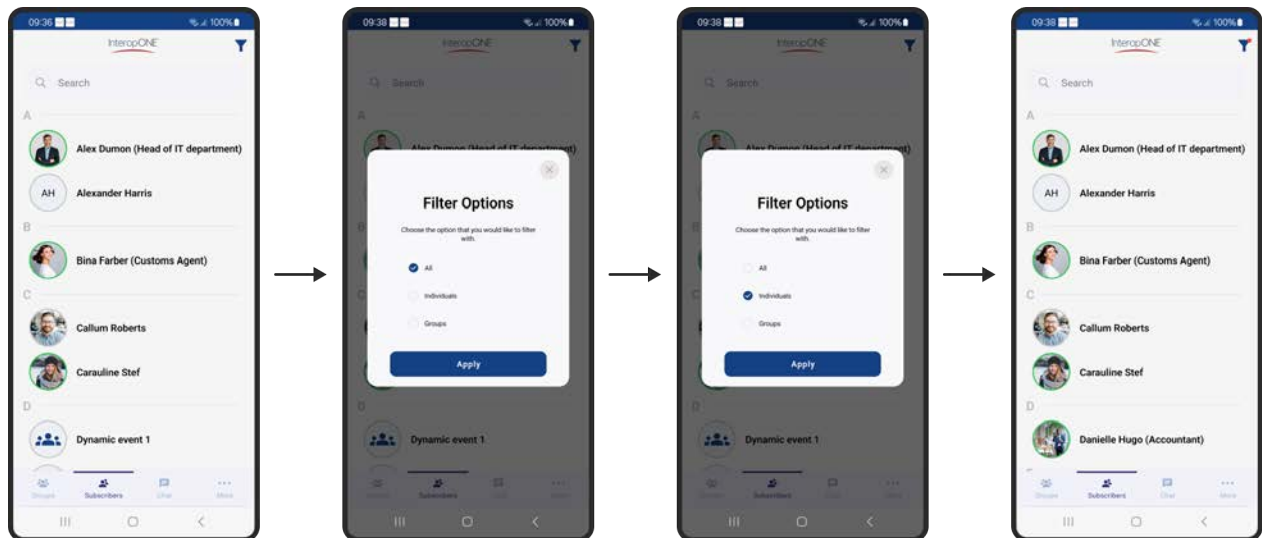
On the Subscribers menu, the following actions are available:

- Filtering by individuals or groups.
- Looking up an individual detail.
 - If a contact avatar has a green border, it means they are logged in.
 - If a contact avatar has a grey border, it means they are logged out.
 - All groups have a grey border since they have no login status.

In the illustration below, when you tap on any subscriber avatar, a pop-up will be displayed for you with their details.

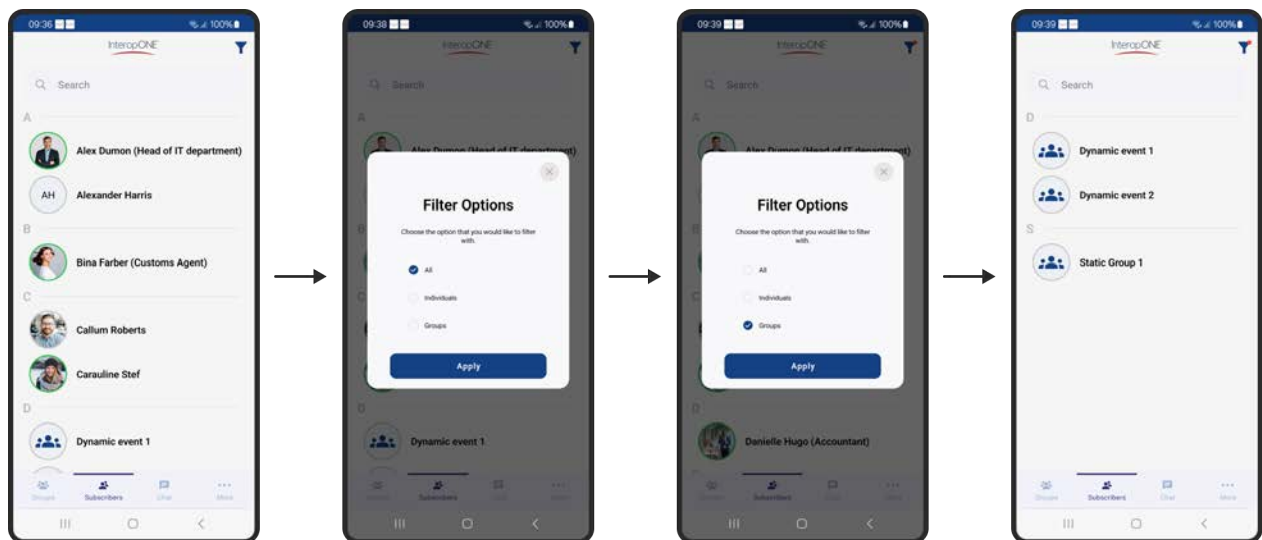


If you tap on the top right corner filter icon, you'll see a pop-up with the 3 options: All, individuals and groups. In the illustration below, an example of filtering with individuals.



Notice when the filter is active, the filter icon on the top right corner has a red dot.




Going through the same steps but choosing the groups option will result in the following:

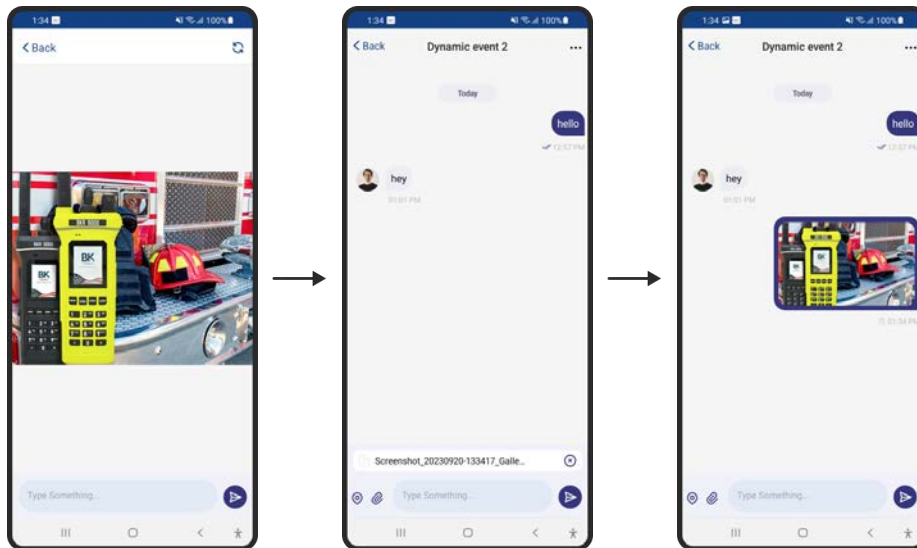


4.6.5 Chat attachment




InteropONE™ supports 5 types of attachments in a chat conversation: Image, Audio, Video, File, and Location.

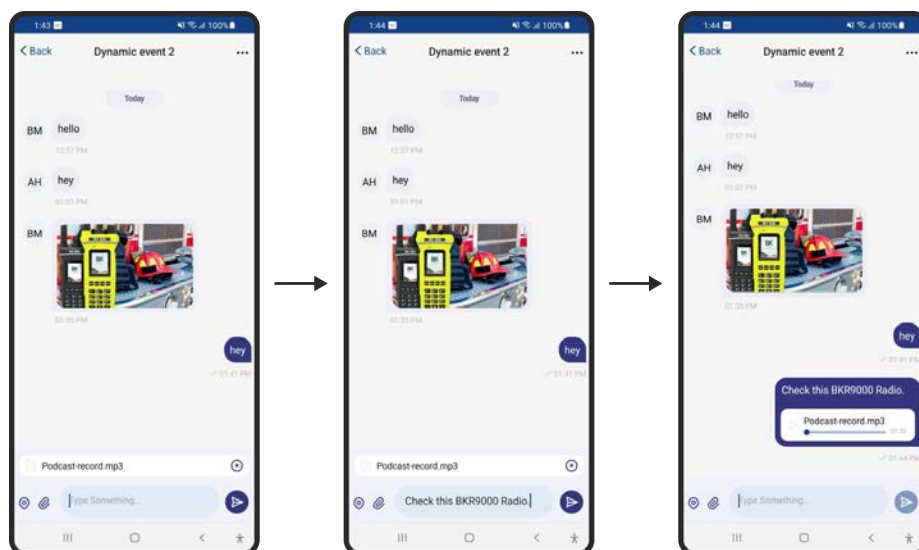
4.6.5.1 Image attachment

For Image attachment, tap on the attachment icon  in a conversation, choose the image you would like to attach, add accompanying text if desired, then send the selected file by pressing the  icon. You can use the  icon after choosing the attachment to cancel the operation.






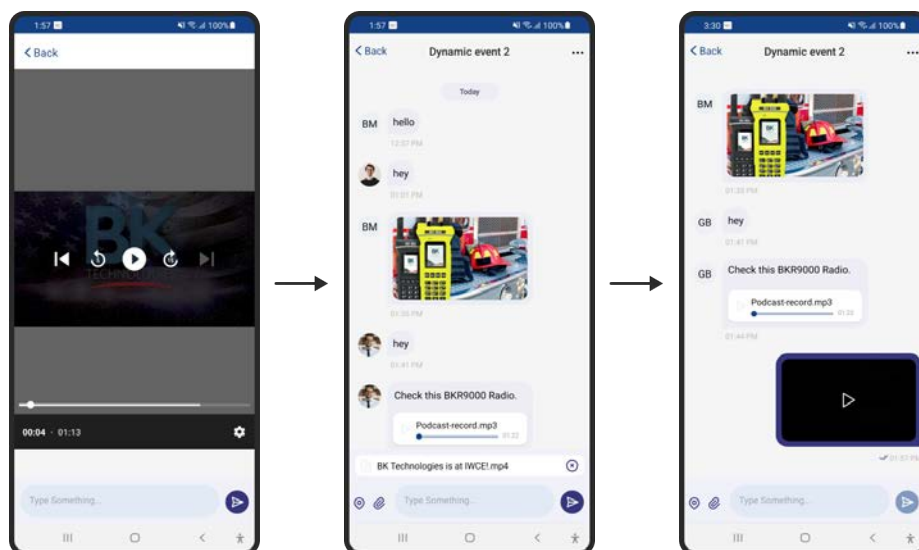
4.6.5.2 Audio attachment

For Audio attachment, tap on the attachment icon  in a conversation, choose the audio file you would like to attach, add accompanying text if desired, then send the selected audio by pressing the  icon. You can use the  icon after choosing the attachment to cancel the operation.






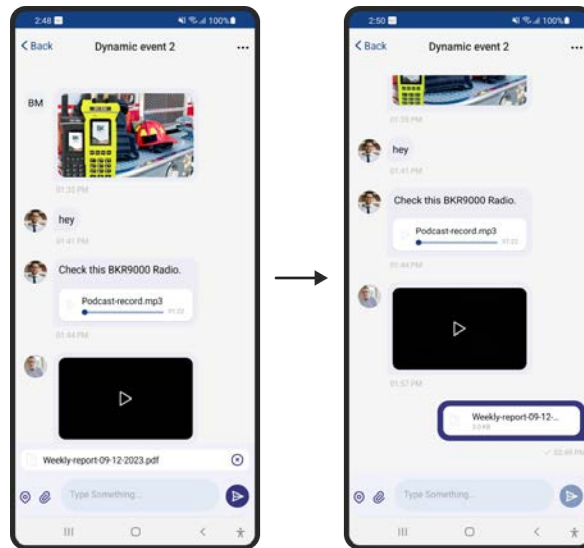
4.6.5.3 Video attachment

For Video attachment, tap on the attachment icon  in a conversation, choose the video file you would like to attach, add accompanying text if desired, then send the selected video by pressing the  icon. You can use the  icon after choosing the attachment to cancel the operation.





4.6.5.4 File attachment

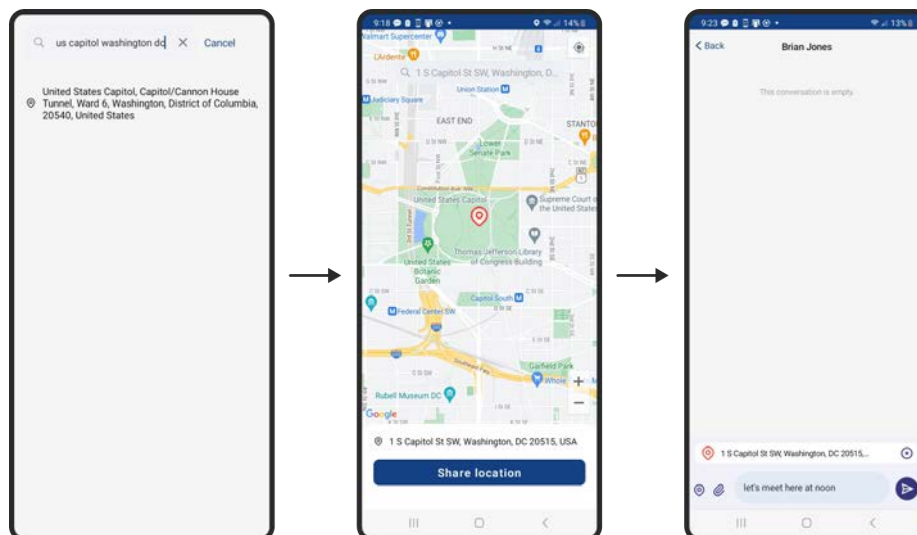
For File attachment, tap on the attachment icon  in a conversation, choose the file you would like to attach, add accompanying text if desired, then send the selected file by pressing the send icon.  You can use the icon  after choosing the attachment to cancel the operation.



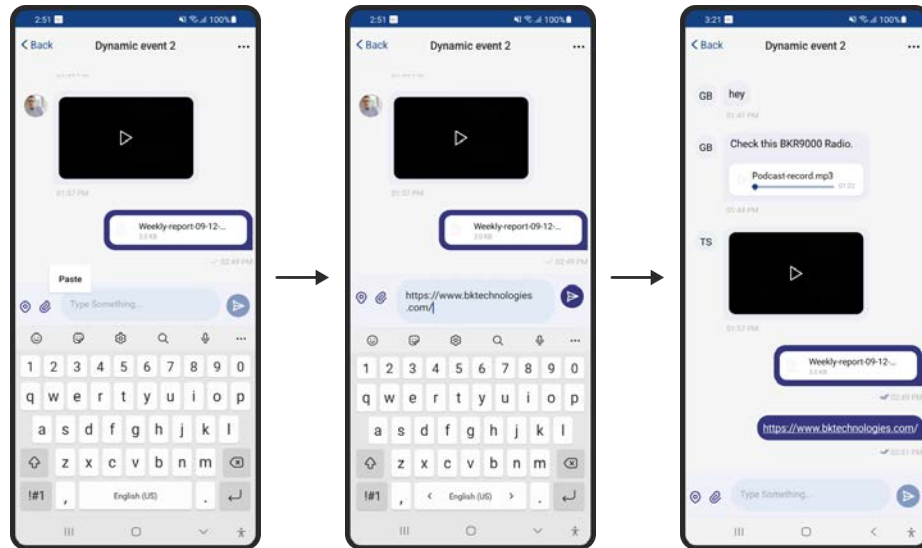
4.6.5.5 Location attachment

For Location attachment, tap on the location icon  in a conversation, you'll be presented with a map view in which you'll be able to search for a specific location or just immediately share your current position.

You can use the  icon after choosing the location to cancel the operation.



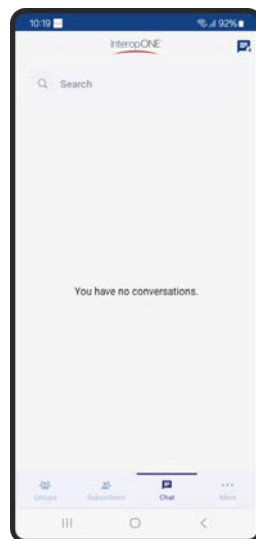
In addition to the 5 attachment types, InteropONE™ supports sending links as shown below:



4.6.6 Create group chat

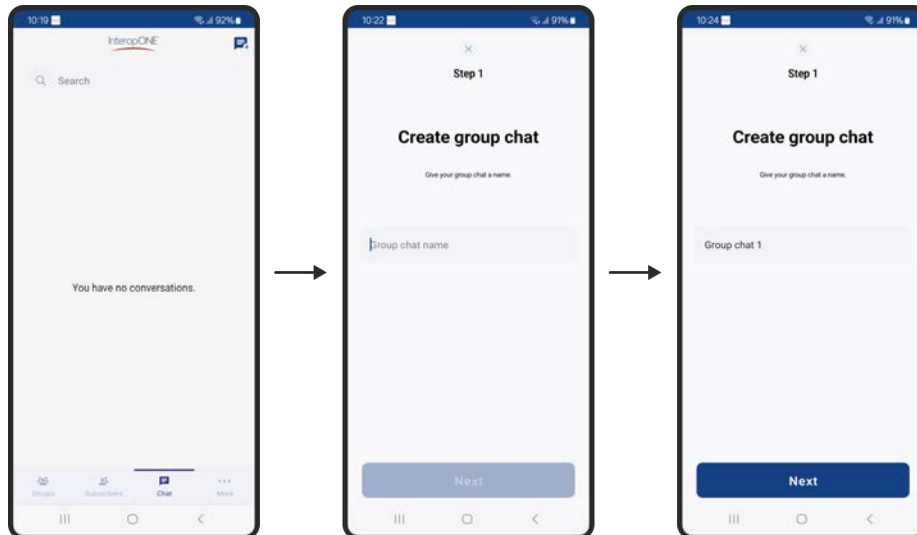
InteropONE™ supports 3 types of group conversations: Ad-hoc, Static and Dynamic.

Below is a presentation of an empty chat menu. You can use the search field to find a conversation by specific keywords.

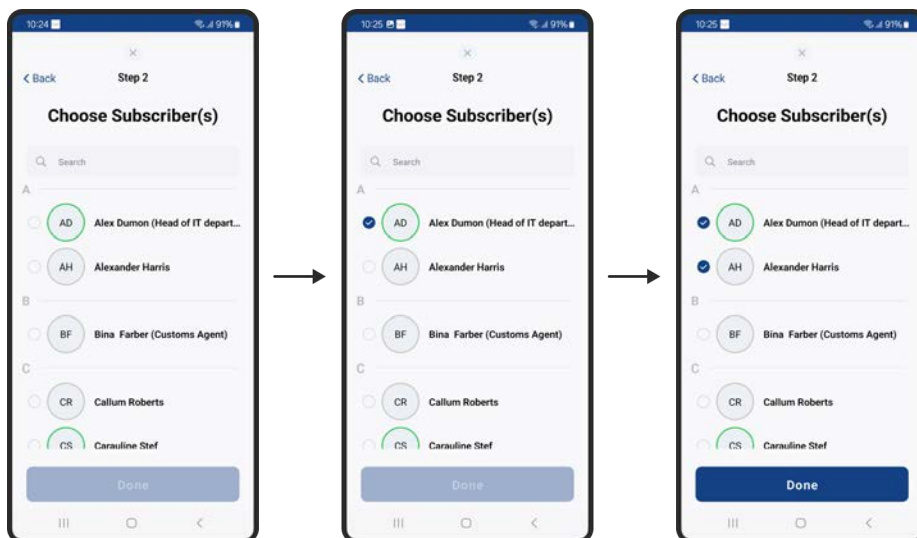


4.6.6.1 Ad-hoc group chat

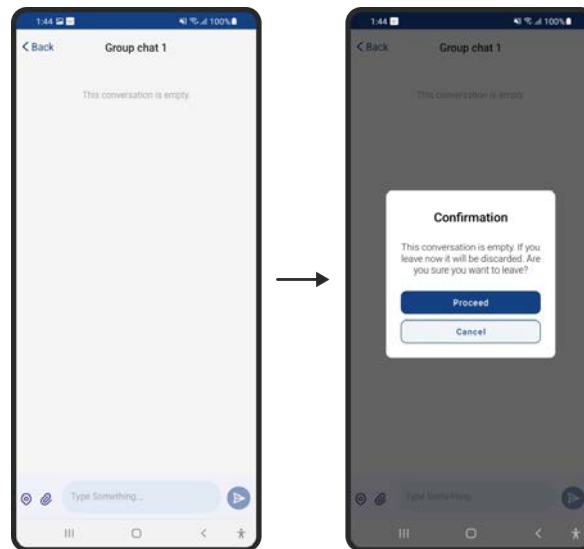
To start an ad-hoc conversation, go to the Chat menu, then tap on the new conversation icon on the top right corner as shown below where you type in the name of the conversation.



On the next step you'll be choosing the members of the group conversation.



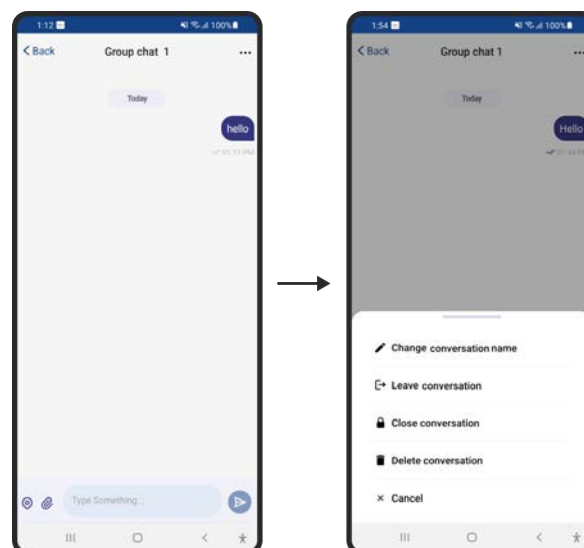
If you attempt to leave a conversation after immediately creating it, you'll get a pop-up to choose whether you want to discard this conversation or stay in the current screen.



By tapping on the top right '...' button, the conversation creator is presented with the following options to manage the conversation:

If the conversation creator leaves the conversation, the rest of the members are granted the managing role automatically.

If the creator deletes the conversation, they are just deleting it for themselves.



By tapping on the top right '...' button, conversation members are presented with the following options:

If a member leaves the conversation, they won't get any further messages to that conversation

If a member deletes the conversation, they are just deleting it for themselves.

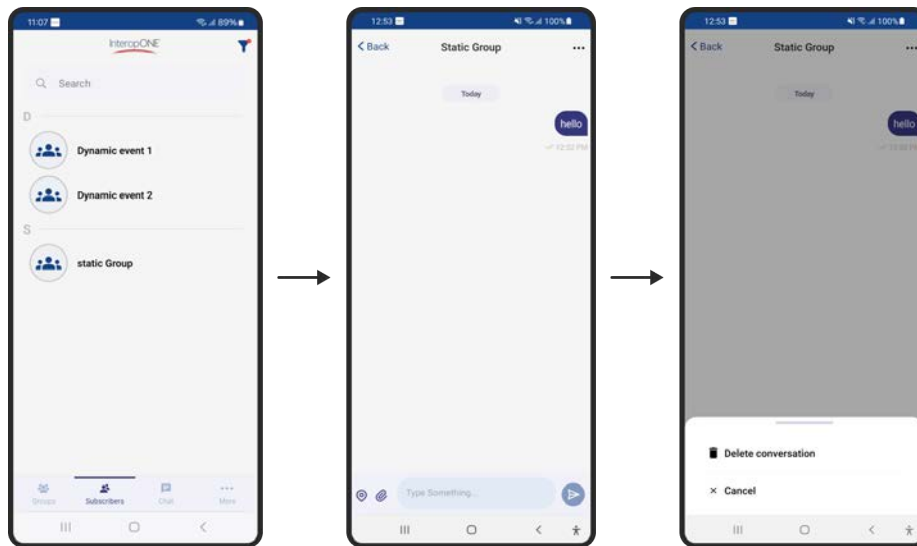


4.6.6.2 Static group chat

To start a static group conversation, go to the Subscribers menu, and search for any static group assigned to you (to learn about filtering on the Subscribers menu, refer to the [List of subscribers](#) section), then tap on the desired static group name.

Any member assigned to the static group will have a '...' button on the top right corner of the conversation to allow them to delete the conversation if they want to.

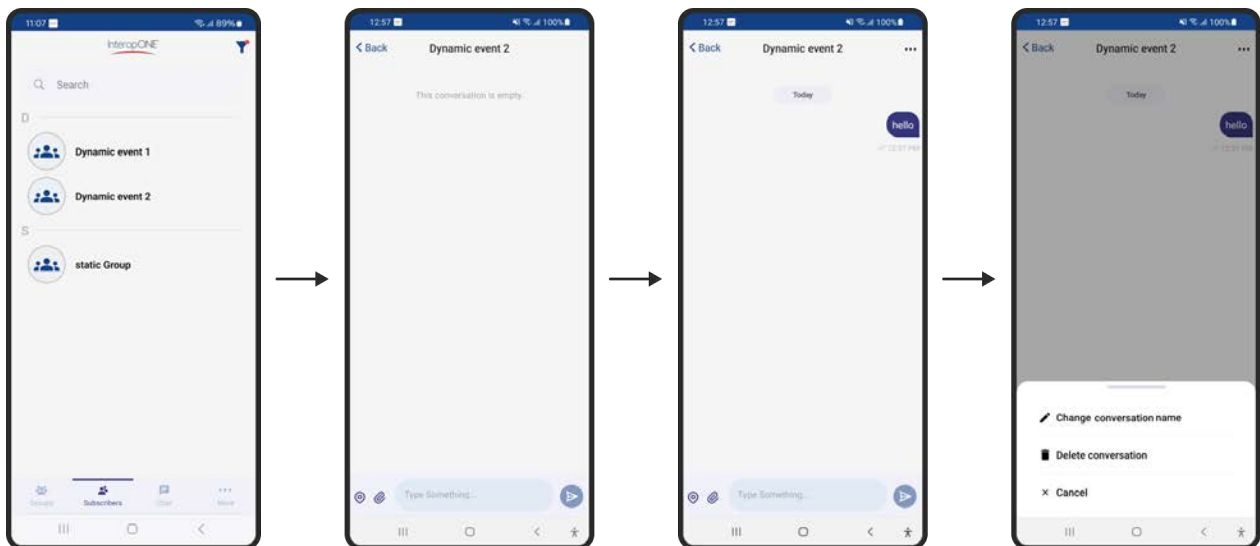
Deleting a conversation removes it only for the user who took the action, it doesn't affect the other members.



4.6.6.3 Dynamic group chat

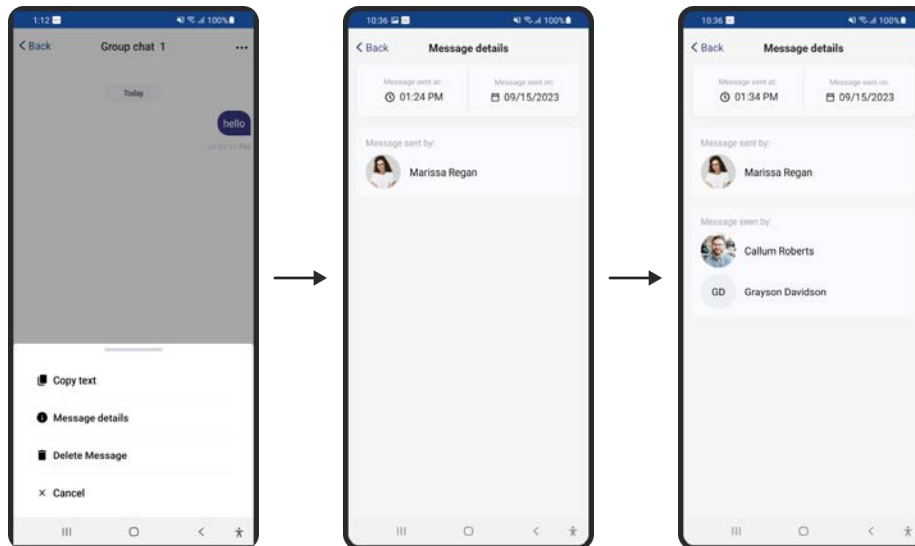
As the owner of a dynamic group, to start a dynamic group conversation tap on the name of your group from the Subscribers menu.

Once a conversation is created, you can tap on the top right '...' button to get the following options available for you: Change group name, delete conversation and cancel.



Any user inside the conversation can tap and hold their sent messages. When doing so, they are presented with the following options: Copy text, Message details, Delete message.

Below an example of Message details:



Note that members assigned to that group can't start the conversation from the Subscribers menu. Members will only be able to access the conversation from either the Subscribers or the Chat menu if it has been already started by the group owner.

4.6.6.4 In-app badges

When receiving a message while away, there are two kinds of badges within the application:

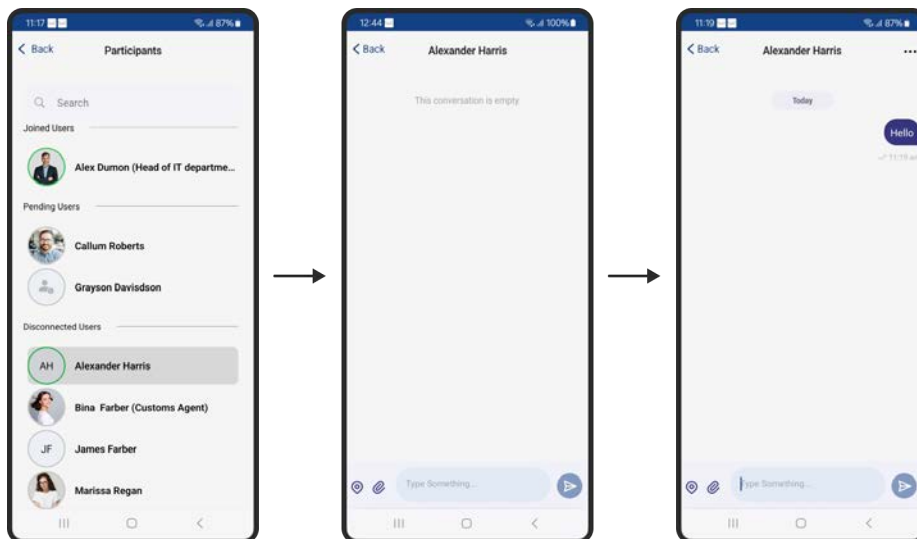
- The number of unread messages in a conversation displayed on the right side of each conversation.
- The number of unread conversations displayed on the bottom menu beside the chat icon.

Also, a notification is delivered to you on each message received when the app is in the background.

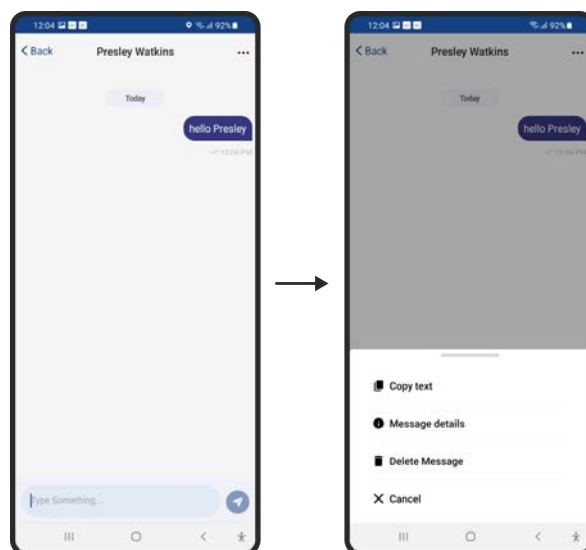


4.6.7 Start one-to-one chat

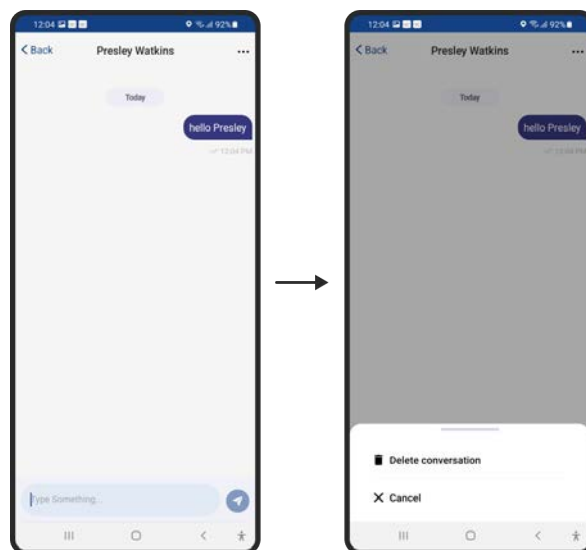
In order to start a one-to-one conversation, go to the participant list of your group and tap on any of the member's name.



A Primary User has the following options when they tap and hold on their messages



A Primary User has the following option when they tap the top right '...' button.



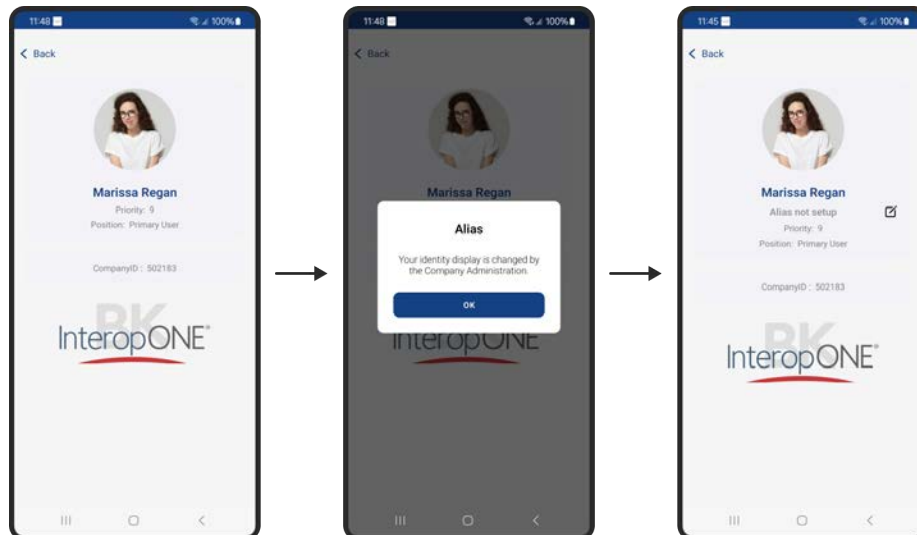
4.6.8 More

On this menu you'll find access to account information, guest list, preferences and other settings.

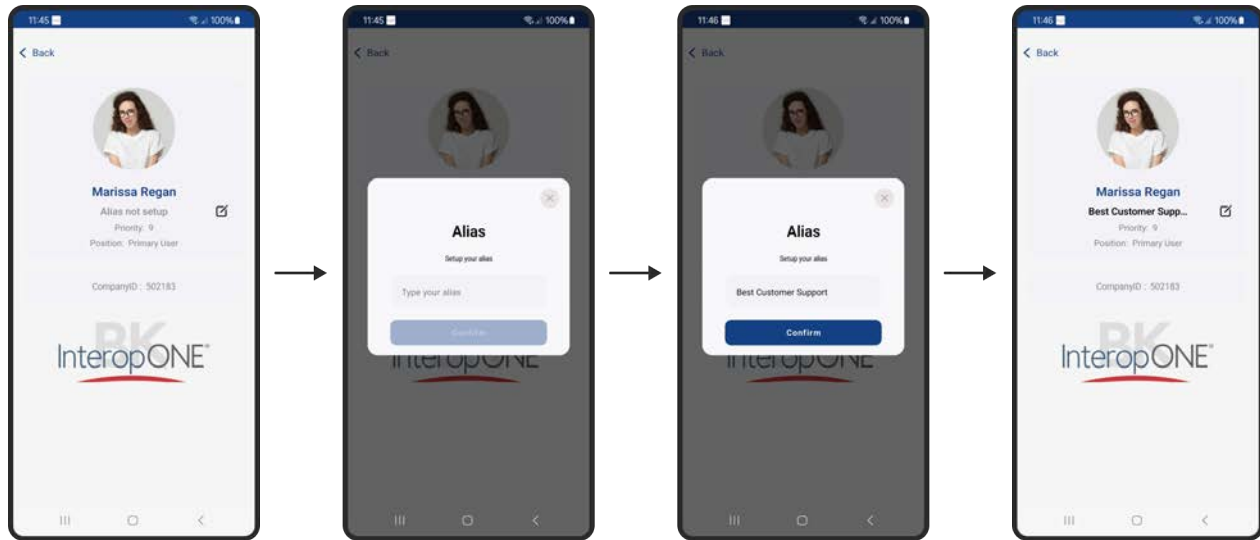


4.6.8.1 Alias feature

Once the Alias feature is enabled at the organization level, you'll get the following update on the account information screen from the More menu.



If the organization administrator allows you to change your alias from the application side, you'll see an edit button to enter your preferred alias.

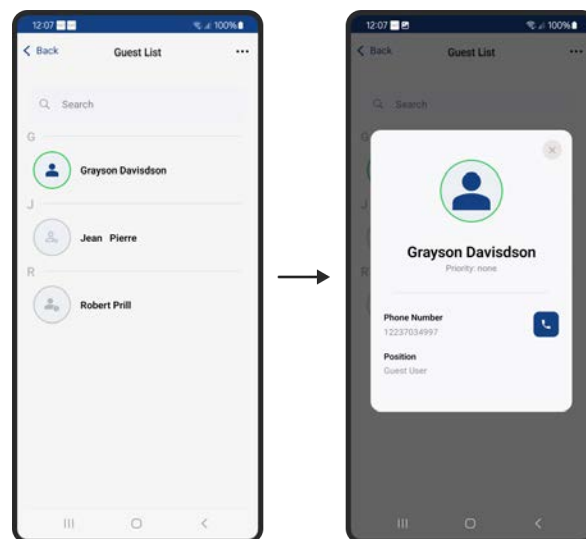


4.6.8.2 Guest List

The guest list displays all the guests invited across the organization.

As shown below, there are 3 states for the guests:

- Locally saved (Jean Pierre): A Guest User that you, as a Primary User, have invited before but is no longer in the system.
- Active (Grayson Davidson): A Guest User who is invited to the organization and successfully logged in.
- Pending (Robert Prill): A Guest User who is invited to the organization but has not logged in yet.

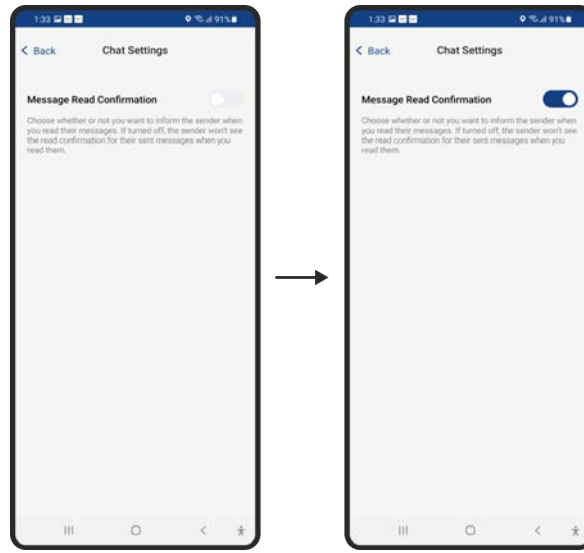


Also, as with the Subscribers menu, when you tap on the avatar of any Guest User you can view their details.

4.6.8.3 Settings

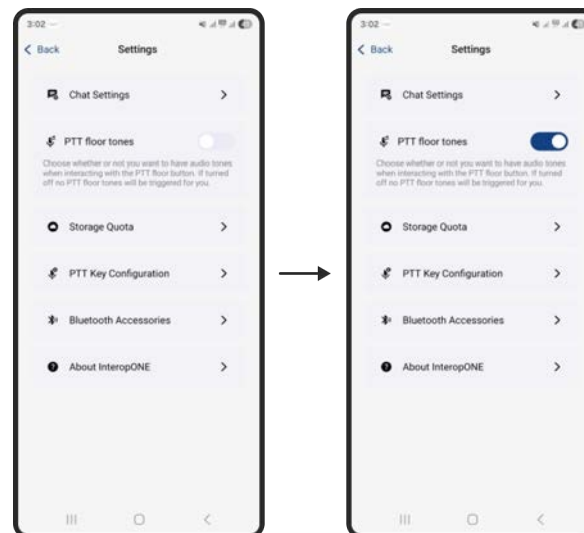
4.6.8.3.1 Chat settings

Use this setting to enable/disable Message Read Confirmation when sending messages.



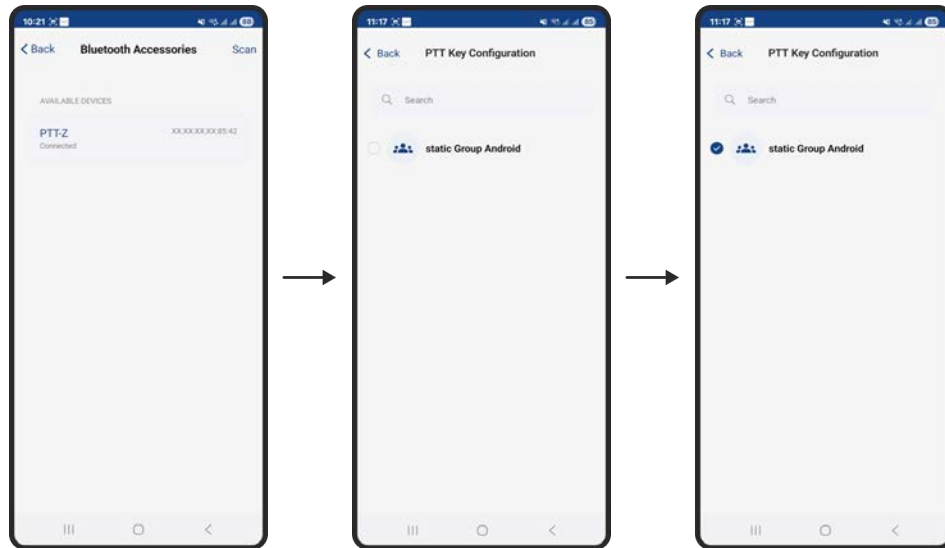
4.6.8.3.2 PTT floor tones

Use this setting to switch On and Off the floor tones when using the PTT button.



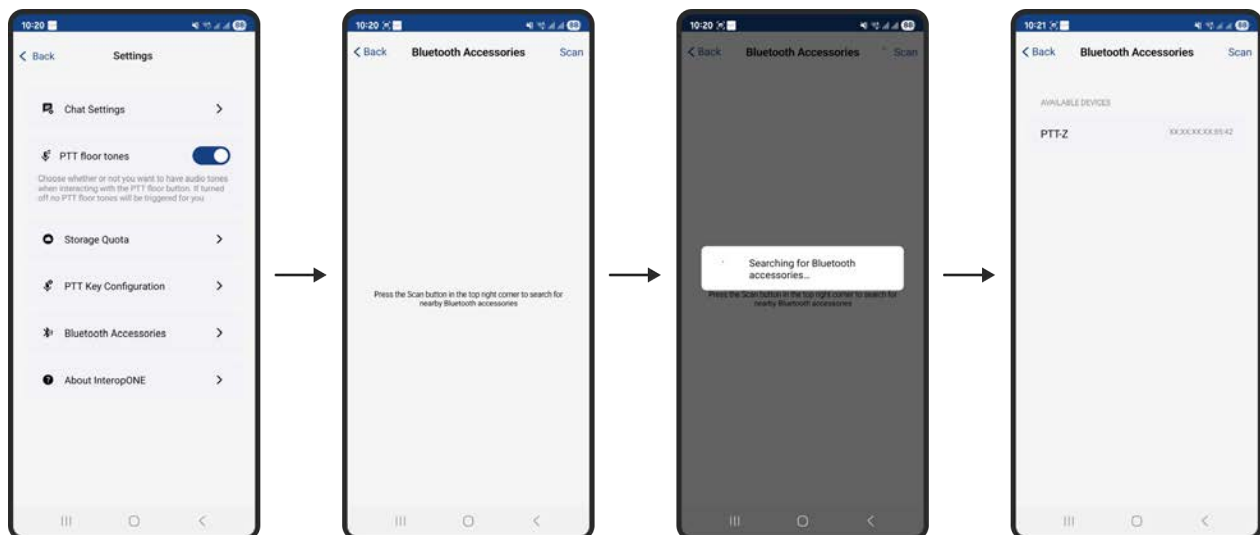
4.6.8.3.3 PTT Key configuration

This is where the user can assign the group they wish to map to the external PTT key (whether this is a hardware button on rugged phones or external PTT button via a Bluetooth gadget).

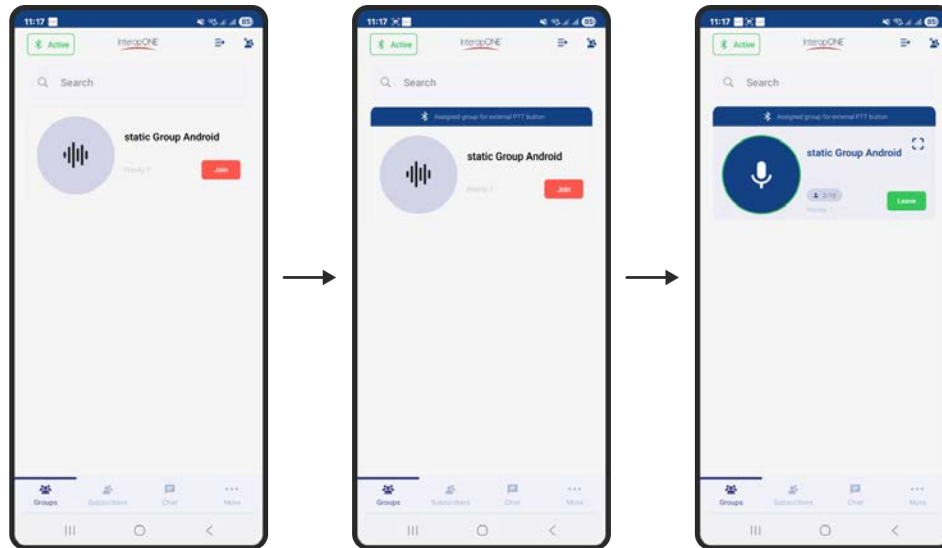


4.6.8.3.4 Bluetooth accessories

This is where the user can scan and connect Bluetooth accessories as shown in the flow below. See Appendix 1 for details.




Once a group is mapped for PTT, an additional UI hint will be displayed on that group as illustrated below:

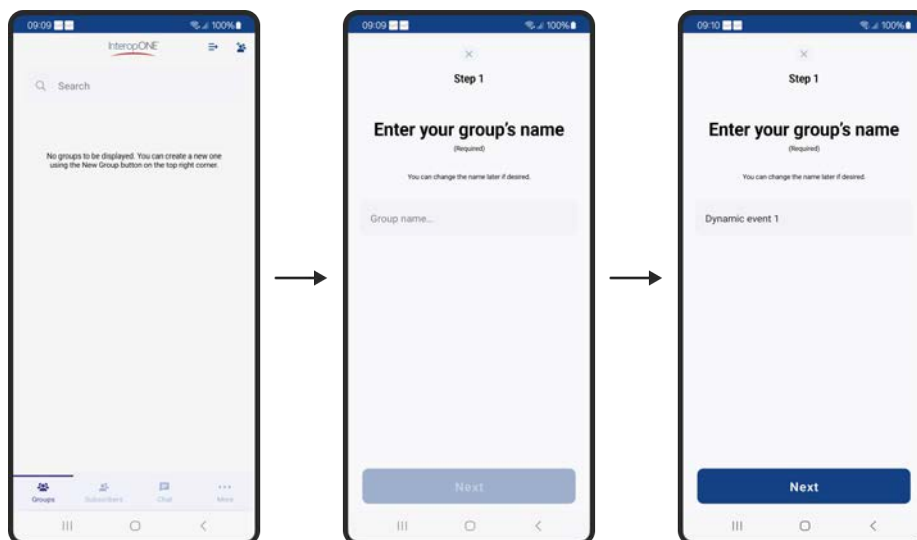


4.7 Standard User flow

The Standard User is an InteropONE™ subscriber that can create dynamic groups containing other InteropONE™ subscribers within the organization but cannot include Guest Users (non-InteropONE™ subscribers). Once logged in, the Standard User is presented with 4 main menus: Groups, Subscribers, Chat and More.

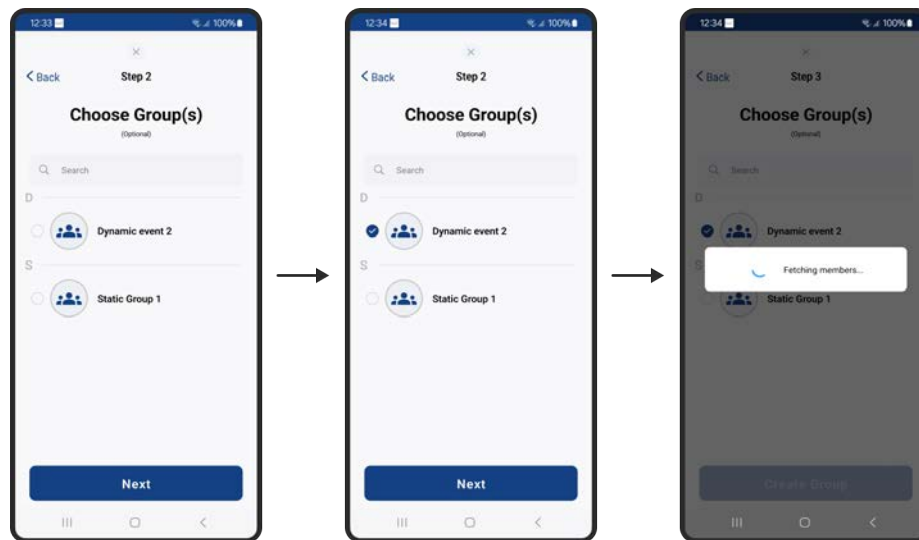
4.7.1 Create group

To create a dynamic group, as a Standard User, tap on the New Group button  from the top right corner of the Groups screen. Then you'll be presented with the following screen to enter your Group Name:



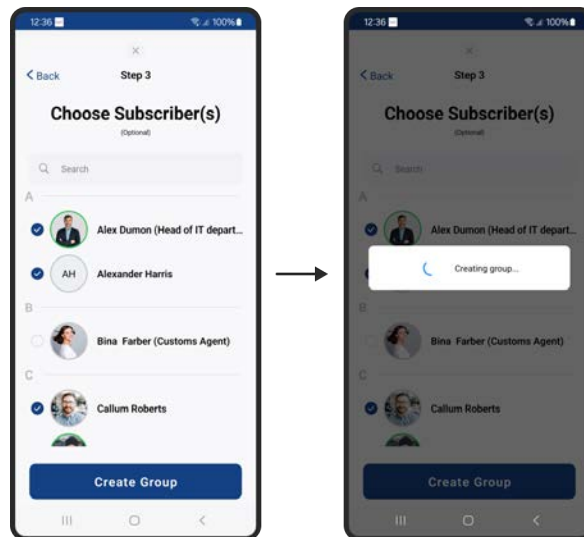
After you enter the Group Name, you'll be presented with the list of groups available to you within your organization. This short cut allows you to select members from existing groups to include in the new group. You can search by key words and select manually the desired group(s) as illustrated:

Note that this step is optional, and you can skip by pressing Next.



On step 3, you'll be presented with the list of subscribers within your organization. You can search by key words and select/unselect manually the target members of your group as illustrated:

Once you're done selecting/unselecting the desired members of your group you can proceed by tapping on the Create Group button.



Group creation may take a few seconds. Once complete, you are returned to the Groups screen which displays a list of the groups to which you are assigned, including the newly created group.

4.7.2 Re-order groups

The re-order groups feature for the Standard User is similar to the Primary User's. Refer to the [Re-order groups](#) section in the document.

4.7.3 Dynamic Group management

4.7.3.1 Handover ownership

The handover ownership feature for the Standard User is similar to the Primary User's. Refer to the [Handover ownership](#) section in the document.

4.7.3.2 Group termination

The group termination for the Standard User is similar to the Primary User's. Refer to the [Group termination](#) section in the document.

4.7.3.3 Group participant list

The group participant list for the Standard User is similar to the Primary User's. Refer to the [Group participant list](#) section in the document.

4.7.3.4 Extending a group

Extending a group for the Standard User is similar to the Primary User's. Refer to the [Extending a group](#) section in the document.

4.7.4 List of subscribers

The list of subscribers for the Standard User is similar to the Primary User's. Refer to the [List of subscribers](#) section in the document.

4.7.5 Chat attachment

Chat attachment for the Standard User is similar to the Primary User's. Refer to the [Chat attachment](#) section in the document.

4.7.5.1 Image attachment

Image attachment for the Standard User is similar to the Primary User's. Refer to the [Image attachment](#) section in the document.

4.7.5.2 Audio attachment

Audio attachment for the Standard User is similar to the Primary User's. Refer to the [Audio attachment](#) section in the document.

4.7.5.3 Video attachment

Video attachment for the Standard User is similar to the Primary User's. Refer to the [Video attachment](#) section in the document.

4.7.5.4 File attachment

File attachment for the Standard User is similar to the Primary User's. Refer to the [File attachment](#) section in the document.

4.7.5.5 Location attachment

Location attachment for the Standard User is similar to the Primary User's. Refer to the [Location attachment](#) section in the document.

4.7.6 Create group chat

4.7.6.1 Ad-hoc group chat

An Ad-hoc conversation for a Standard User is similar to the Primary User's flow. Refer to [Ad-hoc group chat](#) section in the document.

4.7.6.2 Static group chat

A Static conversation for a Standard User is similar to the Primary User's flow. Refer to the [Static group chat](#) section in the document.

4.7.6.3 Dynamic group chat

A Dynamic conversation for a Standard User is similar to the Primary User's flow. Refer to the [Dynamic group chat](#) section in the document.

4.7.6.4 In-app badges

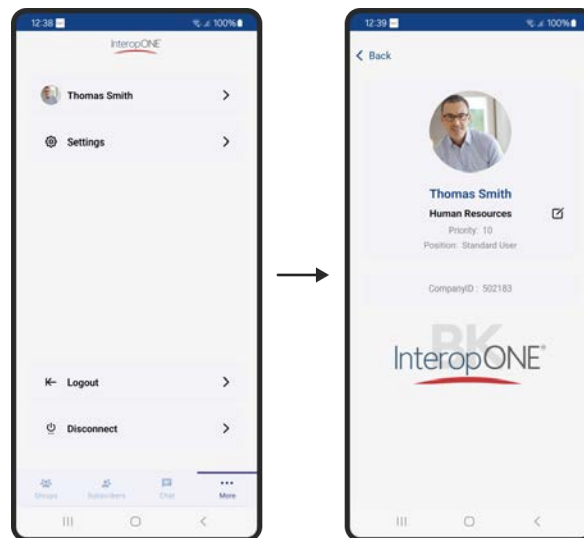
The in-app badges for a Standard User are similar to the Primary User's flow. Refer to the [In-app badges](#) section in the document.

4.7.7 Start one-to-one chat

The start one-to-one chat for a Standard User is similar to the Primary User's flow. Refer to the [start one-to-one chat](#) section in the document.

4.7.8 More

On this menu you'll find access to account information, preferences and other settings.



4.7.8.1 Settings

4.7.8.1.1 Chat settings

Chat settings for the Standard User are similar to the Primary User's. Refer to the [Chat settings](#) section in the document.

4.7.8.1.2 PTT floor tones

PTT floor tones settings for the Standard User are similar to the Primary User's. Refer to the [PTT floor tones](#) section in the document.

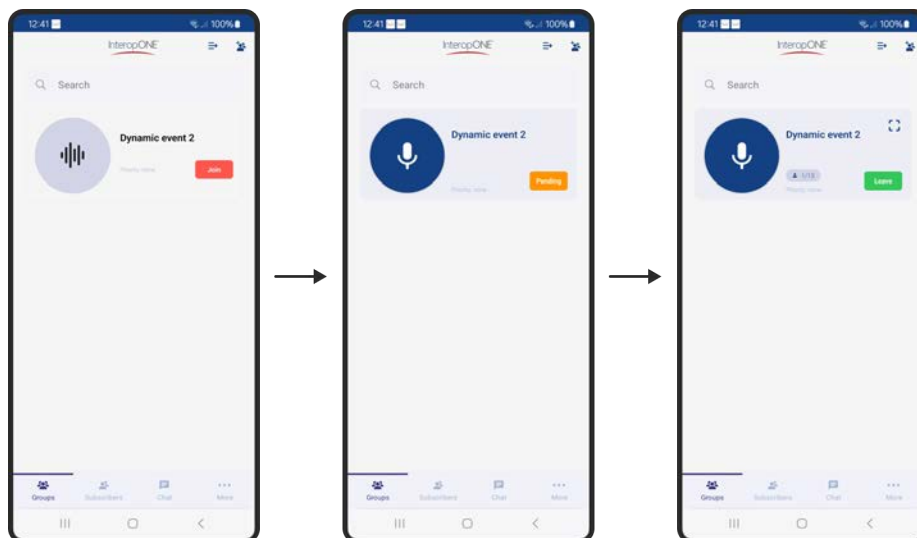
4.8 Guest User flow

The Guest User is a person outside of the InteropONE™ organization that has been invited by a Primary User within the organization to assist with a group. Once logged in, the Guest User is presented with 3 main menus: Groups, Chat and More.

4.8.1 Join a dynamic group

Once logged in, you'll find displayed the group(s) that you have been invited to. To join the group, tap on the Join button and note the status updates:

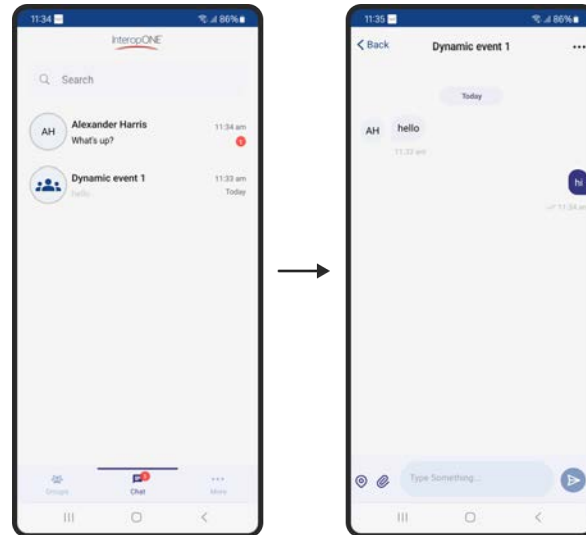
- Pending means connection established but not joined yet.
- Leave means you're successfully joined to the group; therefore, you can use the "Leave" button to disconnect from that group.



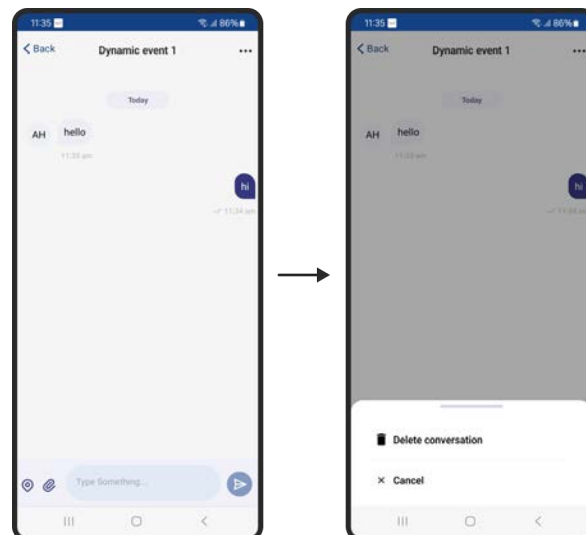
4.8.2 Join a group conversation

Guest Users cannot start a group conversation on their own. The only way they are allowed to chat in a group conversation is if the group owner starts a group chat on that group.

As shown below, the group conversation is created and displayed on the chat menu for the Guest User to access it.



Below are the options available once the Guest User taps on the top right '...' button. A Guest User can delete the conversation, which means they will only delete it for themselves, but the conversation stays active and if others send new messages, the Guest User will receive the new messages and the conversation will be displayed again on the chat screen.



4.8.3 Chat attachment

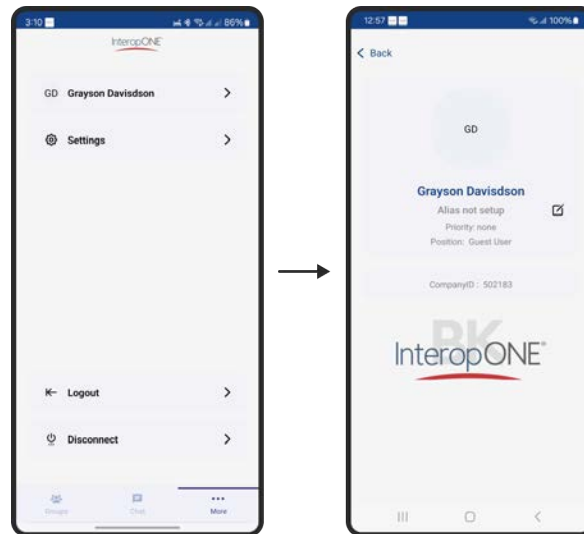
Chat attachment for the Guest User is similar to the Primary User's. Refer to the [Chat attachment](#) section in the document.

4.8.4 Start one-to-one chat

The start one-to-one chat for a Guest User is similar to the Primary User's flow. Refer to the [start one-to-one chat](#) section in the document.

4.8.5 More

On this menu you'll find personal information, preferences and other settings.



4.8.5.1 Settings

4.8.5.1.1 PTT floor tones

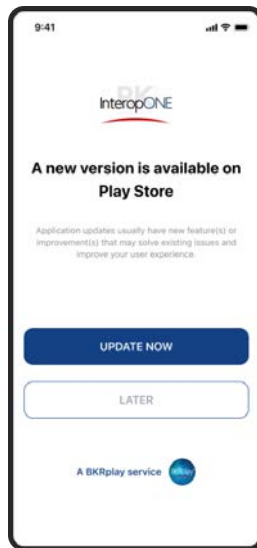
PTT floor tones settings for the Guest User are similar to the Primary User's. Refer to the [PTT floor tones](#) section in the document.

5 App updates

5.1 Explanation of how to check for updates

If there is an update of InteropONE™ posted to the Google Play Store that is newer than the version you are currently running, the application will detect it and display a screen with two options:

1. Update Now: redirect you to the Google Play Store to update using the “UPDATE NOW” button.
2. Choose to do it later using the “LATER” button.



6 Appendix 1: InteropONE connection to Pryme Bluetooth devices

6.1 Single PTT button – Pryme PTT Z Mini

1. Make sure that your phone's Bluetooth and Location services are enabled, and that the PTT-Z button is powered on and is connected to the phone.
2. Open InteropONE and log into your account if not logged in already.
3. Tap on the More menu in the bottom right-hand corner of the app and then choose "Settings" and navigate to "Bluetooth Accessories".
4. Tap on the scan button and then select the "PTT-Z" option.
5. You will see the status changed to "Connected".
6. Press the PTT-Z button; the app will redirect you to the PTT Key Configuration screen.
7. Select the group to be mapped to the PTT-Z button.
8. Pressing the PTT-Z button will attempt to PTT on the mapped group.
9. Revisit the PTT Key Configuration screen to map the button to a different group or to no group.

6.2 Radio Speaker Mic – Pryme BTH Max series

1. Make sure that your phone's Bluetooth and Location services are enabled, and that the speaker microphone is powered on and is connected to the phone.
2. Open InteropONE and log in to your account if not logged in already.
3. Press the PTT button on the speaker microphone; the app will redirect you to the PTT Key Configuration screen.
4. Select the group to be mapped with the speaker microphone.
5. Pressing the PTT button will attempt to PTT on the mapped group.
6. Revisit the PTT Key Configuration screen to map the button to a different group or to no group.