



Version 9.3.1

SmartPTT PLUS

Dispatcher User Guide

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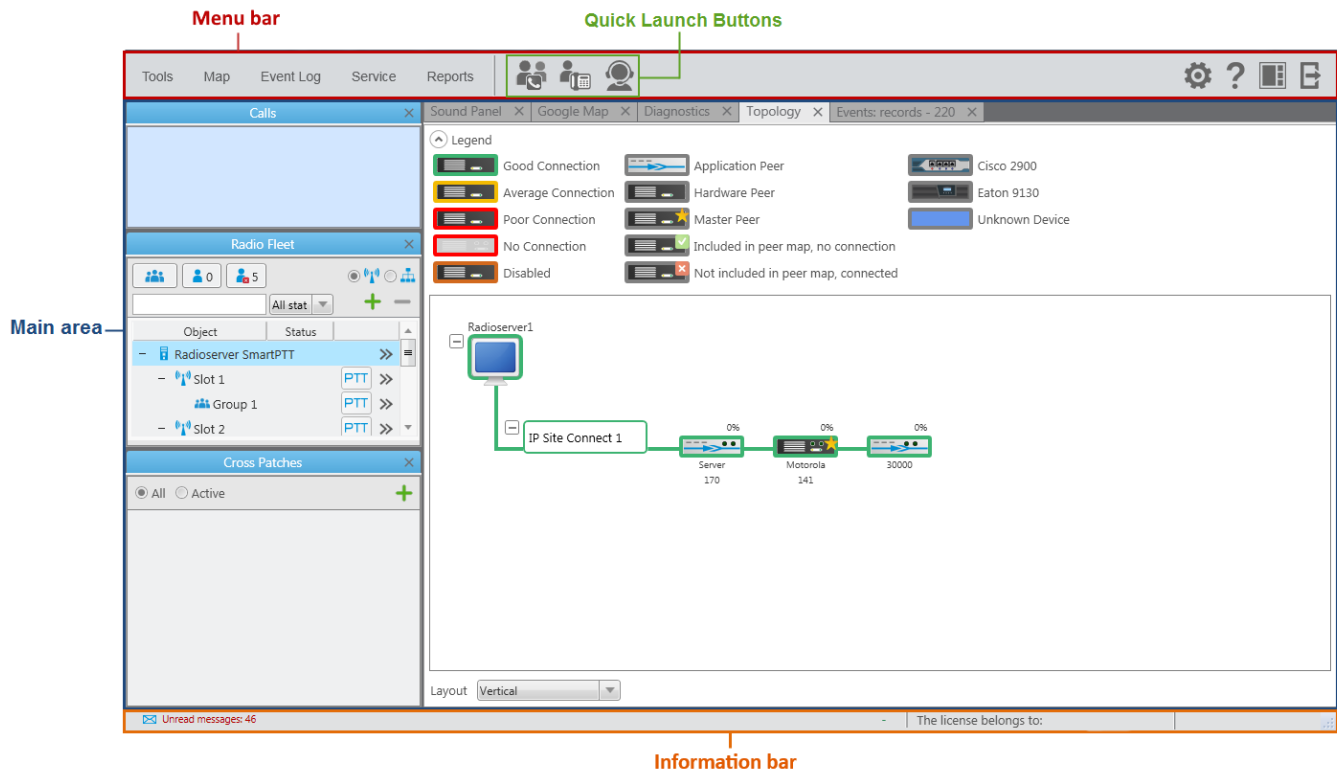
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1 SmartPTT Dispatcher Interface



SmartPTT Dispatcher interface can be divided into the following sections:

- Menu bar which also contains Quick Launch Buttons
- Main area
- Information bar

Menu Bar

The menu bar contains options and commands which allow you to carry out the majority of the functions available in the application.

Quick Launch Buttons provide you a quick access to some functionality of the application:



The **Conference Call** button opens the **Conference Call** window where you can hold conference calls. For information on conference calls, see [Conference Calls](#).



The **Telephone Subscribers** button opens the **Telephone Subscribers** window which allows you to make calls to [telephone subscribers](#) from SmartPTT Dispatcher.



The **Dispatchers** button opens the **Dispatchers** window which allows you to make calls to [external dispatchers](#) from SmartPTT Dispatcher.

There are also other menu items represented by an icon:



The **Settings** button opens the [Settings Menu](#) menu which allows you to configure system parameters create special rules, which will help you manage workers, connect external third-party devices and so on.



The **Settings** button opens the [Settings Menu](#) menu which allows you to configure system parameters, create special rules, which will help you manage workers, connect external third-party devices and so on.



The **UI Layout Settings** button is very useful as it allows the dispatcher to remember the layout of the **Main Area** (the position of opened windows and panels). Thus, next time the dispatcher opens the application, he or she won't need to open the windows all over again. The dispatcher can click the button and select the layout he or she used earlier. For details, see [User Interface Layout](#).



The **Change Operator** button allows you to change the operator. At clicking this button the dispatch console is restarted, and you can select another operator in the **Authorization** window.

Main Area

The main area is a central area of the application window and is used for opening functional windows and panels when operating in the application.

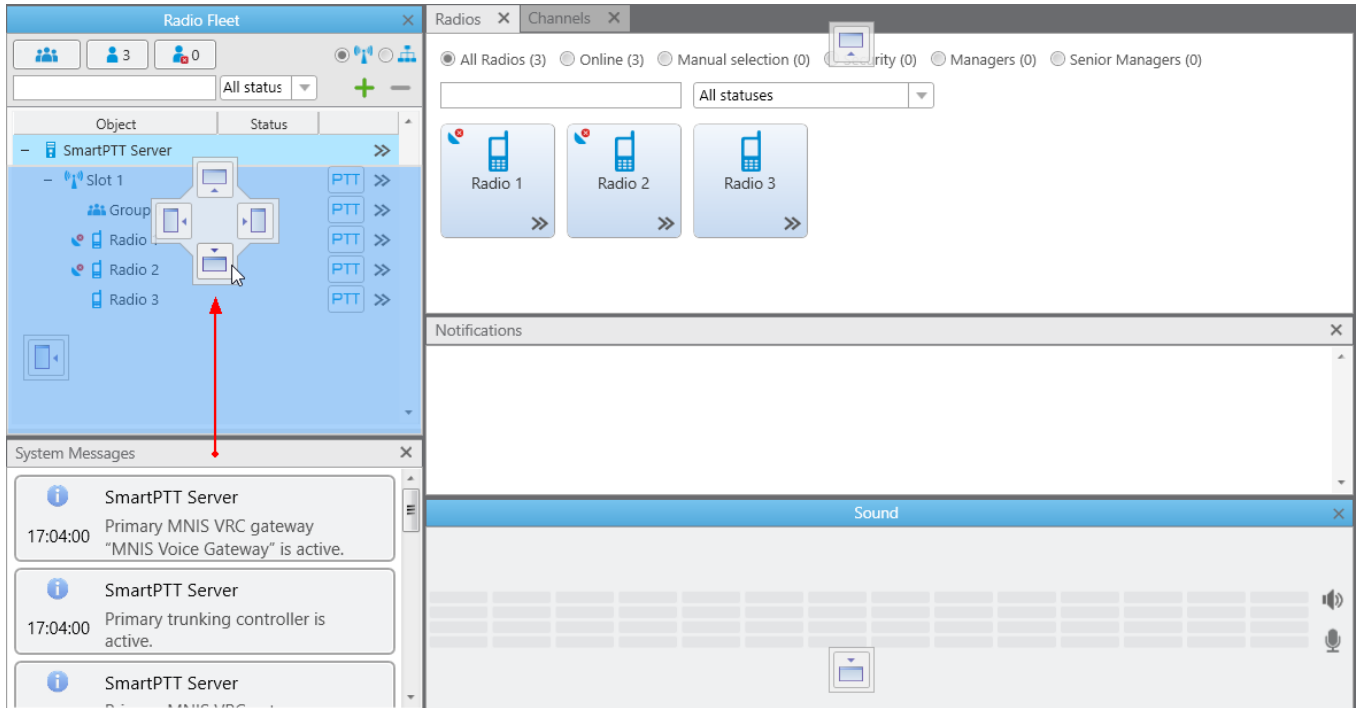
Information Bar



The Information bar is designed to give the information about the number of unread messages, the selected object, the owner of the license and the application version. Here you can also see a special icon which notifies about the approaching license expiration date.

1.1 Changing Layout

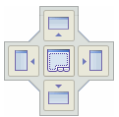
You can adjust a layout of opened panels in the **Main Area**. In order to do that, click on the opened panel tab, drag it to the needed area, and release. As soon as you start dragging the panel, new icons appear on the screen. The icons represent a new location of the panel on the screen.



You can use the following icons for the panels adjustment:




Appears inside a panel, which means that you can either place the panel in any of the four positions beside the panel or insert it as a tab inside the panel.



The four standalone icons can be used to place the panel in any position of the **Main area** outside any other panel.

2 Settings

The **Settings** () menu provides controls for configuring the following system parameters:

- In [General Settings](#) you can tune the dispatch console, e.g., define the PTT button behavior, enable automatic system updates, select language, etc.
- In [Custom Consoles](#) you can create custom consoles with necessary elements.
- In [Call Windows](#) you can configure Call Window parameters, e.g., specify the type of event that triggers the window opening.
- In [Control Devices](#) you can select and configure control devices for using in SmartPTT Dispatcher, e.g. mouse, touchscreen, and hot keys for making calls.
- In [Sound Settings](#) you can configure sound settings and set up multichannel sound.
- In [Tipro Console](#) you can configure Tipro settings.
- In [Telephone Interconnect](#) you can configure telephone settings, and in [Telephone Subscribers](#) you can create a list of telephone subscribers.
- In [Operators](#) you can add operators and manage their rights.
- In [Records](#) you can enable call recording and set up recording parameters.
- In [Database Auto Backup](#) you can set the SmartPTT Dispatcher database auto backup.
- In [List of Radios](#) you can add, edit, and delete radios, edit and delete [WAVE users](#).
- In [Categories](#) you can create categories.
- In [Statuses](#) you can add statuses for radios and [WAVE users](#) displayed in the [Radio Fleet](#) panel.
- In [Telemetry](#) you can configure telemetry commands to be available.
- In [Job Ticket Statuses](#) you can add statuses for job tickets.
- In [Lone Worker Rules](#) you can create and set up rules for lone workers.
- In [Radio Custom Properties](#) you can add additional properties to be displayed in a radio or [WAVE user Properties](#) window.
- In [Positioning Systems](#) you can configure GPS and Indoor settings.

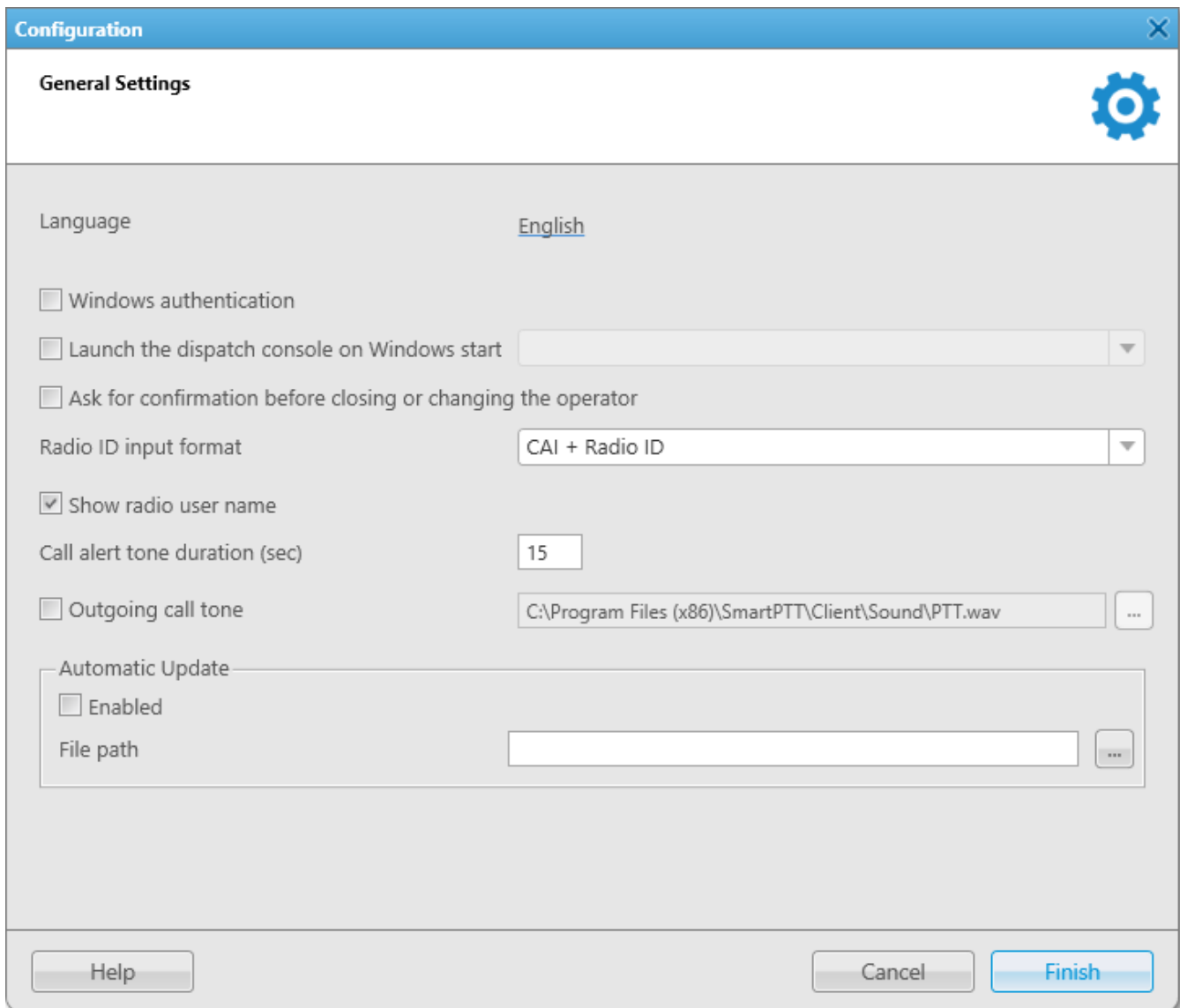
- In [Dispatchers](#) you can add other dispatchers and configure parameters of your own dispatcher console.
- In [Rules and Alerts](#) you can set rules based on general events.
- In [Positioning Rules](#) you can set rules based on GPS and Indoor data.
- In [Licenses](#) you can install licenses.
- In [Database](#) you can manage the system database, i.e., create new database or connect to the existing database.
- In [Radioservers](#) you can manage available radioservers, e.g., add new radioservers to be seen in the dispatcher console, assign profiles to the available radioservers.

2.1 Interface

2.1.1 General Settings

In the **General Settings** window you can configure the global settings of the SmartPTT Dispatcher application (e.g., user interface language, automatic update, etc).

To configure the settings, on the menu bar, click **Settings (⚙)** → **Interface** → **General Settings**. The **General Settings** window appears.




Language: Allows you to change the language used in the dispatch console. After selecting a new language, restart SmartPTT Dispatcher to apply the change.

Windows authentication: It enables Windows authentication within the dispatch console. For that, [create the operator](#) with the name of the Windows user, or the Windows group to which the Windows user is assigned.

NOTE

In Windows 7, for the domain Windows user only domain Windows groups will be checked. Starting from Windows 8, for the domain Windows user all Windows groups will be checked (whether domain or local).


If **Windows authentication** is selected, the dispatch console is opened under the operator's account, whose name matches the name of the logged in Windows user, or Windows group to which this logged in Windows user is assigned. The **Authorization** window will be skipped and the operator's password ignored. In the dispatch console, the button **Change Operator**  will be unavailable and the user will not be able to change operator.

If **Windows authentication** is not selected or the operator's name does not match the name of the logged in Windows user, or the Windows group, the **Authorization** window will open, and the user will need to select the operator and type the password.

Launch the dispatch console on Windows start: Enables automatic launch of SmartPTT Dispatcher on Windows start with the selected operator. This feature does not work if [Windows authentication](#) is selected.

Radio ID input format: Sets the input and display methods used for showing radio ID in the radio [Properties](#) window: *IP address* or *CAI + Radio ID*.

IP Address: IP address is entered and displayed in the radio [Properties](#) window: .

CAI + Radio ID (CAI network ID and a unique radio ID): Are entered and displayed in the radio [Properties](#) window: .

Show radio user name: Displays a radio user name next to a radio name.

Call alert tone duration (sec): Sets the duration of the call alert sound in SmartPTT Dispatcher.

Outgoing call tone: This alert tone plays after the PTT button is pressed and the operator is able to transmit on the channel. This is to prompt the operator to begin speaking.

Ask for confirmation before closing or changing the operator: If selected, you will need to confirm before closing SmartPTT Dispatcher, or before changing the operator.

To enable automatic update, select the **Automatic Update** check box. If the check box is selected, the system will be checking for updates on a regular basis.

In the **File path** box specify the path to the **ClientSetup.exe** file, which you download together with SmartPTT Software Installation Package. If a new SmartPTT version is available, the notification appears when you launch SmartPTT Dispatcher (or when you choose **Check for Updates** from the **Help** menu).

NOTE

After downloading the new version of the system, it is not necessary to uninstall the previous version.

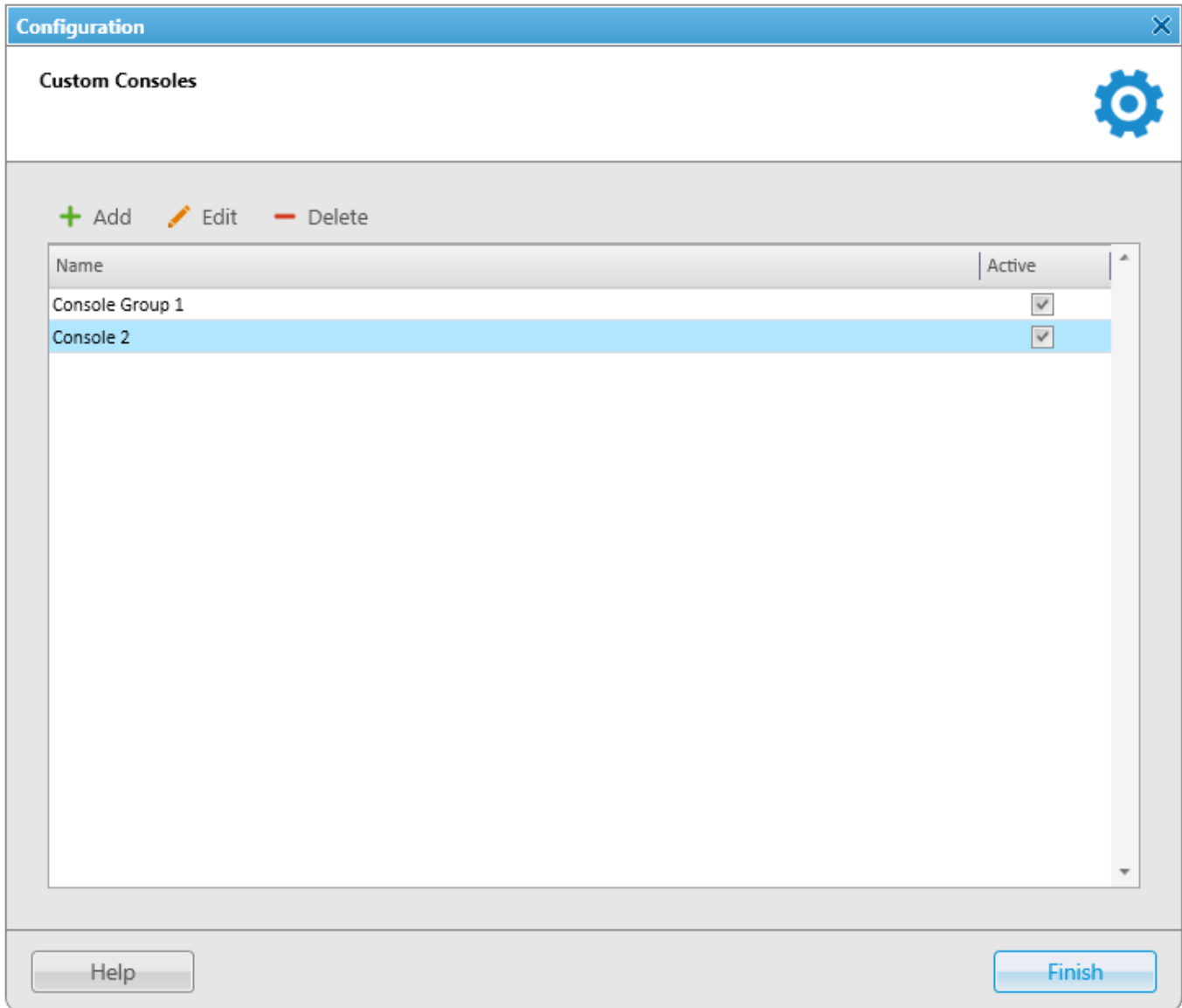
2.1.2 Custom Consoles

Custom Console is a tool that provides the dispatcher with custom workplace. Custom consoles are visual panels containing various elements, e.g. radios, [WAVE users](#), external dispatchers, talkgroups, in short, everything the dispatcher need for daily work.

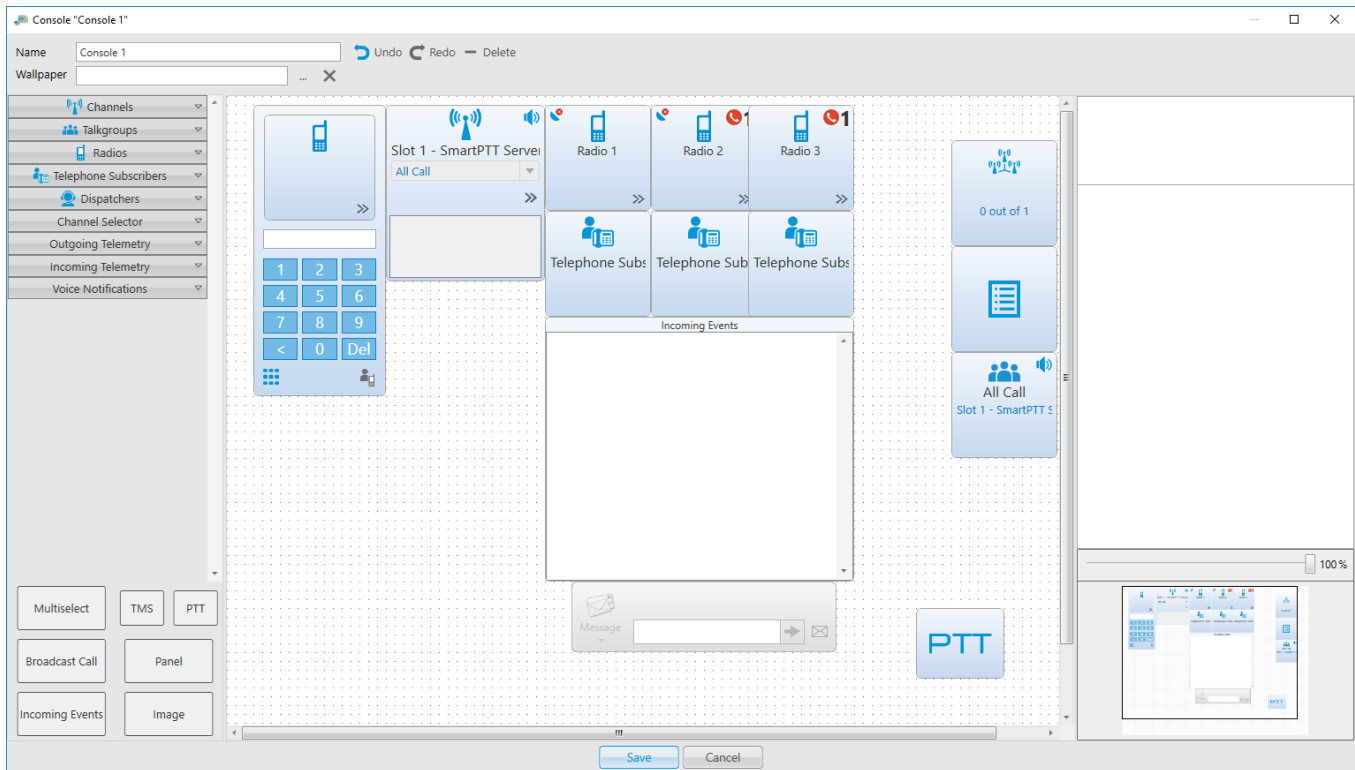
Every dispatcher can have his own console with all the radio objects necessary for his work.

If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, on the corresponding elements of custom console the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

To create and set up a custom console, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Interface** → **Custom Consoles**. The **Custom Consoles** window appears.



To add a new console, click **Add**. The console editor appears.



Name: A name of a custom console which will be displayed in the **Tools** menu.

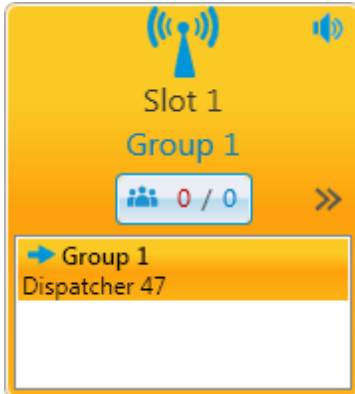
Wallpaper: Allows you to select an image for the background of the console. The supported formats are .bmp, .jpg, .png.

There are more than a dozen types of visual elements available in **Custom Consoles**. Description of each element is given further in this article.

To add an element to the custom console, drag and drop the desired element onto the work space of the console designer. To remove the element from the work space, select it and press **Delete**. To erase the last change or perform the redo function click the **Undo** or **Redo** buttons.


You can adjust size, color or location of each element on the custom console. You can also add or remove different properties. To do this, select the element and use the **Misc** or the **Properties** sections on the right of the console designer work space. To move the element up, down, left, or right, press the arrow keys. To move the element diagonally, press the Up or Down Arrow key and the Left or Right Arrow key. For example, to move the element diagonally toward the upper-right corner, press Right Arrow-Up Arrow.


Channel



The **Channel** element stands for a physical or logical channel. It gives the following information about the channel:


- Information about the current call on the channel – the call state, the called party and the call originator
- Default target for outgoing calls (it can be either All Call or any particular talkgroup)
- Muted or unmuted
- The number of missed incoming calls

To mute the channel, click . Check the mute mode settings before applying this function. For details, see [Other Settings](#).

To open the Actions Menu of actions that can be applied to an element, click the Actions () button. For details, see [Radio Fleet](#).

To display the channel name as *Radioserver name – Channel name*, select the **Radioserver Name** check box in the **Misc** section. Otherwise, only the channel name will be displayed.

To view the number of missed incoming calls, select the **Missed Calls** check box in the **Properties** section.

 shows the number of calls not answered by the dispatcher. The red figure stands for the number of private calls not answered by the dispatcher. The blue one shows the total number of calls not answered by the dispatcher, including private and group calls. As soon as the dispatcher called back the talkgroup, or the radio, or the [WAVE user](#), the counter is set to zero.

By clicking the button, the window with details appears.



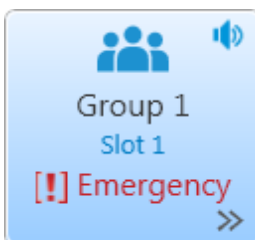
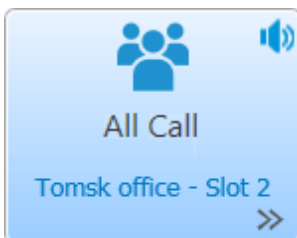
Missed (Dispatcher): Filters only private calls not answered by the dispatcher.

Missed (All): Filters private and group calls not answered by the dispatcher.

All: Removes all filters and shows all available talkgroups, radios and WAVE users, and their call statistics.


Clear All: Sets all counters to zero.

Talkgroup



The **Talkgroup** element stands for a talkgroup on the channel. You can make a call to the selected talkgroup by clicking on the element.

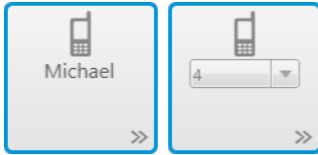
To open the Actions Menu, click the Actions (>>) button. For details, see [Radio Fleet](#).

Also, the element displays that the radio enters emergency mode (the **Emergency** icon appears), when the Emergency button is pressed on the radio. Once the dispatcher solves the problem by clicking  in the **Emergencies** panel, he clears the emergency state on the element of the **Custom Console**. Once the initiator clears the emergency on the initiator radio, the emergency is considered over.

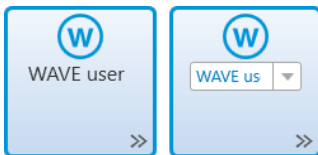
You can mute the group call by clicking on the **Mute** icon. The element also shows the state of the current call.

To display the channel name as *Radioserver name - Channel name*, select the **Radioserver Name** check box in the **Misc** section. Otherwise, only the channel name will be displayed.

Radios



The Radio element for a certain radio




The Radio element for a certain WAVE radio


The **Radio** element is used for making private voice calls. There are two types of the **Radio** element:

- The **Radio** element for a certain radio or a [WAVE user](#) – is used to call the radio or the WAVE user selected in advance, when adding the element to the console.


You can also assign this type of element to different radios and WAVE users from the drop-down list. To enable this option, select the **Allow Changes** check box in the **Properties** section, when adding the element to the console.

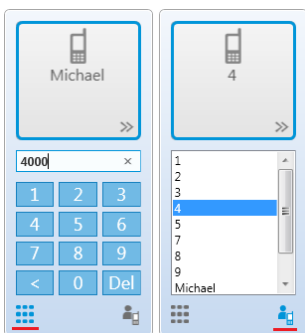
- The **Radio** element for an optional radio or WAVE user – is used to call the radio or the WAVE user that can be selected using dial pad or list of radios and WAVE users on the element.

To open the dial pad, click the button  in the bottom left corner of the element. To select the necessary radio or WAVE user, enter its **Radio ID** in the search box using the dial pad or keyboard.

To open the list of radios and WAVE users, click the button  in the bottom right corner of the element.

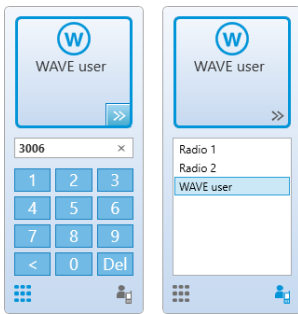
The **Radio** element shows the radio or the WAVE user name or its **Radio ID**, if name is not specified.

-  The icon on the radio or WAVE user button shows that the dispatcher did not answer the call from a radio or a WAVE user. The figure next to it shows the number of missed calls.




The Radio element for an optional radio

Also, the element displays that the radio enters emergency mode (the **Emergency** label), when the Emergency button of the radio is



The Radio element for an optional WAVE user

pressed. Once the dispatcher solves the problem by clicking  in the **Emergencies** panel, he clears the emergency state on the element of the **Custom Console**. Once the initiator clears the emergency on the initiator radio, the emergency is considered over.

NOTE

Emergency and Man Down modes are unavailable to WAVE users.

To open the Actions Menu of a radio or a WAVE user, click the Actions (>>) button.

To open the Call Window of a radio or a WAVE user, right click the element.

Telephone Subscriber



The **Telephone Subscriber** element is used for making calls to telephone subscribers. Double-clicking the element opens the **Call Window** and initiates the call.

NOTE

For proper operation of the element select **Allow Calls to Telephone Subscribers** in the **General Settings** tab of the [Telephone Settings](#) window.

You can assign the element to different telephone subscribers from the drop-down list. To enable this option, select the **Allow Changes** check box in the **Properties** section.

NOTE

To set the list of telephone subscribers, go to the [Telephone Subscribers](#) window.

Dispatcher



The **Dispatcher** element is used for making connection to other dispatchers. Double-clicking on the element opens the dispatcher's **Call Window** and initiates the call.

NOTE

For proper operation of the element make sure that the operator has the permission **Connect with external dispatchers** (**Settings** (⚙️) → [Operators](#))

You can assign the element to different dispatchers from the drop-down list. To enable this option, select the **Allow Changes** check box in the **Properties** section.

NOTE

The list of dispatchers contains dispatchers added in the [Dispatchers](#) window.

Channel Selector



The **Channel Selector** element allows the dispatcher to switch from one channel of the control station to another.

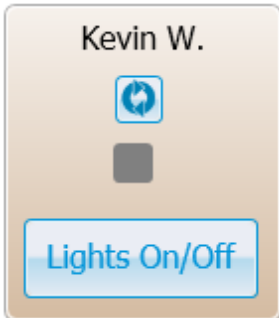
NOTE

The functionality requires the control station to be connected to the PC and its channels to be set up via *MOTOTRBO CPS* and SmartPTT Radioserver Configurator.

Channel setting in SmartPTT Radioserver Configurator is carried out on the **Channels** tab of the control station. **Channels** listed on this tab must match the channels set in MOTOTRBO CPS (channel number, zone number).

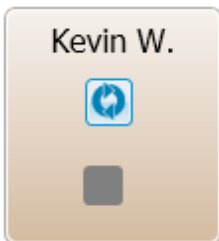
To configure this functionality in SmartPTT Dispatcher, add the **Channel Selector** element into the console designer work space. One element can be assigned to one channel. To allow switching between channels, you should add the required number of elements.

Outgoing Telemetry



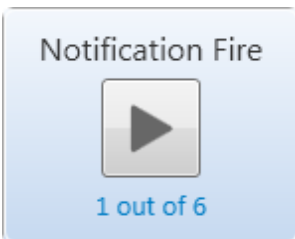
The **Outgoing Telemetry** element is used for sending telemetry commands to the radio. You can assign only one telemetry command per element. Before assigning the telemetry command to the element, add it to the telemetry list of commands and to the radio. Apart from sending commands, you can also check the current status and the time of the last status update.

Incoming Telemetry



The **Incoming Telemetry** element is used for receiving the current status of the selected pin. You can also see the time of the last status update.

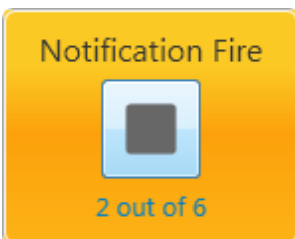
Voice Notification



The **Voice Notifications** element starts or stops the voice notification and displays how many times the voice notification is reproduced. To configure voice notifications see the **Voice Notification** section in SmartPTT Radioserver Configurator.

NOTE

To monitor the current status of the voice notification playing, open the [Voice Notifications](#) window (**Service** → **Voice Notifications**).




To display the element name as *Radioserver name - Voice Notification name*, select the **Radioserver Name** check box in the **Misc** section. Otherwise, only the voice notification name will be displayed.

Multiselect




The **Multiselect** element is used to make a simultaneous call to several radio objects (talkgroups and radios and [WAVE users](#) which were added in advance by dispatcher to the **Multiselect** list.

To initiate a simultaneous call to the participants of the **Multiselect** list, click the **Multiselect** element in the opened custom console. All participants will hear the dispatcher, but only the dispatcher will hear the participant who answers the call.

To add radio objects to the **Multiselect** list, add the **Multiselect** element to the custom console in the console editing mode, open the custom console from the **Tools** menu and click the **Edit list** button on . In the **Multiselect** window, that opened, add the required radio objects from the **Radio Fleet** list to the **Multiselect objects** list, and click **OK**.

NOTE

You can create more than one **Multiselect objects** list, by adding the corresponding number of the **Multiselect** elements to the custom console.

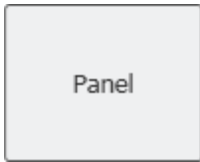
To edit the **Multiselect** list, click the **Edit list** button  in the opened custom console.

Broadcast Call



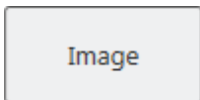
The **Broadcast Call** element is used for making group calls or an All Call within all the channels of SmartPTT Dispatcher simultaneously. Select the required talkgroup or All Call ID in the **Talkgroup ID** box of the **Properties** section. When such a call is initiated, SmartPTT Dispatcher tries to call all participants with the given identifier.

Panel



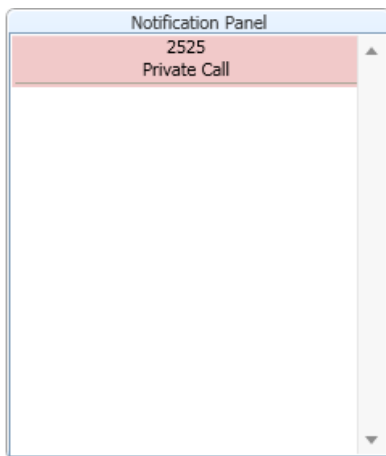
The **Panel** element is used for uniting several elements. The panel can have its own color, size and placement. All inside elements of one panel are moved together with the panel.

Image



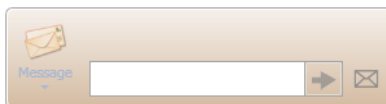
The **Image** element is used for adding logos and other images to the custom console. You can select the image file under the **Properties** section on the right. The supported formats are .bmp, .jpg, .png.

Incoming Events






The **Incoming Events** informs about incoming messages, call alerts and missed private calls to SmartPTT Dispatcher from radios or [WAVE users](#). Double-click the record in the panel to open the radio or WAVE user **Call Window**.

TMS



The **TMS** element is used for sending short text messages to all radios or talkgroups situated in one panel with the **TMS** element. To do this, just enter the text of the message or select a template and send it. If the **TMS** element is placed outside a panel, it will send private messages. To do this, just select the radio, enter the text of the message and send the message.

The **TMS** element contains the following controls:

- The **Message** () button expands the list of existing message templates. When you click the template name, the message is automatically sent and cannot be edited.
- The text box is the place for typing the message text.
- The **Send** () button sends the message from the text box to the left of it.
- The **Send Message** () button opens the **Send Message** window.

NOTE


If the **TMS** element is located on the **Panel** element, the messages are sent to all the radios and talkgroups located within the element.






PTT



The **PTT** element is used for a multiple-user call. If it is located inside the panel, clicking the **PTT** element makes a call to all the radios, [WAVE users](#) and talkgroups located within this panel. If it is located outside the panel, the **PTT** element becomes disabled.

When in work, color of the elements with the assigned radios and [WAVE users](#) differs depending on the status.

Element	Description
	<p>Grey: A radio or a WAVE user is offline or outside the network coverage</p>

Element	Description
 <p>Radio</p> <p>>></p>	<p>Light-blue: A default color displaying that a radio is online. You can change the color using the preset colors</p> <p>A default color displays that a radio or a WAVE user is online. You can change the color</p>
 <p>Radio</p> <p>>></p>	<p>Light-orange: An outgoing call attempts or a radio or a WAVE user is in queue</p>
 <p>Radio</p> <p>>></p>	<p>Orange: All outgoing radio or WAVE user calls</p>
 <p>Radio</p> <p>>></p>	<p>Green: All incoming radio or WAVE user calls or a radio or a WAVE use is being monitored</p> <p>Light green: Exists in the Capacity Max systems only and determines the incoming call attempt to SmartPTT Dispatcher</p>
 <p>Radio</p> <p>>></p>	<p>Blue: None of the parties transmit or receive voice. The person can answer the call by pressing the PTT button within hang time. In the Capacity Max radio system the dispatcher can end the call during the hang time by right clicking the console element</p> <p>After the hang time expires, the person initiates a new call by pressing the PTT button. The calling radio or WAVE user is the radio or the WAVE user linked with the PTT button by default</p>

You can open the created custom consoles from the **Tools** menu. SmartPTT Dispatcher allows opening multiple custom consoles simultaneously.

2.1.2.1 Sending Messages Using the TMS element

Follow the procedure below to to send a text message to a single or multiple radios and talkgroups from the **TMS** element in the Custom Console.

Prerequisites:

Ensure that the **TMS** element and the desired radios and talkgroups are added to the custom console.

For information on the Custom Consoles configuration, see [Custom Consoles](#).

Procedure:


1. If the Custom Console panel is closed, on the menu bar, click **Tools** → <**custom console name**>.
2. In the Custom Console panel, select the tiles of the radios and talkgroups to which you want to send the message.

NOTE


If the **TMS** element is located on the **Panel** element, the messages are sent to all the radios and talkgroups located within the element.

3. Send the message in one of the following ways:

To type a new message and send it from the **TMS** element,


in the text box, type your message, and then click the **Send** () button.

To send a message template from the **TMS** element,

to the left of the text box, click the **Message** () button and from the **Template** list select the name of the desired template.

To type a new message or edit a message template before sending it from the **Message** window,

perform the following actions:

1. Click the **Message** () button to the left of the text box.
2. In the **Message** window, type your message in the text box or use a message template, and then click **Send**.


For information on working with the **Message** window, see [Send Message Window](#).

The information on the sent message appears in the log box of the Call Window and in the Event Log.

2.1.3 Call Windows Settings

To configure the parameters of **Call Window**, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Interface** → **Call Windows**. The **Call Window Settings** window appears where you can configure the appearance and functions of the **Call Window**.

Configuration ✕

Call Window Settings
Customize Call Window Appearance and Behaviour 

Call Window Closing Timeout (s): (0 - Manual Closing)

Open Call Window for Event Types

- Registration
- Call
- Message
- Telemetry
- Alarm
- Status
- Block radio
- Job Ticket

Maximum Number of Opened Call Windows

Show Photo in Call Window

Show Pinned Call Windows On Console Launch

Set Focus to Call Window upon Popup

Call Window Closing Timeout (s): Sets the time period in seconds at the end of which the **Call Window** closes automatically.

NOTE

If you enter 0 in the box, the **Call Window** will not close automatically.

Open Call Window for Event Types: Specifies types of events triggering the **Call Window** opening (**Registration, Call, Message, Telemetry, Alarm, Status, Block radio, Job ticket, Radio Check, User Authorization, Radio Kill**).

Maximum Number of Opened Call Windows: Allows you to set up the maximum number of call windows opened automatically.

Show Photo in Call Window: Select to display the radio image in the **Call Window**.

Show Pinned Call Windows on Console Launch: If selected, the position of the **Call Windows**, pinned before the SmartPTT Dispatcher application closing, will be restored during next launch.

Set Focus to Call Window upon Popup: Select the check box to focus on the **Call Window** when it is opened or have a new activity.

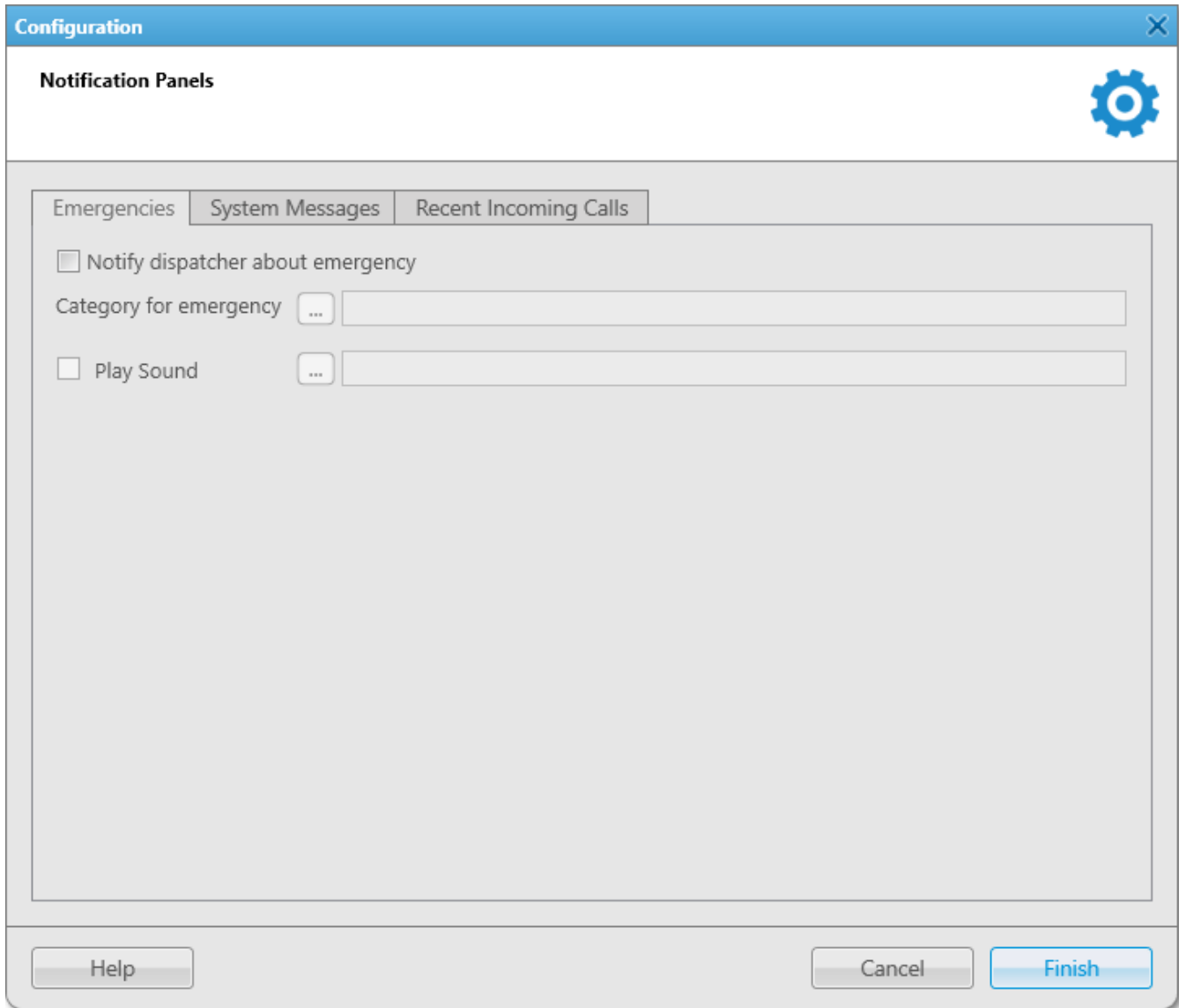
Reset Saved Call Window Positioning: Click the button to reset the current position of the call windows.

2.1.4 Notification Panels

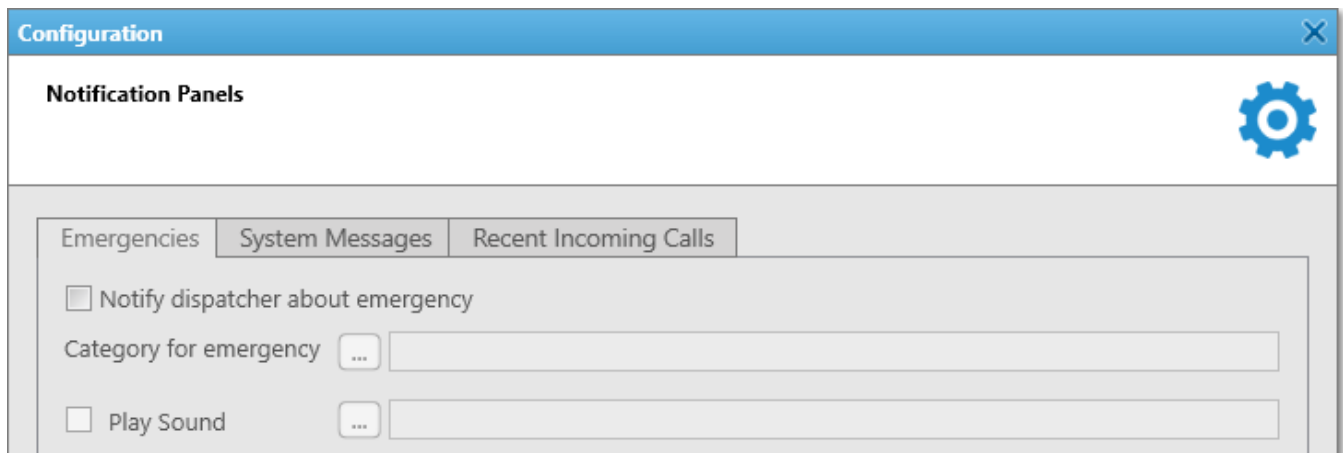
The **Notification Panels** window provides the following settings:

- Settings for the [Emergencies](#) panel
- [System message](#) settings
- [Recent Incoming Calls](#) settings

To open the **Notification Panels** window, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Interface** → **Notification Panels**. You can switch between tabs here to configure the event processing in the system.





Emergencies



In this tab you can configure the emergency situation processing:

Notify dispatcher about emergency: Select to open the [Emergencies](#) panel automatically and/or show the radio on the map if [Maps](#) are opened.

Category for Emergencies: Click Browse () to select the category (only one) of emergency situations (see [Categories](#)).

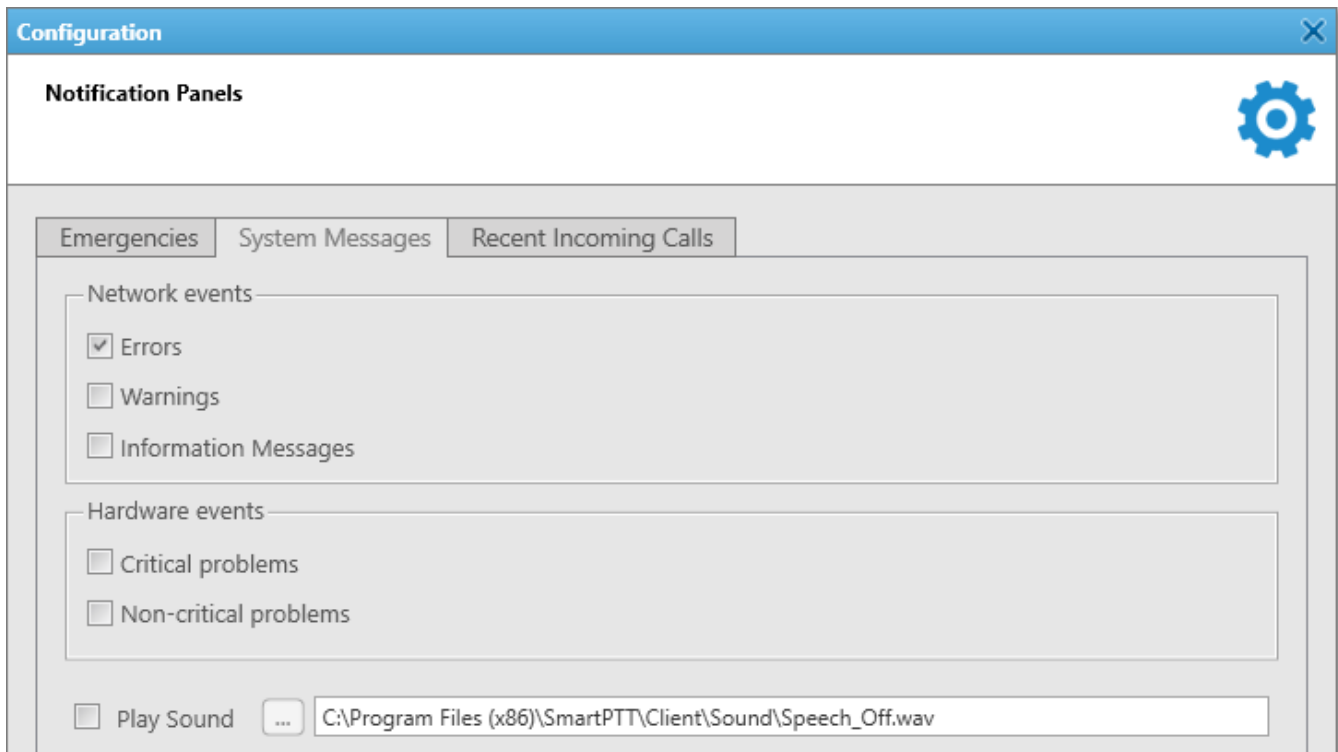
Play Sound File: Click Browse () to select the audio file, which should be played at the emergency situation.

NOTE

The **Emergencies** panel appears only when emergency signal is registered. You cannot open it manually.

System Messages

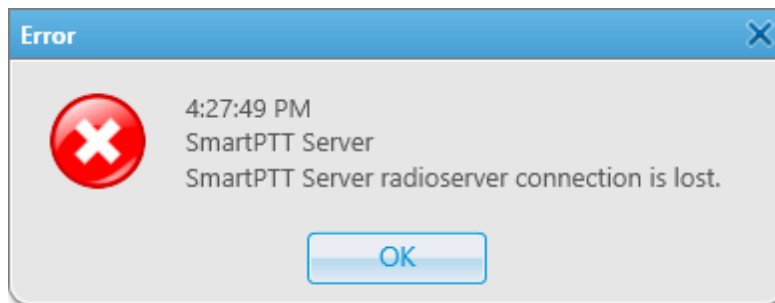
You can configure the opening of the [System messages](#) panel where all system messages appear.



Network events area

Errors:

- Select to show error messages in the [System messages](#) panel.
- Clear to get error messages in separate windows instead of the **System messages** panel.



Warnings: Select to show warning messages in the **System messages** panel.

Information Messages: Select to show information messages in the **System messages** panel.


Hardware events area

NOTE

Hardware events processing works only if [Monitoring](#) is active.

Critical problems: Select to show errors in the [System messages](#) panel.

Non-critical problems: Select to show warnings in the **System messages** panel.

Play Sound File: Click Browse () to select the audio file, which should be played when system messages appears.

If you select the check boxes in the **Network or Hardware events** area when the **System messages** panel is closed, it opens automatically with the appeared corresponding message.

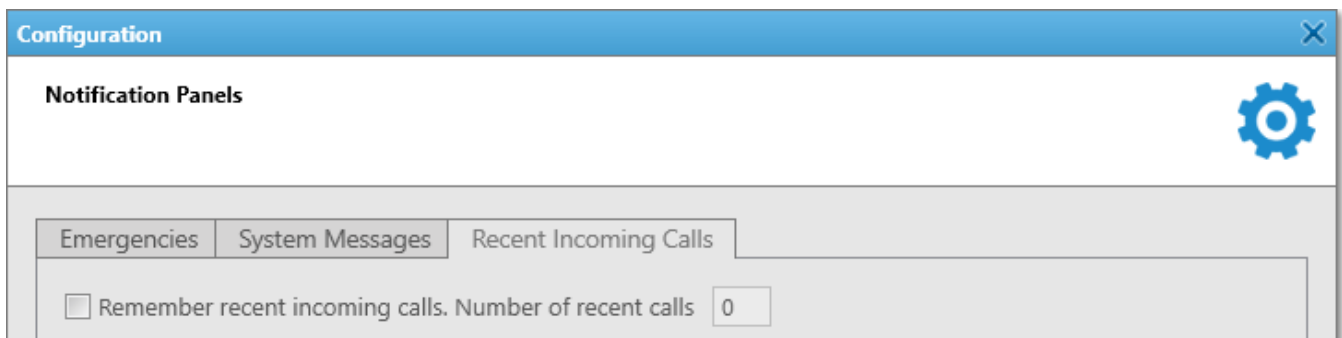
If you do not select some of the check boxes in the **Network or Hardware events** area, system messages appear in the **System messages** panel in any case. But if the panel is closed, it does not open automatically with the appeared corresponding message.

NOTE

If the **System messages** panel is opened but inactive, all event messages appear in the background without notifications.

Recent Incoming Calls

You can configure recent calls processing.



Remember recent incoming calls: Select to log recent incoming calls (see [Recent Incoming Calls](#)).

Number of recent calls: Enter the maximum number of recent incoming calls records.

2.1.5 Web-SCADA

Web-SCADA is a system for monitoring and controlling objects connected to [Adaptel](#) – an interface adapter for receiving and transmitting telemetry data.

In SmartPTT Dispatcher you can perform the following actions using Web-SCADA feature:

- Add Web-SCADA pages for monitoring and controlling SCADA system.
- Set response rules for events which are registered in devices in SCADA system. For information on setting rules, see [Custom Rules](#).

The panel with Web-SCADA page is available to you in the **Tools** menu after you added it in the **Web-SCADA** window. For details, see [Web-SCADA Window](#) and [Adding Web-SCADA Pages](#).

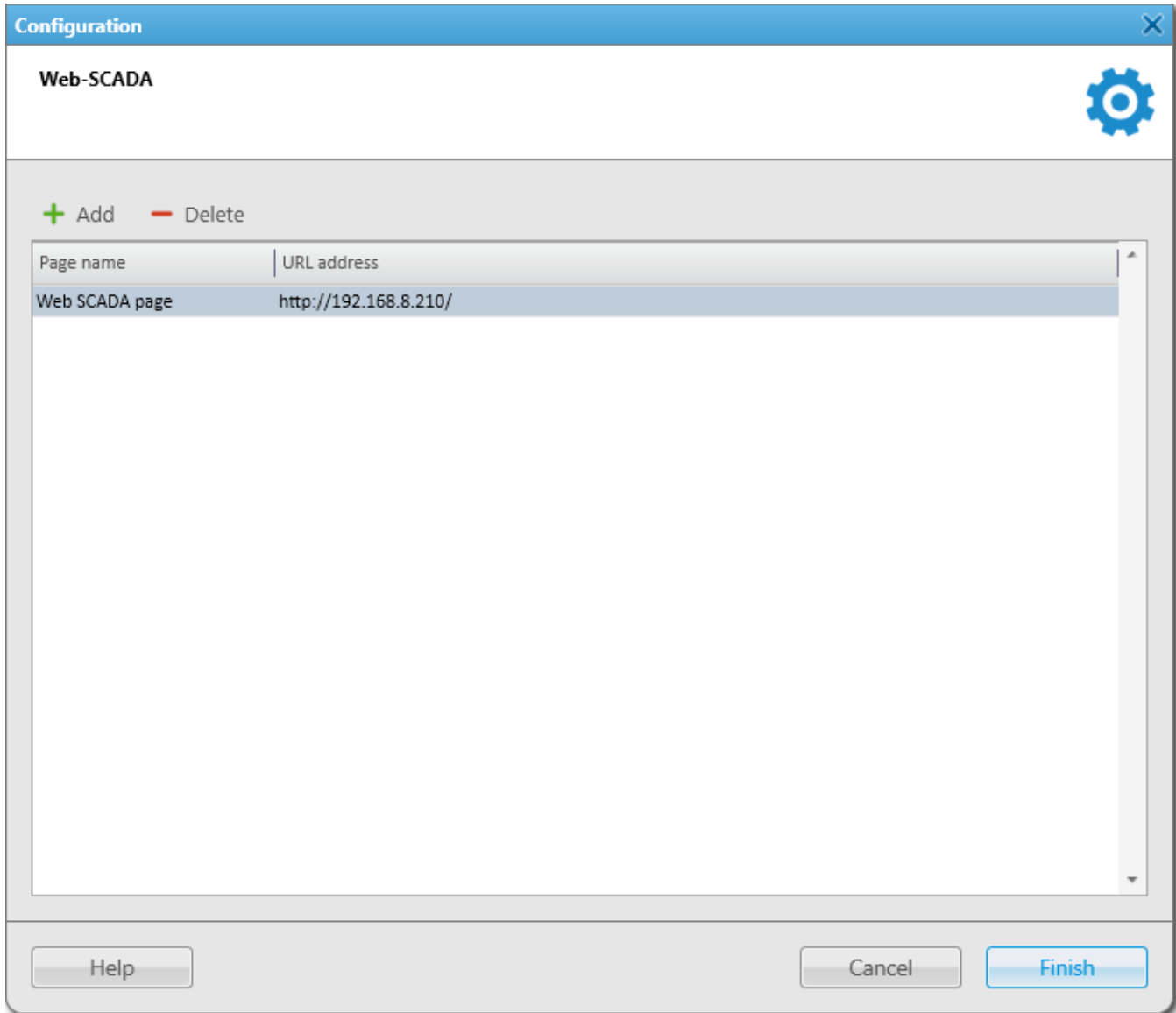
The screenshot displays the 'Dispatcher - Administrator' window with the 'Web SCADA page 1' active. The interface is divided into several sections:

- Radio Fleet:** A sidebar on the left showing a tree view of the radio fleet, including 'SmartPTT Radio Server', 'Slot 1', 'Group 1', and three individual radios.
- Input #1 and Input #2:** Two monitoring panels for electrical inputs. Each panel includes a 'Select Input' button, a 'Voltage' display (0.00 V), 'Active power' (0.00 MW), and 'Reactive power' (0.00 MVAR) displays. A scale bar below the voltage display ranges from 0 to 8,000.
- High voltage lines 10kV:** A central diagram showing two vertical lines connected to a transformer symbol.
- Electrical substation:** A section containing the transformer diagram and associated monitoring data.
- Security Alarm System:** A section with 'Guard On' and 'Alarm' indicators, each with a corresponding 'ARM' or 'DISARM' button.
- Status Bar:** A green bar at the bottom showing system status: '© Elcomplus | WebSockets status: Open | TX: 0 | RX: 0 | Sporadic: 0 | Commands: 0'.
- Footer:** A grey bar at the very bottom indicating 'The license belongs to: SmartPTT'.

2.1.5.1 Web-SCADA Window

In the **Web-SCADA** window, you can manage Web-SCADA pages.

You can open the **Web-SCADA** window by clicking **Settings (⚙)** → **Interface** → **Web-SCADA**.



The **Web-SCADA** window provides the following elements:

Add

Adds a Web-SCADA page row to Web-SCADA Pages Table. The rows are used for adding Web-SCADA pages. You can add an unlimited number of rows. For information on adding Web-SCADA pages, see [Adding Web-SCADA Pages](#).

Delete

Removes the selected page.

The Web-SCADA pages table

Contains a list of added pages with addresses.

The Web-SCADA Pages Table provides the following elements:

Page name

The column contains a name of a page. After adding the page, its name appears in the **Tools** menu. By clicking the name in the menu, the tab with the web-page opens.

URL address

The column contains a URL address of a page. When the Web-SCADA page row is added, its part in the URL address column contains no address and you should type it manually or paste.


2.1.5.2 Adding Web-SCADA Pages

Follow the procedure below to add a new Web-SCADA page to SmartPTT Dispatcher.

Prerequisites:

Obtain URL address of the desired page.

Procedure:

1. Click **Settings** () → **Interface** → **Web-SCADA**.
The **Web-SCADA** window appears.
2. In the **Web-SCADA** window, click **Add**.
A new row in the page table appears.
3. In the **Page name** column, type the desired page name.
4. In the **URL address** column, enter the address in one of the following ways:
 - Type the address manually.
 - Copy the URL address to clipboard and paste it.
5. Click **Finish** to save changes and close the window.
The added page appears in the **Tools** menu.

Postrequisites:

- To edit the page name or address, double-click the desired value and change it.
- To cancel changes and close the window, click **Cancel**.
- To delete the page, click the desired row in the table and click **Delete**.

2.2 Equipment

2.2.1 Tipro Console

SmartPTT system supports third-party equipment, for example, Tipro modular console with BeFREE touchcomputer or without it.

To make the console work with SmartPTT system, follow these steps:

1. For Tipro modular console with BeFREE touchcomputer, install additional applications: ChangeMe Utility, Tipro OPOS (these are delivered together with Tipro console), Microsoft Point of Service for .NET (POS for .NET) v1.14 (<http://www.microsoft.com/en-us/download/details.aspx?id=42081>).
2. For Tipro modular console without touchcomputer, connect Tipro console to the PC with SmartPTT Dispatcher installed. Install other additional software, such as ChangeMe Utility, Tipro OPOS (these are delivered together with Tipro console), Microsoft Point of Service for .NET (POS for .NET) v1.14 (<http://www.microsoft.com/en-us/download/details.aspx?id=42081>).
3. Contact SmartPTT support team (<http://support.smartptt.com/hc/en-us/requests/new>) for Tipro configuration file.
4. Apply the received Tipro configuration file using ChangeMe Utility.

For information on configuring sound settings of Tipro console, see [Configuring General Sound Settings](#).

For information on configuring sound settings of Tipro Phone Module, see [Configuring Sound Settings of Tipro Phone Module](#).

For information on actions on tapping call elements or assigning hotkeys using Tipro console, see [Configuring Actions on Clicking or Tapping Call Element](#).

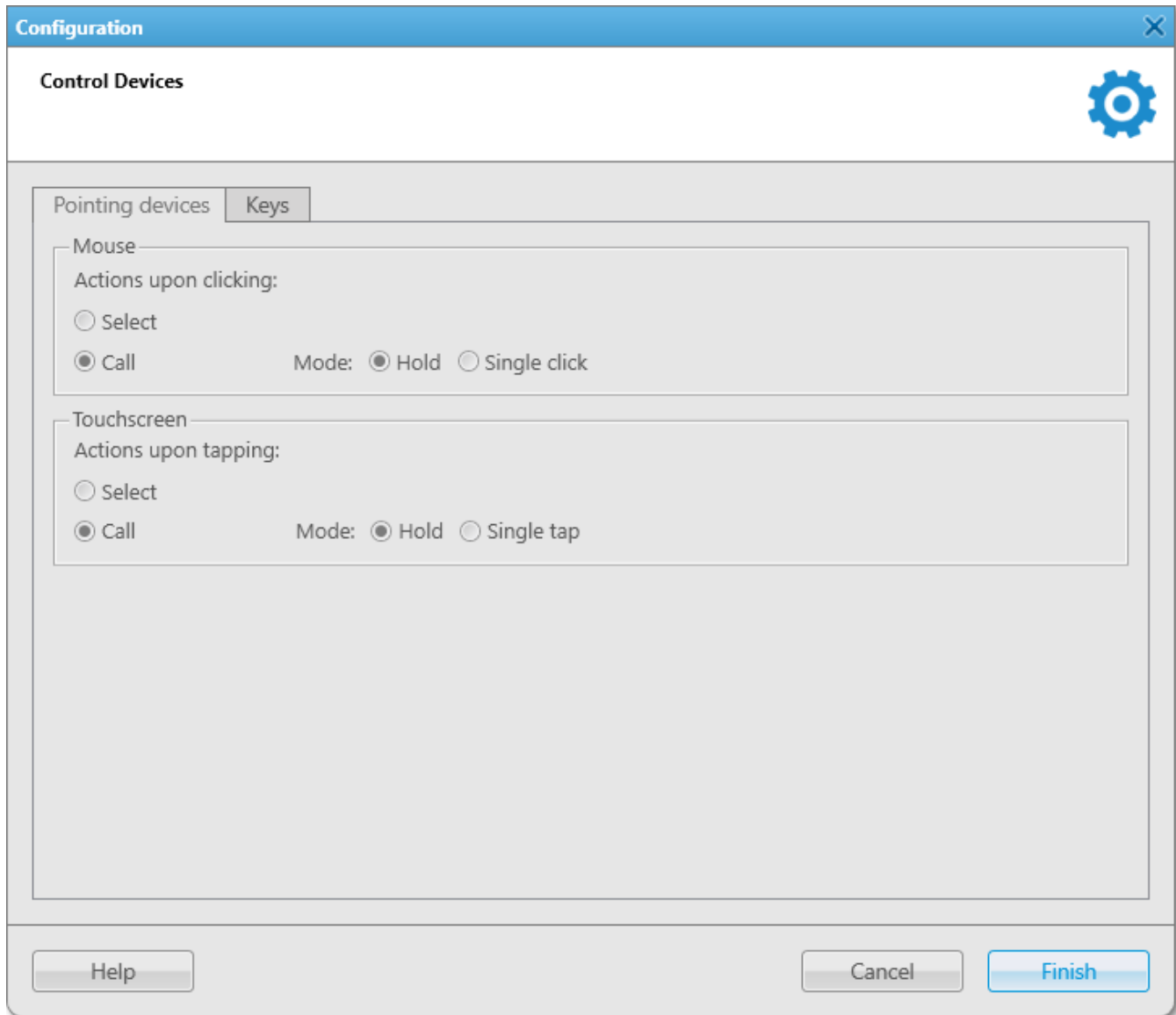
2.2.2 Control Devices

In the **Control Devices** window you can perform the following actions:

- Configure actions on clicking or tapping the PTT button or Call Tiles using a mouse or a touchscreen.
- Assign the desired keys or buttons to the desired system objects and actions as hotkeys

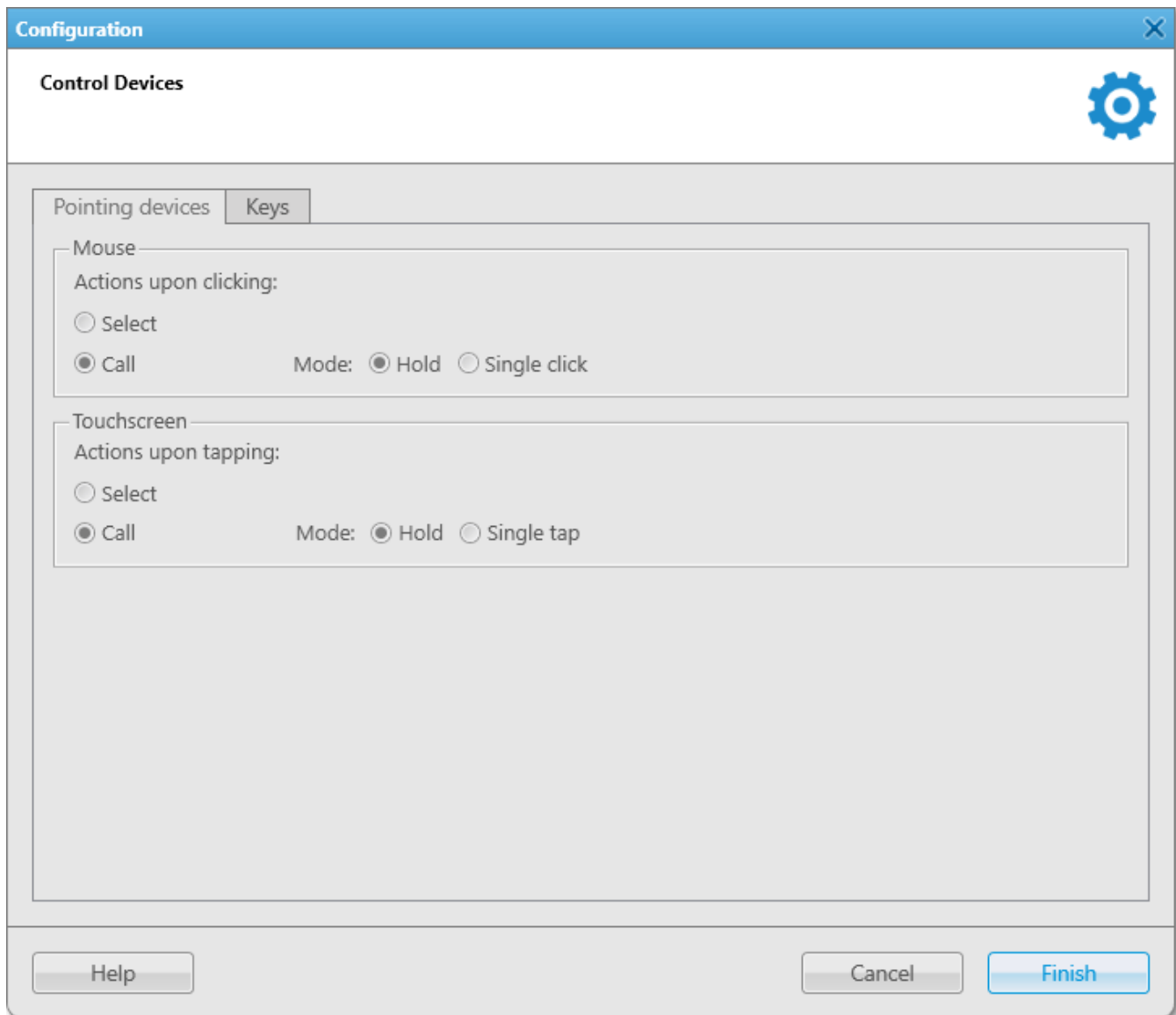
The window is available by clicking **Settings (⚙)** → **Equipment** → **Control Devices** on the menu bar, and provides you the following tabs:

- **Pointing devices** tab
- **Keys** tab



Pointing Devices Tab

In the **Pointing devices** tab, you can configure actions on clicking or tapping the PTT button or Call Tiles with a pointing device.



Two types of pointing devices are used in SmartPTT Dispatcher:

- Mouse
- Touchscreen

For both types the following buttons are available:

Select

Affects the action on clicking or tapping. When selected, the call element becomes selected when you click it or tap.

NOTE

Selected call element has a blue frame.

Call

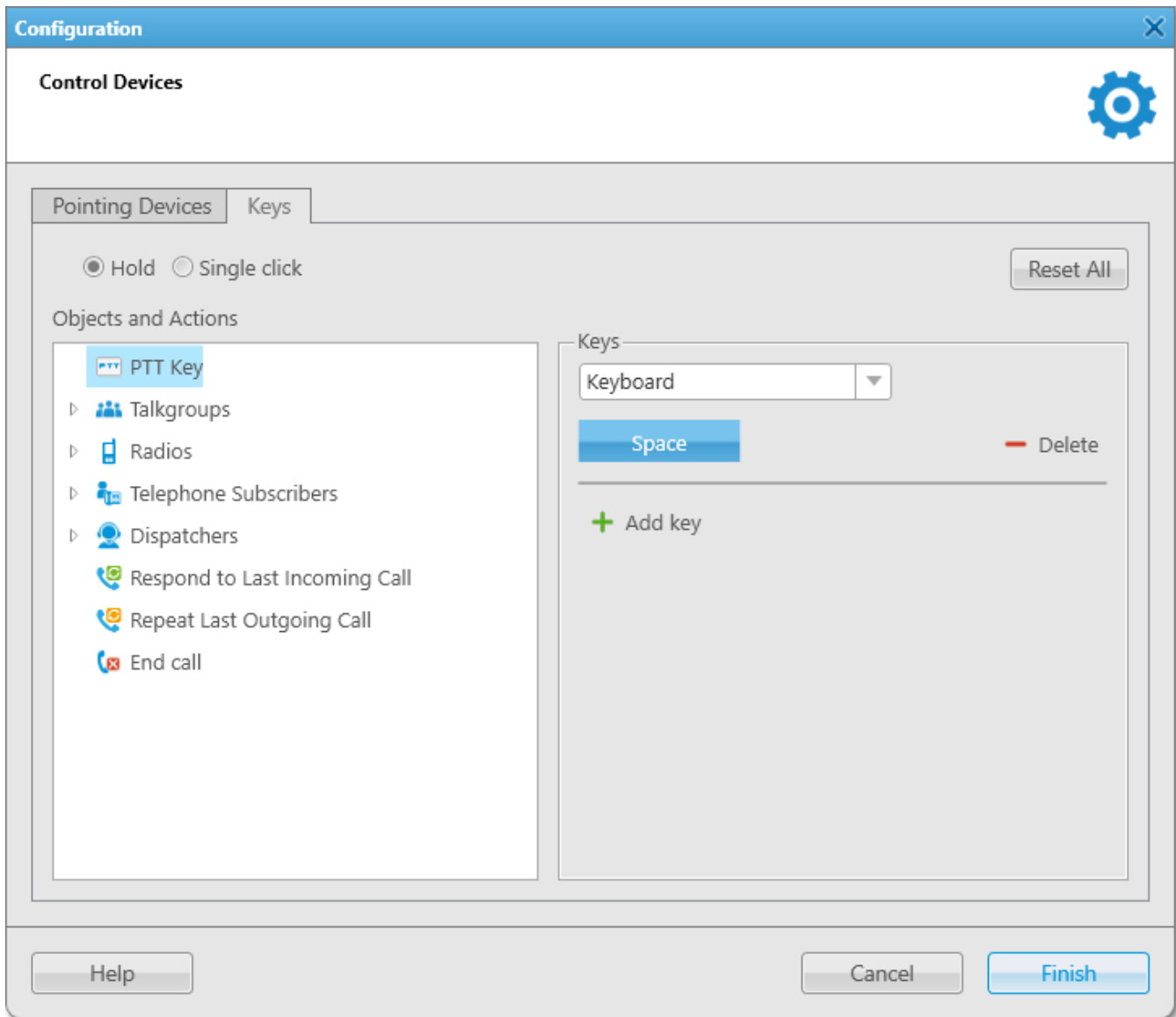
Affects the action on clicking or tapping. When selected, you initiate a call when click or tap the call element.

The button also provides you access to the controls that affect a call initiating:

- If **Hold** is selected the call element should be pressed/tapped and held to initiate and continue a call.
You can end the call by releasing the mouse button or releasing the call element on the touchscreen.
- If **Single click/tap** is selected the call element should be clicked/tapped to initiate and continue a call.
You can end the call by clicking or tapping the call element.

Keys Tab

In the **Keys** tab, you can add and assign hotkeys to system objects and actions:



You can add any amount of hotkeys but each hotkey must have the unique key or key combination assigned.

If you use a keyboard as an input device, use the following information to assign hotkeys properly:

- Esc, Print Screen, and Windows keys cannot be assigned as hotkeys.
- F1 and Enter keys can be assigned only in Alt+Key or Shift+Alt+Key combinations.

Other keys can be used either separately or in the following combinations:

- Alt+Key
- Shift+Key
- Ctrl+Key
- Shift+Ctrl+Key
- Shift+Alt+Key
- Ctrl+Alt+Key

The **Keys** tab provides you the following elements:

Hold

If selected, the hotkey should be pressed and held to initiate and continue a call, or perform an action.

You can end the call by releasing the hotkey.

Single click

If selected, the hotkey should be pressed to initiate and continue a call, or perform an action.

You can end the call by pressing the hotkey again.

Reset All

Deletes all hotkeys. The button does not delete the default hotkey of the PTT button, but reset the hotkey if it was reassigned by user.

Objects and Actions

Displays all objects and actions for which you can add and assign hotkeys:

Objects are the following:

- PTT Key

NOTE

By default the Space key is used as the PTT button hotkey.

- Talkgroups
- Channels
- Radios

- Telephone Subscribers
- Dispatchers

NOTE

Hotkeys assigned to a dispatcher open the **Dispatchers** window and initiate a voice call. Hotkeys assigned to a telephone subscriber open the **Telephone Subscribers** window from which you can manually initiate a call to the desired telephone subscriber.

Actions are the following:

- Respond to Last Incoming Call
- Repeat Last Outgoing Call
- End call

NOTE

The **End call** action is available only for outgoing calls in Capacity Max radio system with FOACSU activated.

The **Keys** area displays elements that you can use for configuring hotkeys:

Add key

Adds a hotkey.

Input Devices List

Appears after the **Add key** button is pressed. Provides a list of input devices that can be used to assign hotkeys:

- **Keyboard** a standard keyboard connected to the computer.
- **Input Device (DirectInput)** provides the list of USB input devices connected to the computer.
- **Input Device (HID)** provides the list of USB HID input devices connected to the computer.

NOTE

It is recommended to select **Input Device (HID)** for assigning hotkeys using external devices.

- **External Device COM Port** provides the list of devices connected using a COM port.

Assign Hotkey Button

The blue button that appears after the **Add key** button is pressed. You can use it for assigning hotkeys.

Delete

Appears after the Add key button is pressed. Deletes the hotkey.

2.2.2.1 Configuring Actions on Clicking or Tapping Call Element

Follow the procedure below to configure actions on clicking or tapping the PTT button or a Call Tile of SmartPTT Dispatcher.

Procedure:

1. On the menu bar, click **Settings** (⚙️) → **Equipment** → **Control Devices** window.
2. Open the **Pointing Devices** tab.
3. Configure the desired pointing device. For details, see [Control Devices](#).
4. Click **Finish** to save changes and close the window.

2.2.2.2 Assigning Hotkeys

Follow the procedure below to assign a hotkey.

Prerequisites:

Ensure the desired input device is connected to the computer and is enabled.

Procedure:

1. On the menu bar, click **Settings** (⚙️) → **Equipment** → **Control Devices** window.
2. Open the tab.
3. Select the mode for hotkeys (hold or single click).

4. In the **Object and Actions** area, select the desired object or action:

To add a hotkey for the PTT button, click **PTT key**.

To add a hotkey for an action, click the desired action.

To add a hotkey for initiating a call to a talkgroup, perform the following actions:

1. Expand the **Talkgroups** → <**radio server name**> → <**channel name**> node.
2. Click the desired talkgroup.

To add a hotkey for a channel, perform the following actions:

1. Expand the **Talkgroups** → <**radio server name**> node.
2. Click the desired channel.

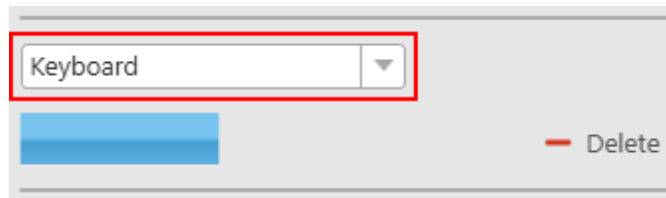
To add a hotkey entry for initiating a call to a radio, a telephone subscriber, or a dispatcher, perform the following actions:

1. Expand the <**object type**> node.
2. Click the desired object.

In the **Keys** area, the **Add key** button appears.

5. In the **Keys** area, click the **Add key** button.
Hotkey appears in the area.

6. From the Input Devices list, select the desired input device:



To use a keyboard,

select the **Keyboard**.

To use external device connected using USB port,

perform the following actions:

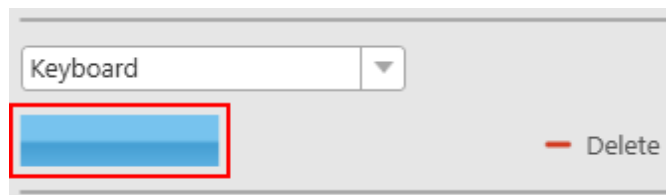
1. Select the **Input Device (HID)** item.
List of available USB devices appears next to the Input Devices list.
2. From the appeared list, select the desired USB device.

To use external device connected using COM port,

perform the following actions:

1. Select the **External Device COM Port** item.
List of available COM devices appears next to the Input Devices list.
2. From the appeared list, select the desired COM device.
The selected COM device is used as a hotkey.

7. *Unavailable for COM devices:* Under the Input Devices list, click the Assign Hotkey button. White dots appear on the button, and the **Press desired key** message appears next to it.




8. *Unavailable for COM devices*: Press the desired key or key combination you want to assign to the object or action. For details, see [Control Devices](#).
The pressed key or key combination is displayed on the Assign Hotkey button and the **Press desired key** message disappears.
9. To save changes and close the window, click **Finish**.

2.2.2.3 Editing and Deleting Hotkeys

Follow the procedure below to edit or delete a hotkey.

Procedure:

1. On the menu bar, click **Settings** () → **Equipment** → **Control Devices** window.
2. Open the **Keys** tab.

3. Perform the desired action:

To change input device,	see step 6 of the Assigning Hotkeys procedure.
To reassign a hotkey,	see steps 7-8 of the Assigning Hotkeys procedure.
To delete a hotkey,	perform the following actions: <ol style="list-style-type: none">1. In the Objects and Actions area, select the desired object or action. In the Keys area, the hotkeys are displayed.2. To the right of the desired assigned hotkey, click Delete. The hotkey disappears from the Keys area.
To delete all added hotkeys,	click Reset All . All added hotkey become deleted.

NOTE

The **Reset All** button cannot delete the default hotkey entry of the PTT button, but it can reset a hotkey assigned by the user.

For information on the default PTT button hotkey, see [Control Devices](#).

4. To save changes and close the window, click **Finish**.

2.2.3 Sound

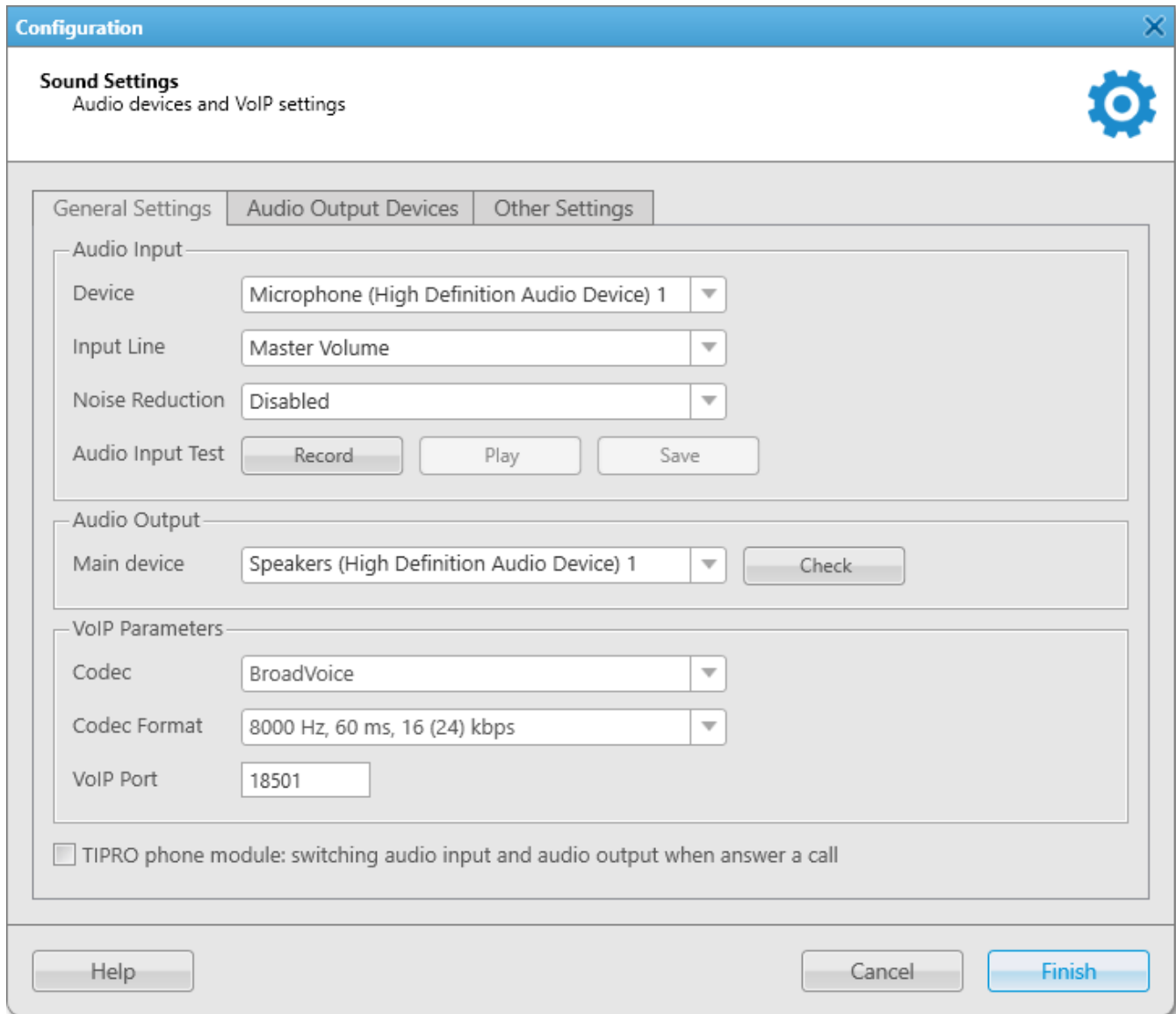
In the **Sound** window, you can perform the following actions:

- Configure general sound settings.
- Configure sound settings of a Tipro Phone Module.

- Configure output devices for system objects.
- Configure muting and dispatcher sound settings.

WARNING

Before configuring sound settings, ensure that all required sound devices are connected and enabled.



The window is available by clicking **Settings (⚙)** → **Equipment** → **Sound** on the menu bar and provides the following tabs:

- **General Settings** tab
- **Audio Output Devices** tab

- **Other Settings** tab

For information on tabs, see [General Settings](#), [Audio Output Devices](#), and [Other Settings](#).

2.2.3.1 General Settings

In the **General Settings** tab of the **Sound** window, you can configure general sound settings of SmartPTT Dispatcher.

WARNING

Before configuring sound settings, ensure that all required sound devices are connected and enabled.

The screenshot shows the 'Configuration' window for 'Sound Settings' (Audio devices and VoIP settings). The 'General Settings' tab is selected. The 'Audio Input' section includes a 'Device' dropdown set to 'Microphone (High Definition Audio Device) 1', an 'Input Line' dropdown set to 'Master Volume', and a 'Noise Reduction' dropdown set to 'Disabled'. Below these are 'Record', 'Play', and 'Save' buttons. The 'Audio Output' section has a 'Main device' dropdown set to 'Speakers (High Definition Audio Device) 1' and a 'Check' button. The 'VoIP Parameters' section includes a 'Codec' dropdown set to 'BroadVoice', a 'Codec Format' dropdown set to '8000 Hz, 60 ms, 16 (24) kbps', and a 'VoIP Port' text box containing '18501'. At the bottom, there is an unchecked checkbox for 'TIPRO phone module: switching audio input and audio output when answer a call'. The window has 'Help', 'Cancel', and 'Finish' buttons at the bottom.

The **Audio Input** area provides provides the following elements:

Device

A list of audio device to which the microphone is connected.

By default the device used by the operating system is selected (*Default*).

It is strongly recommended to select the specific device from the list instead of *Default*.

Input Line

Audio mixer line used to connect a microphone.

Noise Reduction

Makes dispatcher sound clearer by reducing noises. Disabled by default.

You can select a level of noise reduction from 3 to 18 dB. If voice and noise levels are the same or close, do not enable noise reduction.

Audio Input test

Provides buttons for checking a sound of the audio input device:

- The **Record** button initiates a microphone sound recording and unblocks **Play** and **Save** buttons after you stop the recording.
- The **Play** button plays the recorded sound.
- The **Save** button saves the recorded sound on the computer.

The **Audio Output** area provides provides the following elements:

Main device

The device that is used to play all sounds except for those for which personal audio output device is configured.

By default the device used by the operating system is selected (*Default*).

It is strongly recommended to select the specific device from the list instead of *Default*.

Check

Checks the sound of the selected audio output device. When pressed, changes to the **Stop** button.

The **VoIP Parameters** area provides provides the following elements:

Codec

Audio stream compression method.

Codec Format

Audio stream sampling frequency.

VoIP Port

The box in which you can specify a port for sound stream receiving.

Under the **VoIP Parameters** area the **TIPRO phone module: switching audio input and audio output when answer a call** check box.

The check box activates switching between main audio output/input devices and audio output/input devices of the phone module when you lift or put down the handset.

The check box also provides areas and controls for specifying audio devices for a Tipro phone module. The specified audio devices will be used after you lift the module handset.

Configuration [X]

Sound Settings
Audio devices and VoIP settings [Gear Icon]

General Settings | **Audio Output Devices** | Other Settings

VoIP Parameters

Codec: BroadVoice [v]

Codec Format: 8000 Hz, 60 ms, 16 (24) kbps [v]

VoIP Port: 18501 [text]

TIPRO phone module: switching audio input and audio output when answer a call

Phone module audio input

Device: Default [v]

Input Line: [v]

Noise Reduction: Disabled [v]

Audio Input Test: [Record] [Play] [Save]

Phone module audio output

Main device: Default [v] [Check]

[Help] [Cancel] [Finish]

The **Phone module audio input** area provides the following elements:

Device

A list of audio devices of the Tipro Phone Module. It is recommended to select a specific audio input device instead of *Default*.

If the selected device matches the device selected as general input device, it becomes red and either phone module or general input device should be changed.

Input Line

Audio mixer line of the Tipro Phone Module handset.

Noise Reduction

Makes sound clearer by reducing noises. Disabled by default.

You can select a level of noise reduction from 3 to 18 dB. If voice and noise levels are the same or close, do not enable noise reduction.

Audio Input test

Provides buttons for checking a sound of the audio input device:

- The **Record** button initiates a microphone sound recording and unblocks **Play** and **Save** buttons after you stop the recording.
- The **Play** button plays the recorded sound.
- The **Save** button saves the recorded sound on the computer.

The **Phone module audio output** area provides the following elements:

Main device

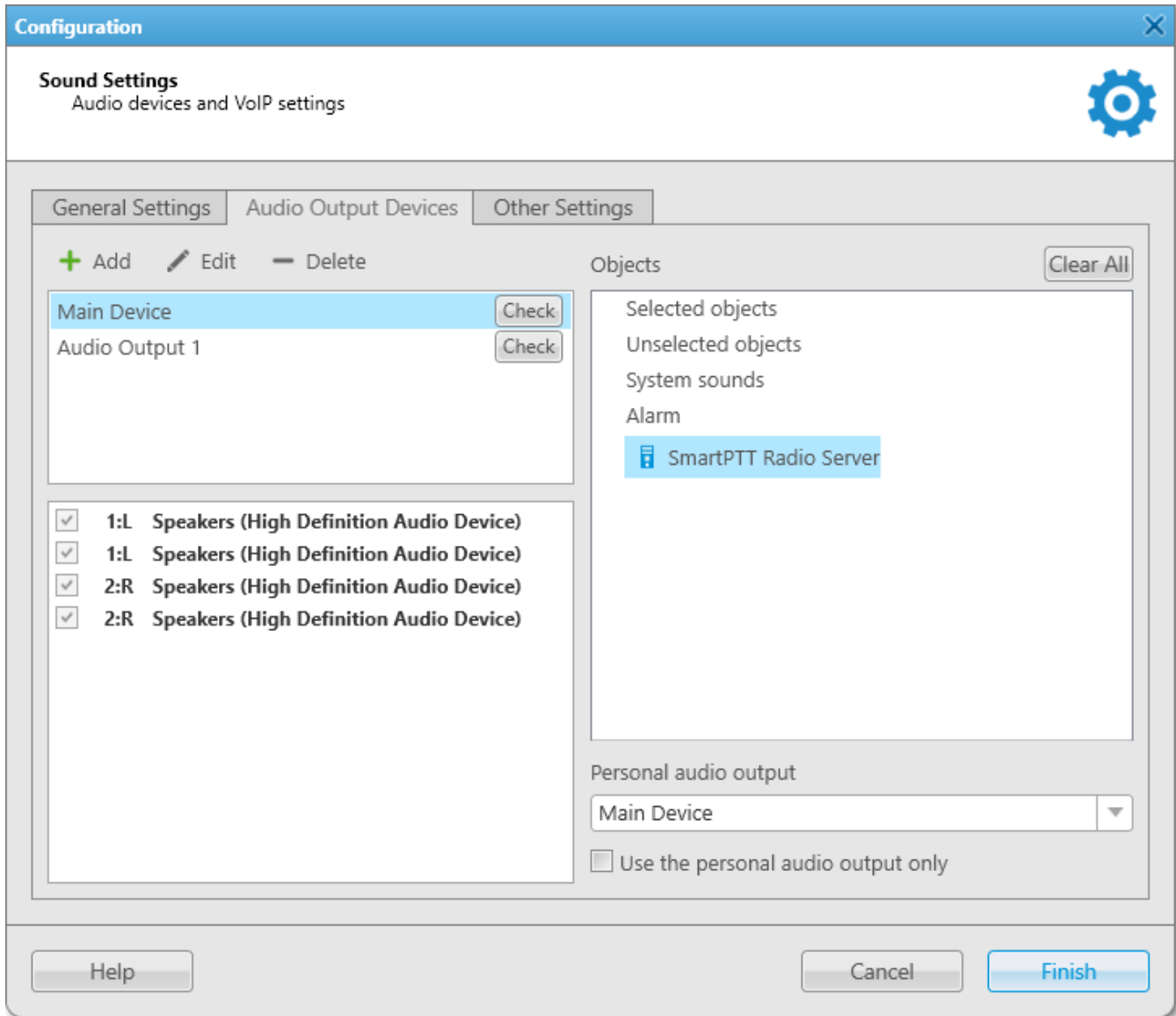
Audio device to which headsets or speakers are connected.

Check

Checks the sound of the selected audio output device. When pressed, changes to the **Stop** button.

2.2.3.2 Audio Output Devices

In the **Audio Output Devices** tab you can manage virtual audio output devices, and then assign them to the desired system objects.



Add

Adds a new virtual audio output device to the Virtual audio output devices box. This device is used only in SmartPTT Dispatcher.

Edit

Can be used for renaming a virtual audio output device in the Virtual audio output devices box. You cannot rename the **Main Device** virtual device.

Delete

Deletes the selected virtual audio output device in the Virtual audio output devices box. You cannot delete the **Main Device** virtual device.

Virtual audio output devices

The box contains virtual audio output devices that are used only in SmartPTT Dispatcher. By default has **Main Device** virtual device that cannot be deleted and renamed.

You can use the **Add**, **Edit**, and **Delete** buttons to manage virtual devices in the box, and the **Check** button to check the sound of the virtual device.

NOTE

To check the sound of an added virtual device, you should select the desired sound channel in the Channels of virtual Audio Output devices box, and then press the **Check** button.

Sound channels of the virtual audio output device

The box contains audio channels of the virtual device selected in the **Audio Output virtual devices** box.

These channels can be selected for the virtual audio output device, using which the sound is played in the system. All audio channels of the **Main Device** virtual device are selected by default and cannot be customized.

Objects

A box containing system objects to which you can assign a virtual audio output device.

The main objects in the **Objects** box are the following:

Selected objects

Objects that are selected or whose call window is open and active (the window has the blue title bar, and the PTT button has the blue frame). The volume of the selected objects is adjusted in the [Sound](#) panel.

By default, the **Main Device** virtual device is selected as an audio output device for selected objects.

NOTE

Telephone subscribers, other dispatchers, and conferences cannot be selected objects.

Unselected objects

Objects that are unselected. The volume of the selected objects is adjusted in the **Sound** panel. For details, see [Sound](#).

By default, the **Main Device** virtual device is selected as an audio output device for unselected objects.

System sounds

All system sounds such as the following:

- Sound of a triggered rule
- Sound of the transmission initiating
- Notifications of dispatcher and telephone subscriber incoming calls
- Sound of call records played in the both dispatcher and radioserver Event Log
- Sound of system messages
- FOACSU call notification
- Sound of the Call Alert command

The volume of the system sounds is adjusted in the **Sound** panel. For details, see [Sound](#).

By default, the **Main Device** virtual device is selected as an audio output device for system sounds.

Alarm




Sound of emergency and emergency calls.

You cannot change the volume of emergency sound or mute it. For information on changing volume of emergency calls sound, see [Radio Fleet](#).

NOTE

If <No> is selected from the **Personal audio output** list, the device selected for selected/unselected objects is used for emergency and emergency calls.

Other objects appear in the **Objects** box only when they are available in the system. These objects are:

- Radio servers ()
- Channels ()
- Talkgroups ()

Personal audio output

The list from which you can select the desired audio output device for the object. Independently on the selected device, the sound is also played using the main device. It is applicable to all objects except for system sounds.

You can select the following devices:

- If you select *<No>*, the sound of a channel or a talkgroups is played using the devices selected for the selected/unselected objects, or using the main device. The sound of an alarm object or a radio server is played only using the device selected for the selected/unselected objects.
Unavailable for selected/unselected objects and system sounds.
- If you select *Main Device*, the sound is played using the default virtual audio output device. The *Main Device* is assigned to selected/unselected objects and system sounds by default.
- If you select any of the devices manually added to the **Virtual audio output devices** box, the sound is played using this device.

Use the personal audio output only

If the check box is selected, main device and devices set for selected/unselected objects are ignored. The sound is played only using the device selected from the **Personal audio output** list.

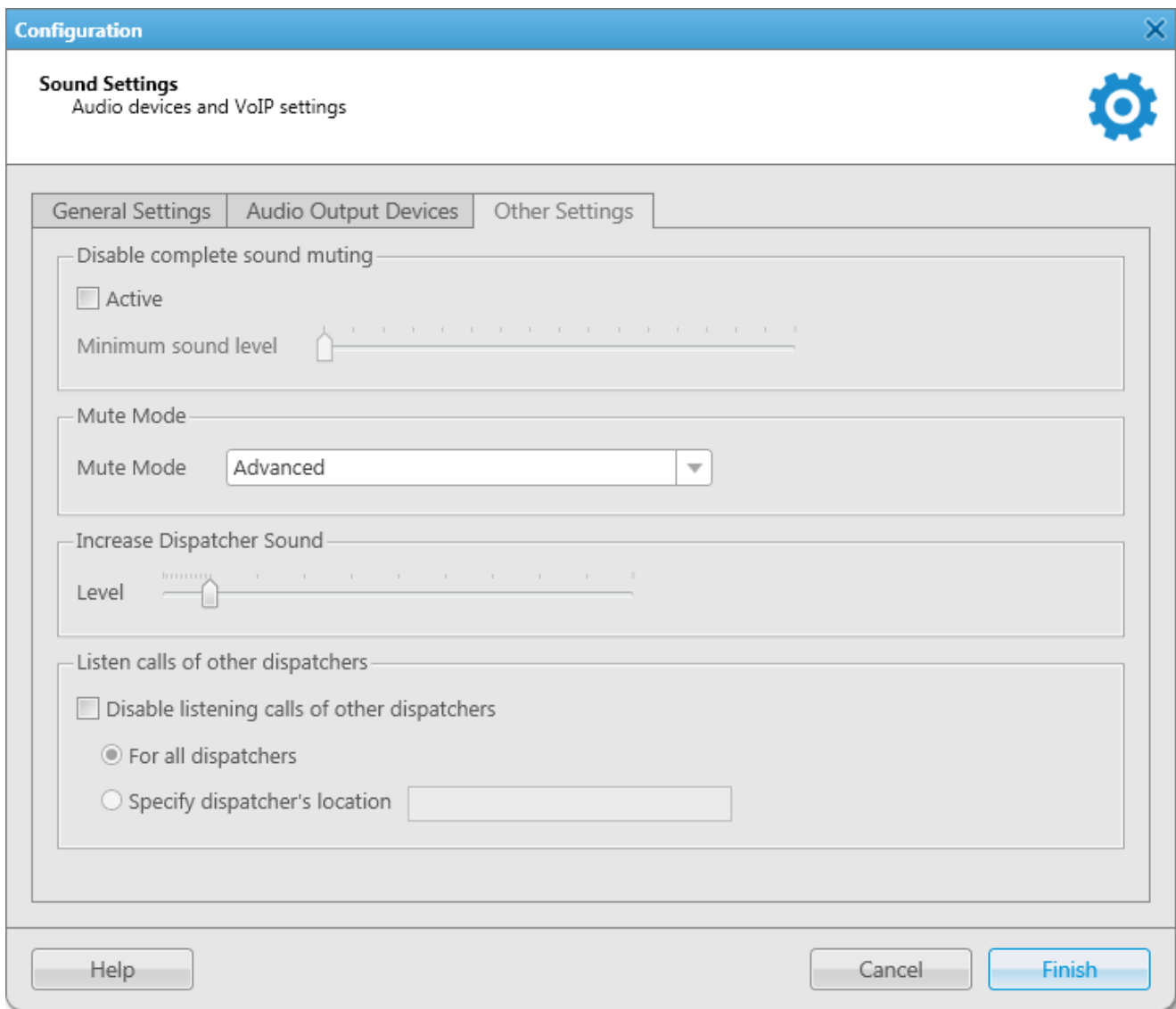
Unavailable for main objects such as selected/unselected objects, system sounds, and alarm.

2.2.3.3 Other Settings

In the **Other Settings** tab you can configure additional settings of SmartPTT Dispatcher sound such as:

- Muting disabling
- Mute mode

- Dispatcher sound volume
- Acoustic cross muting of dispatchers



The **Disable complete sound muting** area provides provides the following elements:

Active









Disables complete sound muting and unblocks the **Minimum sound level** slider.

Minimum sound level

The slider that adjusts muted objects sound. By default the slider is set to *10*.

The specified level affects only SmartPTT Dispatcher and depends on the sound level of the operating system.

The **Mute mode** area provides the **Mute mode** list from which you can select a mute mode used in SmartPTT Dispatcher:

- In the **Basic** mode, control stations (), conventional channels (), or trunking systems () are muted completely using **Mute** () or **Mute Others** () action.
- In the **Advanced** mode, control stations (), conventional channels (), or trunking systems () are muted completely except for the sound of incoming dispatcher calls, and incoming private calls made using the dispatcher ID.

If the dispatcher has no profile assigned, the ID is equal to the value of the **Radio ID** box of the corresponding control station, conventional channel or trunk system in SmartPTT Radioserver Configurator.

If the dispatcher has the profile assigned, the ID is equal to the value of the ID set in the profile settings in SmartPTT Radioserver Configurator.

For information on profile configuring, see SmartPTT Radioserver Configurator User Guide.

For information on profile assigning, see [Assigning Profile to Operators](#).

The **Increase dispatcher sound** area provides the **Level** slider for increasing or decreasing the volume level of the dispatcher voice on a radio.

The **Listen calls of other dispatchers** area provides provides the following elements:

Disable listening calls of other dispatchers

Activates acoustic cross muting of dispatchers in SmartPTT Dispatcher and unblocks the **For all dispatchers** and **Specify dispatcher's location** options.

For all dispatchers

Mutes calls of all dispatchers connected to the radio server.

Specify dispatcher's location

Unblocks the box in which you can specify a name or a number of the location where dispatchers are located. All dispatchers with the same location number or name specified in the box will not hear each other's calls.

The location name or number should be one-line text containing up to 50 symbols including unprintable signs.

2.2.3.4 Configuring Sound Settings

2.2.3.4.1 Configuring General Sound Settings

Follow the procedure below to configure general sound settings.

Prerequisites:

Ensure the required audio input/output devices are connected and enabled.

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **General Settings** tab.
3. In the **Audio Input** area, configure settings of the audio input device:
 - a. From the **Device** list, select the desired output device.
 - b. From the **Input Line** list, select the desired input line.
 - c. *Optional:* From the **Noise Reduction** list, select the desired level of a noise reduction.
For details, see [General Settings](#).
4. Check the selected audio input device:
 - a. Click the **Record** button and speak to the device.
The **Record** button changes to **Stop**.
 - b. Click **Stop** to stop the recording.
The **Stop** button changes to **Record** and other buttons become unblocked.
 - c. Click **Play** to listen to the recorded voice.
The **Play** button changes to **Stop** and you will hear the voice if the input device works properly.
 - d. *Optional:* Click **Save** to save the recorded voice sample.
5. In the **Audio Output** area, configure settings of the audio output device:
 - a. From the **Main device** list, select the desired output device.

- b. Click **Check** to check the selected output device.
The **Check** button changes to **Stop** and you will hear the sound if the output device works properly.
 - c. Click **Stop** to stop the output device check.
6. In the **VoIP Parameters** area, configure settings of the voice transmitting:
 - a. From the **Codec** list, select the desired codec.
 - b. From the **Codec Format** list, select the codec sampling frequency.
 - c. In the **VoIP Port** box, enter the desired port using which the voice is transmitted.
7. To save changes and close the window, click **Finish**.

2.2.3.4.2 Configuring Sound Settings of Tipro Phone Module

Follow the procedure below to configure sound settings of a Tipro Phone Module.

NOTE

Audio input/output devices of the Tipro Phone Module should differ from general sound input/output devices.

Prerequisites:

Ensure the required audio input/output devices are connected and enabled.

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **General Settings** tab.
3. Configure the general sound settings of SmartPTT Dispatcher. For details, see [Configuring General Sound Settings](#).
4. Select the **TIPRO phone module: switching audio input and audio output when answer a call** check box.
5. In the **Phone module audio input** area, configure audio input device of the phone module:
 - a. From the **Device** list, select the desired output device.

- b. From the **Input Line** list, select the desired input line.
 - c. *Optional:* From the **Noise Reduction** list, select the desired level of a noise reduction.
For details, see [General Settings](#).
6. Check the selected audio input device:
 - a. Click the **Record** button and speak to the device.
The **Record** button changes to **Stop**.
 - b. Click **Stop** to stop the recording.
The **Stop** button changes to **Record** and other buttons become unblocked.
 - c. Click **Play** to listen to the recorded voice.
The **Play** button changes to **Stop** and you will hear the voice if the input device works properly.
 - d. *Optional:* Click **Save** to save the recorded voice sample.
7. In the **Phone module audio output** area, configure audio output device of the phone module:
 - a. From the **Main device** list, select the desired output device.
 - b. Click **Check** to check the selected output device.
The **Check** button changes to **Stop** and you will hear the sound if the output device works properly.
 - c. Click **Stop** to stop the output device check.
8. To save changes and close the window, click **Finish**.

2.2.3.4.3 Configuring Muting Options

Follow the procedure below to configure muting options.

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **Other Settings** tab.

3. In the **Other Settings** tab, configure the mute settings:

To disable complete sound muting, perform the following actions:

1. In the **Disable complete sound muting** area, click **Active**.
The **Minimum sound level** slider becomes available.
2. Move **Minimum sound level** slider left or right to set the minimum sound volume of muted objects.

To change the mute mode, in the **Mute mode** area, select the desired mode.

4. To save changes and close the window, click **Finish**.

Postrequisites:

To configure acoustic cross muting of dispatchers, see [Configuring Dispatcher Voice Sound Options](#).

2.2.3.4.4 Configuring Dispatcher Sound Options

Follow the procedure below to configure dispatcher voice sound options.

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **Other Settings** tab.
3. In the **Increase dispatcher sound** area, move the **Level** slider left or right to amplify or decrease the sound of a dispatcher voice.
4. To save changes and close the window, click **Finish**.

2.2.3.4.5 Activating Dispatcher Cross Muting

Follow the procedure below to activate the dispatcher cross muting.

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **Cross Muting** tab.
3. Select **Disable listening calls of other dispatchers** check box.
4. Select the desired option:

To activate the cross muting for all dispatchers,

click **For all dispatchers**.

To activate cross muting for the desired dispatchers,

perform the following actions:

1. Click **Specify dispatcher's location**.
The box on the left becomes available.
2. In the box on the left, type the dispatcher name, or the room number.
3. Using entered data, repeat the procedure for other dispatchers that should not hear each other.
Dispatchers for whom in the **Specify dispatcher's location** box the identical data is set, are unable to hear each other.

-
5. To save changes and close the window, click **Finish**.

2.2.3.5 Configuring Multichannel Sound

2.2.3.5.1 Configuring Audio Output Device

Follow the procedure below to configure virtual audio output device.

Prerequisites:

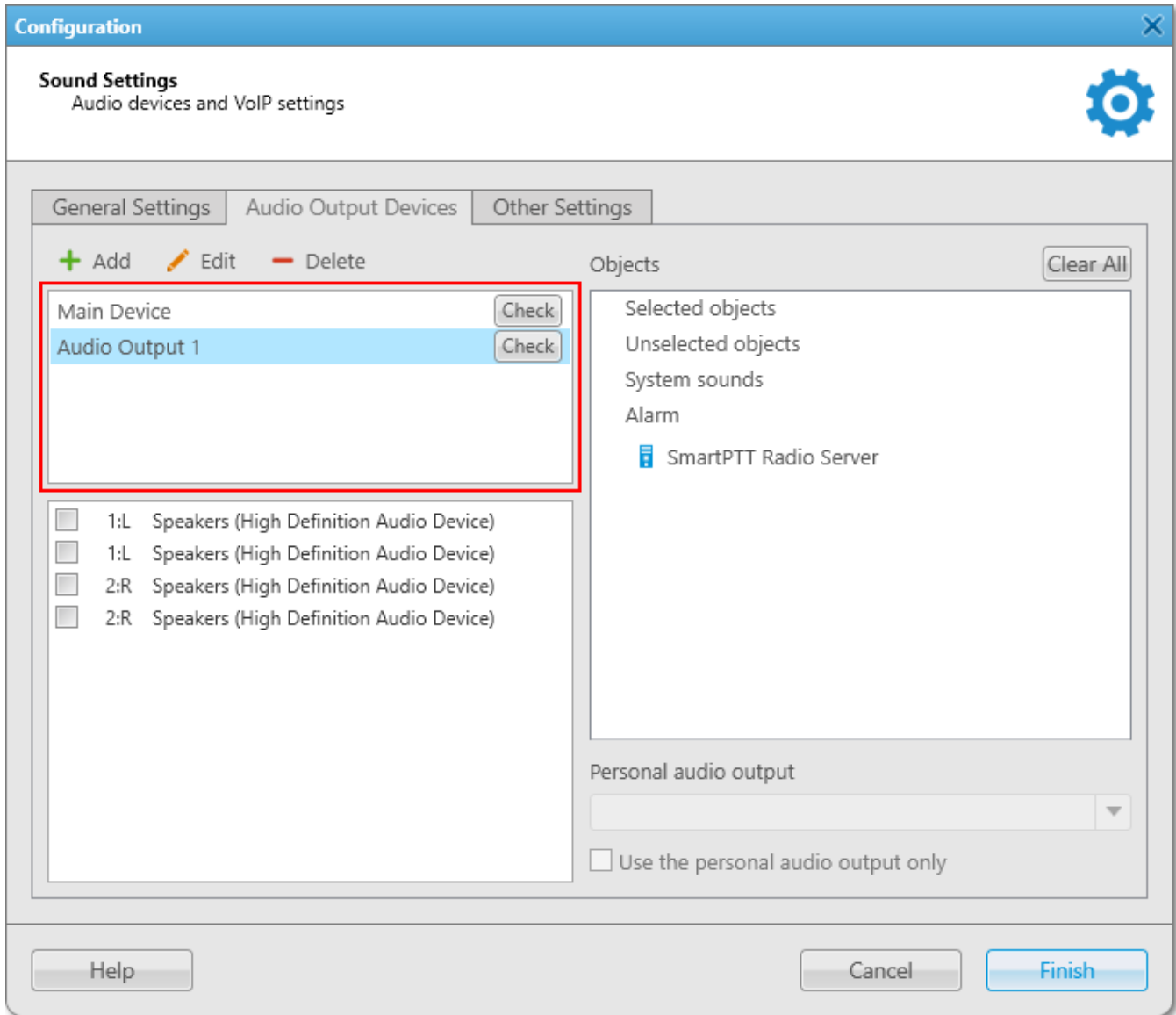
Ensure that audio input/output devices of SmartPTT Dispatcher are configured.

Procedure:

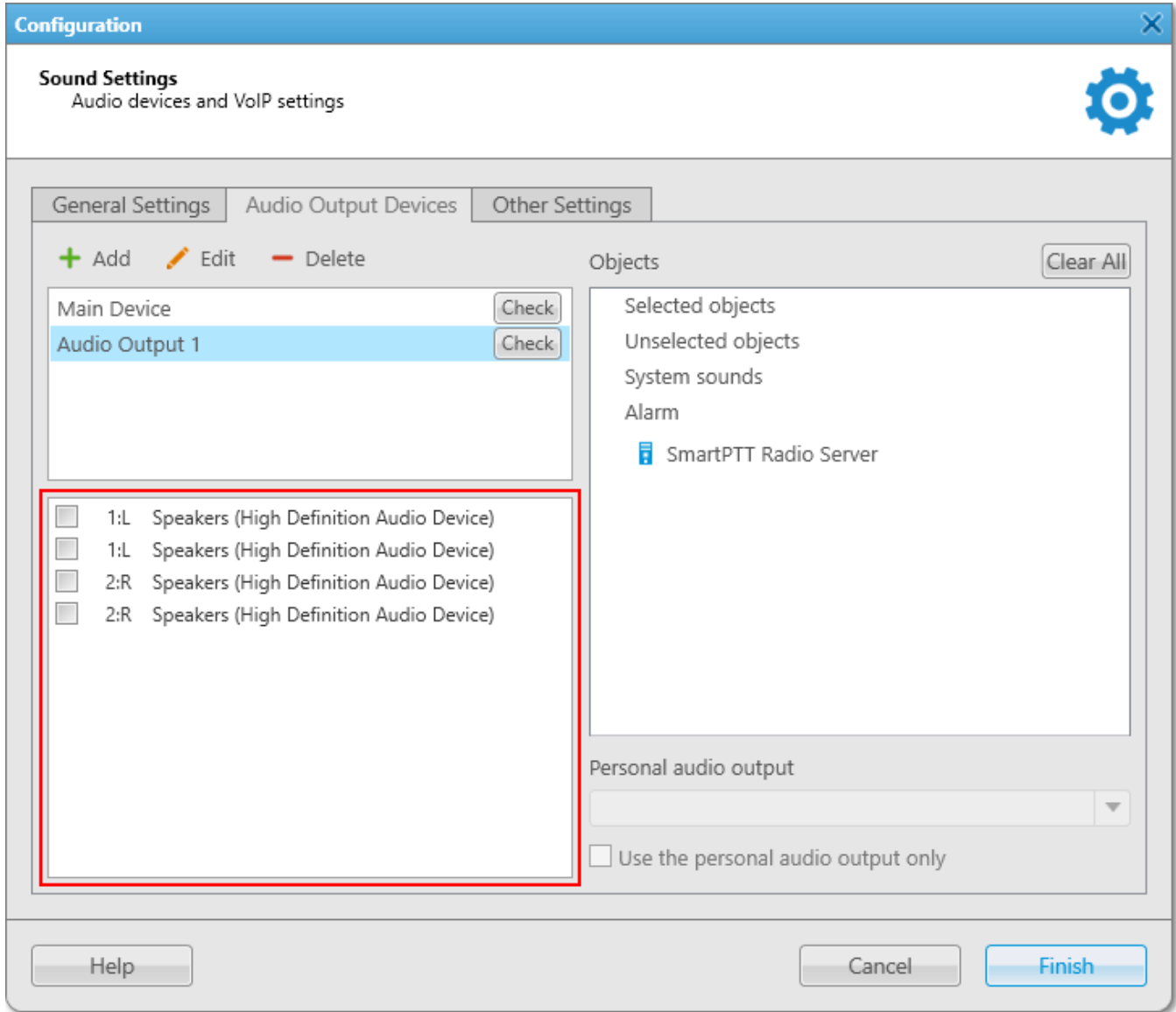
1. On the menu bar, click **Settings** → **Equipment** → **Sound**.
The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **Audio Output Devices** tab.

3. Click **Add**.

A new audio output device appears in the Virtual audio output devices box.



4. *Optional:* Click **Edit**, to rename the added virtual device, and then press Enter.
5. In the Sound channels of virtual audio output devices box, select the desired sound channels for the added audio output device.



6. In the Virtual audio output devices box, click **Check** to check the selected sound channels. The **Check** button changes to **Stop**.
7. Click **Stop** to stop the sound check.
8. To save changes and close the window, click **Finish**.

Postrequisites:

To assign the added device to the system objects, see [Assigning Audio Output Devices to System Objects](#).

2.2.3.5.2 Assigning Audio Output Devices to System Objects

Follow the procedure below to assign virtual audio output device to a system object.

Prerequisites:

Ensure the desired virtual audio device is added to the Virtual audio output devices box and configured properly. For details, see [Configuring Audio Output Device](#).

Procedure:

1. On the menu bar, click **Settings** → **Equipment** → **Sound**. The **Sound Settings** window appears.
2. In the **Sound Settings** window, open the **Audio Output Devices** tab.
3. In the **Objects** box of the **Audio Output Devices** tab, click the desired object.
4. From the **Personal audio output** list, select a virtual device for the object.
5. *Optional:* Select the **Use the personal audio output only** check box to use for the system object only the device selected from the **Personal audio output** list. For details, see [Audio Output Devices](#).
6. To save changes and close the window, click **Finish**.

Postrequisites:

To reset all system objects to default state, click **Clear All**.

2.3 Telephone Interconnect

SmartPTT Dispatcher has a built-in function to make telephone connections with telephone subscribers. A call can be initiated both by the dispatcher and the telephone subscriber. Standard VoIP gateways are used to connect to telephone subscribers. The following connection options are possible:

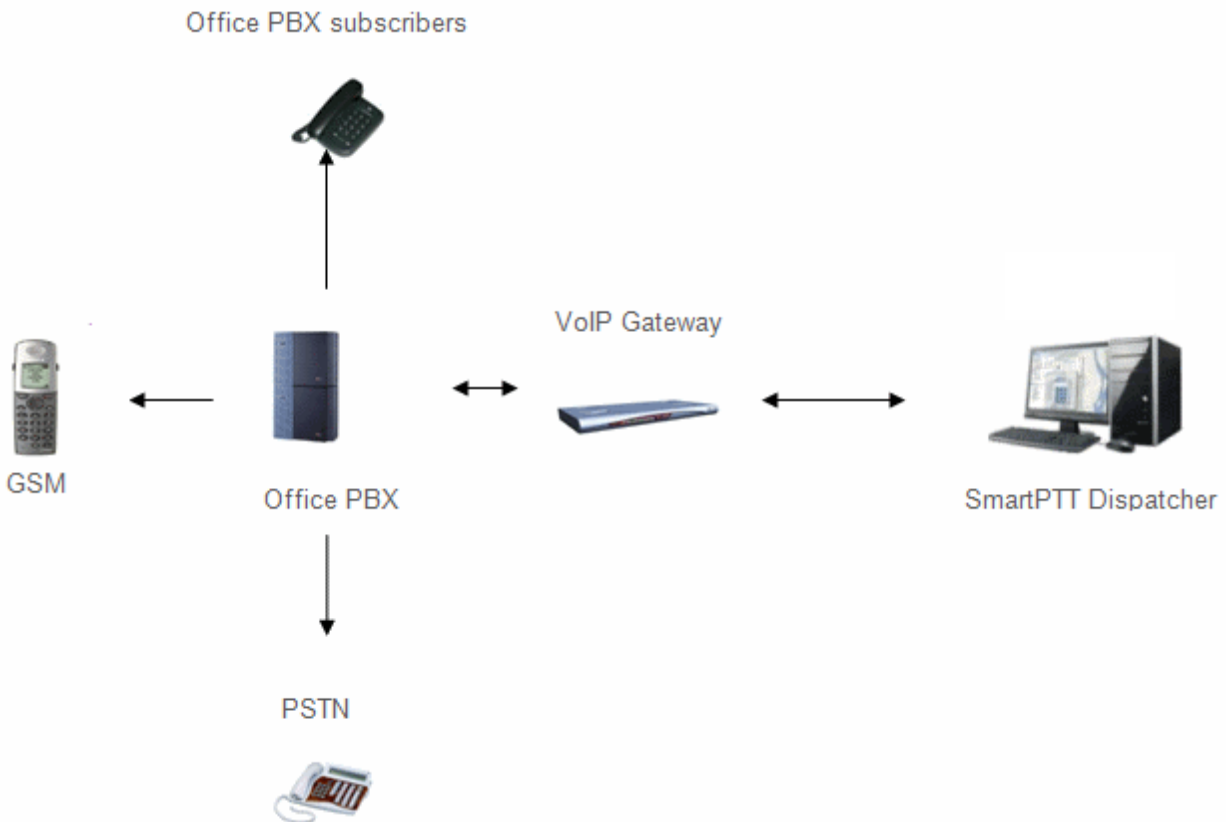
1. The dispatcher calls the office PBX subscriber and voice is transmitted in full-duplex mode.
2. The office PBX subscriber calls the dispatcher and voice is transmitted in full-duplex mode.
3. SmartPTT Dispatcher connects telephone and radios.

NOTE

The SmartPTT Dispatcher is able not only to hear the conversation between a telephone and a radio but also participate in it.

Connection and subscriber addressing are implemented via SIP protocol. Voice data is transmitted via RTP protocol.

The connection scheme:



A VoIP gateway is a device which bridge conventional telephone networks and equipment to VoIP telephone networks.

A Private Branch eXchange (PBX) is a telephone exchange that serves a particular business or office.

The Public Switched Telephone Network (PSTN) is the network of the world's public circuit-switched telephone networks.

SIP Architecture

Call service management is distributed between different elements of SIP network. The basic functional unit that implements connection management are User Agents, which are endpoints of

a call (that is each of the participants in a call). The remaining network elements (SIP-servers) are responsible for call routing and can provide additional services.

- User Agents

User agents are both the computer that is being used to make a call, and the target computer that is being called. These make the two endpoints of the communication session. There are two components to a user agent: a client and a server. When a user agent makes a request (such as initiating a session), it is the User Agent Client (UAC), and the user agent responding to the request is the User Agent Server (UAS). Even though other devices that we'll discuss are optional to various degrees, User Agents must exist for a SIP session to be established.

- Proxy Server

Proxy servers are computers that are used to forward requests on behalf of other computers. If a SIP server receives a request from a client, it can forward the request onto another SIP server on the network. While functioning as a proxy server, the SIP server can provide such functions as network access control, security, authentication, and authorization.

- Registrar Server

Registrar servers are used to register the location of a user agent who has logged onto the network. It obtains the IP address of the user and associates it with their user name on the system. This creates a directory of all those who are currently logged onto the network, and where they are located. When someone wishes to establish a session with one of these users, the Registrar server's information is referred to, thereby identifying the IP addresses of those involved in the session.

- Redirect Server

The Redirect servers are used by SIP to redirect clients to the user agent they are attempting to contact. If a user agent makes a request, the Redirect server can respond with the IP address of the user agent being contacted. This is different from a Proxy server, which forwards the request on your behalf, as the Redirect server essentially tells you to contact them yourself.

SIP determines the following addressing system: *[sip:] id [@ fragment]*. ID indicates user name or phone number of the subscriber. Fragment specifies the host, which can be set to the domain name, the IP-address of the computer or the address of the VoIP gateway. Caller ID can be presented in different ways, such as *user_name@[domain name]*, *name@[IPaddress]*, *phone_number@[VoIPgateway]*.

SIP Connection Methods

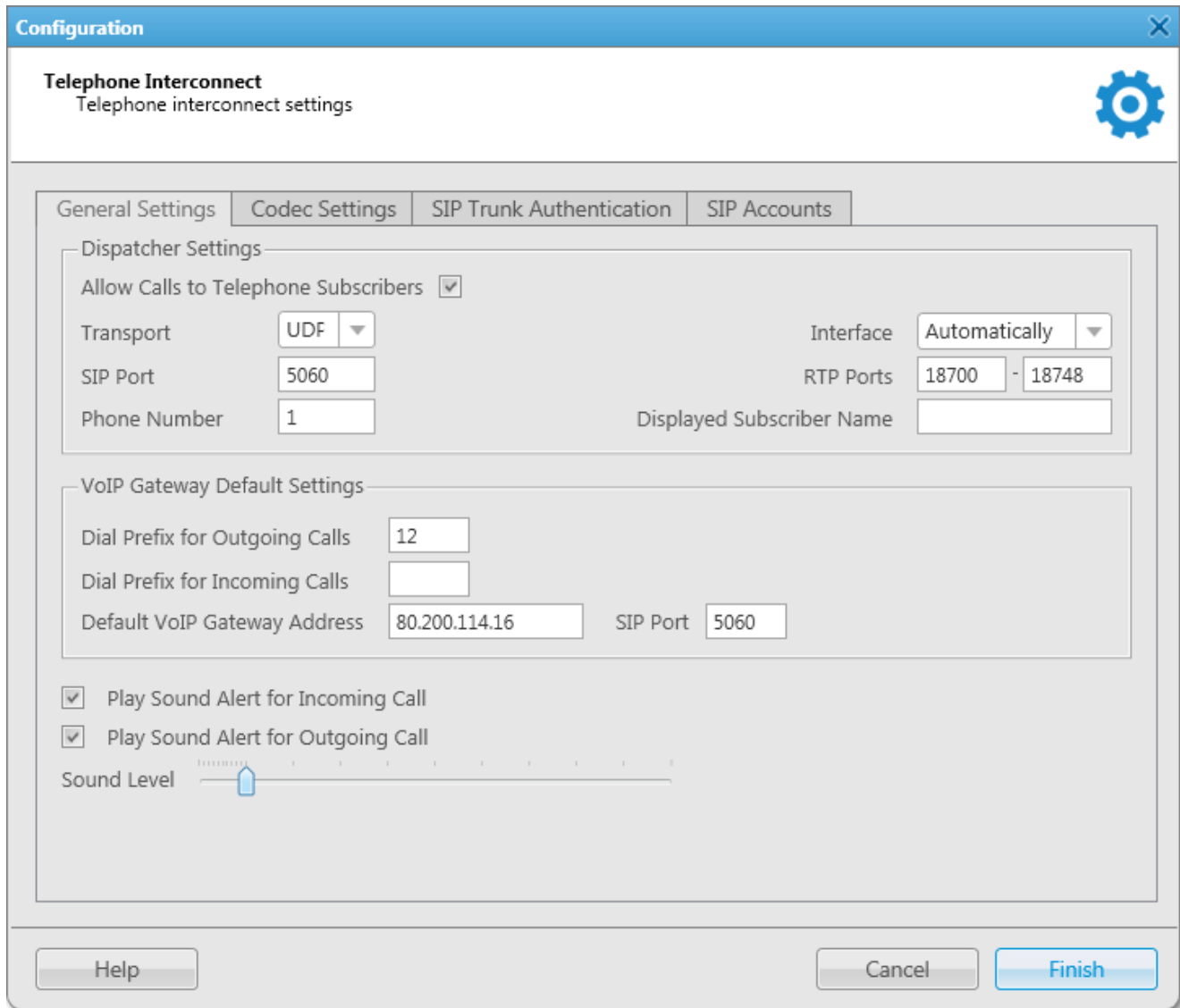
There are two SIP connection types – SIP trunking and using a SIP account.

SIP trunking is used when a user agent (SmartPTT Dispatcher in our case) has a static IP address. This IP address must be prescribed on SIP server only once, and the client does not require to re-register on the SIP server. SIP trunking provides security by means of password authentication for incoming and outgoing calls.

If the client IP address changes periodically, use a SIP server account to establish the connection. When the client turns on, it sends a special package for SIP registration to the server. The package contains authentication data (SIP account user name, login, password) and the current IP address. Since then server knows where to route calls addressed to the client. After a period of time the client automatically updates the registration. If its IP address has changed, SIP server accordingly updates the information on this user.

2.3.1 Telephone Interconnect

To configure connection parameters with telephone subscribers, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Telephone Interconnect** → **Telephone Interconnect**.



The **Telephone Interconnect** window includes:

- General settings
- Codec settings

- SIP Trunk Authentication
- SIP accounts

General Settings Tab

The **General Settings** tab includes **Dispatcher Settings** and **VoIP Gateway Default Settings** sections.

Dispatcher Settings Area

Allow Calls to Telephone Subscribers: Select the check box to be able to make and receive calls between SmartPTT Dispatcher and telephone subscribers.

NOTE

If the check box is not selected, the **Telephone Subscribers** window is unavailable.

RTP Ports: Each connection with the telephone subscriber requires two UDP ports (even port numbers are used by RTP protocol, uneven – by RTCP). Thus, the specified ports must be available both for incoming and outgoing traffic. The default port range is from 18700 to 18748.

WARNING

If both SmartPTT Dispatcher and SmartPTT Radioserver are installed on one computer, the port range set in the **RTP Ports** box in SmartPTT Dispatcher must differ from the port range set in the **RTP ports** box in SmartPTT Radioserver Configurator.

Interface: IP address of the local computer, used to receive and transmit commands and voice data. If the dispatcher's computer has only one IP address, the system can select it automatically; if it has more than one IP address, the IP address (interface) should be specified expressly. The specified IP must be available from the VoIP gateway end.

WARNING

If several network interfaces are installed on the computer you may have to configure the routing table using the command **route add ...**

SIP Port: UDP or TCP port number to receive and send SIP data packets. The default value is 5060. Accordingly, the specified port must be available for incoming and outgoing traffic.

WARNING

If both SmartPTT Dispatcher and SmartPTT Radioserver are installed on one computer, their SIP ports must differ. In this example it must be 5061 because 5060 is already taken by the radioserver.

Displayed Telephone Number: Type the telephone number which allows you to connect to SmartPTT Dispatcher. This number is also displayed on the screen of the receiving SIP call device (phone or softphone).

Subscriber Name: Type the name to be displayed on the screen of the receiving SIP call device (phone or softphone).

VoIP Gateway Default Settings Area

If **VoIP Gateway Default Settings** are specified, it is enough to set only subscriber phone numbers in the **List of Subscribers** tab. Also, these parameters are used to dial the called subscriber number manually (click the **Dial Pad** button and the **Dial Pad** window appears).

Default VoIP Gateway Address: The VoIP gateway IP address.

SIP Port: A VoIP gateway to receive and send SIP data packets. By default VoIP gateways use the UDP port 5060.

Dial Prefix for Outgoing Calls: Numeric prefix added to the called subscriber number by SmartPTT Dispatcher. VoIP gateway uses the prefix to determine where the call came from and what rules it must apply to the call (block or allow, where the call must be routed).

Dial Prefix for Incoming Calls: Numeric prefix value in this box must match the same VoIP gateway prefix.

If default VoIP gateway is used, the telephone subscriber's complete SIP address will be as follows:

SIP address = Dial Prefix for Outgoing Calls + Phone Number + @ + Default VoIP Gateway Address + : + Gateway SIP Port.

Example

If the following settings are used:

Default VoIP Gateway Address = 192.168.0.243

SIP Port = 5060

Dial Prefix for Outgoing Calls = 12

The telephone subscriber with the phone number 1140 is automatically assigned the following outgoing SIP address = 121140@192.168.0.243:5060.

NOTE

If your network uses a firewall, consult a network administrator about the possibility of using SIP protocol and the required settings. The most common problem is that the media streams (for example, voice) are transferred over dynamically assigned UDP ports that are generally closed. The firewall must be able to dynamically open and close ports based on the transferred SIP signaling. Another problem is that the SIP clients inside the firewall cannot be reached by IP addresses since these most often are private and local to the LAN. Communication simply does not take place, unless there is specific SIP support in the firewall.

Play Sound Alert for Incoming Call: Select the check box to enable ringing at the SmartPTT Dispatcher application when a telephone subscriber calls.

Play Sound Alert for Outgoing Call: Select the check box to enable ringing at the SmartPTT Dispatcher application when making a call to a telephone subscriber.

Sound Level: Adjusts the volume of sound coming from the telephone subscriber in SmartPTT Dispatcher.

VoIP Gateway Configuration

The VoIP gateway administrator must ensure that SIP addresses for incoming calls are appropriately interpreted and switched to phone numbers.

In the example above the telephone subscriber address is *sip:121140@192.168.0.243:5060* and the dial prefix for outgoing calls is *12*. Therefore VoIP gateway rules must discard the incoming prefix *12* from the full address and connect the dispatcher to the telephone subscriber number, that is *1140*.

You should also configure appropriate generation rules for outgoing SIP addresses to call other dispatchers.

For example, if the telephone subscriber with the number *1140* assigned wants to connect to the dispatcher with the address *192.168.0.105:5060*, then generation rules for outgoing SIP addresses

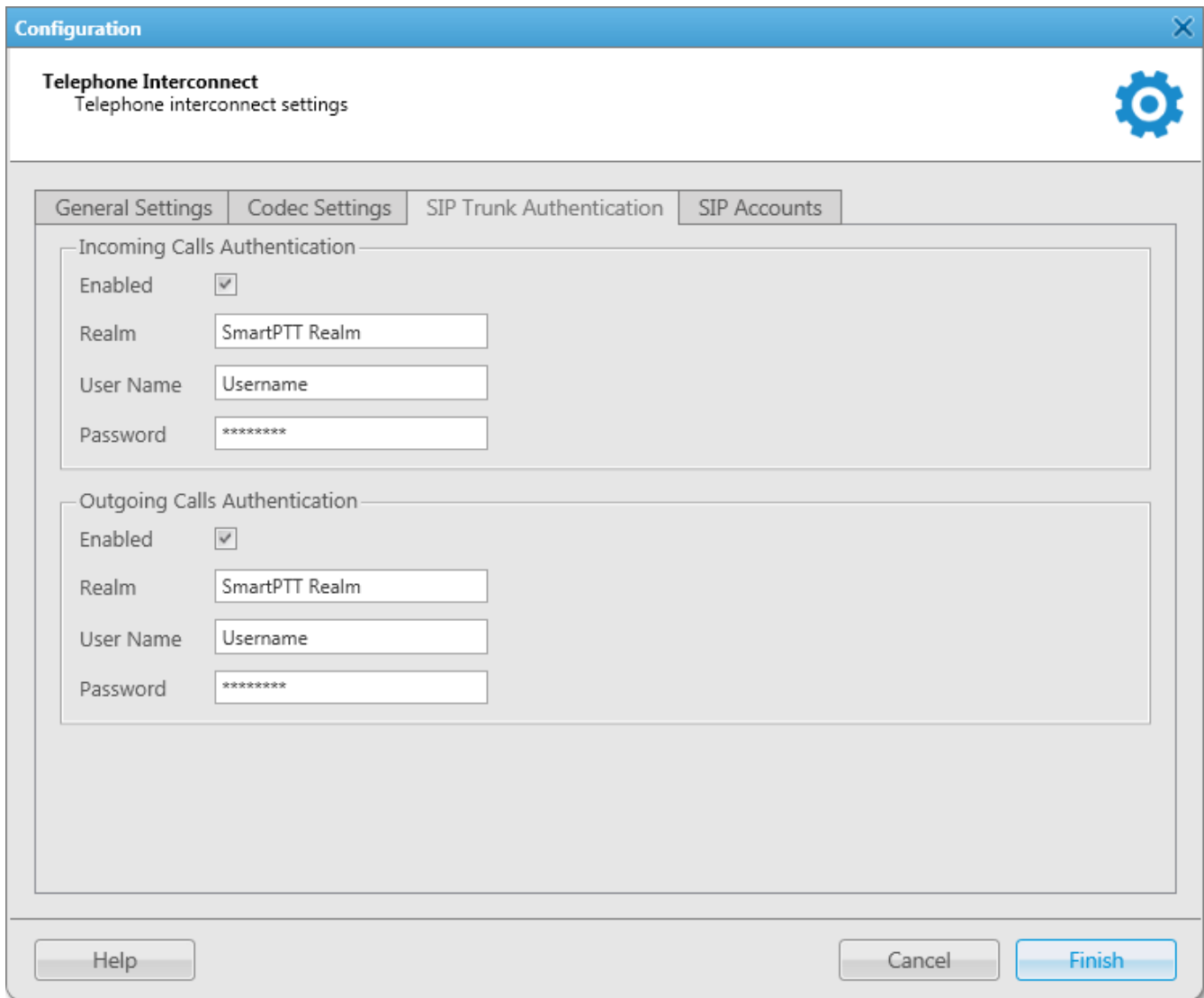
on the VoIP gateway must generate the correct destination address *sip:1@192.168.0.105:5060* (the **Displayed Telephone Number** value must be set as the SmartPTT Dispatcher identifier) and the sender's correct address *sip:1140@192.168.0.243:5060* (a dial prefix for incoming addresses is not set so the name in the sender's address is the same as the phone number).

Codec Settings

In the **Codec Settings** tab you can enable or disable supported audio codecs, as well as change their priorities. Currently, there are 4 audio codecs: G711A, G711Q, SPEEX and G729.

SIP Trunking Authentication

The **Telephone Interconnect** window contains authentication settings in a separate tab.



The screenshot shows a window titled "Configuration" with a close button (X) in the top right corner. Below the title bar, the window is titled "Telephone Interconnect" with the subtitle "Telephone interconnect settings" and a gear icon. The window contains four tabs: "General Settings", "Codec Settings", "SIP Trunk Authentication" (which is selected), and "SIP Accounts".

The "SIP Trunk Authentication" tab is divided into two sections:

- Incoming Calls Authentication:**
 - Enabled:
 - Realm: SmartPTT Realm
 - User Name: Username
 - Password: *****
- Outgoing Calls Authentication:**
 - Enabled:
 - Realm: SmartPTT Realm
 - User Name: Username
 - Password: *****

At the bottom of the window, there are three buttons: "Help", "Cancel", and "Finish".

Incoming Call Authentication: The setting includes parameters required for incoming call authentication. When an incoming call from a phone/softphone is received, dispatcher asks user name and password corresponding to **Realm** in the described setting. Calling subscriber must send back user name and password specified in this setting. The authentication type is not required if the incoming call is addressed to subscriber using SIP account for connection. To activate this ability, select the **Enabled** check box.

Realm: Parameter used for the incoming telephone calls authentication.

User Name: Name of the user used for authentication.

Password: Password used for authentication.

Outgoing Call Authentication: The setting includes parameters required for outgoing call authentication.

Realm: If not set, SmartPTT Dispatcher responds to any authentication request with specified user name and password. If set, SmartPTT Dispatcher responds only to authentication requests that matches the **Realm** value.

User Name: User name used for authentication.

Password: Password used for authentication.

SIP Accounts

If SmartPTT Dispatcher IP address varies, there must be a mechanism for determining its current value. In order to do this, SIP registration can be used, allowing the dispatcher to inform SIP server of its actual IP address.

Example

Client 1 has current IP address 192.168.0.224, *Client 2* – 192.168.0.98. It is necessary to establish connection between them, while both subscribers are not aware of each other's IP addresses.

To do this, create accounts on SIP server (*sip_server.com*) for both subscribers – *user1* (*sip: user1@sip_server.com*) and *user2* (*sip: user2@sip_server.com*) respectively.

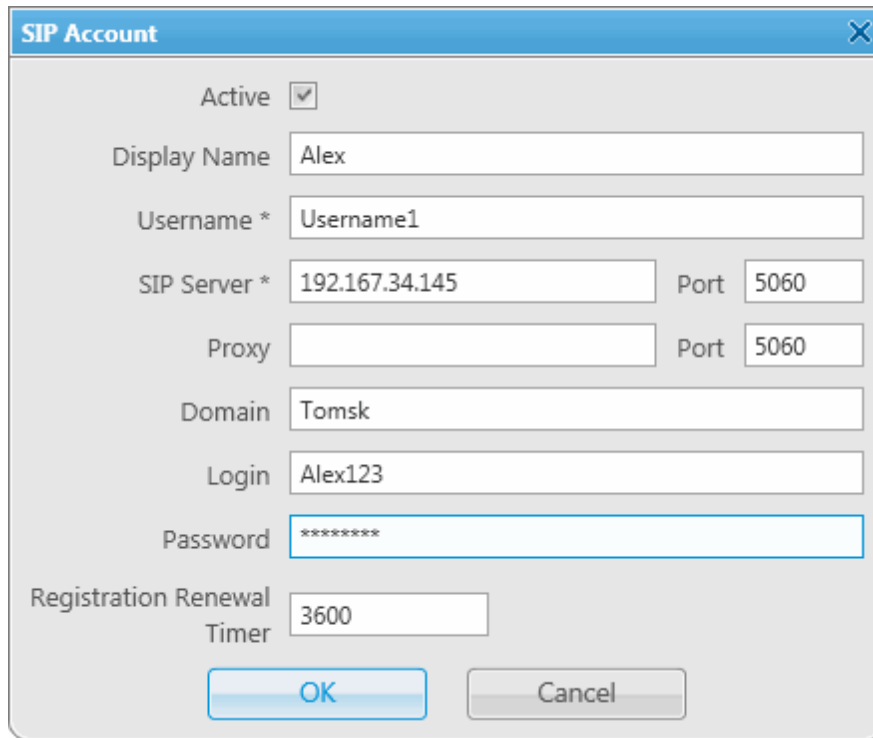
SIP server stores current IP addresses relevant to the SIP accounts of *Client 1* and *Client 2*.

Therefore, *Client 1* is not required to know current IP address of *Client 2* to make a call. *Client 1* refers to the SIP server under its account and requests connection with *Client 2* pointing out its SIP account. The SIP server searches its database for the current IP address of *Client 2*, returns it to *Client 1* or redirects the call from *Client 1* to *Client 2*.

The **SIP Accounts** tab in the **Telephone Settings** window contains dispatcher SIP account parameters. These accounts are created by the dispatcher on various SIP servers in advance. The parameters are used to establish connection with other server subscribers.

The **Status** box displays the account registration status on SIP server. Possible values – *Registered*, *Not registered*, *Processing*, and SIP error messages.

To add a record about a new SIP account, click **Add**. The following window appears:



The screenshot shows a dialog box titled "SIP Account" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Active:** A checked checkbox.
- Display Name:** A text input field containing "Alex".
- Username *:** A text input field containing "Username1".
- SIP Server *:** A text input field containing "192.167.34.145".
- Port:** A text input field containing "5060".
- Proxy:** An empty text input field.
- Port:** A text input field containing "5060".
- Domain:** A text input field containing "Tomsk".
- Login:** A text input field containing "Alex123".
- Password:** A text input field containing "*****".
- Registration Renewal Timer:** A text input field containing "3600".

At the bottom of the dialog are two buttons: "OK" and "Cancel".

Active: Select this check box to enable account registration on SIP server.

Display Name: The name that appears on the subscriber device screen.

Username: The account identifier on the SIP server.

SIP server: Remote SIP server IP address.

Proxy: Proxy server which can be used for special cases (for example, some providers insist on using proxy to request SIP server).

Domain: Parameter for the SIP server account authentication.

Login: Login for the account authentication.

Password: Password for SIP server account authentication.

Registration Renewal Timer: Time period (in seconds) between requests for the dispatcher IP address update on the SIP server.

Example

The following example is focused on setting up connection between SmartPTT Dispatcher (*Dispatcher 1*) and two other SIP clients (Linphone, MicroSIP, 3CX, or SmartPTT Dispatcher)

(Dispatcher 2, Dispatcher 3). These settings allow Dispatcher 1, Dispatcher 2, and Dispatcher 3 to interact with one another as 3CX server subscribers.

In order to do this, follow these steps:

1. Create SIP accounts for three SIP clients using the selected VoIP service provider, for example, accounts with **ID = 105**, **106**, and **107** on the 3CX SIP server.
2. In the SIP Accounts tab, as *Dispatcher 1* add records corresponding to the created SIP server accounts with **ID = 105**; *Dispatcher 2* - with **ID = 106**; *Dispatcher 3* - with **ID = 107**.

The image shows three side-by-side screenshots of the 'SIP Account' configuration dialog boxes. Each dialog box has a title bar with the name of the dispatcher and a close button. The fields are as follows:

Dispatcher	Display Name	Username *	SIP Server *	Port	Proxy	Port	Domain	Login	Password	Registration Renewal Timer
Dispatcher 1	105	105	192.168.0.140	5070		5060	3CXPhoneSystem	105	*****	3600
Dispatcher 2	106	106	192.168.0.140	5070		5060	3CXPhoneSystem	106	*****	3600
Dispatcher 3	107	107	192.168.0.140	5070		5060	3CXPhoneSystem	107	*****	3600

3. As *Dispatcher 1* add records of the two subscribers (*Dispatcher 2*, *Dispatcher 3*). Connection with these subscribers will be established via SIP server accounts.

Add the new subscribers in the **Telephone Subscriber** window. Fill in the **Subscriber** box. Click **Full Address (Automatic** can also be selected if VoIP Gateway Default Settings allow you to connect to the selected SIP server) and specify the outgoing and incoming SIP addresses corresponding to the called subscriber. Select the *Dispatcher 1* SIP account in the **Enable SIP Account** box (see step 2).

Dispatcher 1

The image displays two side-by-side screenshots of the 'Telephone Subscriber' configuration window for 'Dispatcher 1'. Both windows show the same configuration steps for different subscribers.

Left Window (Subscriber 106):

- Subscriber: 106
- SIP-Address: Automatic (default gateway and prefix) / Full Address (sip : prefix number @ gateway : port)
- Outgoing: sip:106@192.168.0.140:5070
- Incoming: sip:106@192.168.0.140:5070
- Enable SIP Account: 105@192.168.0.140:5070

Right Window (Subscriber 107):

- Subscriber: 107
- SIP-Address: Automatic (default gateway and prefix) / Full Address (sip : prefix number @ gateway : port)
- Outgoing: sip:107@192.168.0.140:5070
- Incoming: sip:107@192.168.0.140:5070
- Enable SIP Account: 105@192.168.0.140:5070

Red boxes in both screenshots highlight the 'Full Address' radio button, the 'Outgoing' and 'Incoming' SIP address fields, and the 'Enable SIP Account' checkbox with its dropdown menu.

Created subscriber entries appear in the **Telephone Subscribers** window.

4. Complete the same settings for *Dispatcher 2* (create account with **ID = 106** in the SIP accounts tab; add subscribers 105 and 107 in the **List of Subscribers** tab) and *Dispatcher 3* (create account with **ID = 107** in the **SIP accounts** tab; add subscribers 105 and 106 in the **List of Subscribers** tab).

Dispatcher 2

Telephone Subscriber

Subscriber: 105

SIP-Address:

Automatic (default gateway and prefix)

Number:

Full Address (sip : prefix number @ gateway : port)

Outgoing: sip:105@192.168.0.140:5070

Incoming: sip:105@192.168.0.140:5070

Enable SIP Account 106@192.168.0.140:5070

OK Cancel

Telephone Subscriber

Subscriber: 107

SIP-Address:

Automatic (default gateway and prefix)

Number:

Full Address (sip : prefix number @ gateway : port)

Outgoing: sip:107@192.168.0.140:5070

Incoming: sip:107@192.168.0.140:5070

Enable SIP Account 106@192.168.0.140:5070

OK Cancel

Dispatcher 3

Telephone Subscriber

Subscriber: 105

SIP-Address:

Automatic (default gateway and prefix)

Number:

Full Address (sip : prefix number @ gateway : port)

Outgoing: sip:105@192.168.0.140:5070

Incoming: sip:105@192.168.0.140:5070

Enable SIP Account 107@192.168.0.140:5070

OK Cancel

Telephone Subscriber

Subscriber: 107

SIP-Address:

Automatic (default gateway and prefix)

Number:

Full Address (sip : prefix number @ gateway : port)

Outgoing: sip:106@192.168.0.140:5070

Incoming: sip:106@192.168.0.140:5070

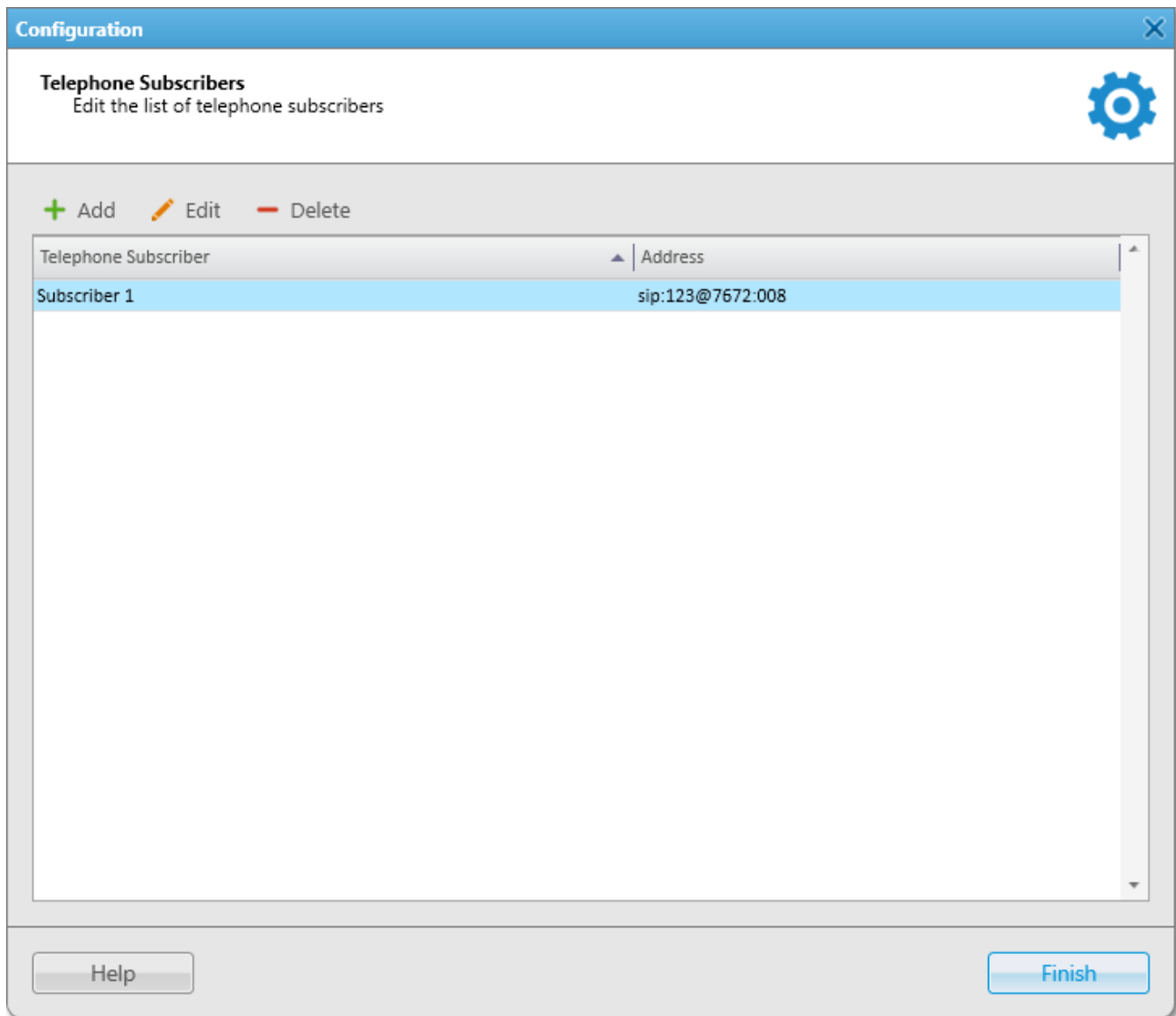
Enable SIP Account 107@192.168.0.140:5070

OK Cancel

5. To apply settings, click **Finish** in the **Telephone Settings** and in the **Telephone Interconnect** windows.

2.3.2 Telephone Subscribers

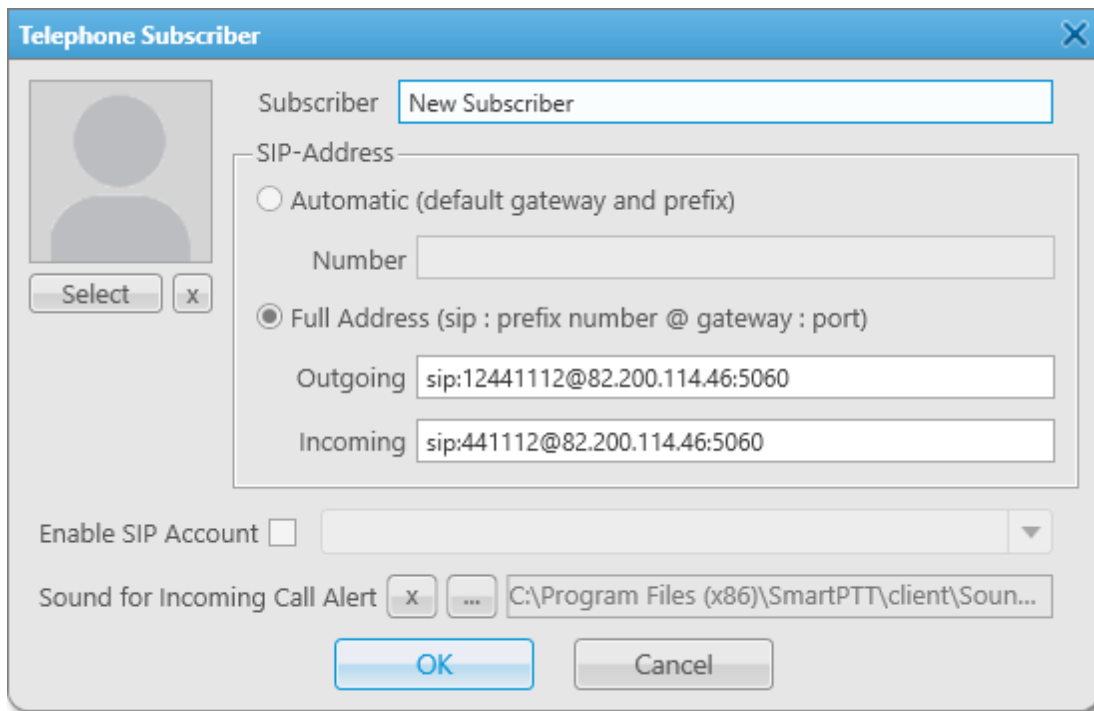
To view the list of registered telephone subscribers, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Telephone Interconnect** → **Telephone Subscribers**. The list includes all telephone subscribers that support SIP connection. You can modify and delete existing subscribers, or add new subscribers.



NOTE

SIP connection can be established also with telephone subscribers not added to the list. To make an outgoing call, you can use a dial pad.

To add a telephone subscriber to the list of subscribers, click **Add**. The following window appears:



Subscriber: Type the name of telephone subscriber.

The **SIP Address** area allows you to specify the telephone subscriber address.

There are several options to enter the address of the subscriber. First, the outgoing and incoming address boxes can be generated automatically using the default gateway settings. To do that, click **Automatic**.

Second, you can enter the addresses manually by clicking **Full Address** (use the following format – ***sip:prefix number@gateway:port***).

Select the **Enable SIP Account** check box and specify the required SIP account from the list of available to carry out SIP connection under the set account. For SIP account setup details in SmartPTT Dispatcher see [SIP Accounts](#).

Sound for Incoming Call Alert: The path to the sound file which will play in the dispatch console when this telephone subscriber calls.

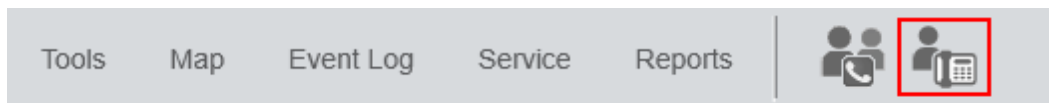
Click **OK** to save the changes.

As soon as you have added a new telephone subscriber, it appears in the **Telephone Subscribers** window. Please remember that the **Allow Calls to Telephone Subscribers** check box in the [Telephone Interconnect](#) window must be selected.

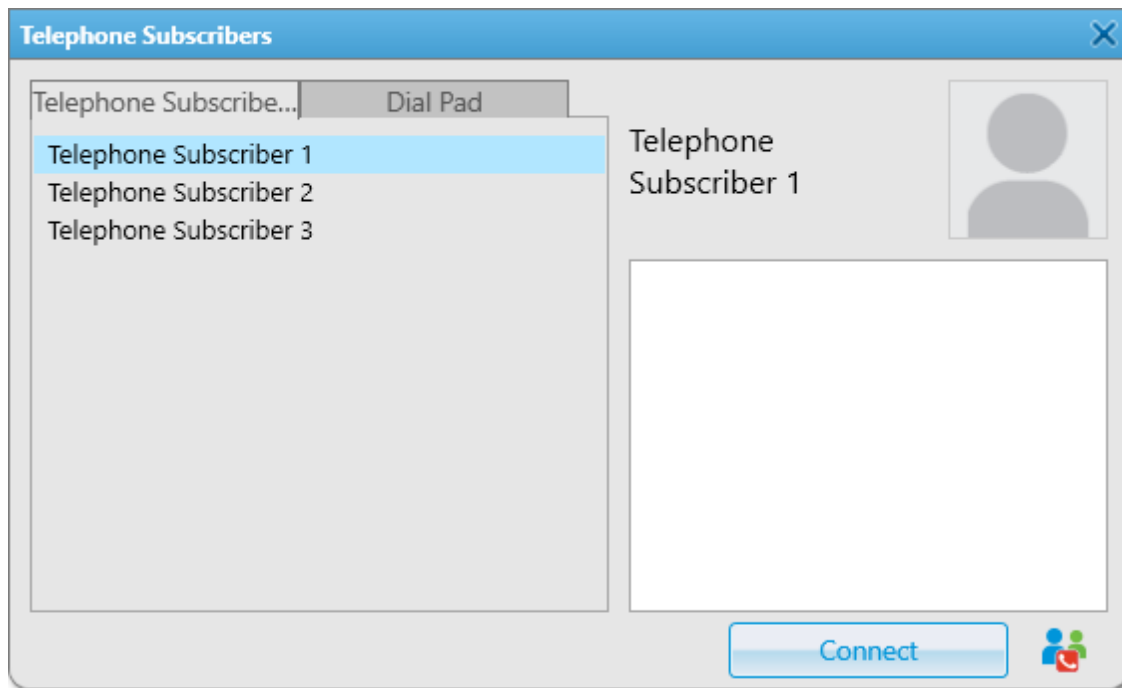
To edit or delete the telephone subscriber from the list, click the corresponding button.

How to Call a Telephone Subscriber

To call the telephone subscriber from the dispatch console, in the SmartPTT Dispatcher click the **Telephone subscribers** button.



The following window appears:

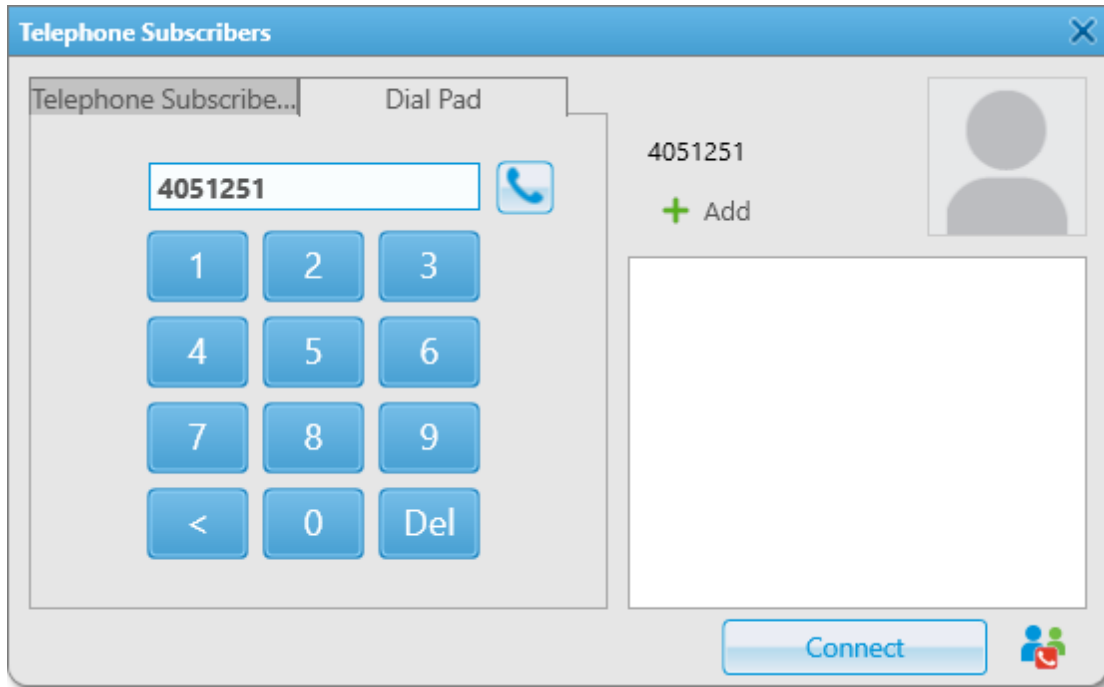


To call the telephone subscriber, select it from the list and click **Connect**. In the **Telephone subscribers** tab you can see not only added telephone subscribers, but also unregistered telephone subscribers (their numbers are in *italics*), and three latest calls (at the top of the list).



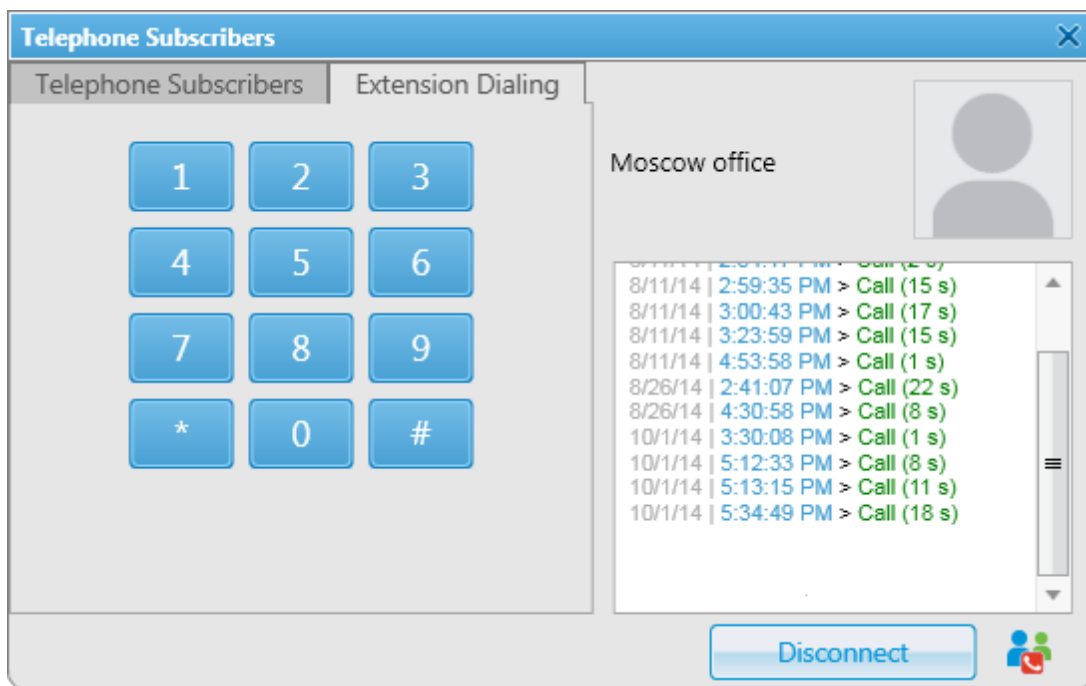
Is used for running a conference call with the selected telephone subscriber. For more information about this function see [Conference Calls](#).

To make a call to a telephone subscriber which is not on the list, go to the **Dial Pad** tab. You can dial the telephone number or enter it in the input box above the dial pad.




If you need to dial an extension to reach a telephone subscriber, do the following:

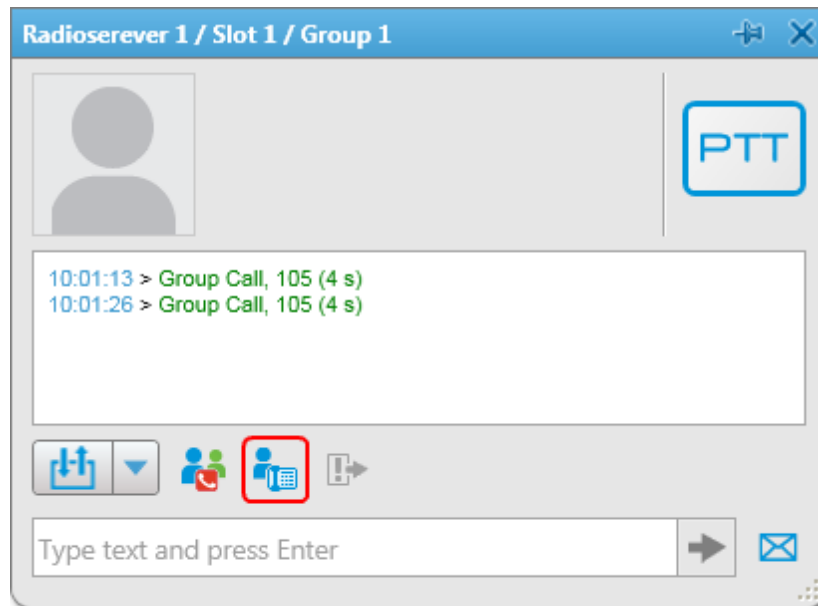
1. Dial the phone number after which you will need to add the extension. Then, you will see a new tab **Extension Dialing**.




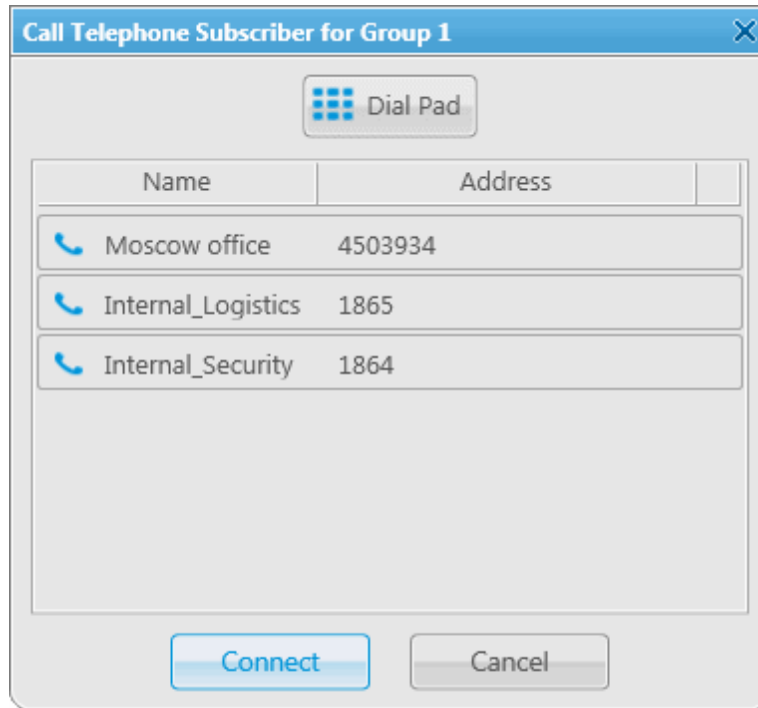
2. In this tab, dial * to turn on DTMF mode (not obligatory, depends on the telephone parameters).
3. Dial the extension number and then #.

If the incoming call is made by a telephone subscriber, who is not on the list, you can add the subscriber by clicking on the **Add** button, which will appear.

To connect a radio or a talkgroup to a telephone subscriber, open the **Call Window** of the radio or the talkgroup and click the **Call Telephone Subscriber**() button.

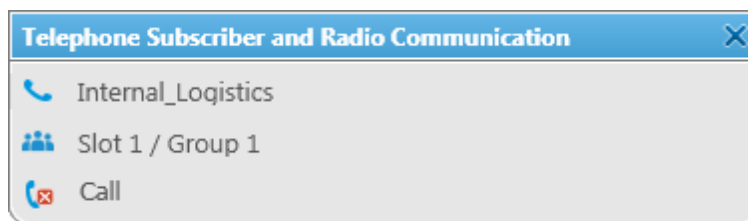


You can also select **Call Telephone Subscriber** () from the Actions Menu. The following window appears:



Select the telephone subscriber from the list and click **Connect** or double-click on the list item. This list is taken from the list of telephone subscribers created in the [Telephone Subscribers](#) window. If the subscriber is not on the list, click **Dial Pad** to enter the telephone number manually.

At clicking **Connect**, a new window with the call status opens.



There are three statuses:

- Ringing
- Call
- Call Complete

If the connection attempt is failed, status window shows the corresponding error message.

To manage the call process, the dispatcher can use the buttons next to the call status:



Stops the call. If the person should make a radio call right after the telephone call, it is necessary for him or her to wait for a special tone notifying about the end of the call. If the person presses the PTT button on the radio before this tone, an incorrect phone call will be initiated.



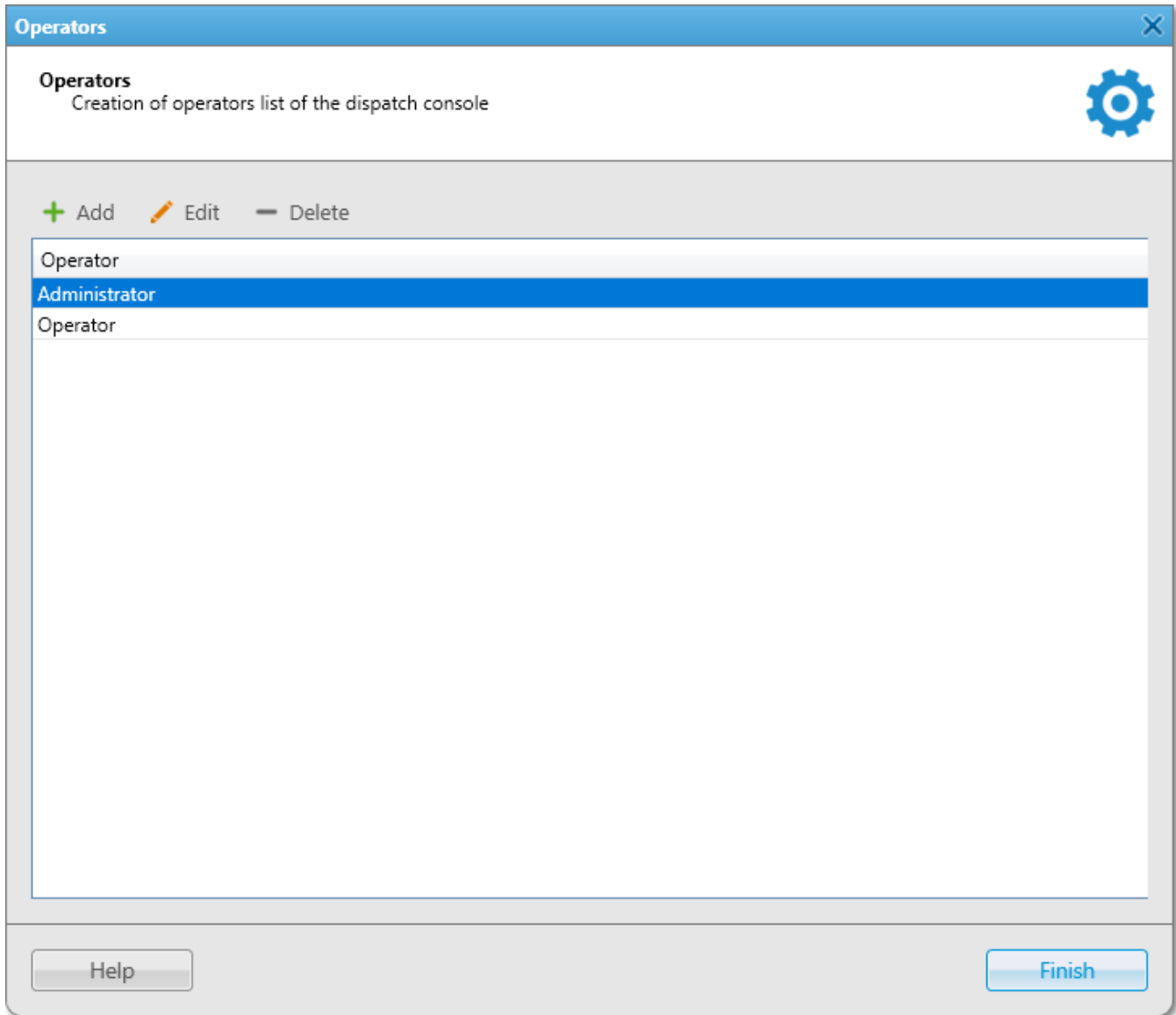
Initiates reconnection to the telephone subscriber.

2.4 Operators

By default, an operator with the name **Administrator** and no password is created in SmartPTT Dispatcher. The Administrator has full access to SmartPTT management functions.

The Administrator can add new system operators and customize their access to specific functionality.

To add a new operator, click **Settings (⚙)** → **Operators** on the menu bar. The **Operators** window appears.







To add a new operator, click **Add**. A new window for adding operators appears.

Name: The operator's name. If [Windows authentication](#) is selected (**Settings (⚙)** → **General Settings**), make sure that the new operator's name matches the name of a Windows user or Windows group.

Status: The operator's status (**Active** or **Archived**). Status *in the archive* is used for registered operators which are not used any longer, but cannot be removed from the system as the event log contains entries referring to them.

Rights: A list of permissions which can be selected or cleared for each operator individually. The following rights can be assigned to the operator:

Right	Description
Edit radio lists	allows/denies adding, changing properties and deleting radios in the Radio Fleet window and in the Radios panel
Manage unregistered radios	shows/hides radios which were not added in the Radio Fleet window or in the Radios panel

Right	Description
Make voice calls	<p>allows/denies making calls to a radio except conference calls</p> <div style="background-color: #f0f0f0; padding: 5px;"> <p>NOTE This option does not have visual effect in SmartPTT Dispatcher</p> </div>
Connect with external dispatchers	<p>allows/denies the connection of the dispatchers to each other</p> <p>Note: Requires preliminary configuration in the each dispatch program</p>
Make telephone calls	allows/denies making call to the telephone subscriber
Change channel on control station	allows/denies changing the channel of control station
Block/Unblock radios	allows blocking/unblocking radios listed in the Radio Fleet window
Radio Kill	allows to block a radio irreversibly by means of the Radio Kill command
Remote monitor	<p>allows/denies the remote monitoring of a radio (remote turning on the microphone of the radio)</p> <div style="background-color: #f0f0f0; padding: 5px;"> <p>NOTE Permission must be configured on the radio</p> </div>
Reboot control station	allows/denies rebooting the control station
Manage radio location settings	enables/disables configuring regular requests for radio location in the Location tab
Request radio location	<p>allows/denies requesting and deleting current location of the radio:</p> <ul style="list-style-type: none"> • Set Location  → Find on Map  • Show Address  → Remove from Map 

Right	Description
Send text messages	allows/denies sending text messages
Send telemetry commands	allows/denies sending telemetry commands
Manage bridging settings	enables/disables configuring bridging service
Manage routes	enables/disables managing routes
Manage geofences	enables/disables managing geofences
Manage points of interest	enables/disables managing points of interest
Manage tracks	enables/disables showing , animating , and clearing tracks
View coverage map	enables/disables showing and configuring coverage map
Build reports	allows/denies managing reports
Edit custom radio properties	enables/disables configuring additional properties of a radio
Attach radios to selected channel	enables/disables displaying radios as attached to the particular slot in Radio Fleet window. This option is recommended to be set for Capacity Plus systems
Make conference calls	enables/disables making conference calls
View radioserver event log	enables/disables showing radioserver event log
Create deferred action	enables/disables creating deferred actions for a radio
Manage statuses	enables/disables creating, editing and deleting statuses ;
Manage rules and alerts	allows/denies creating, editing and deleting rules and alerts
Manage positioning rules	allows/denies managing positioning rules positioning rules
Manage lone worker rules	allows/denies managing lone worker rules


Set/Change Password: Sets new operator's password or changes the old one.

To edit an operator, select it in the list of operators and click **Edit**. The edit window is displayed where you can change **Name**, **Status** and **Password** parameters.

To delete an operator from the operators list, select it and click **Delete**.

NOTE

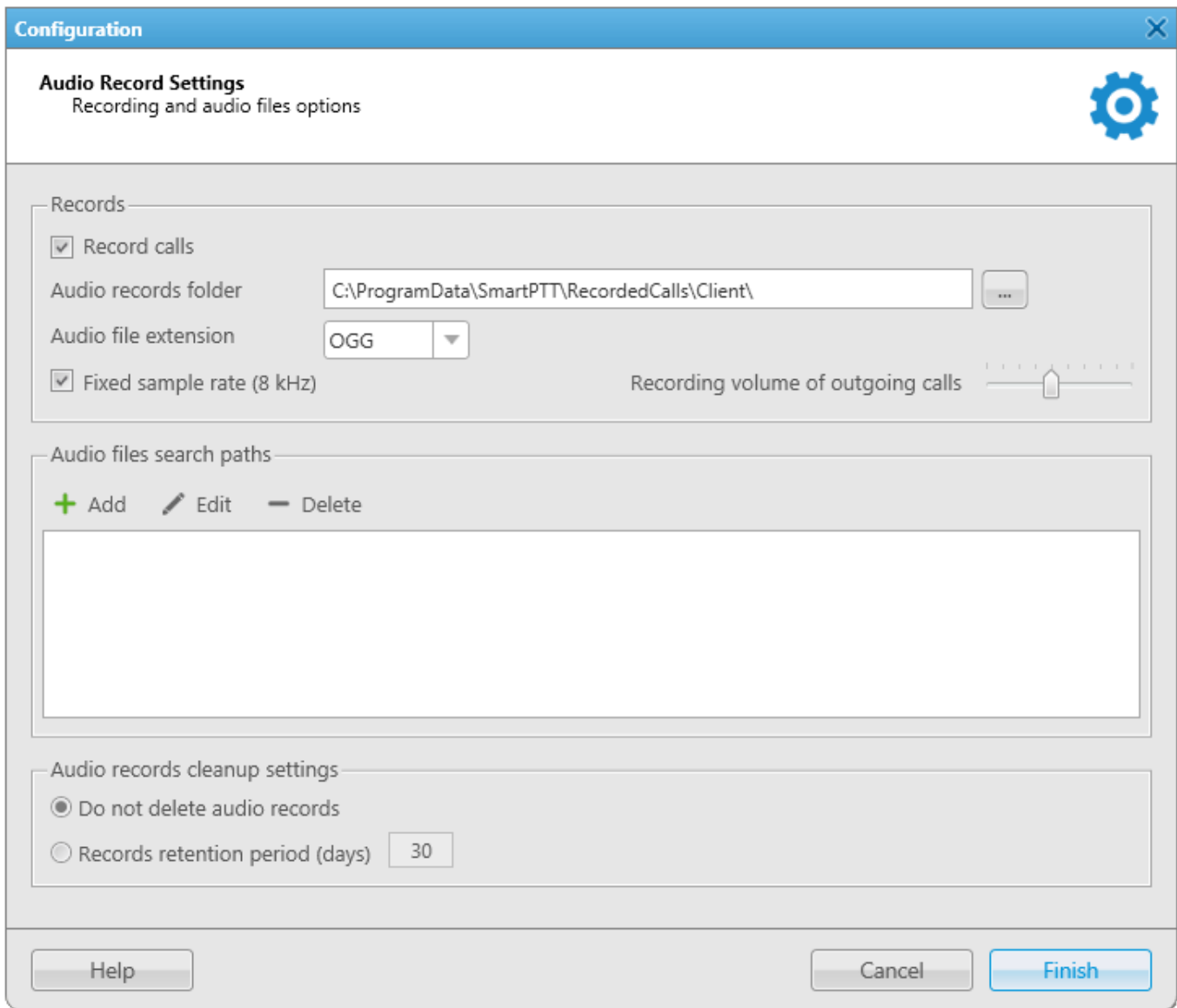
You cannot delete the Administrator from the system.

To switch operators, click () in the upper-right corner of SmartPTT Dispatcher, and after the dispatch console has restarted, select a new operator.

2.5 Information Storage

2.5.1 Records

To set audio record settings, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Information Storage** → **Records**. The **Audio Record Settings** window appears:



Records: Set the parameters of call recording.

Record calls: Select this option to record all the incoming and outgoing calls.

Audio records folder: Set the path to the folder with recorded audio files.

Audio file extension: Select the proper extension of the file. Choose between the *.mp3*, *.ogg* and *.wav* extensions

Fixed sample rate (8 kHz): Select this option to set the record quality of the audio file with a sampling rate of 8 kHz. This setting allows you to reduce the size of the saved audio file due to no major loss in sound quality.

Recording volume of outgoing calls: Increase or decrease the sound volume for recording outgoing calls.

Audio files search paths: Set paths to additional folders for recorded audio files.

NOTE

After changing the path to the stored audio files, the previous path is automatically added to the audio files search path box.

Audio records cleanup settings: Set audio record cleaning parameters.

Do not delete audio records: Select to keep as much of events in the log as possible in the hard drive.

Records retention period (days): Select to enter the maximum number of the last days to be logged.

2.5.2 Database Auto Backup

Backing up data on a regular basis helps to protect it from being erased in case of the server hardware or software failure. SmartPTT Dispatcher allows the Administrator to back up the database manually or to set up parameters for automatic backup.

NOTE

If SmartPTT Dispatcher is connected to a remote database, you can use backup but you cannot restore the database from a backup file located on a remote database computer.

To set up automatic backup parameters, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Information Storage** → **Database Auto Backup**.

Configuration

Database Auto Backup Settings
Auto Backup Parameter Settings

Allow Database Auto Backup

Backup Folder
...

Backup Settings

Daily Interval (days) 1

Weekly

Monthly

Time: 9:00

Backup Period

Start Date: 3.4.18 15

End Date: 4.4.18 15

No End Date

Help Cancel Finish

Allow Database Auto Backup: Select to activate SmartPTT Dispatcher automatic database backup and creating database backup file.

Backup Folder: Specify the path to save database backup file.

NOTE

Make sure you have the rights to create files in this folder automatically.

Daily: Database backup will be started after specific interval of days at the predefined time (for example, every third day at 9:00 AM).

Weekly: Database backup will be started every specific day of week at the predefined time (for example, every Monday and Wednesday at 11:00 PM and Friday at 11:00 AM).

Monthly: Database backup will be started in the specific day of month with predefined interval.

Backup Period: Set the time period when automatic database backup should to be made according to the Backup Settings.

NOTE

The number of stored backup files in the same folder is limited to 3. Otherwise, when creating a new copy, the old files are deleted.

NOTE

To restore the database from the automatically created backup, see [Database](#).

2.6 Radios

2.6.1 List of Radios

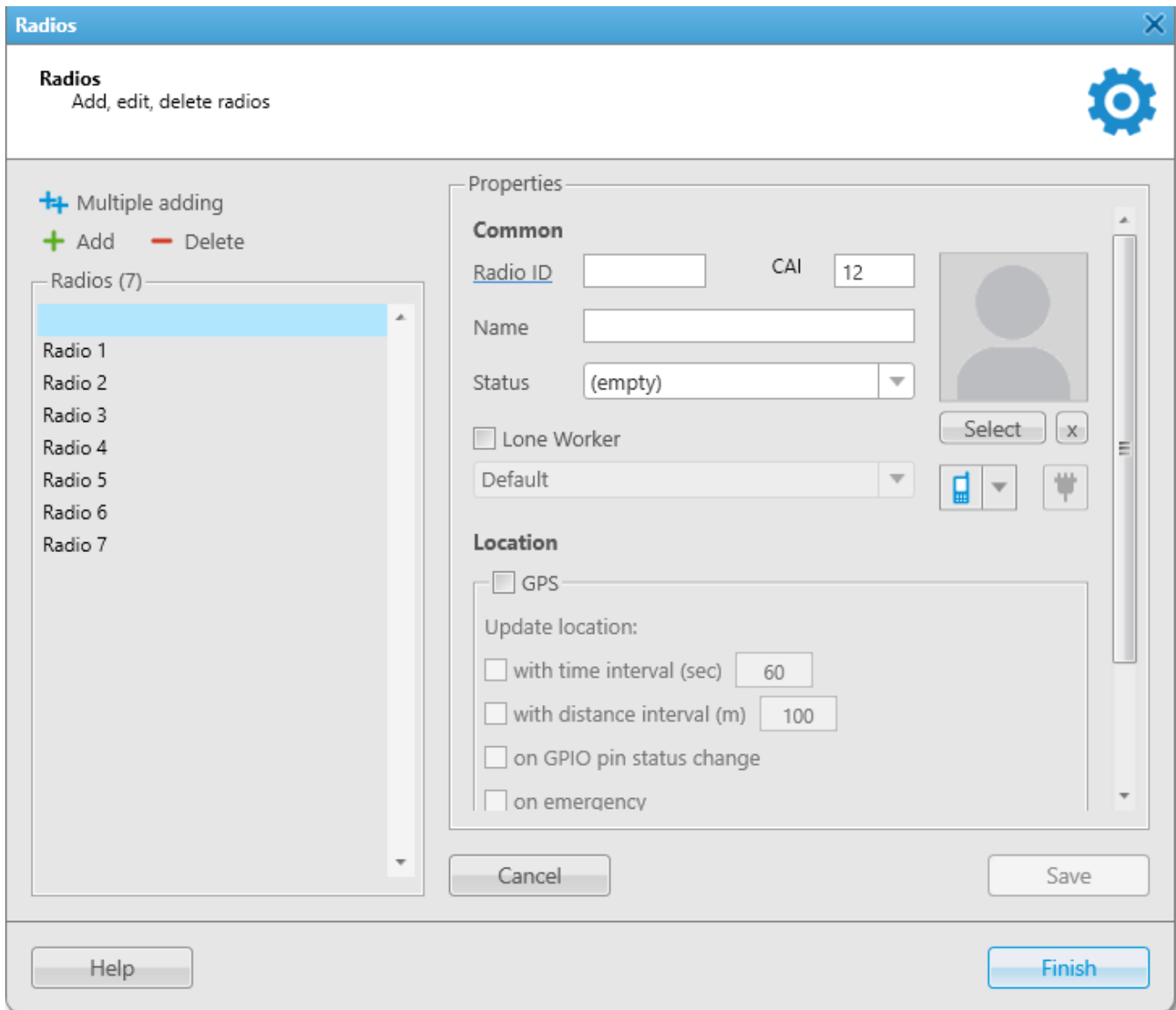
In the **Radios** window, you can add, edit, and delete radios, edit and delete [WAVE users](#). In the **Radios** window you can perform these actions with one object or with several objects simultaneously.

To open the **Radios** window, click **Settings** () → **Radios** → **List of Radios**.

To add one radio, click **Add**, specify its [properties](#) in the **Properties** section on the right, and click **Save**.

NOTE

The radio properties may vary depending on the selected radio ID type (**Radio ID/IP-Address**, **MDC ID**, or **5 Tone ID**).

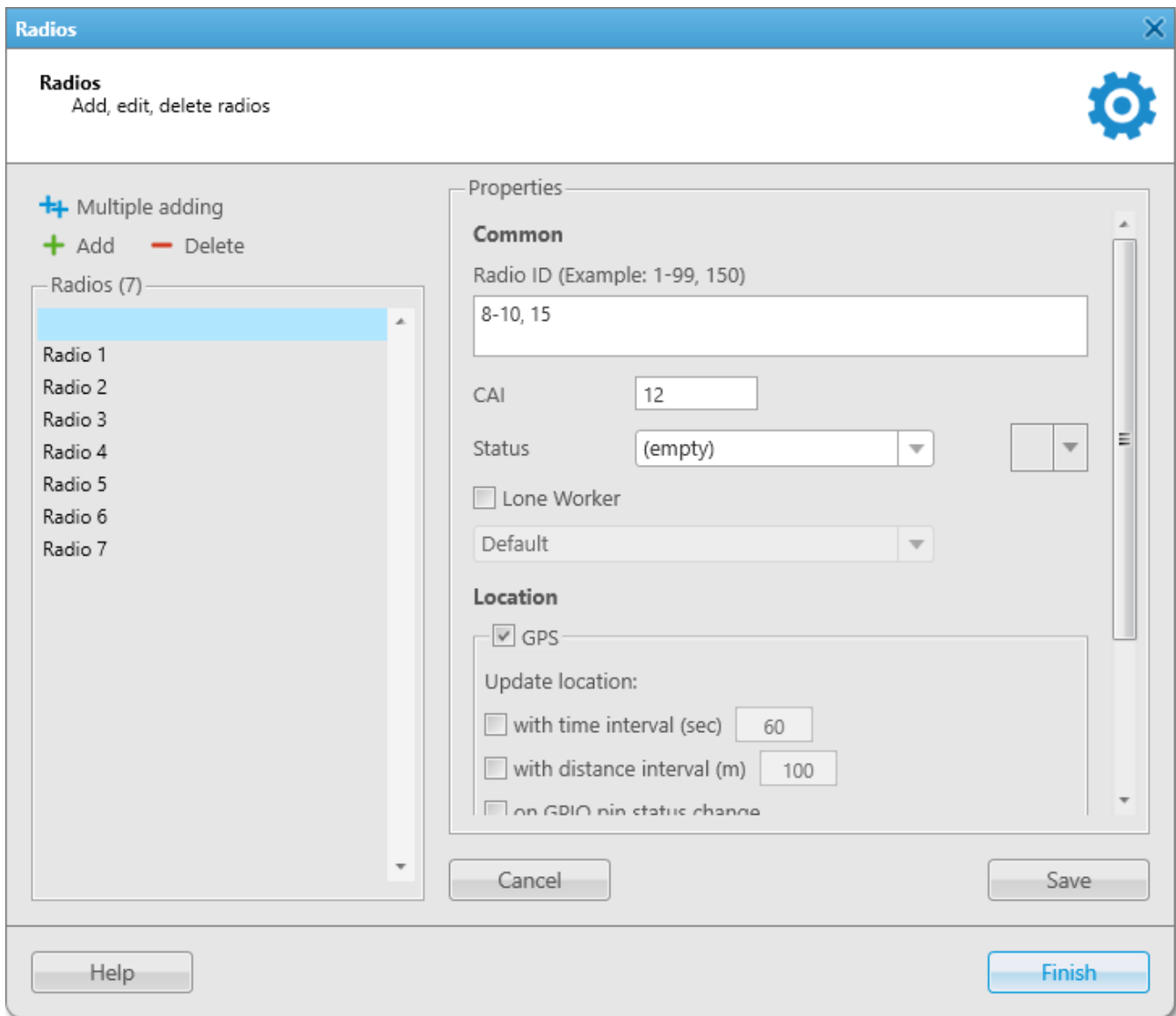


If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

To edit one radio or one WAVE user, select it in the **Radios** list, change the required data in the **Properties** tab on the right and click **Save**.

To delete one radio or one WAVE user, select it in the **Radios** list, click **Delete** and click **OK** in the open **Confirmation** window.

To add several radios, click **Multiple adding**.



In the **Radio ID** box of the **Properties** section, input the range of the radio identifiers that are added or specify them separated by comma. Specify other [properties](#), common for all radios, that are added, and click **Save**.

To change the properties of several radios, select the required radios in the **Radios** list, change their [properties](#) and click **Save**.

To delete several objects, press and hold the **Ctrl** button and select the required objects in the **Radios** list, then click **Delete** and click **OK** in the **Confirmation** window that will open.

2.6.2 Categories

The category is used for configuring parameters applied to all object included to it.

Categories can be added in the **Settings (⚙)** → **Radios** → **Categories** window and include:

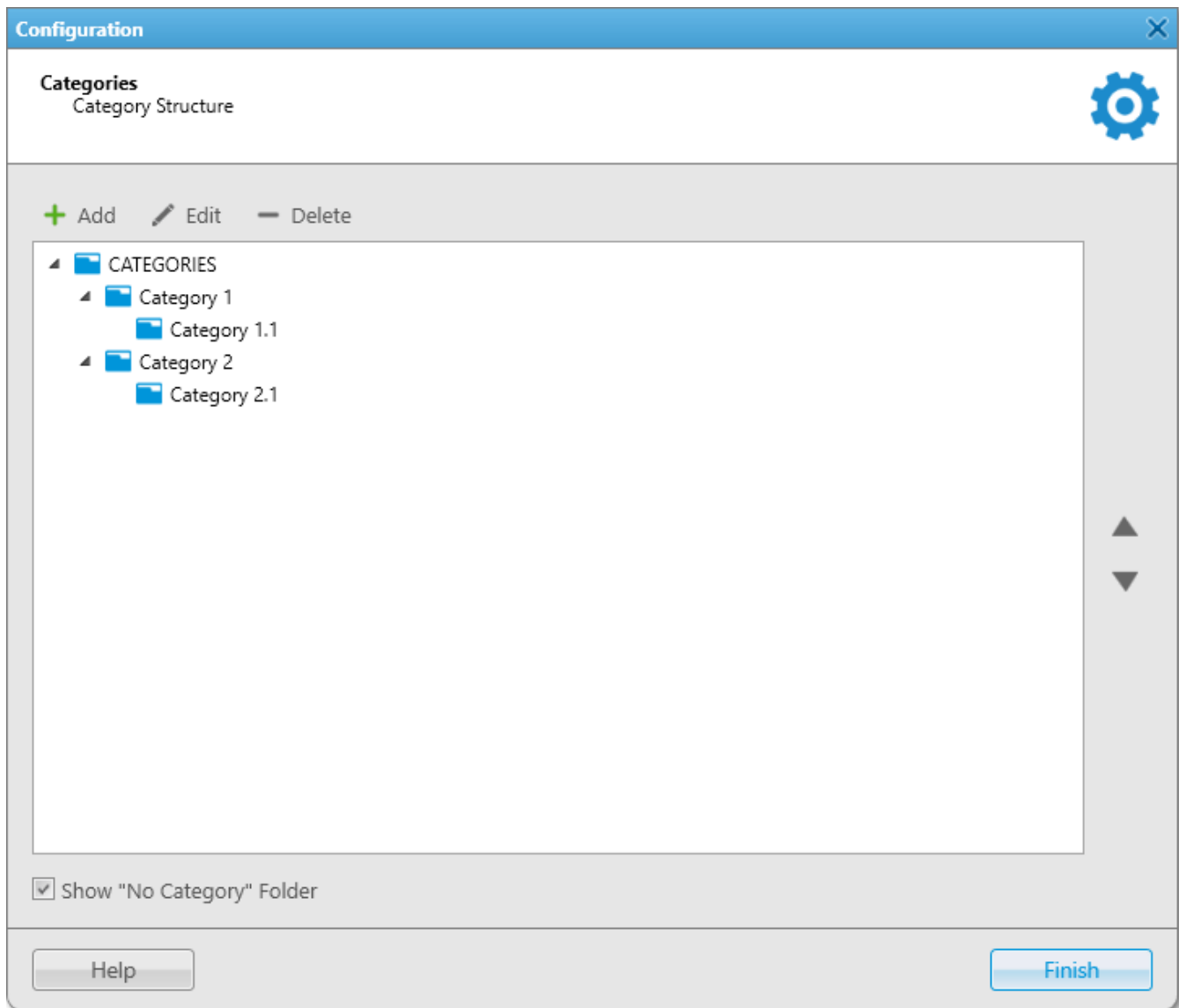
- Radios
- WAVE-users
- Talkgroups

Actions assigned to category objects are applied only to radios and WAVE-users.

You can assign a status for a category. Ensure you preconfigured the status in the **Settings (⚙)** → **Radios** → [Statuses](#) window.

If you want to assign GPS parameters for all radios included in the category, ensure in their properties in the **Location** tab, the **GPS** check box is selected.

In the **Categories** menu you can perform the following actions:



- Add, edit, and delete categories
- Change the sequence of categories in the category structure with triangle-shaped buttons
- Change the nesting of categories by moving the needed category into another one
- Show or hide **No Category** folder in the [Radio Fleet](#) panel. It contains all radios, [WAVE users](#), and talkgroups without categories

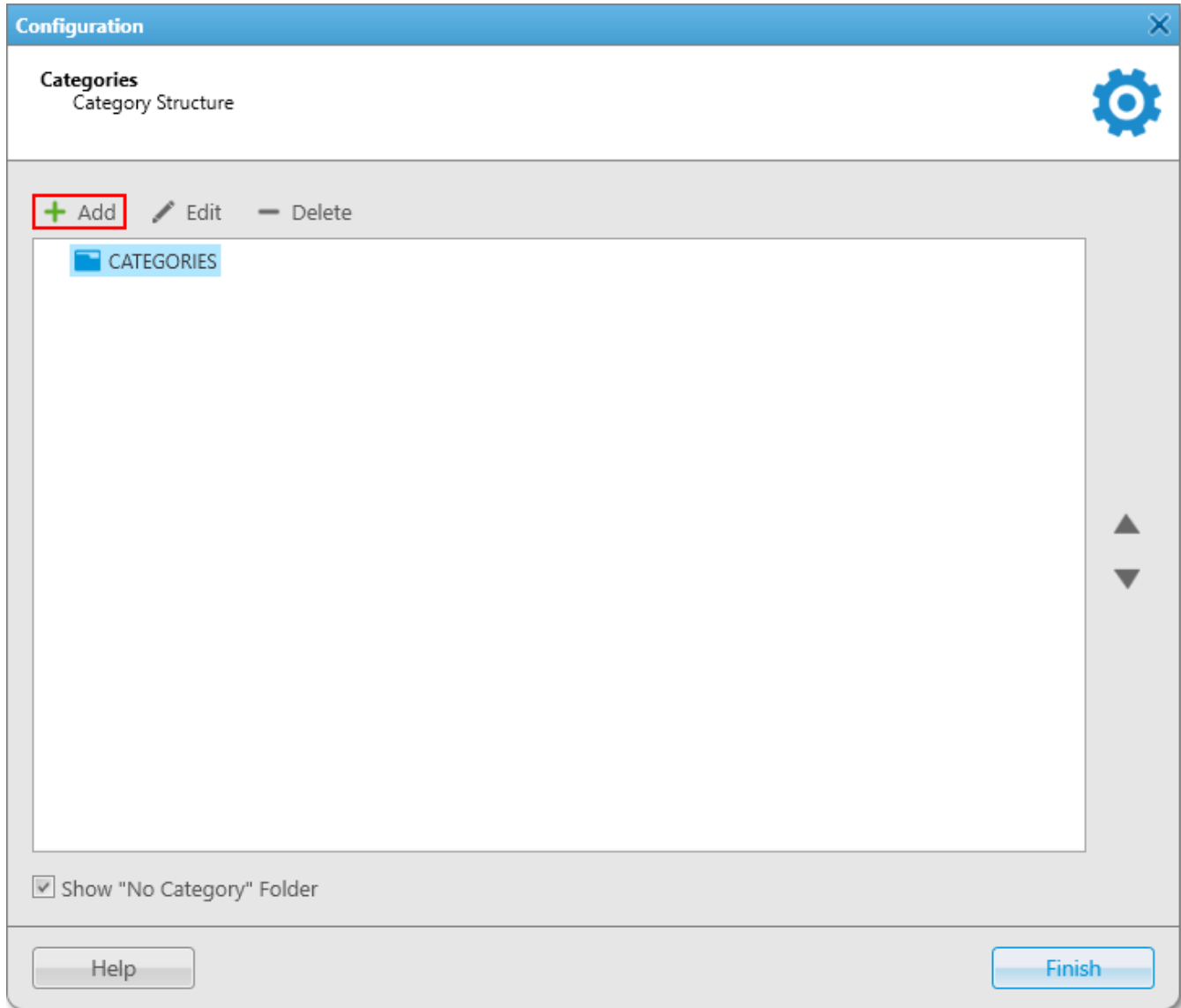
NOTE

If no category is added you can only add the new one and also permit or prohibit the **No Category** folder displaying in the **Radio Fleet** panel.

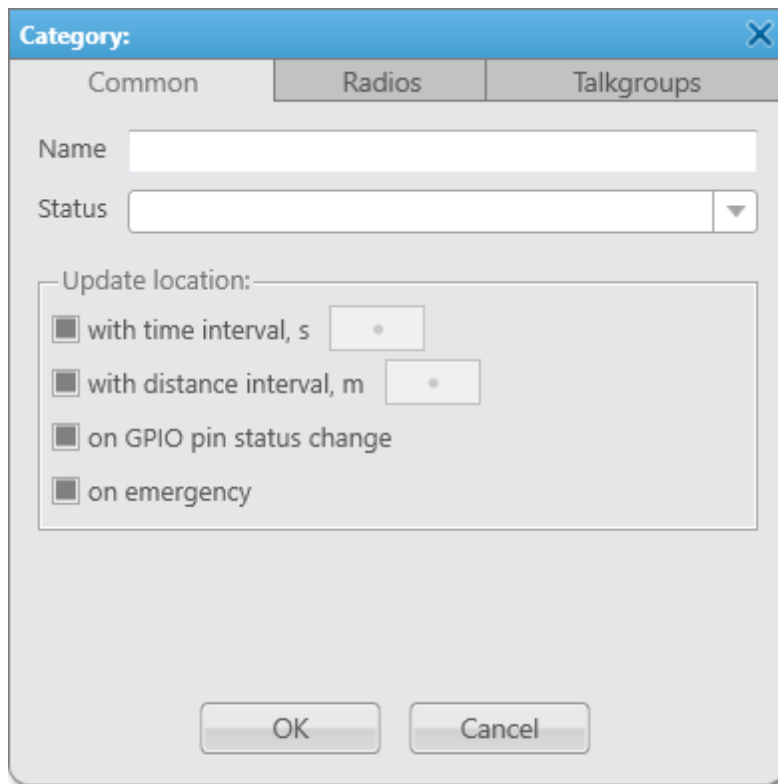
2.6.2.1 Adding Category

To add a new category, follow these steps:

1. In the **Categories** window, click **Add**.



2. In the **Common** tab of the **Category** window, perform the following actions:



The screenshot shows the 'Category' dialog box with the 'Common' tab selected. The 'Name' field is empty. The 'Status' dropdown is set to a default value. The 'Update location' section has four checkboxes, all of which are unchecked. The 'OK' and 'Cancel' buttons are visible at the bottom.

- a. In the **Name** box, enter the name of a new category.
- b. *Optional:* From the **Status** list, select [previously added status](#) which is applied to all objects included in the category.

NOTE

You can change parameters in the **Update locations** area only while editing the category.

3. In the **Radio** and **Talkgroups** tabs select radios and talkgroups for including.

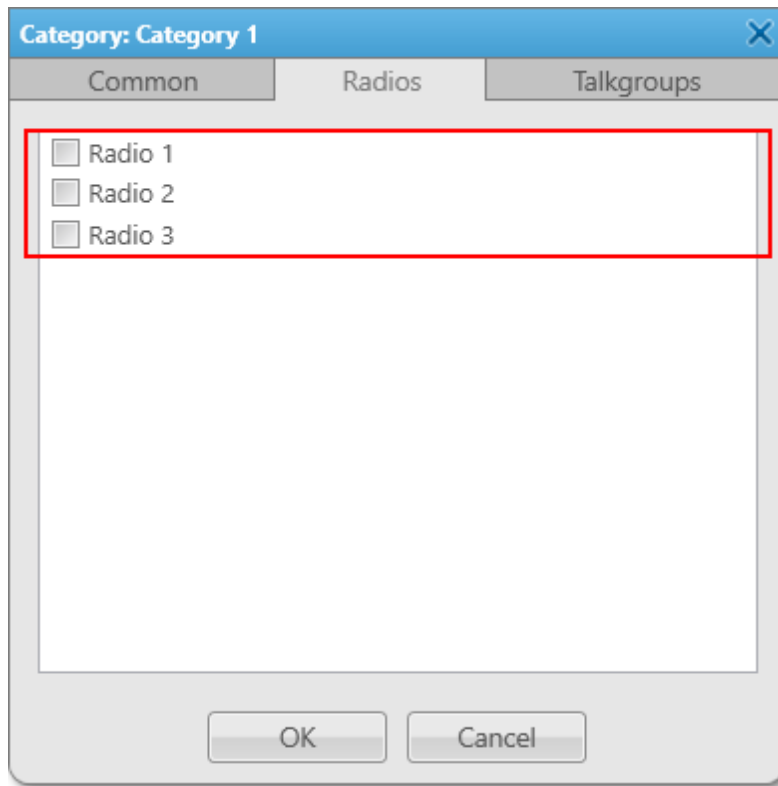
NOTE

For additional information about radios and talkgroups adding, see **Adding Radios to Category** and **Adding Talkgroups to Category**.

4. Click **OK** to apply changes and close the window.

2.6.2.1.1 Adding Radios to Category

To add one or more radios to a category, in the **Radios** tab select the needed radios and click **OK**

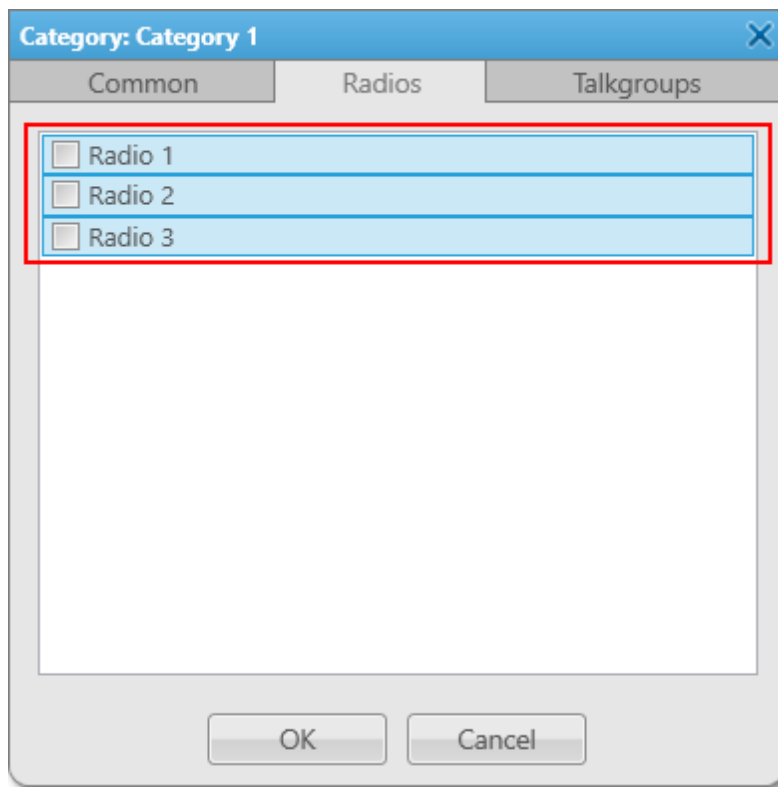


Radios multiple adding

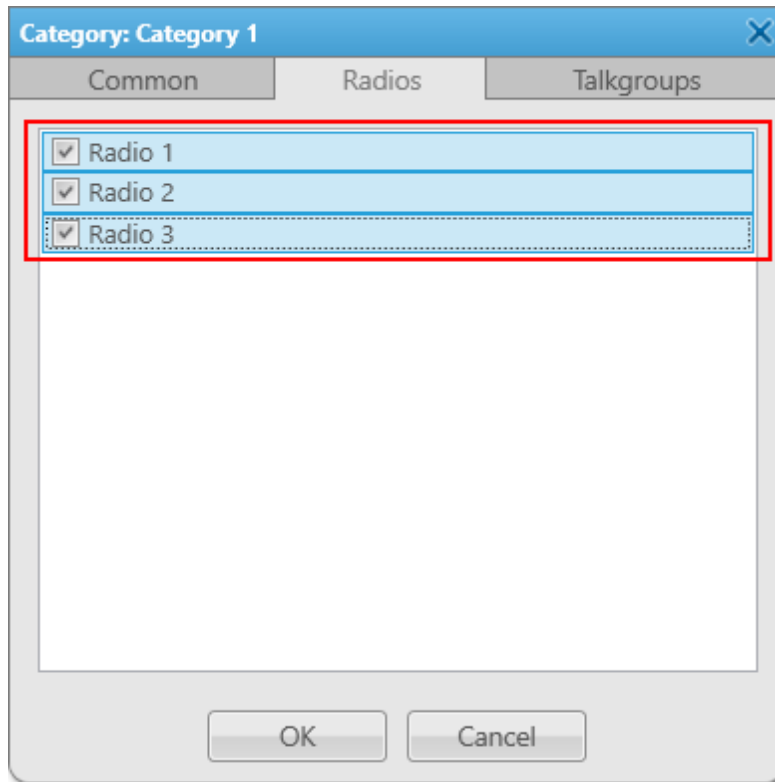
To add to the category all or several radios simultaneously, follow these steps:

1. In the **Radios** tab, highlight the needed radios using one of the following methods:
 - Shift+left click

- Shift+Up Arrow or Down Arrow
- Ctrl+A



2. Press Space to select all check boxes and then click **OK**.



3. Click **OK** to apply changes and close the window.

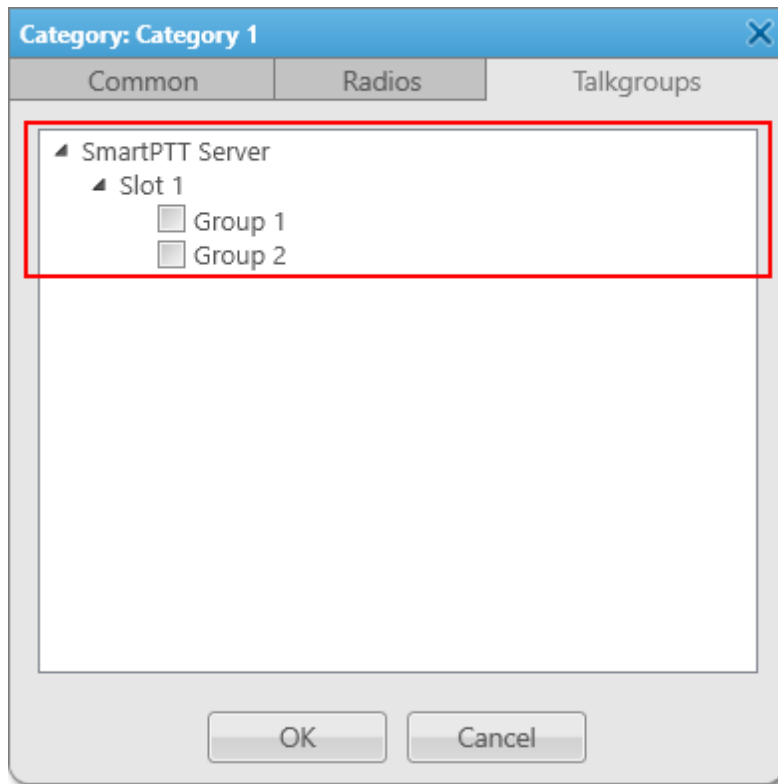
2.6.2.1.2 Adding Talkgroups to Category

To add talkgroups to a category, follow these steps:

1. In the **Talkgroups** tab select the desired radios for including.

NOTE

[Multiple adding](#) is unavailable for talkgroups.

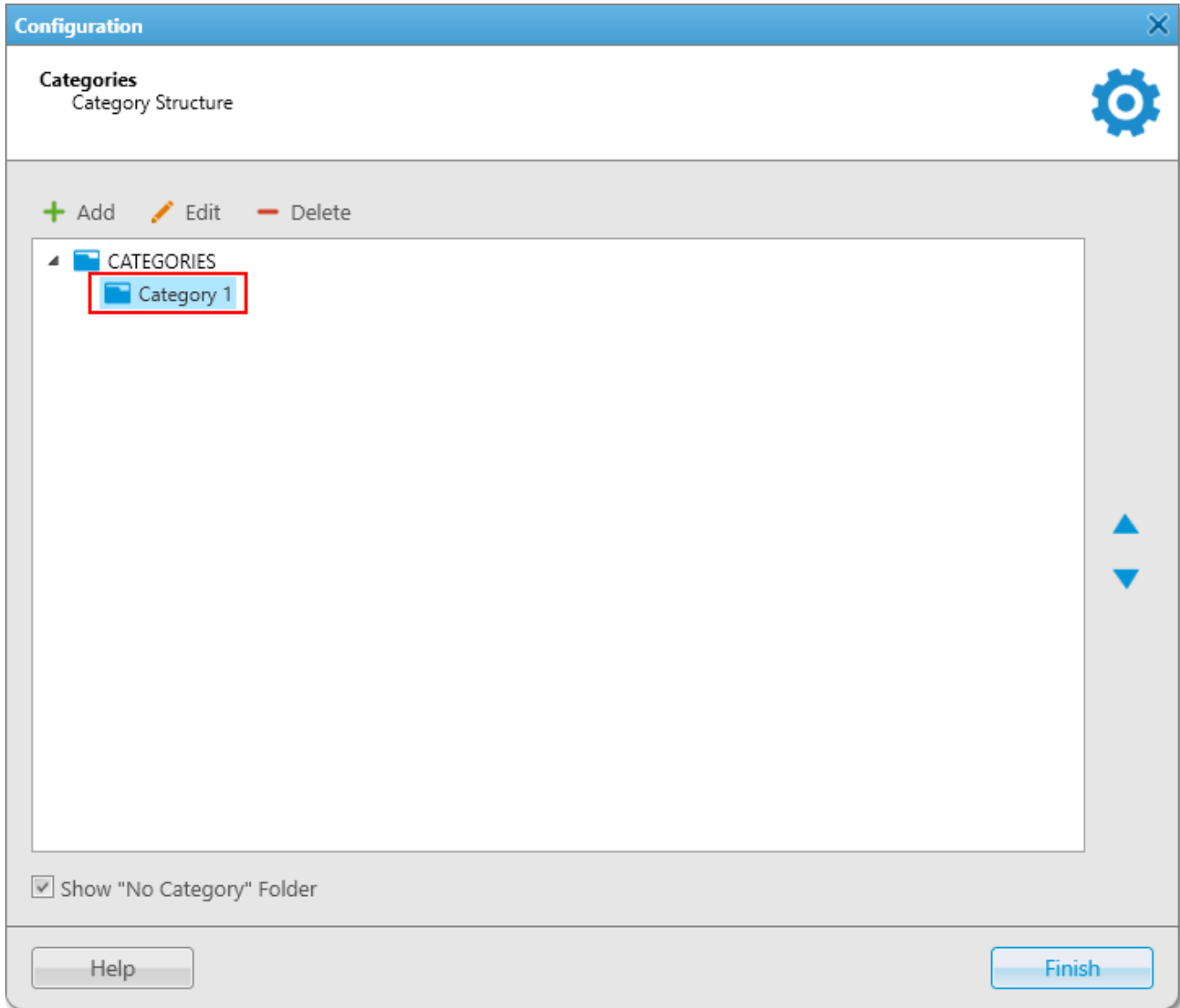


2. Click **OK** to apply changes and close the window.

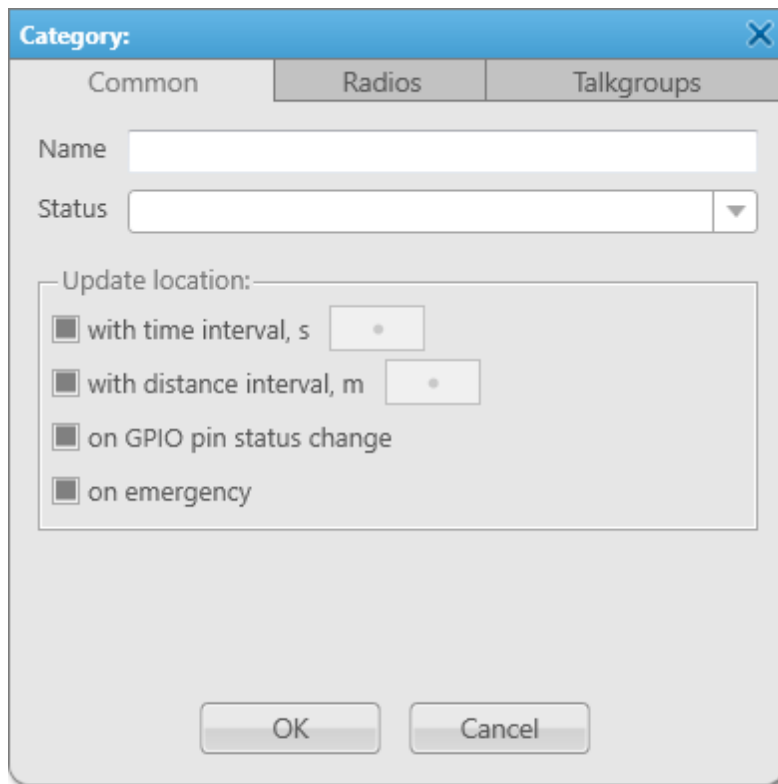
2.6.2.2 Editing Category

To edit a category, follow these steps:

1. In the **Configuration** window, select the needed category and click **Edit**.



2. In the **Common** tab of the **Category** window, perform the following actions:

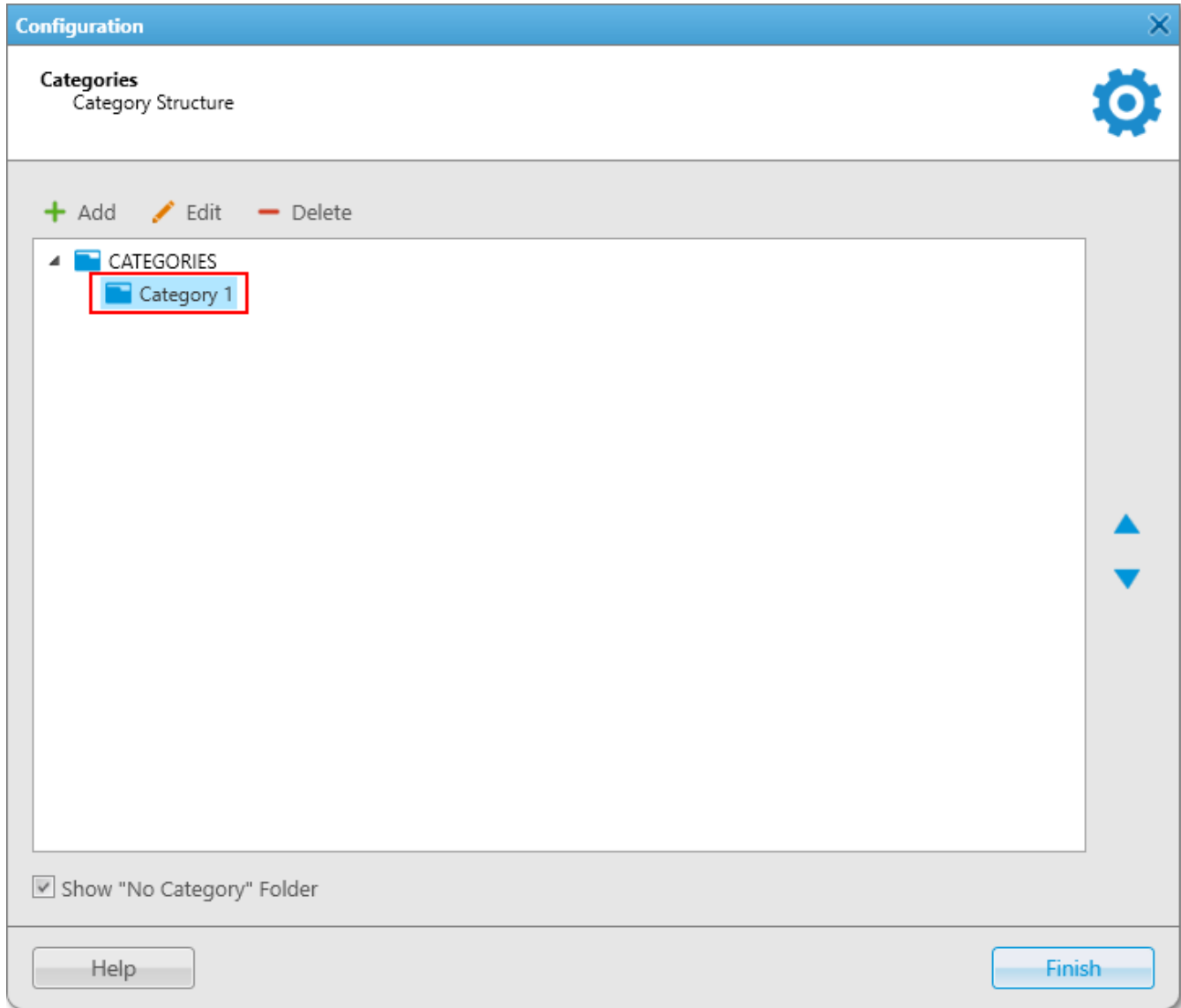


- Change the category name
 - Change the category status
 - Under **Update location**, change the GPS-monitoring settings which applied to every object in the category.
- parameter is set for all objects in the category.
 - parameter is not set for all objects in the category.
 - parameter is set for some radio objects in the category.
3. *Optional:* In the **Radios** and **Talkgroups** tabs add or remove radios and talkgroups to/from the category.
 4. Click **OK** to apply changes and close the window.

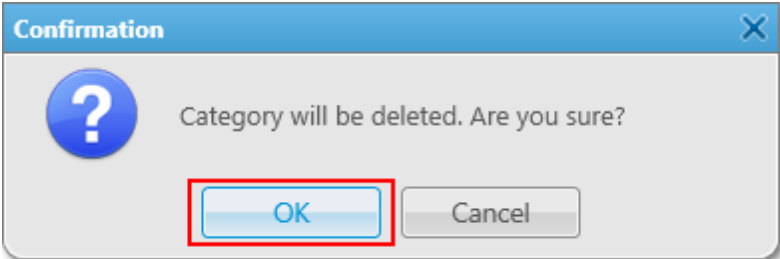
2.6.2.3 Deleting Category

To delete a category, follow these steps:

1. In the **Configuration** window, select the needed category and click **Delete**.



2. In the open window, click **OK**.

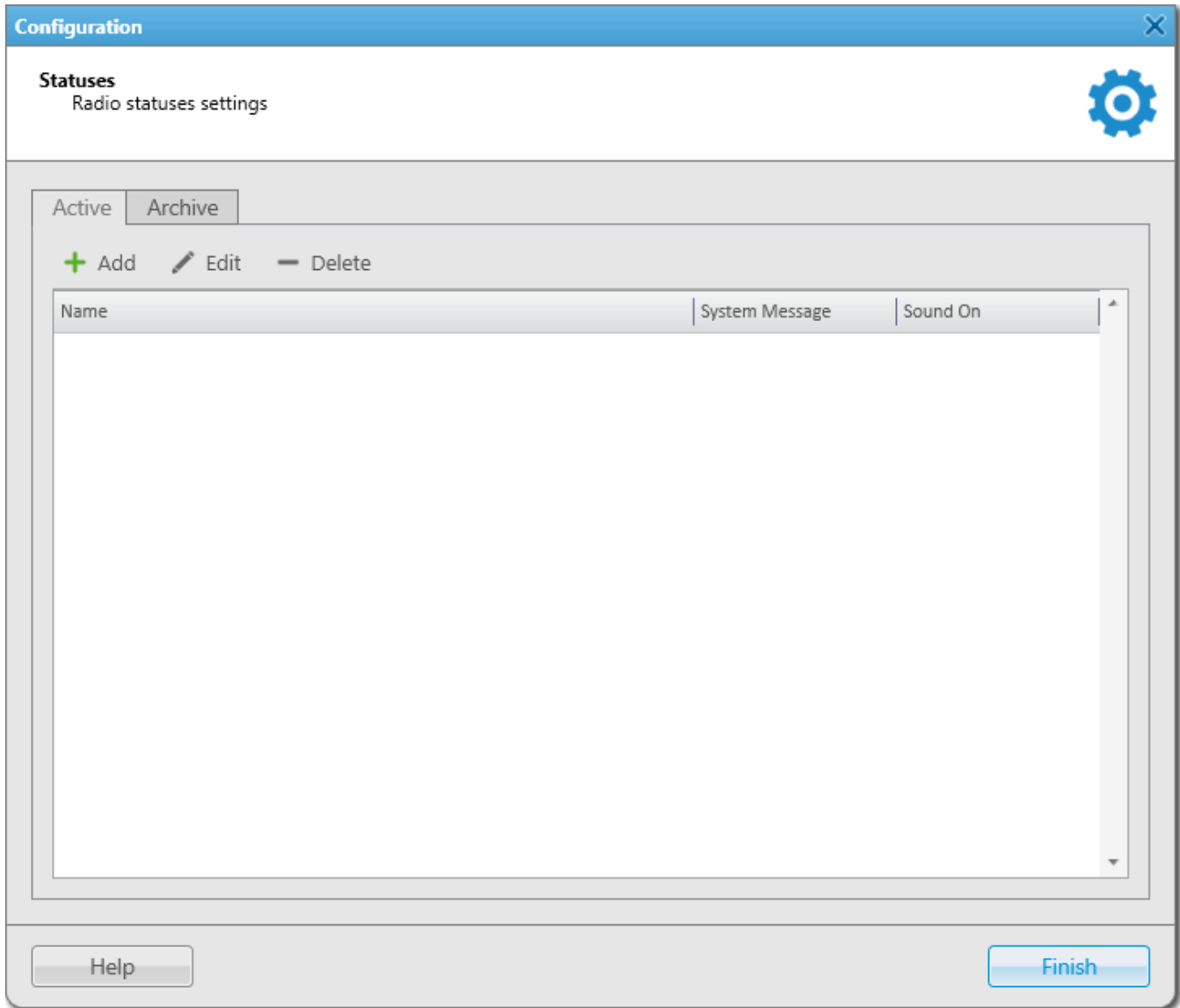


2.6.3 Statuses

Statuses allow you to specify the current condition of radios or [WAVE users](#).

Before managing statuses, ensure you have all the necessary rights selected in the [Operators](#) menu.

To open statuses management window, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Radios** → **Statuses**. The **Statuses** window appears.



Statuses Window Tabs

Active: Displays all active statuses. On this tab you can [add](#), [edit](#) or [delete](#) radio statuses.

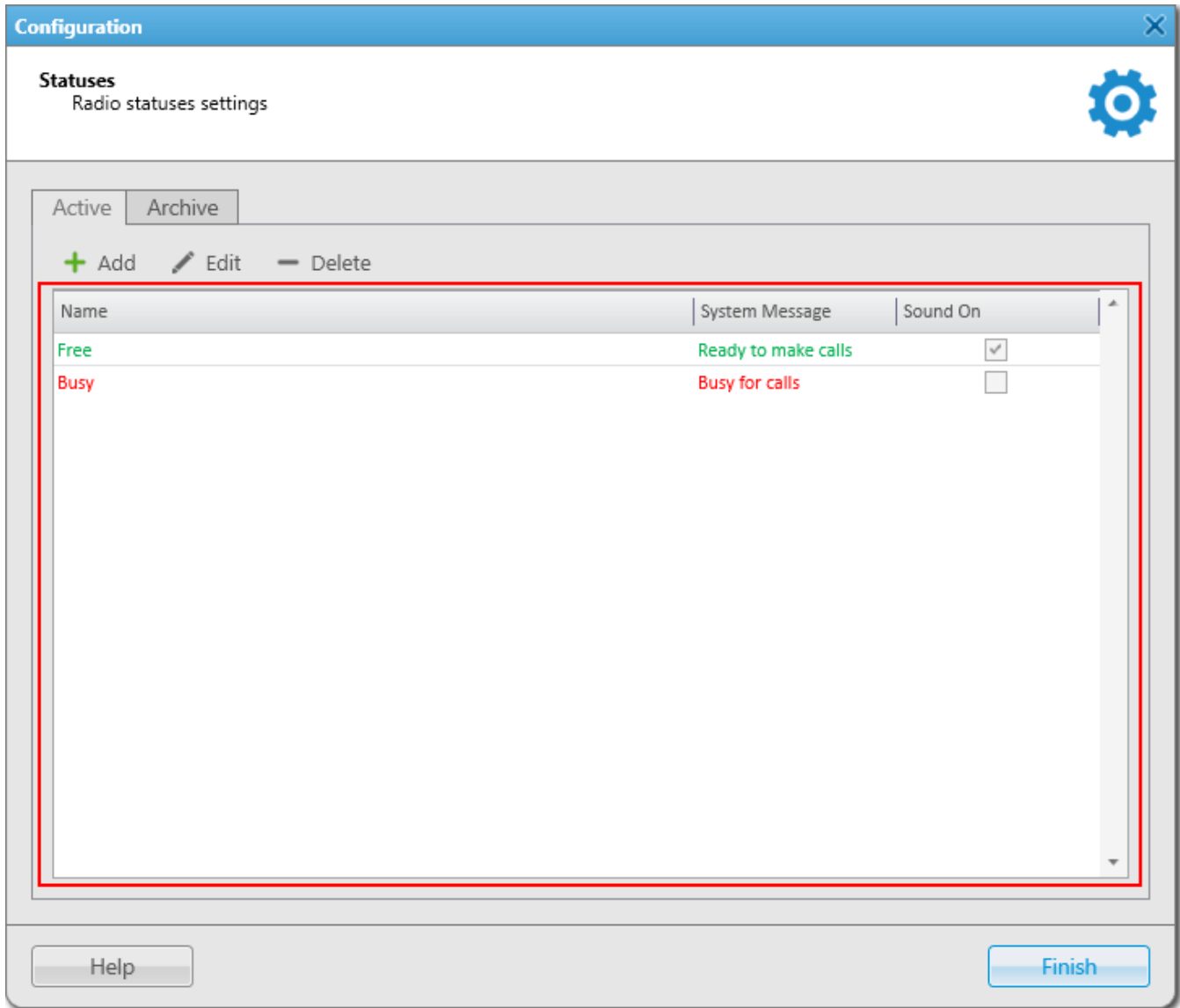
Archive: Displays archived statuses. On this tab you can [restore](#) archived statuses.

Archived statuses cannot be used in alert rule definitions. However, the statuses remain valid if they were assigned to radios or WAVE users previously.

Archived statuses are also displayed in the event log entries.

Statuses Window Table

Statuses table displays active or archived statuses.



The table consists of the following columns:

Name: Displays status name.

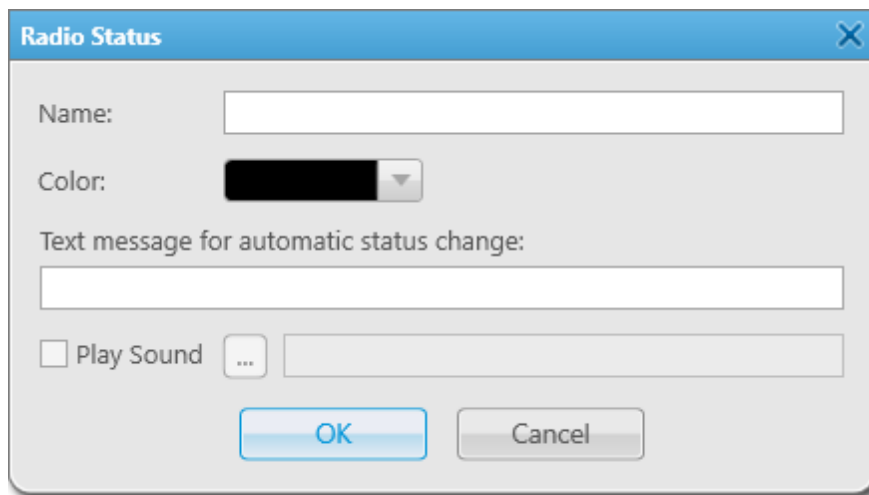
System Message: Displays [text message for automatic status change](#) which is set at status adding.

Sound On: Displays if a [sound notification](#) of status activation is turned on or off.

2.6.3.1 Adding Statuses

To add a new status, follow these steps:

1. On the **Active** tab, click **Add**.
2. In the open **Radio Status** window, perform the following actions:



- a. In the **Name** box, type the status name to be displayed in SmartPTT Dispatcher.
- b. *Optional:* From the **Color** list, select the desired status color.
- c. *Optional:* In the **Text message for automatic status change** box, enter the message that initiates the status changing. If a radio sends the message to the dispatcher or to any other addressee, the radio receives the status.

NOTE

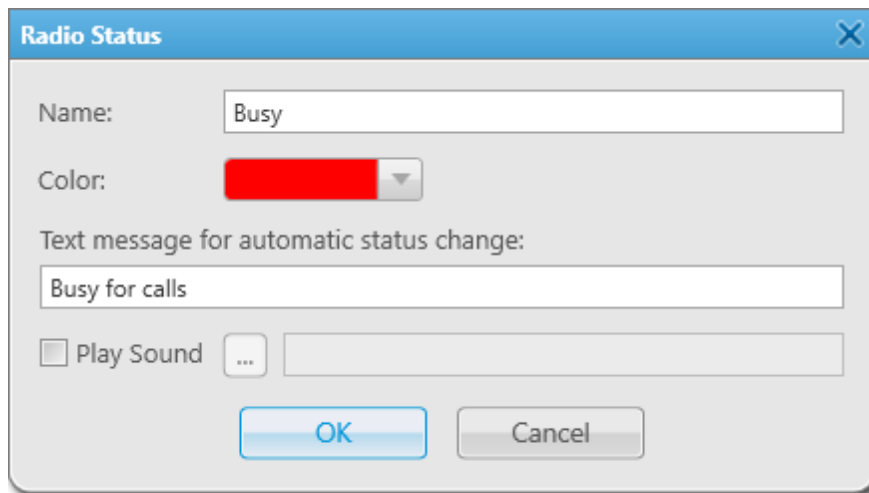
Text messages cannot be the same for different statuses. If the entered text message is already specified for another status, the corresponding warning window appears.

- d. *Optional:* Activate and configure a sound notification at the status activating:
 - i. Select the **Play Sound** check box.
 - ii. Click to specify a path to the desired audio file.
3. Click **OK**.

2.6.3.2 Editing Statuses

To edit the existing status, follow these steps:

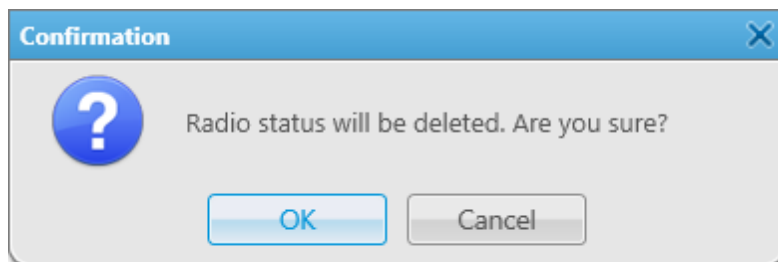
1. On the **Active** tab, select the desired status in the table of active statuses and click **Edit**.
2. In the open **Radio Status** window, change the desired parameters and click **OK**.



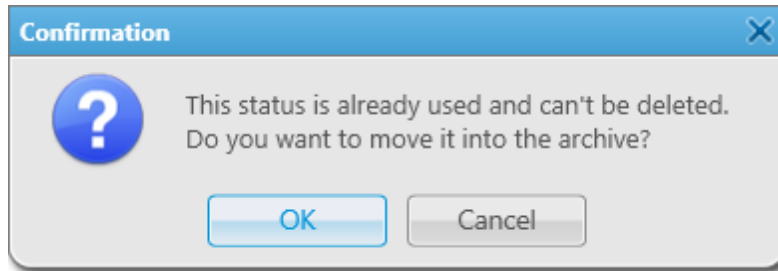
2.6.3.3 Deleting Statuses

To delete a status, follow these steps:

1. On the **Active** tab, select the desired status in the table of active statuses and click **Delete**.
2. In the open **Confirmation** window, click **OK**:



If the status is currently assigned or was assigned to a radio or a WAVE user, it can't be deleted. If you try to delete such status, the following **Confirmation** window appears:

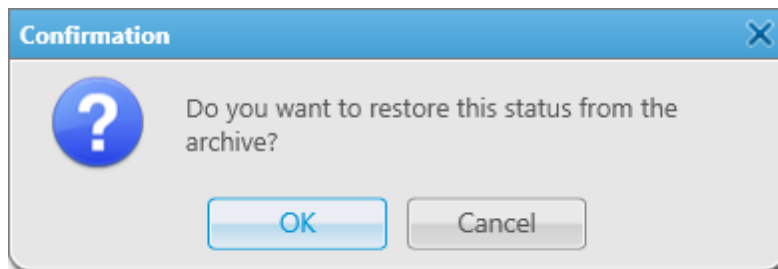


You can [restore](#) archived statuses later. Restored statuses become active.

2.6.3.4 Restoring Statuses

To restore an archived status, follow these steps:

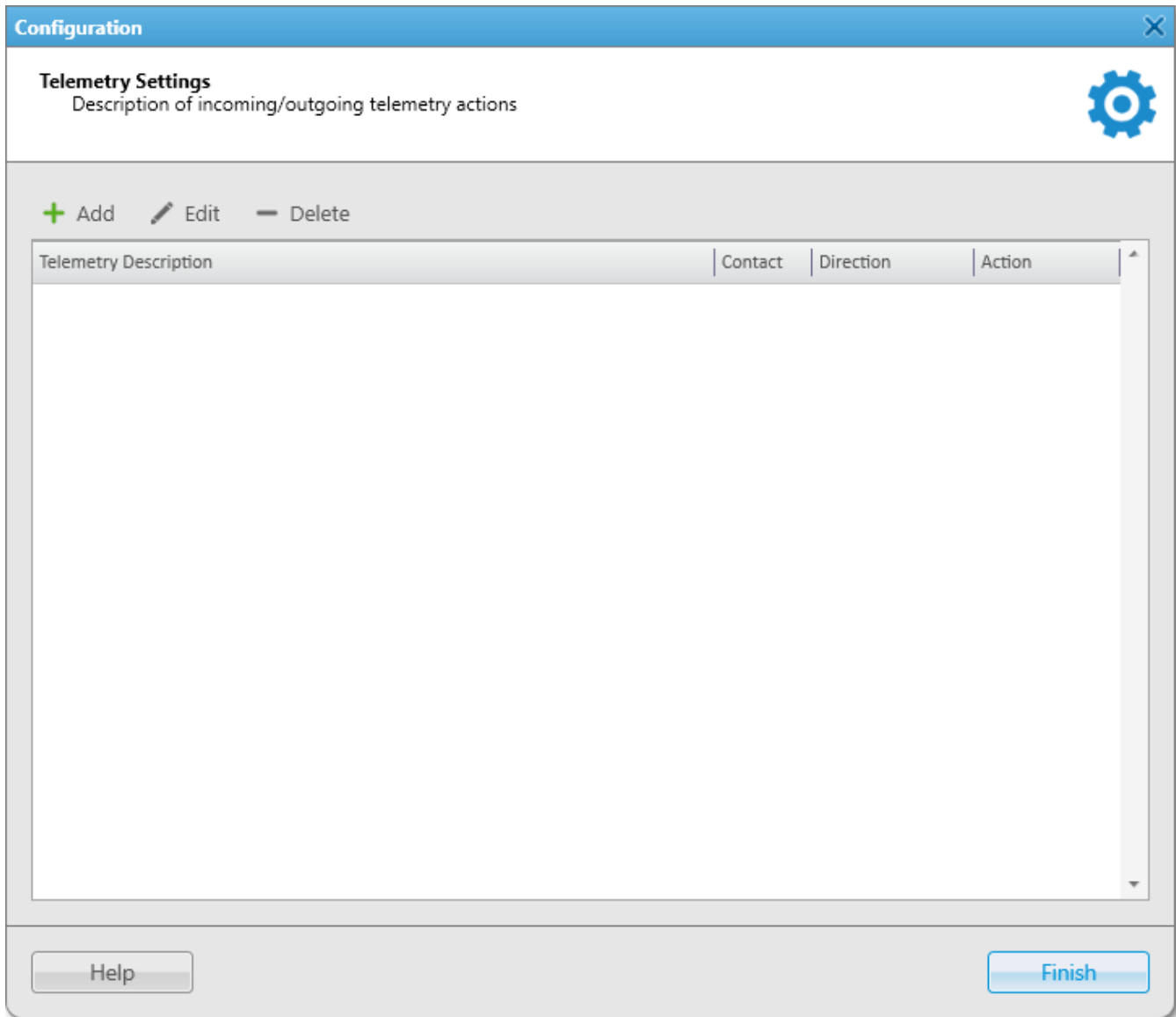
1. On the **Archive** tab, select the desired status in the table of archived statuses and click **Restore**.
2. In the open window, click **OK**:



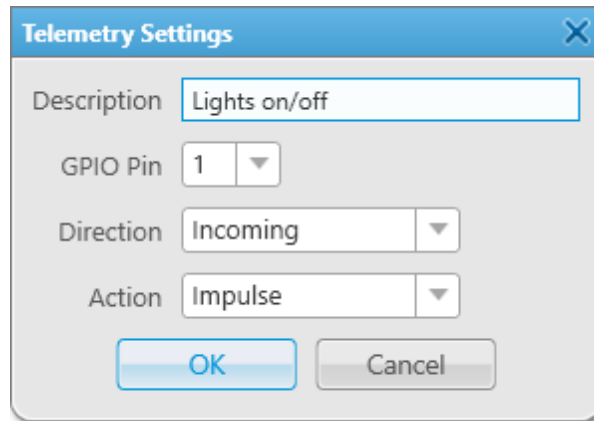
The restored status appear in the active statuses table of the **Active** tab.

2.6.4 Telemetry

To set up actions based on incoming/outgoing telemetry commands, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Radios** → **Telemetry**. The **Telemetry Settings** window appears.



To add a new telemetry command, click **Add**. The **Telemetry Settings** window is displayed.



Description: Description of the action to be triggered.

Contact: Select a contact or VIO from the list.

NOTE

Make sure the selected contact or VIO is mapped to a physical GPIO line in MOTOTRBO CPS.

Direction: Select direction (incoming or outgoing).

Action: Action type: *impulse, high level, low level, toggle level*.

To save the changes, click **OK** – the created settings appear in the list of settings.

To edit the existing settings, select the entry in the list of settings and click **Edit**.

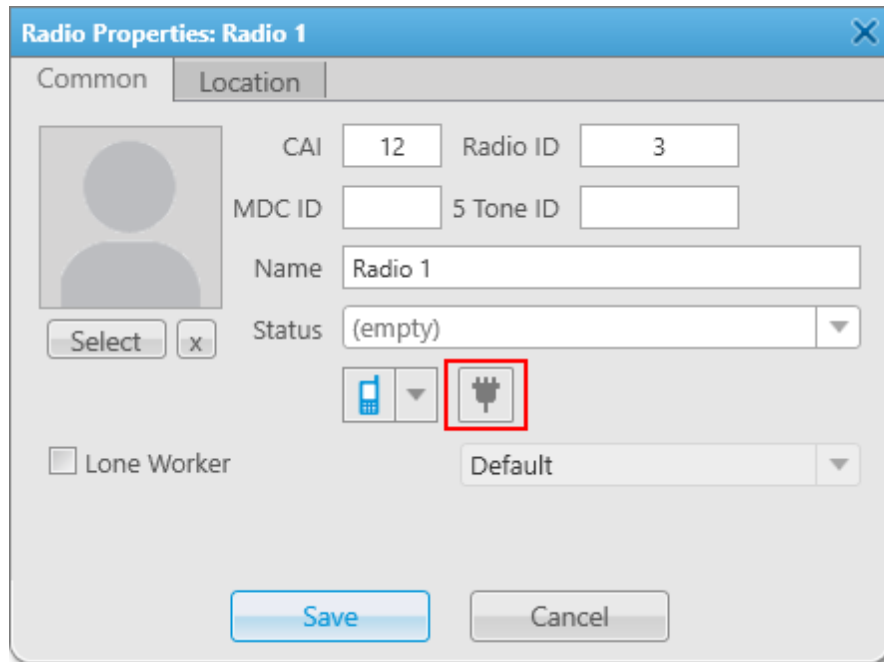
To delete the settings, select the entry in the list of settings and click **Delete**.

How to Assign Telemetry to Radio

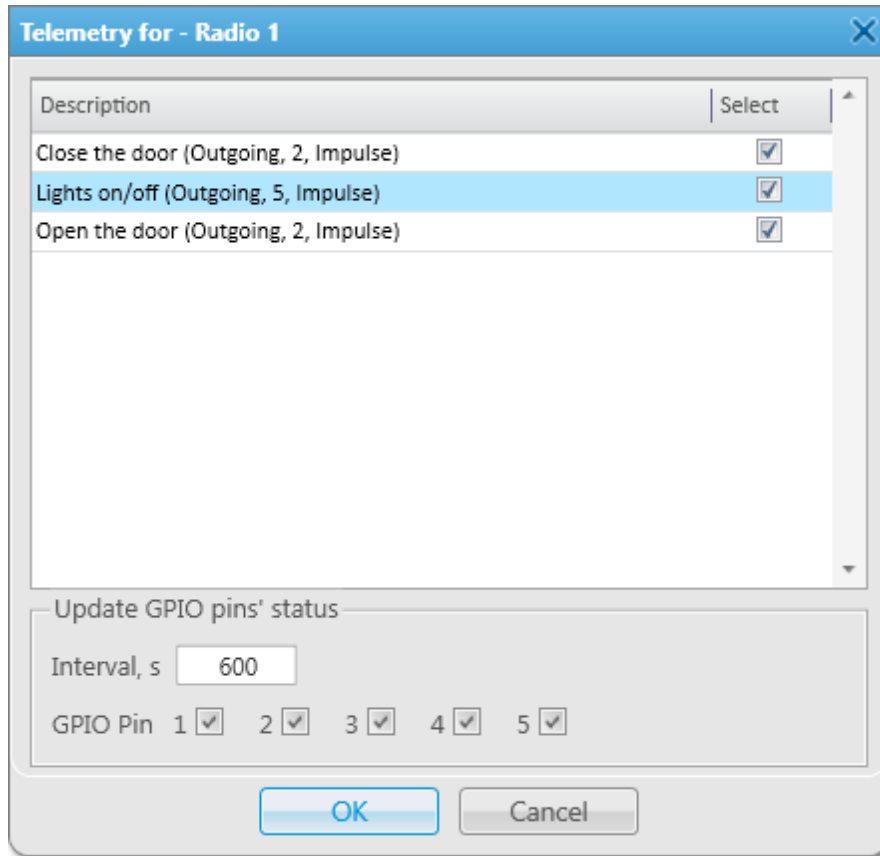
You can select telemetry settings in the radio **Properties** window.

NOTE

Only registered radios can be assigned to a telemetry command. For not registered radios the **Telemetry** button will be unavailable.



Click the **Telemetry** button to open the window for selecting available telemetry commands for the radio.

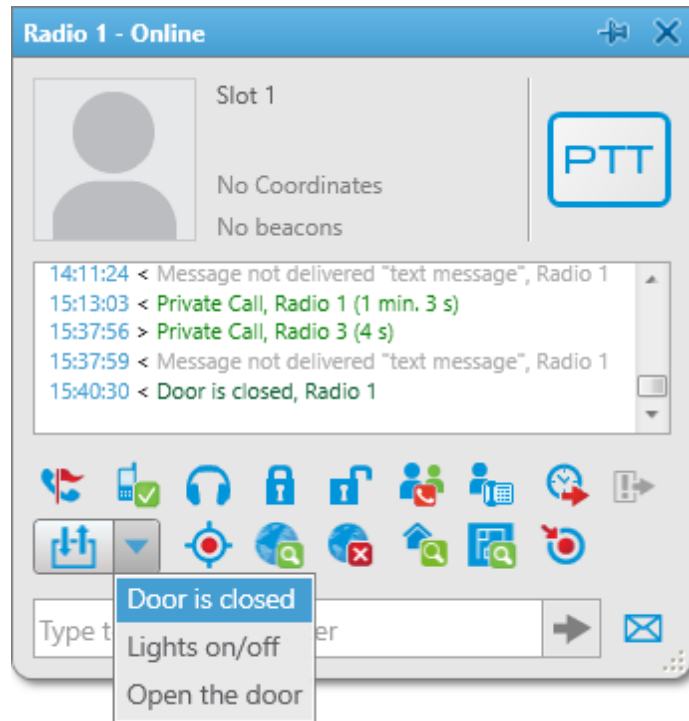



Select the required command to make it available in the **Call Window** of the radio and in the custom consoles. Also, it allows you to set automatic status updates of the GPIO pins. To receive status updates of the GPIO pins automatically, select the required GPIO pins in the **Update GPIO pins' status** area and set the update interval in seconds.

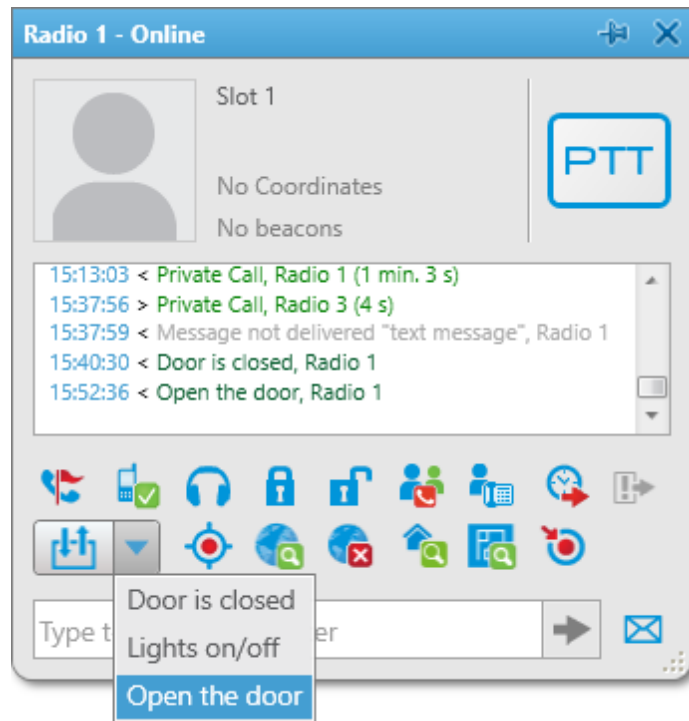
NOTE

Automatic GPIO pins' status update is applied only for incoming telemetry commands.

Then you can run the telemetry command from the radio **Call Window**.

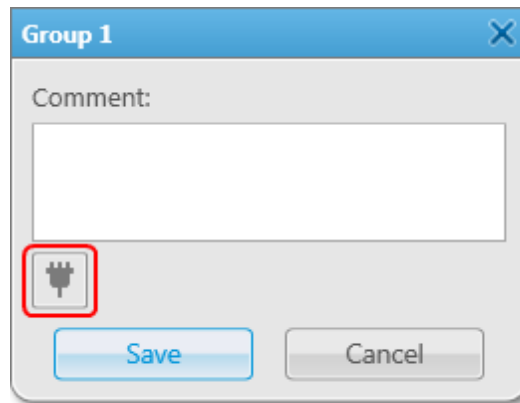


To receive the current telemetry status, click . The updated status will be displayed in **Call Window** of the radio.

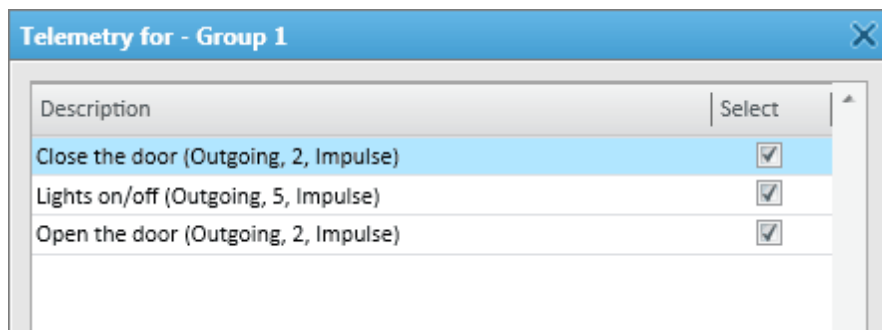


How to Assign Telemetry to Talkgroup

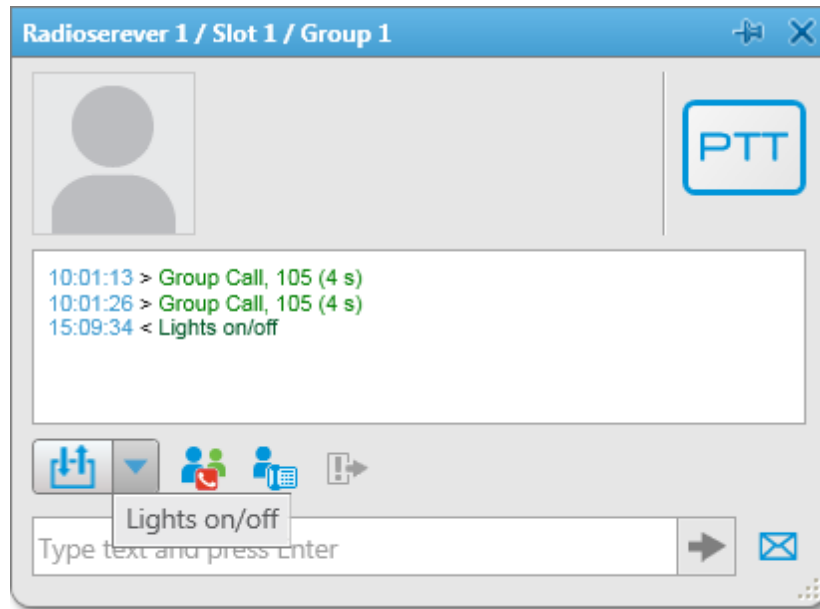
You can select telemetry settings in the **Properties** window of the talkgroup.



Click the **Telemetry** button and select available telemetry commands for the talkgroup.



Then you can run the telemetry command from the talkgroup **Call Window**.



2.6.5 Job Ticket Statuses

Here you can create job ticket statuses and specify their settings. For example, assign a color to a status or add alert on status change.

To create job ticket statuses, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Radios** → **Job Ticket Statuses**. The following window appears:

Configuration

Job Tickets
Job Ticket Status Configuration

Enable Automatic Numbering

Send notification to radio when uncompleted job ticket was deleted by dispatcher

Default Status Color

+ Add Edit - Delete

Name	Completion Status	Sound On
Busy	<input type="checkbox"/>	<input type="checkbox"/>
Patrol	<input type="checkbox"/>	<input type="checkbox"/>

Help Finish

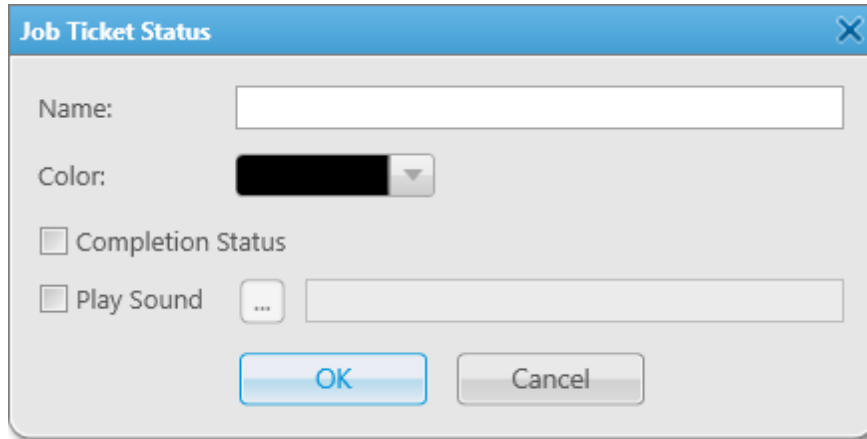
Enable Automatic Numbering: When this option is enabled, a unique number is assigned to each new job ticket. It is necessary to distinguish job tickets with same names.

Send notification to subscriber when uncompleted job ticket was deleted by dispatcher: If this option is enabled, a radio receives a message, if an incomplete job ticket was canceled.

Default Status: The job ticket status which is displayed when the operator creates a new job ticket. The status does not change, until the person modifies it. You do not need to set this status in the MOTOTRBO CPS settings. It is used only in SmartPTT Dispatcher, so you can add any value you like.

In the **Color** box select the color for the default status.

To add a job ticket status, click **Add**.



Name: Name of the status.

Color: Color of the status, which will be used in the job ticket table.

Completion status: It is the final status of a job ticket. If a job ticket has such a status and if **Remove job ticket from the list within n seconds after completion** is enabled, the job ticket will be hidden from the list.

NOTE

You can also select the **Completion status** later in the **Job Tickets** configuration window.

Sound: This setting enables the sound signal which will notify the operator that a job ticket changed its status.

WARNING

Added statuses must match the statuses set in *MOTOTRBO CPS*.

Index	Action/Response	Status Folder	Last State Flag
1	In progress	In progress	<input type="checkbox"/>
2	Cancelled	Cancelled	<input type="checkbox"/>
3	Done	Done	<input checked="" type="checkbox"/>

If the statuses of SmartPTT Dispatcher does not correspond to statuses in *MOTOTRBO CPS*, all settings (color, sound signal and status completion) won't be applied.

2.6.6 Lone Worker Rules

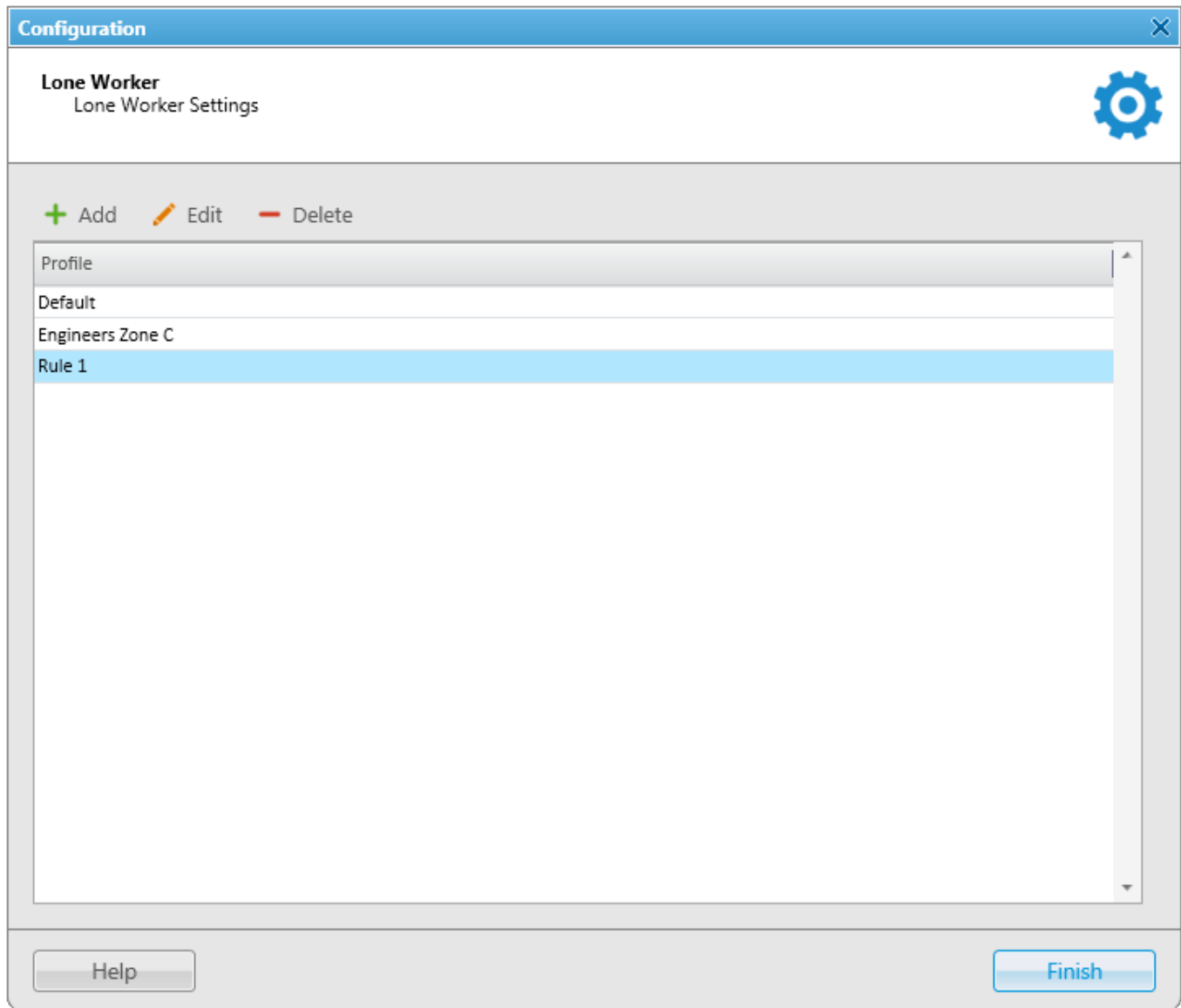
SmartPTT Dispatcher supports the Lone Worker mode for radios and [WAVE users](#).

When a radio or a WAVE user is set to the Lone Worker mode, SmartPTT automatically tracks the following conditions:

- Absence of calls from a radio or a WAVE user during specified period of time
- Absence of GPS coordinates from a radio or a WAVE user during specified period of time
- Immobility of a radio or a WAVE user during specified period of time

When one of the specified conditions triggers, SmartPTT Dispatcher executes the actions defined by the settings.

To define special rules or profiles for lone workers, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Radios** → **Lone Worker Rules**. The window for creation and/or editing the rules for lone workers opens.



Here you can see the list of rules which get executed if the specified conditions are fulfilled. SmartPTT supports multiple rules, so it is possible to create a lone worker rule for each radio or WAVE user.

To add a new rule, click **Add**. To make changes in the existing rule, select it and click **Edit**. To delete a rule, select it from the list and click **Delete**.

NOTE

The default profile cannot be deleted.

At clicking **Add** or **Edit**, the **Profile Settings** window appears:

In the **Profile Settings** window you can set up rules for a new profile or edit rules for the existing profile. The window contains the following boxes and sections:

Name: Name of the profile. It is an obligatory box.

The **General** tab contains rule conditions to trigger an alert:

No calls: Specifies the period of time for a radio or a WAVE user to make a voice call. If the radio or the WAVE user does not make a call during the specified time period, the corresponding actions are executed.

No location data received: Specifies the period of time for a radio or a WAVE user to send GPS or Indoor data. If the radio or the WAVE user does not send its GPS or Indoor data during the specified time period, the corresponding actions are executed.

No change in location data: Specifies the period of time to check if a radio or a WAVE user is moving. If the radio GPS data (GPS data accuracy is 5 meters) or Indoor data do not change during the specified time period, the corresponding actions are executed.

NOTE

The **No change in location data** rule condition triggers only if the dispatcher receives radio or WAVE user GPS or Indoor data. So the **No change in location data** rule condition must be used together with the **No location data received** rule condition.

NOTE

A WAVE user can send only GPS data.

The **Radio Alert** area:

Text Message: When the event specified in one of the filters occurs, the text message is sent to the lone worker.

NOTE

This action is unavailable to [WAVE users](#).

Audio Message: When the event specified in one of the filters occurs, an audio message is sent to the lone worker. To record the message, click the **Record** button. To stop recording, click the **Stop** button. To listen to the recorded message, click **Play**. To delete the recorded message, click **Delete**.

Call Alert: When the event described by one of the filters occurs, a **Call Alert** is sent to the lone worker.

NOTE

This action is unavailable to WAVE users.

The **Actions delay** timer defines the time interval after which **Actions** will be executed after **Radio Alert**.

If the rule meets selected criteria, the system can execute the following actions:

- Actions addressed to the initiator
- Alerts addressed to the dispatcher

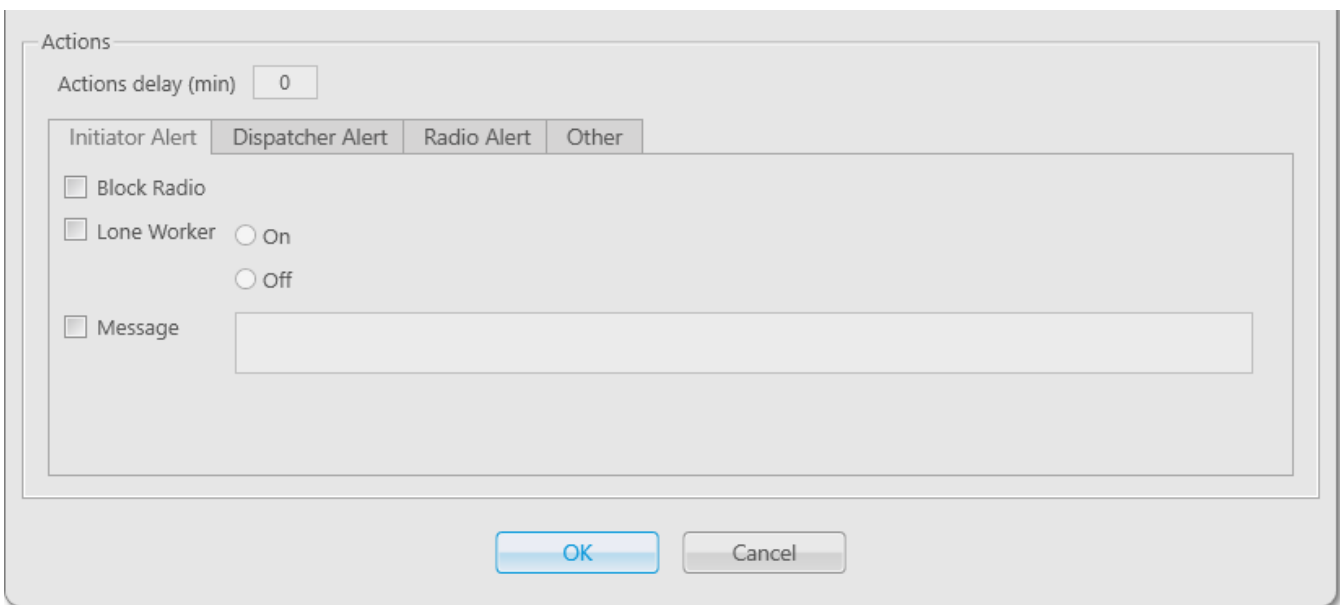
- Alerts addressed to the radio
- Other

To save the rule, click **OK**. The created rule appears in the list of rules.

To edit rule settings, select it in the list of rules and click **Edit**. To remove the rule, select it in the list of rules and click **Delete**.

Initiator Alert

Open the **Initiator Alert** tab.



The screenshot shows a dialog box titled "Actions" with a sub-section for "Initiator Alert". At the top, there is a text input field for "Actions delay (min)" with the value "0". Below this are four tabs: "Initiator Alert" (selected), "Dispatcher Alert", "Radio Alert", and "Other". Under the "Initiator Alert" tab, there are three options, each with a checkbox and a radio button:

- Block Radio
- Lone Worker On Off
- Message

At the bottom of the dialog are "OK" and "Cancel" buttons.

Block Radio: If selected, the radio that triggered the rule, will be blocked.

NOTE

This action is unavailable to [WAVE users](#).

Lone Worker: If selected and **On** is clicked, the lone worker profile will be set to the radio or the WAVE user that triggered the rule. If **Off** is clicked, the lone worker mode of the radio or the WAVE user will be deactivated.

NOTE

To set up the lone worker profile, see Lone Worker Rules in SmartPTT Dispatcher.

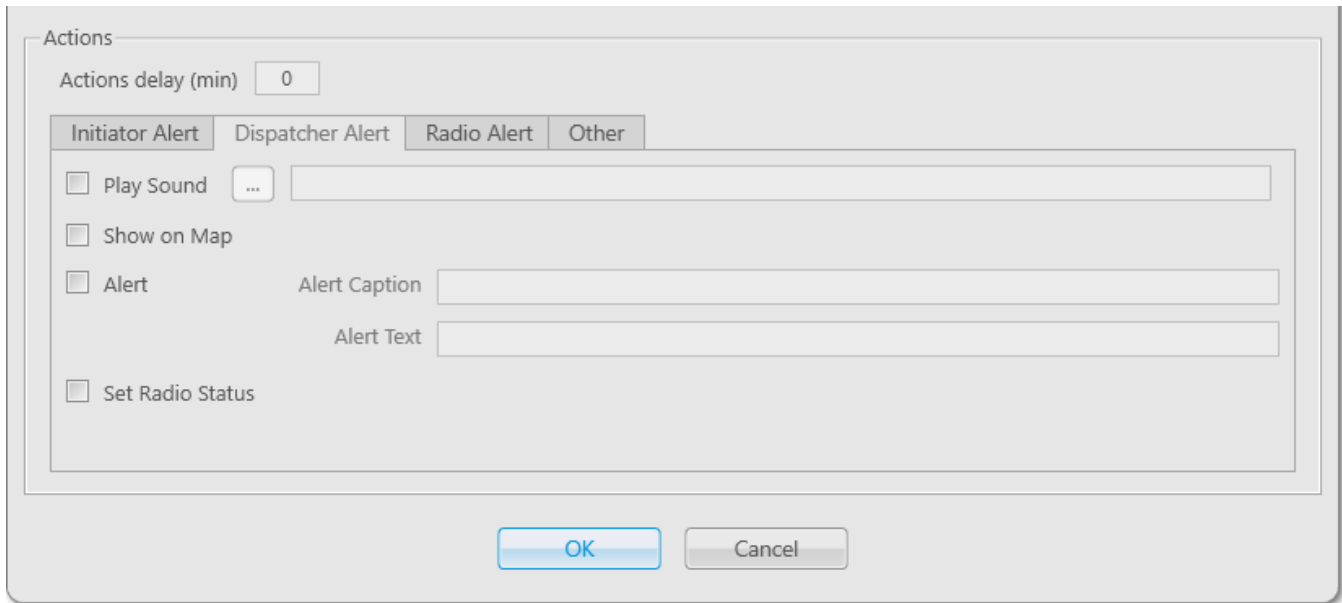
Message: A text message is sent to the initiator that triggered the rule.

NOTE

This action is unavailable to WAVE users.

Dispatcher Alert

Open the **Dispatcher Alert** tab.



The screenshot shows a dialog box titled "Actions" with a tabbed interface. The "Dispatcher Alert" tab is selected. At the top, there is a text input field for "Actions delay (min)" with the value "0". Below this are four tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert", and "Other". Under the "Dispatcher Alert" tab, there are several options, each with a checkbox and a corresponding input field:

- Play Sound: Includes a browse button (three dots) and an empty text input field.
- Show on Map
- Alert: Includes an "Alert Caption" text input field and an "Alert Text" text input field.
- Set Radio Status

At the bottom of the dialog box are two buttons: "OK" and "Cancel".

Play Sound: Select the audio file to play in SmartPTT Dispatcher. The supported audio formats: MP3, OGG, WAV.

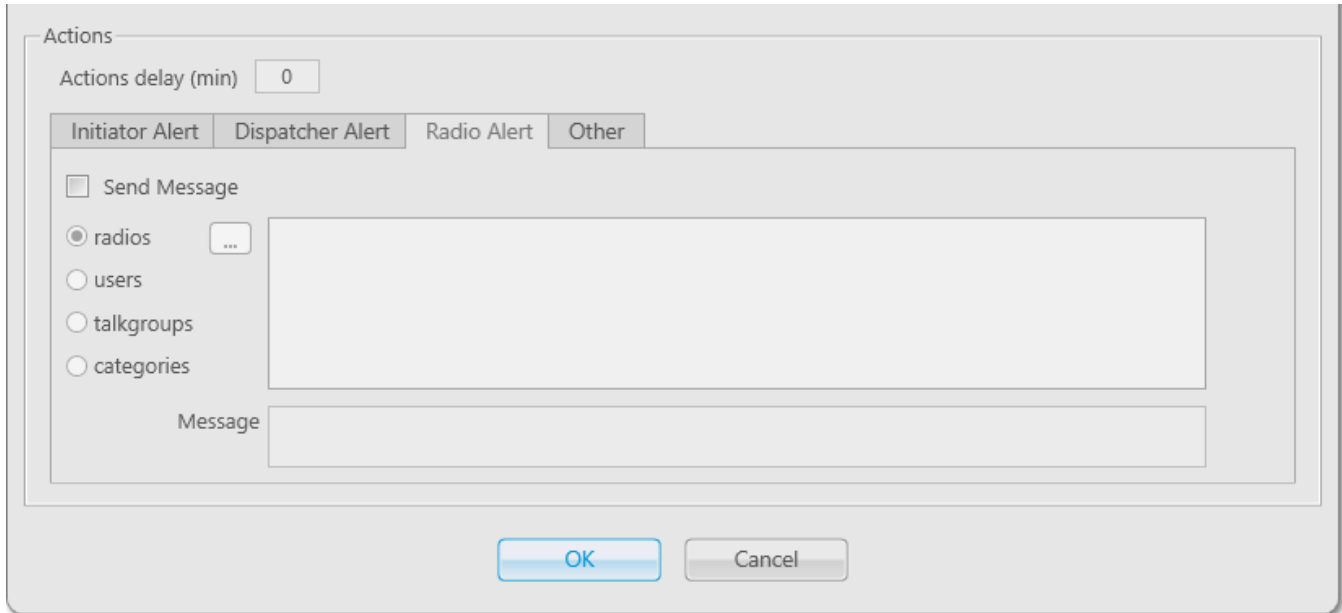
Show on Map: The radio or the [WAVE user](#) specified in the rule is shown on the map (with an icon).

Alert: Notification with the event description is displayed in the **System Notification** window. You can define the title in the **Alert Caption** box. and the description in the **Alert Text** box. Description of the event can't be set, it is generated automatically.

Set Radio Status: The radio or the WAVE user is assigned the specified status. It is selected from the list of statuses.

Radio Alert

Open the **Radio Alert** tab.



The screenshot shows a dialog box titled "Actions" with a sub-section for "Radio Alert". At the top, there is a field for "Actions delay (min)" set to "0". Below this are four tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert" (which is selected), and "Other". Under the "Radio Alert" tab, there is a checkbox for "Send Message" which is unchecked. Below the checkbox are four radio button options: "radios" (selected), "users", "talkgroups", and "categories". To the right of these options is a large empty text box. Below the text box is a "Message" input field. At the bottom of the dialog are "OK" and "Cancel" buttons.

Send Message: A text message is sent to the selected radios, users, talkgroups or categories.

NOTE

This action is unavailable to [WAVE users](#).

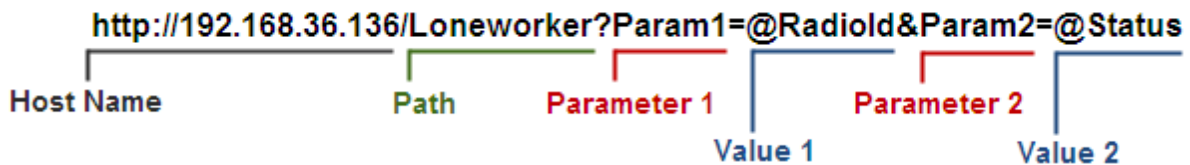
Other

Open the **Other** tab.

The screenshot shows the 'Actions' configuration window. At the top, there is a field for 'Actions delay (min)' set to 0. Below this are four tabs: 'Initiator Alert', 'Dispatcher Alert', 'Radio Alert', and 'Other'. The 'Other' tab is active. It contains three main sections: 'HTTP Request', 'E-mail', and 'SMS'. Each section has a checkbox and a 'Radioserver' dropdown menu. The 'E-mail' and 'SMS' sections also have a 'Message' text area. Additionally, there are 'E-mail' and 'Phone Numbers' text areas. At the bottom, there are 'OK' and 'Cancel' buttons.

HTTP Request: Is used for notification of the third party server of the changes occurred in SmartPTT system. It can render the event initiator radio ID and its status.

The HTTP request includes the following parts:



NOTE

Make sure that you have specified correct names for parameters 1 and 2. They must correspond to the parameters' names expected by the third party server.

NOTE

Under **@Status** SmartPTT system will send the system message corresponding to the newly assigned status selected in the **Dispatcher Alert** tab. Status system messages are set in the [Statuses](#) settings.

E-mail: Is used for specifying e-mail address where a message should be sent in case the rules specified earlier are not fulfilled. To do this, the following boxes are to be filled:

Radioserver: Server name for e-mail sending. The name of the server is selected from the drop-down list.

E-mail: Electronic addresses to send the message.

Message: Text of the message.

SMS: If checked, the SMS message is sent to the specified phone number in case the rules specified earlier are not fulfilled.

Radioserver: Server name for SMS messages sending. The name of the server is selected from the drop-down list.

Phone Numbers: Telephone numbers to send SMS. The preferred number format is International Number Format, i.e. <+><country code><mobile code><phone number>.

Message: Text of the message.

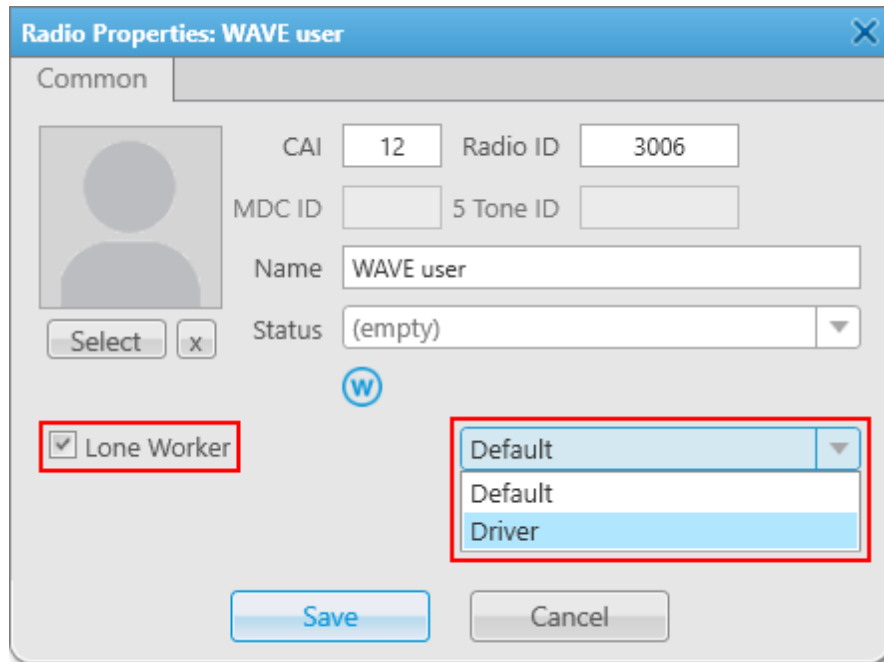
NOTE

See information about SmartPTT Radioserver configuration for sending and receiving e-mails and SMS messages in SmartPTT Radioserver Configurator Help under

Telephone Interconnect and **SMS Gateway**.

How to assign a Lone Worker Profile to a radio or WAVE user

To assign the created lone worker profile to a radio or a [WAVE user](#) open its **Properties** window. In the opened window select the **Lone Worker** check box, and in the drop-down list select the created profile.



To remove the profile from a radio or a WAVE user, clear the **Lone Worker** check box.

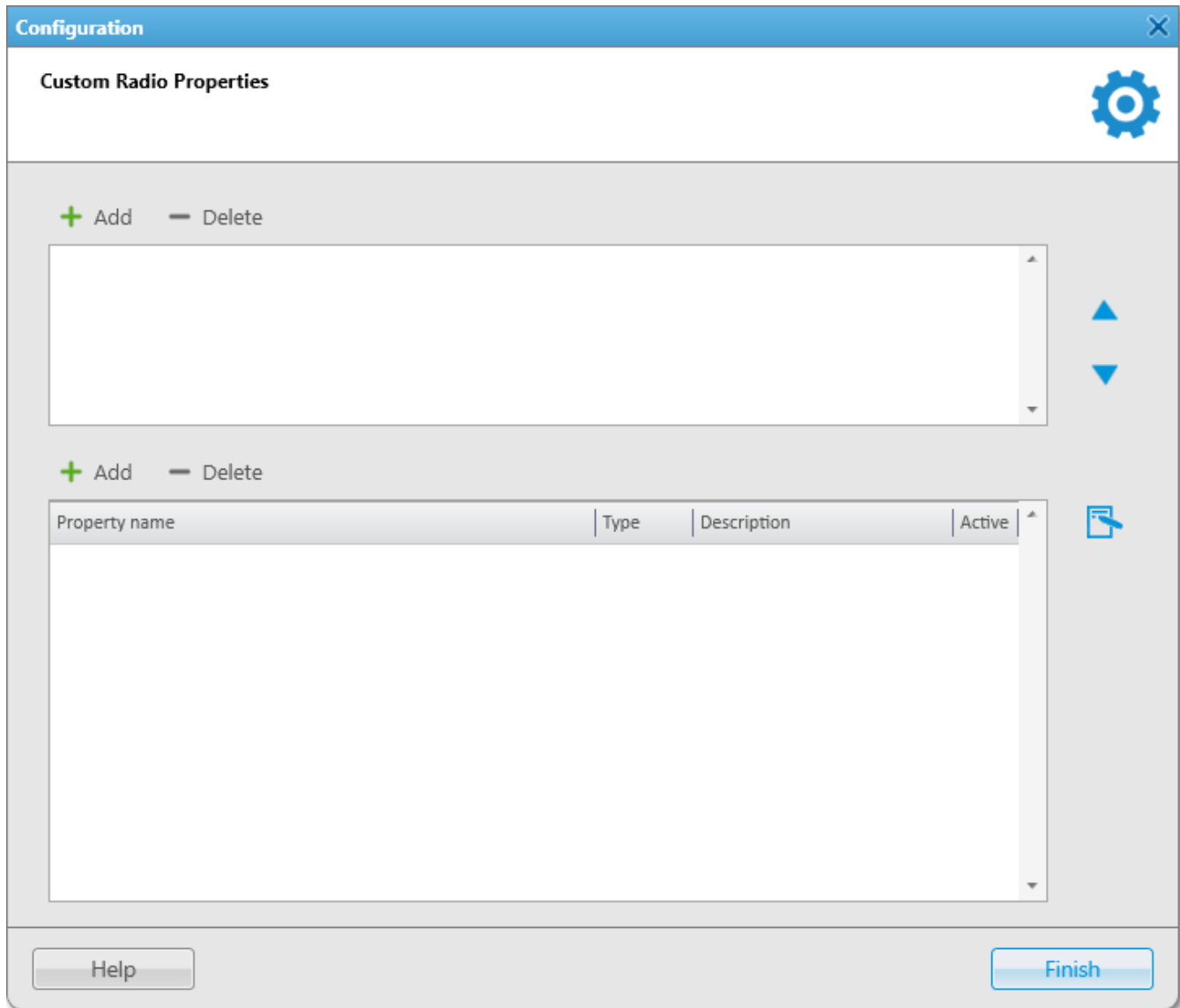
2.6.7 Custom Radio Properties

SmartPTT Dispatcher provides the ability to add custom properties of a radio and a [WAVE user](#), which can be used for giving additional information. Custom radio and WAVE user properties have the following four types:

- Text
- Numeric

- Date
- List

To create custom properties, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Radios** → **Custom Radio Properties**. The **Custom Radio Properties** window appears:



The top list contains custom property groups.

To add a custom property group, click **Add** at the top. To delete the group, click **Delete**. Arrows on the right allow moving groups inside the list.

The bottom list contains the properties of the created groups.

Property Name: Custom name of the property which will be displayed in the **Properties** window.

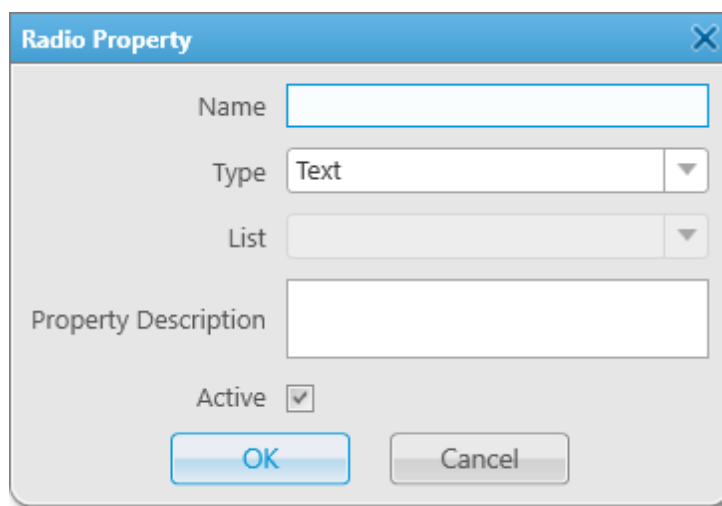
Type: Property type (Text, Numeric, Data or List).

Description: Text description added when creating a property.

Active: Select the check box, to have the property displayed in the **Properties** window.

To add a property into the property group, select the created property group in the top list and then click **Add** above the bottom list.

The **Radio Property** window appears:

The image shows a dialog box titled "Radio Property" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

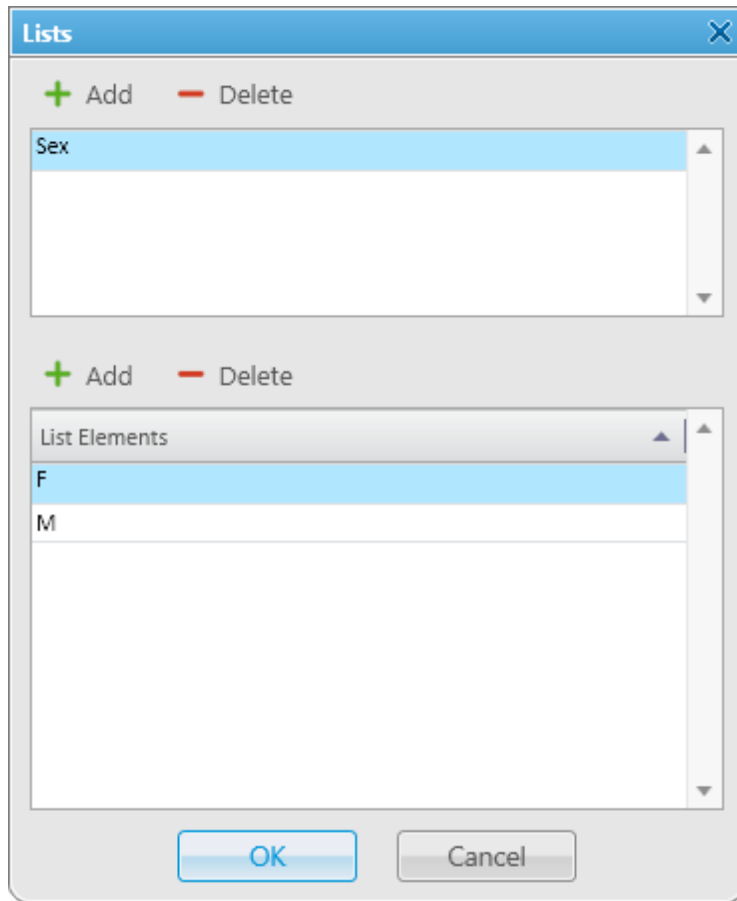
- Name:** A text input field.
- Type:** A dropdown menu currently showing "Text".
- List:** A dropdown menu that is currently empty.
- Property Description:** A larger text input field.
- Active:** A checked checkbox.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Fill all the boxes required. Select the **Type** and click **OK**.

NOTE

If you want to select **List** in the **Type** list, before that you need to create the list. Otherwise, the list will be empty.

To create the list, click the **Create/Edit Lists** button . The window appears:



In the top box add list names by clicking **Add**.

Select the created list and add elements of the list. To do it, go to the bottom box and click **Add** just above it.

To view the active custom properties go to the radio or WAVE user **Properties** window, **Custom** tab.

The screenshot shows a dialog box titled "Properties: Mike" with a close button (X) in the top right corner. The dialog has three tabs: "General", "Location", and "Custom", with "Custom" being the active tab. The "Custom" tab contains two expandable sections: "Personal Info" and "Last Employer".

Personal Info	
Age	
Birth Date	6/11/1983 <input type="button" value="15"/>
Sex	<input type="button" value="v"/>

Last Employer	
Last Employer	n/a

At the bottom of the dialog, there are two buttons: "Save" and "Cancel".

2.7 Positioning Systems

To define GPS or Indoor settings, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Positioning Systems**. The **GPS and Indoor settings** window appears:

Configuration ✕

Positioning Systems
GPS and Indoor settings ⚙

Validity of GPS coordinates (min)

Validity of beacon signals (min)

Time interval for GPS coordinates update (sec)

Accuracy Radius (m)

Address Data Provider

Color of radio with valid GPS location

Data Format

Coordinates

System of Units

Speed

Save GPS Locations in Database

Database cleanup settings

Do not delete GPS locations

Coordinates retention period (days)

The **GPS and Indoor settings** window contains the following parameters:

Validity of GPS coordinates: The parameter sets GPS data validity period in minutes. If new GPS coordinates were not received during this period, the radio or [WAVE user](#) label is removed from the map.

Validity of beacon signals: The parameter defines the time period during which the received beacon signal is relevant. If new beacon signals were not received during this period, the radio label is removed from the building plan.

Time interval for GPS coordinates update: It sets the default time interval for updating radio and WAVE user location data. The value set in this parameter will be applied to all unregistered radios, and will be displayed in the **Properties** window of a radio in the **Location** tab.

Accuracy Radius: It sets the maximum coordinate error margin. If the received error value exceeds the value specified in this box, the coordinate is invalid.

Color of radio with valid GPS location: It sets the color which will be used for a radio label with valid GPS locations.

Address Data Provider: It defines the map service (Google or OpenStreetMap), which will determine the object address on the map corresponding to the radio or WAVE user current GPS coordinates.

Data Format area

It defines the format of location data to display in the radio and WAVE user **Call window**:

Coordinates: It allows you to select the format of GPS coordinates:

- Decimal degrees. GPS coordinates are displayed as: lat: 56,47568, long:84,98779
- Degrees, Minutes, Seconds. GPS coordinates are displayed as: lat: 56°28'32", long:84°59'16"
- Universal Transverse Mercator Coordinate System. GPS coordinates are displayed as:
45V 376108 B 6260913 C

System of Units: It allows you to select the measurement system (*Metric* or *Imperial*).

NOTE

When changing measurement system, the data previously logged won't be recalculated according to the new measurement system.

Speed: It allows you to select the format of a radio and WAVE user speed.

Save GPS Locations in Database: It defines if GPS coordinates received from radios and WAVE users are stored in the database.

Database cleanup settings



It defines the scheme of deleting coordinates from the database.

Do not delete GPS locations: If selected, the coordinates are not deleted from the database.

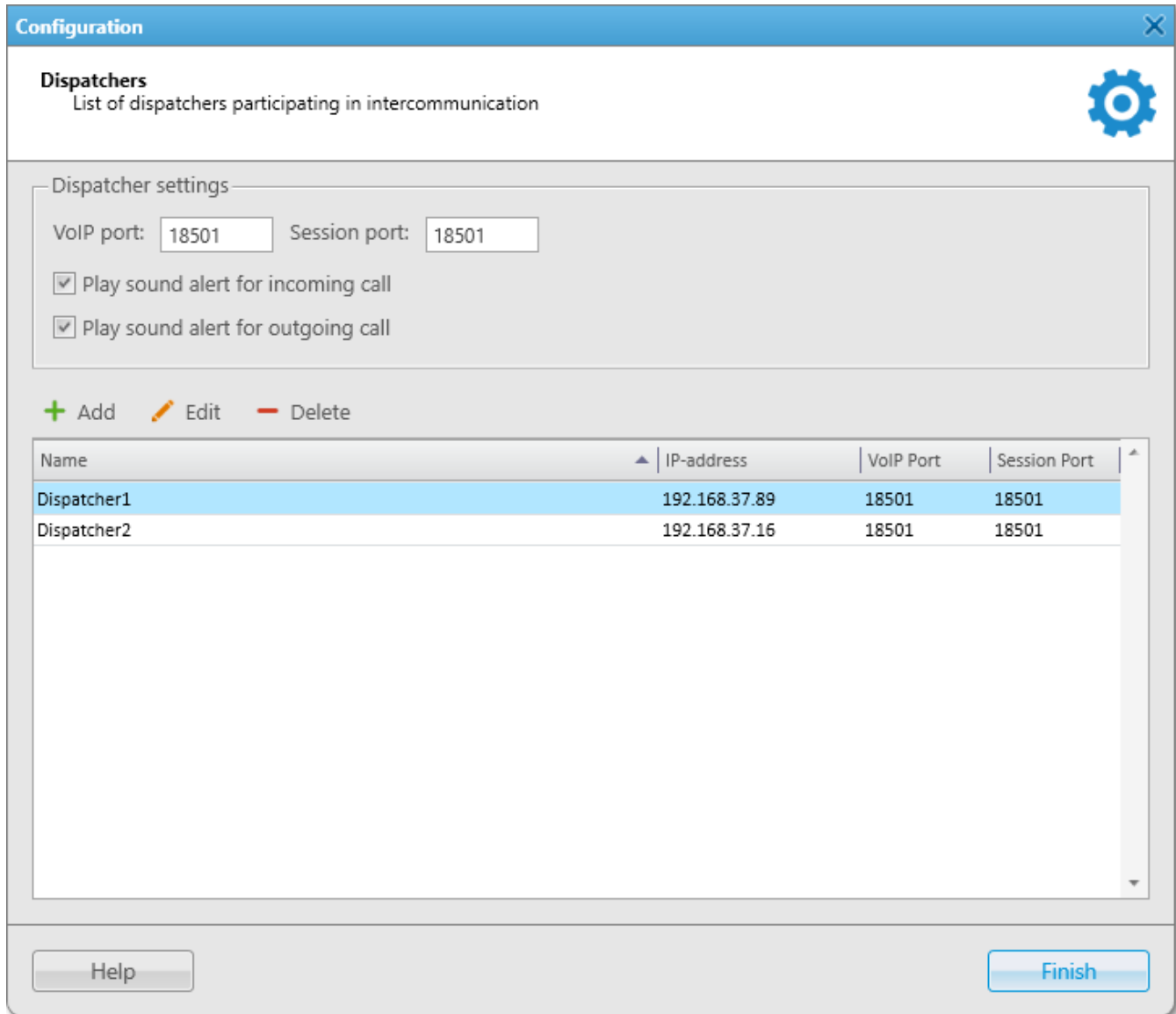
Coordinates retention period (days): It defines coordinates retention period in database.

2.8 Dispatchers

SmartPTT Dispatcher allows you to connect to other dispatchers who use the SmartPTT system. But before connecting to other dispatchers you must check or follow these steps:

1. Make sure that the operator has the permission **Connect with external dispatchers** (**Settings** (⚙️) → [Operators](#)). If not, the **Dispatchers** button  will be unavailable on the menu bar, and calls to other dispatchers will be impossible.
2. Make sure that at least one dispatcher is added to the dispatchers list in **Settings** (⚙️) → **Dispatchers**. If the list is empty, the **Dispatchers** button  will be unavailable on the menu bar even if the permission **Connect with external dispatchers** is selected.

To set up connection to other dispatchers, expand the **Settings** menu on the menu bar, and click **Dispatchers**.



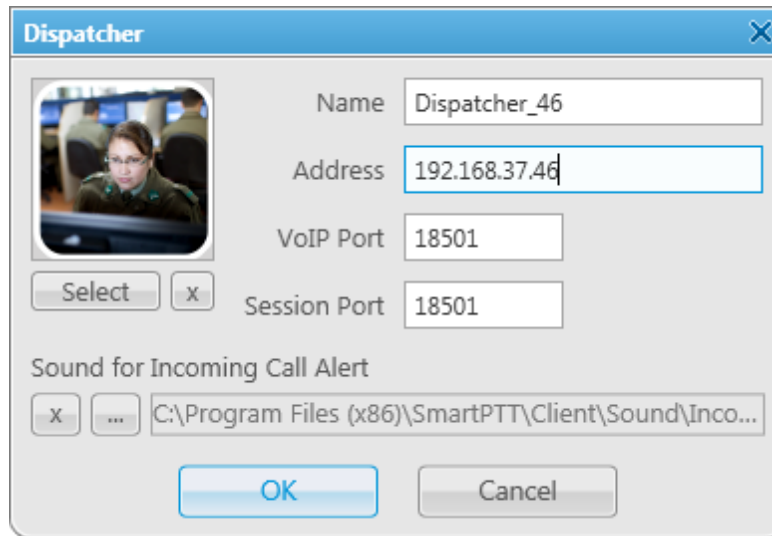
VoIP Port: UDP port of this dispatcher's PC for voice transmission. The default value is *18501*.

Session Port: TCP port of this dispatcher's PC for transmission of commands and text messages. The default value is *18501*.

Play Sound Alert for Incoming Call: Select this check box to play a tone for an incoming call.

Play Sound Alert for Outgoing Call: Select this check box to play a tone for an outgoing call.

To add a new dispatcher, click **Add**.



The screenshot shows a dialog box titled "Dispatcher" with a close button (X) in the top right corner. On the left side, there is a placeholder image of a dispatcher at a workstation, with a "Select" button and a small "X" button below it. To the right of the image are four text input fields: "Name" containing "Dispatcher_46", "Address" containing "192.168.37.46", "VoIP Port" containing "18501", and "Session Port" containing "18501". Below these fields is a section titled "Sound for Incoming Call Alert" with a small "X" button, a browse button "...", and a text field containing the path "C:\Program Files (x86)\SmartPTT\Client\Sound\Inco...". At the bottom of the dialog are "OK" and "Cancel" buttons.

Name: The dispatcher's name displayed in the list of dispatchers.

Address: IP address of the dispatcher's workstation (DNS name can be used).

VoIP Port: UDP port for voice transmission.

Session Port: TCP port for transmission of commands and text messages.


Select: The path to the file of the dispatcher's photo.

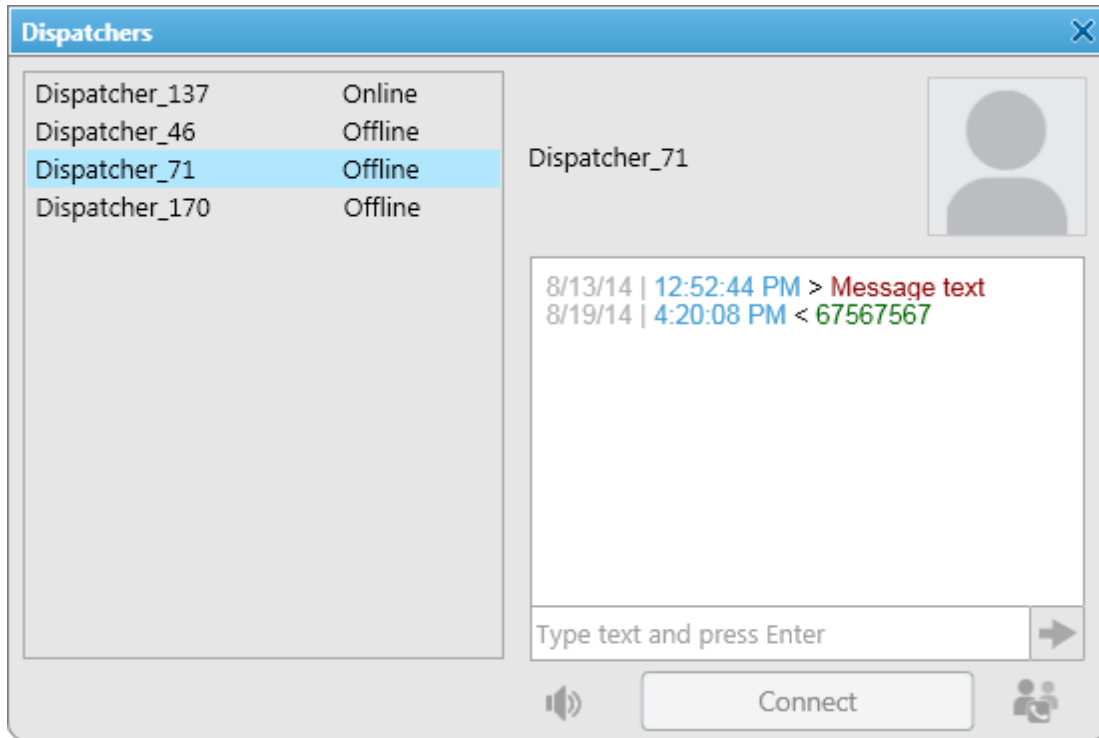
Sound for Incoming Call Alert: The path to the sound file which will play in the dispatch console when this dispatcher calls.

To save the changes, click **OK**. A new dispatcher is added to the list of dispatchers.

To edit dispatcher settings, select it in the list of dispatchers and click **Edit**.

To remove a dispatcher, select it in the list of dispatchers and click **Delete**.

To call the dispatcher, open the **Dispatchers** window by clicking the button . The following window appears:





On the left you can see available dispatchers with different statuses. These can be:

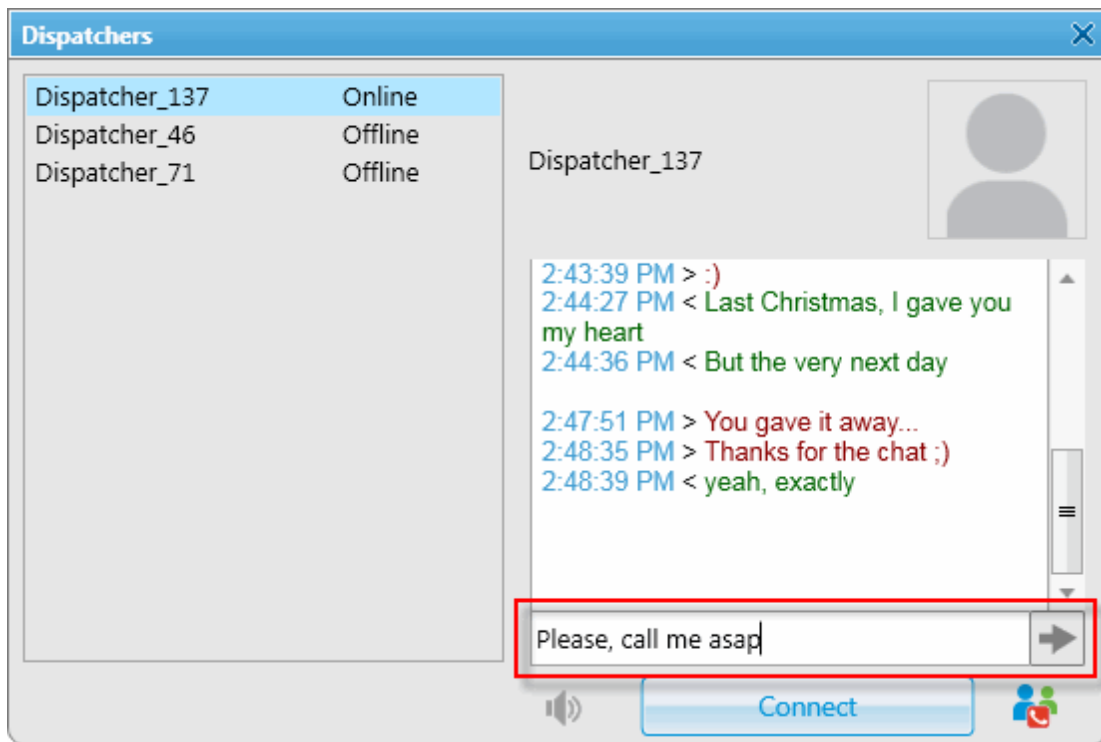
- *Offline*: The dispatcher is not available for communication. This means that the dispatcher has not launched SmartPTT Dispatcher, or does not have the permission (**Connect with external dispatchers**)
- *Online*: The dispatcher is available for communication
- *Ringing*: Calling to the dispatcher to establish voice communication
- *Call*: Voice communication is established

To call a dispatcher, select it from the list, and click **Connect**. To end the call, click **Disconnect** (this button appears as soon as you have started communication).

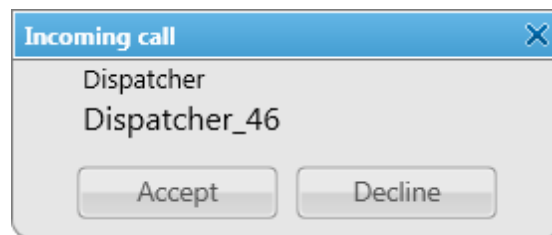
To add online dispatchers to a conference call, click .

To mute your voice transmission, click . You will still hear the other dispatcher. This button becomes available when the call is started.

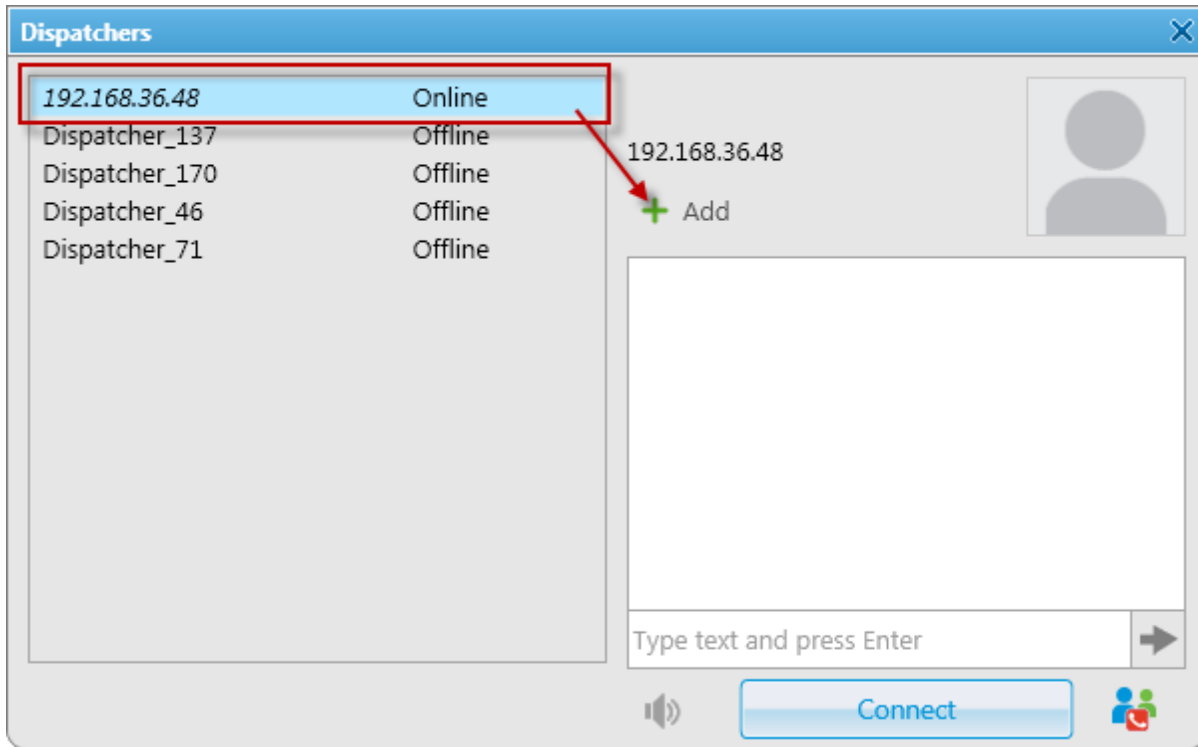
To send a message to the selected dispatcher, enter the text of the message and click .



To answer or decline the incoming call from a dispatcher, click **Accept** or **Decline** in the opened window:



If the incoming call is made by the dispatcher not on the list you will see its IP address in the **Incoming call** window. You can add the unregistered dispatcher in the **Dispatcher** window by clicking on the **Add** button.

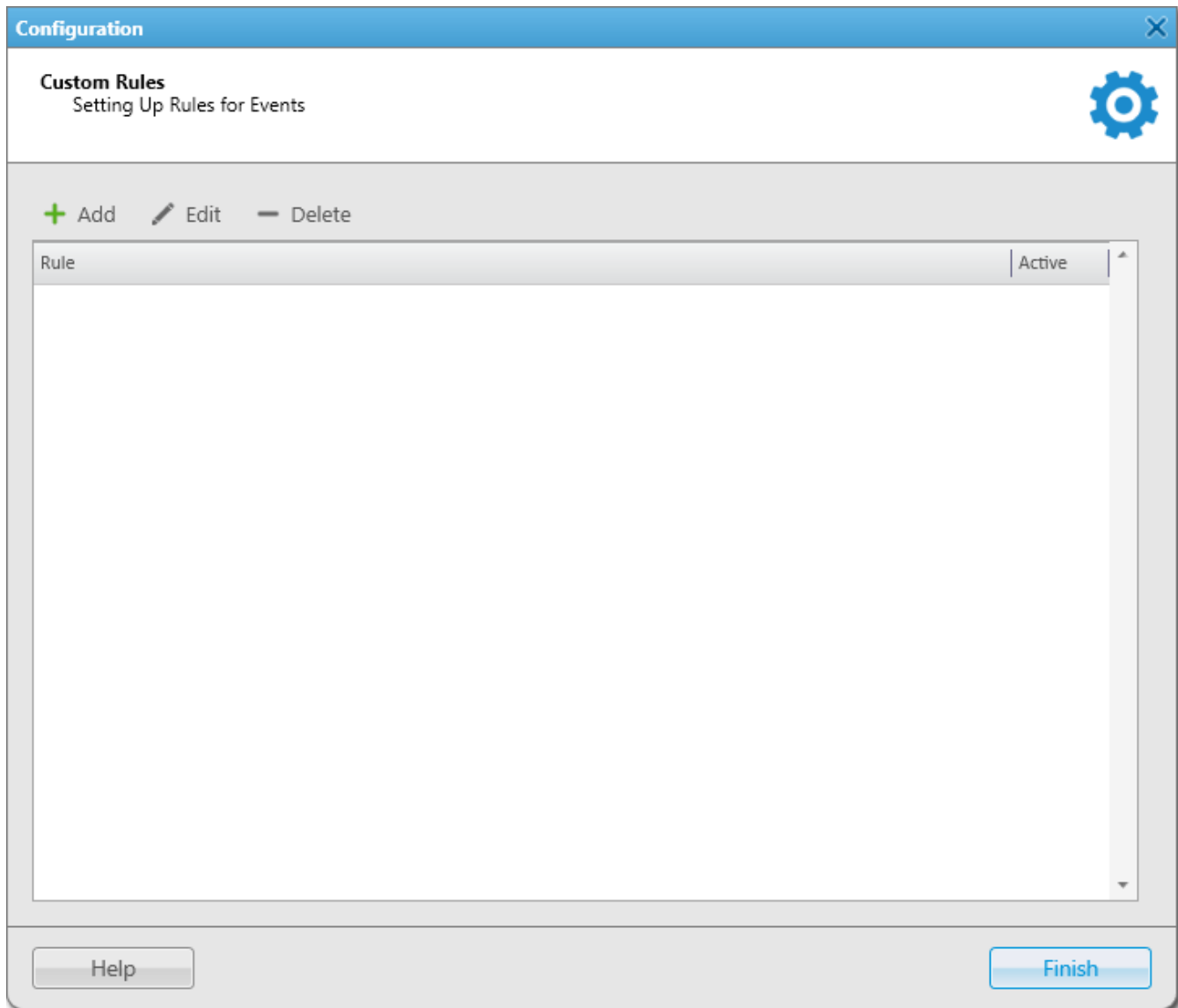


2.9 Rules

2.9.1 Custom Rules

You can set response rules for the events registered in SmartPTT system. Response rules may include automatic sending of messages, playing alerts in SmartPTT Dispatcher and on the radio, changing a radio or [WAVE user](#) status, etc.

To set rules, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Rules** → **Custom Rules**. The **Custom Rules** window appears:



To add a new rule, click **Add**. The **Rule Settings** window appears:

Name: The name of the rule.

Active: Select this check box to make the rule enabled.

The following table presents conditions that can be used in rules.

Attribute	Operation	Value
Direction	No, Equal to	Incoming, Outgoing

Attribute	Operation	Value
Event type	No, Equal to, Not Equal to	Registration, Call, Message, Telemetry, Alarm, Status, Block radio, Job Ticket, User Authorization, Radio Check, Lone Worker, Radio Kill
Date/Time	No, Between	Time interval
Additional information	No, Equal to, Contains	You can leave the box empty, or depending on the event type, you can type the corresponding information
Not read	No, Equal to	Read, Not read
Operator	No, Equal to, Not equal to	Operator from list of operators
Radioserver	No, Equal to, Not equal to	Radioserver name
Channel	No, Equal to, Not equal to	Channel name
Radio	No, Equal to, Not equal to	A radio or a WAVE user from the list
Talkgroup	No, Equal to, Not equal to	Talkgroup name
Status	No, Equal to, Not equal to	Status from the list of statuses
Duration	No, Equal to, Not equal to, Greater than, Greater than or equal to, Less than, Less than or equal to, Between	Duration in seconds
Connection Type	No, Equal to, Not equal to	Connection types used in SmartPTT: <ul style="list-style-type: none"> • DMR: Over-the-air connection made via repeaters and control stations;

Attribute	Operation	Value
		<ul style="list-style-type: none"> • PBX: Telephone connection • IP: Dispatcher-Dispatcher connection
Repeater IP	No, Equal to, Not equal to	Available repeaters IP addresses
Destination	No, Equal to, Not equal to	Recipient from the list
Record	No, Equal to	Available audio records
User	No, Equal to, Not equal to	Radio user from the list
Telemetry device	No, Equal to	Values from SCADA system
Telemetry signal	No, Equal to	Values from SCADA system

Attribute: Contains the list of existing events which the system can register.

Operation: List of possible system operations for this attribute.

Value: Values that can be selected for the attribute.

The rule is a combination of an attribute, operation and value. One rule can contain more than one such combinations.

When the system has registered an event matching the specified rule, the system performs predefined actions:

- Alerts addressed to the initiator
- Alerts addressed to the dispatcher
- Alerts addressed to the radios
- Other actions

NOTE

If the conditions of the rule include *Incoming* (**Direction**), *Telemetry* (**Type**) and a selected talkgroup (**Talkgroup**), the rule will be triggered regardless of the talkgroup ID where the telemetry command was sent.

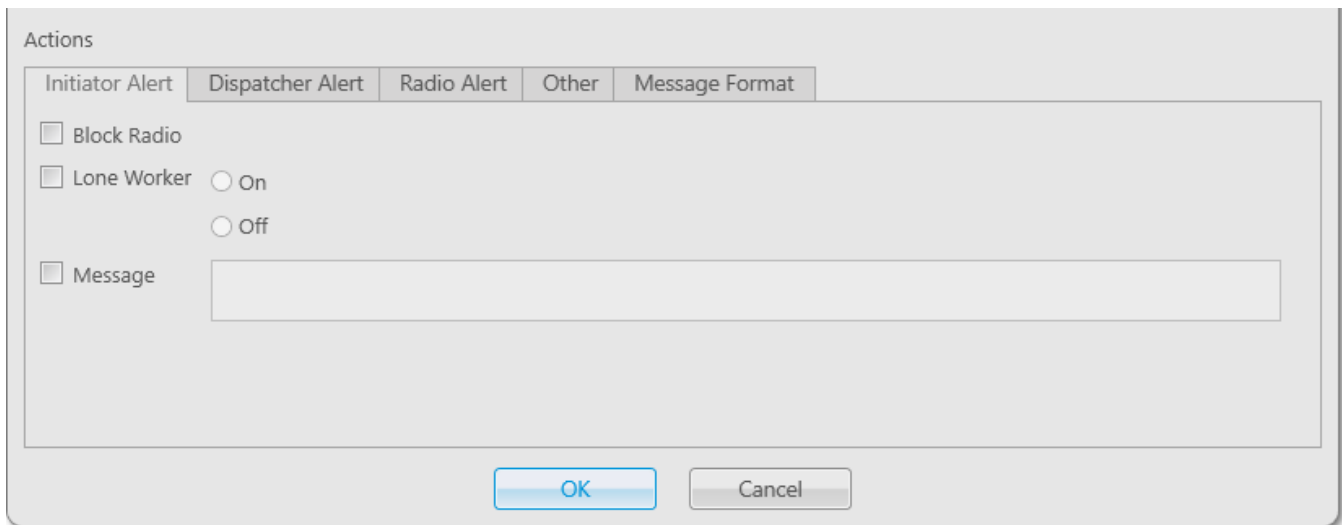
The **Message Format** tab allows you to set the format of the alert messages.

To save the rule, click **OK**. The created rule appears in the list of rules.

To edit the rule, select it in the list of rules and click **Edit**. To remove the rule, select it in the list of rules and click **Delete**.

Initiator Alert

Open the **Initiator Alert** tab. In this tab you can set up actions that will be performed if the rule conditions are fulfilled.



The screenshot shows a dialog box titled "Actions" with five tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert", "Other", and "Message Format". The "Initiator Alert" tab is selected. Inside the dialog, there are three checkboxes: "Block Radio", "Lone Worker", and "Message". The "Lone Worker" checkbox is followed by two radio buttons labeled "On" and "Off". Below the "Message" checkbox is a large empty text input field. At the bottom of the dialog are "OK" and "Cancel" buttons.

Block Radio: If selected, the radio that triggered the rule, will be blocked.

NOTE

This action is unavailable to WAVE users.

Lone Worker: If selected and **On** is clicked, the lone worker profile will be set to the radio or the [WAVE user](#) that triggered the rule. If **Off** is clicked, the lone worker mode of the radio or the WAVE user will be deactivated.

NOTE

To set up the lone worker profile, see [Lone Worker Rules](#) in SmartPTT Dispatcher.

Message: A text message is sent to the initiator of triggering of the rule. You can specify message format settings in the [Message Format](#) tab.

NOTE

This action is unavailable to WAVE users.

Dispatcher Alert

Open the **Dispatcher Alert** tab.

Play Sound: Select .wav audio file to play.

Show on Map: Select the check box to show on a map an object that triggered the rule. You can select two options:

- **Radio:** When the rule is triggered, the radio appears on a map, and the map is centered on it.
- **Point of interest:** When the rule is triggered, the selected point of interest appears on a map, and the map is centered on it. While the SCADA alert is active, the point of interest on the map is highlighted.

NOTE

When SCADA alert is registered while the Web-SCADA tab is not selected, the tab is highlighted red.

Alert: Notification with the event description is displayed in the **System Notification** window. You can define the title in the **Alert Caption** box, and the description in the **Alert Text** box.

Set Radio Status: The radio or WAVE user is assigned the predefined status. It is selected from the **Statuses** list (see [Statuses](#)).

Radio Alert

Open the **Radio Alert** tab.

The screenshot shows the 'Radio Alert' tab selected within the 'Actions' dialog. The 'Send Message' checkbox is checked. Below it, the 'radios' radio button is selected, with a dropdown menu icon to its right. Other options include 'users', 'talkgroups', and 'categories'. A large text input field is provided for the message content. At the bottom, there are 'OK' and 'Cancel' buttons.

Send Message: A text message is sent to the selected radios, users, talkgroups or categories. You can specify format settings of text messages in the [Message Format](#) tab of the **Actions** area.

NOTE

This action is unavailable to [WAVE users](#).

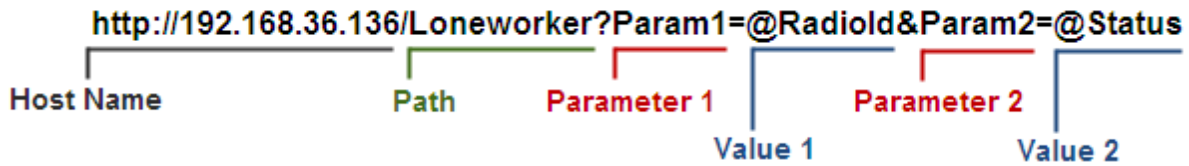
Other

Open the **Other** tab.

The screenshot shows the 'Other' tab selected within the 'Actions' dialog. The 'HTTP Request' checkbox is checked, with an empty text input field to its right. Below it, the 'E-mail' checkbox is checked, with a 'Radioserver' dropdown menu and a 'Message' text input field. The 'SMS' checkbox is also checked, with a 'Radioserver' dropdown menu, a 'Phone Numbers' text input field, and a 'Message' text input field. At the bottom, there are 'OK' and 'Cancel' buttons.

HTTP Request: Is used for notification of the third party server of the changes occurred in SmartPTT system. It can render the event initiator radio ID and its status.

The HTTP request includes the following parts:



NOTE

Make sure that you have specified correct names for parameters 1 and 2. They must correspond to the parameters' names expected by the third party server.

NOTE

Under "@Status" SmartPTT system will send the system message corresponding to the newly assigned status selected in the **Dispatcher Alert** tab. Status system messages are set in the [Statuses](#) settings.

E-mail: Is used for specifying e-mail address where a message should be sent in case the rules specified earlier are fulfilled. To do this, the following boxes are to be filled:

Radioserver: Server name which is configured for e-mail sending. The name of the server is selected from the drop-down list.

E-mail: Electronic addresses to send messages.

Message: Text of the message.

SMS: If selected, the SMS message is sent to the specified phone number in case the rules specified earlier are fulfilled. To do this, the following boxes are to be filled:

Radioserver: Server name for SMS messages sending. The name of the server is selected from the drop-down list.

Phone Numbers: Telephone numbers to send SMS to. The preferred number format is International Number Format, i.e. `<+><country code><mobile code><phone number>`.

Message: Text of the message.

NOTE

See information about SmartPTT Radioserver configuration for sending and receiving e-mails, and SMS messages in SmartPTT Radioserver Configurator Help under **Telephone Interconnect** and **SMS Gateway**.

You can specify format settings of SMS or E-mail messages in the [Message Format](#) tab of the **Actions** area.

Message Format

You can specify message format (text messages, SMS, or E-mail) in the **Message Format** tab of the **Actions** area. These messages are sent to recipients, defined in the message recipient list in the **Radio Alert** or **Other** tab.

NOTE

The format settings for text messages are valid for specific messages, only if **Send Message** is selected in the **Radio Alert** tab; for SMS – if **SMS** is selected in the **Other** tab; for E-mail – if **E-mail** is selected in the **Other** tab.

Actions

Initiator Alert Dispatcher Alert Radio Alert Other Message Format

Event Information

Event Type

Date/Time

Date/Time Time Zone

Coordinates

Decimal Degrees

Radio Information

Radio ID

Radio Name

OK Cancel

Event Type: If selected, the message includes the type of the event, which triggered the rule.

Date/Time: If selected, the date and time of the event will be added to the text message. You can set the date format displayed in the message (date and time, or time only).

Time Zone: If selected, the message includes time in UTC.

Coordinates: If selected, the radio coordinates are displayed in the message. These are the latest coordinates stored in the database.

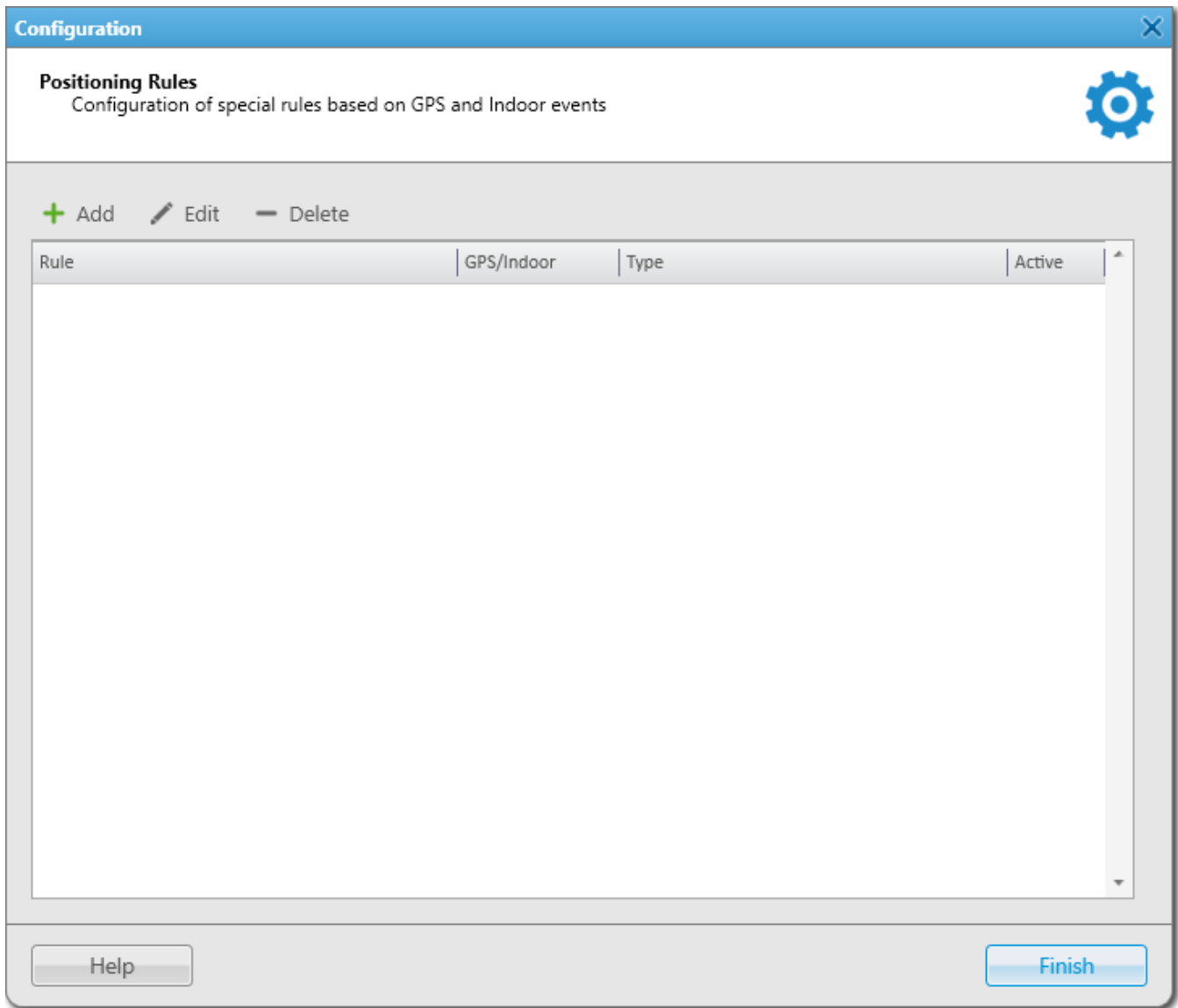
Radio ID: If selected, the radio ID, which has triggered the rule, will be added to the text message.

Radio Name: If selected, the name of the radio, which has triggered the rule, will be added to the text message.

2.9.2 Positioning Rules

You can set response rules for GPS and Indoor events registered in SmartPTT system. GPS events include receiving or not receiving radio or [WAVE user](#) GPS coordinates, and Indoor events include receiving or not receiving positioning data from special beacons. Response rules may include automatic sending of messages, playing alerts in SmartPTT Dispatcher and on the radio, changing radio or WAVE user statuses, and other.

To set up a positioning rule, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Rules** → **Positioning Rules**.



To add a new rule, click **Add**. In the window that opened specify parameters of the future rule.

Active: If the check box is selected, processing of events starts in accordance with the selected criteria. If the check box is not selected, the rule is unavailable.

Name: Name of the rule.

There can be two kinds of positioning rules: Indoor and GPS.

NOTE

You can assign only GPS positioning rules to WAVE users.

Type: Rule types:

- **No radio movement:** This rule type checks if a radio or a WAVE user coordinates do not change for a predefined time period.
- **Location data received:** This rule type checks the radio or WAVE user coordinates appear after the period when there were no coordinates.
- **No location data:** This rule type checks if there are no radio or WAVE user coordinates for a period longer than a specified period of time.
Coordinates like "...Lat: 0 Long: 0" are not regarded as valid coordinates, and they won't be taken into account when applying positioning rules.
- **Zone/route entry:** This rule type checks if the radio or the WAVE user has entered the zone or the route, i.e. the previous radio coordinates were outside the defined zone or route, and the current coordinates are within this zone or the route.
- **Zone/route exit:** This rule type checks if the radio or the WAVE user has left the zone or the route.
- **Speeding:** This rule type checks if there was any speeding based on the received GPS data.
- **Number of radios in geofences/on routes:** This rule type checks the number of radios and WAVE users in the selected geofences or on selected routes.

The table lists the criteria used in positioning rules:

Attribute	Value
All Radios Select Radios / Select Users / Select Categories	Select all radios including WAVE users, or some radios, or some WAVE users, or radio users, or categories, to whom the rule will be applied.
Time period with no motion detected	Time interval during which a radio or a WAVE user can stay at one place (min)
Time period before receiving location data	Period of time after which a radio or WAVE user coordinates are received again (min)
Time period with no location data received	Period of time during which there are no radio or WAVE user coordinates (min)
Geofences and Routes	Select geofences or routes to follow in the rule.

Attribute	Value
Speeding	<p>If speeding is registered, the rule is executed.</p> <p>NOTE The rule triggers only when over-speed occurs in the area of the selected geofence or on the selected route. Otherwise, the rule is not triggered.</p>
Number of radios in geofences/on routes	The number of radios and WAVE users in selected geofences or on selected routes.
Select Area (Geofences/ Routes)	Select geofences or routes to follow in the rule.
Notify constantly	Select this check box to notify the dispatcher about violation of one of the criteria every time it happens. If the check box is not selected, the actions which follow the violation of the specified criteria will occur only once.
Notify about new location	If a radio or a WAVE user starts moving, and before that the radio or the WAVE user stopped for a time period longer than the specified one, the notification window will be displayed

If the rule meets selected criteria, the system can perform the following actions:

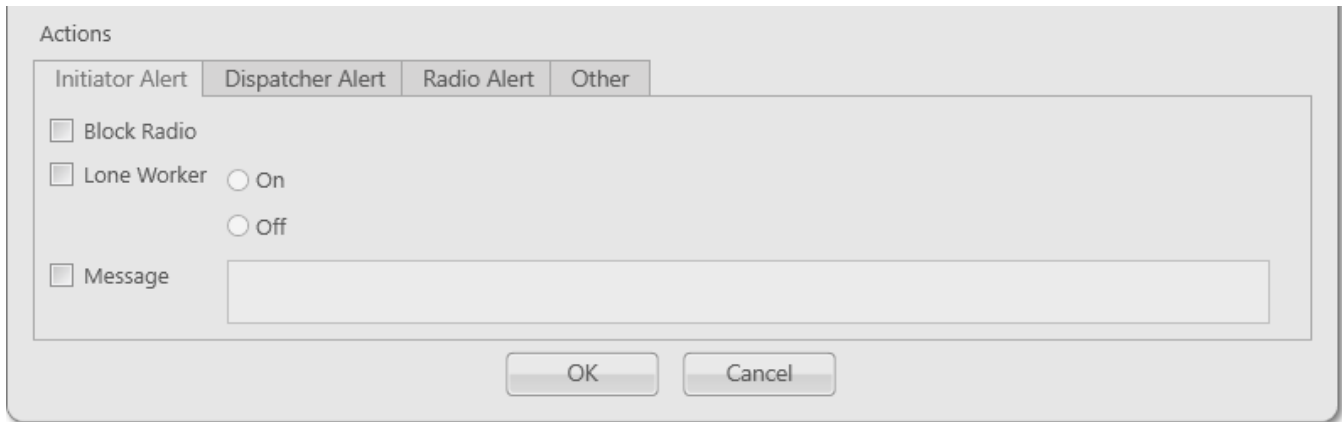
- Actions addressed to the initiator
- Alerts addressed to the dispatcher
- Alerts addressed to the radios
- Other actions

If finished, click **OK** to save the rule, and the created rule appears in the list of rules.

To edit rule settings, select it in the list of rules and click **Edit**. To remove the rule, select it in the list of rules and click **Delete**.

Initiator Alert

Open the **Initiator Alert** tab.



The screenshot shows a dialog box titled "Actions" with four tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert", and "Other". The "Initiator Alert" tab is selected. Inside the dialog, there are three checkboxes: "Block Radio", "Lone Worker", and "Message". The "Lone Worker" checkbox is followed by two radio buttons labeled "On" and "Off". The "Message" checkbox is followed by a text input field. At the bottom of the dialog are "OK" and "Cancel" buttons.

Block Radio: If selected, the radio that triggered the rule, will be blocked.

NOTE

This action is unavailable to [WAVE users](#).

Lone Worker: If selected and **On** is clicked, the lone worker profile will be set to the radio or the WAVE user that triggered the rule. If **Off** is clicked, the lone worker mode of the radio or the WAVE user will be deactivated.

NOTE

To set up the lone worker profile, see Lone Worker Rules in SmartPTT Dispatcher.

Message: A text message is sent to the initiator of triggering of the rule.

NOTE

This action is unavailable to WAVE users.

Dispatcher Alert

Open the **Dispatcher Alert** tab.



The screenshot shows a dialog box titled "Actions" with four tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert", and "Other". The "Dispatcher Alert" tab is selected. The dialog contains several options and input fields:

- Play Sound: Next to a small square icon and a text input field.
- Show on Map
- Alert: Next to "Alert Caption" and "Alert Text" labels, each followed by a text input field.
- Set Radio Status

At the bottom of the dialog are "OK" and "Cancel" buttons.

Play Sound: Select .wav audio file to play back.

Show on Map: Location of a radio or a [WAVE user](#) specified in the rule is shown on the map (with an icon).

Alert: Notification with the event description is displayed in the **System Notification** window. You can define the title in the **Alert Caption** box and the description in the **Alert Text** box.

NOTE

For rules **Stop control** and **No location data** the alert text cannot be set – it is generated by the system automatically.

Set Radio Status: The radio or the WAVE user is assigned the specified status. It is selected from the list of statuses.

Radio Alert

Open the **Radio Alert** tab.

The screenshot shows the 'Actions' dialog box with the 'Radio Alert' tab selected. The dialog has four tabs: 'Initiator Alert', 'Dispatcher Alert', 'Radio Alert', and 'Other'. Under the 'Radio Alert' tab, there is a checkbox for 'Send Message'. Below it are four radio buttons: 'radios' (selected), 'users', 'talkgroups', and 'categories'. To the right of these radio buttons is a large empty text box. Below the text box is a 'Message' label and another empty text box. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Send Message: A text message is sent to the selected radios, users, talkgroups or categories.

NOTE

This action is unavailable to [WAVE users](#).

Other

Open the **Other** tab.

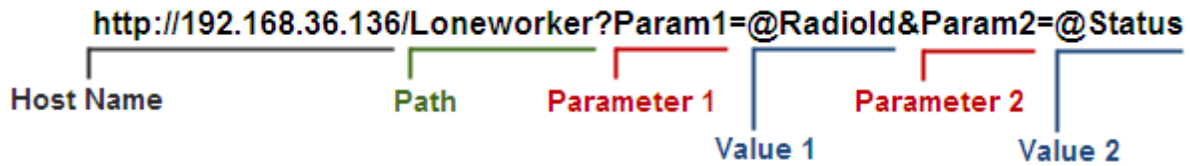
The screenshot shows the 'Actions' dialog box with the 'Other' tab selected. The dialog has four tabs: 'Initiator Alert', 'Dispatcher Alert', 'Radio Alert', and 'Other'. Under the 'Other' tab, there are three main sections, each with a checkbox and associated input fields:

- HTTP Request:** A checkbox followed by a single text input field.
- E-mail:** A checkbox followed by a 'Radioserver' dropdown menu, a 'Message' label, and a text input field.
- SMS:** A checkbox followed by a 'Radioserver' dropdown menu, a 'Message' label, and a text input field.

 Below the 'SMS' section, there is a 'Phone Numbers' label and a text input field. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

HTTP Request: Is used for notification of the third party server of the changes occurred in SmartPTT system. It can render the event initiator radio ID and its status.

The HTTP request includes the following parts:



NOTE

Make sure that you have specified correct names for parameters 1 and 2. They must correspond to the parameters' names expected by the third party server.

NOTE

Under "@Status" SmartPTT system will send the system message corresponding to the newly assigned status selected in the **Dispatcher Alert** tab. Status system messages are set in the [Statuses](#) settings.

E-mail: Is used for specifying e-mail address where a message should be sent in case the rules specified earlier are not fulfilled. To do this, the following boxes are to be filled:

Radioserver: Server name for e-mail sending. The name of the server is selected from the drop-down list.

E-mail: Electronic addresses to send the message.

Message: Text of the message.

SMS: If selected, the SMS message is sent to the specified phone number in case the rules specified earlier are not fulfilled. To do this, the following boxes are to be filled:

Radioserver: Server name which is configured for SMS messages sending. The name of the server is selected from the drop-down list.

Phone Numbers: Telephone numbers to send SMS. The preferred number format is International Number Format, i.e. <+><country code><mobile code><phone number>.

Message: Text of the message.

NOTE

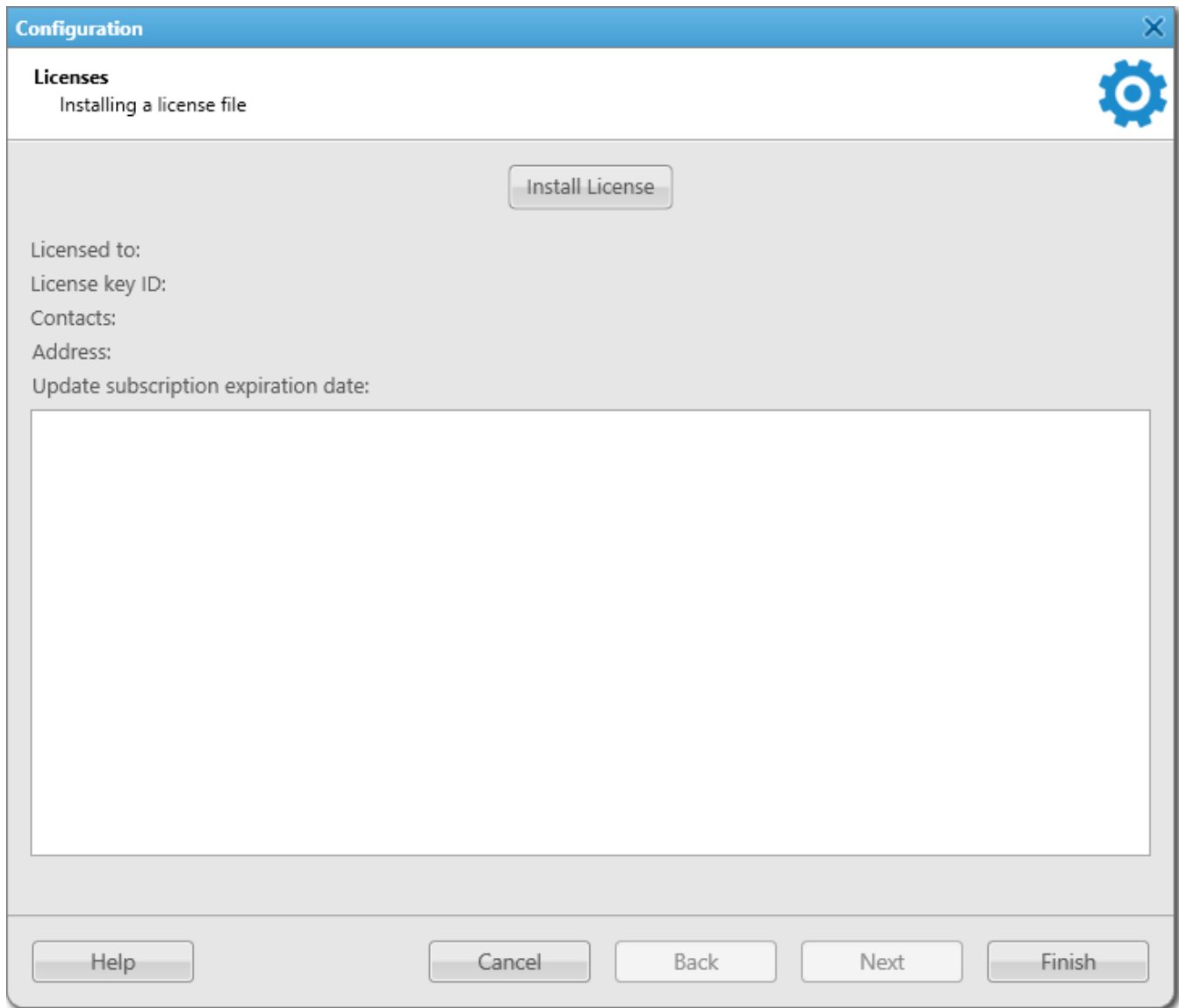
See information about SmartPTT Radioserver configuration for sending and receiving e-mails and SMS messages in SmartPTT Radioserver Configurator Help under **Telephone Interconnect** and **SMS Gateway**.

2.10 Licenses

To use SmartPTT Dispatcher a license is needed.

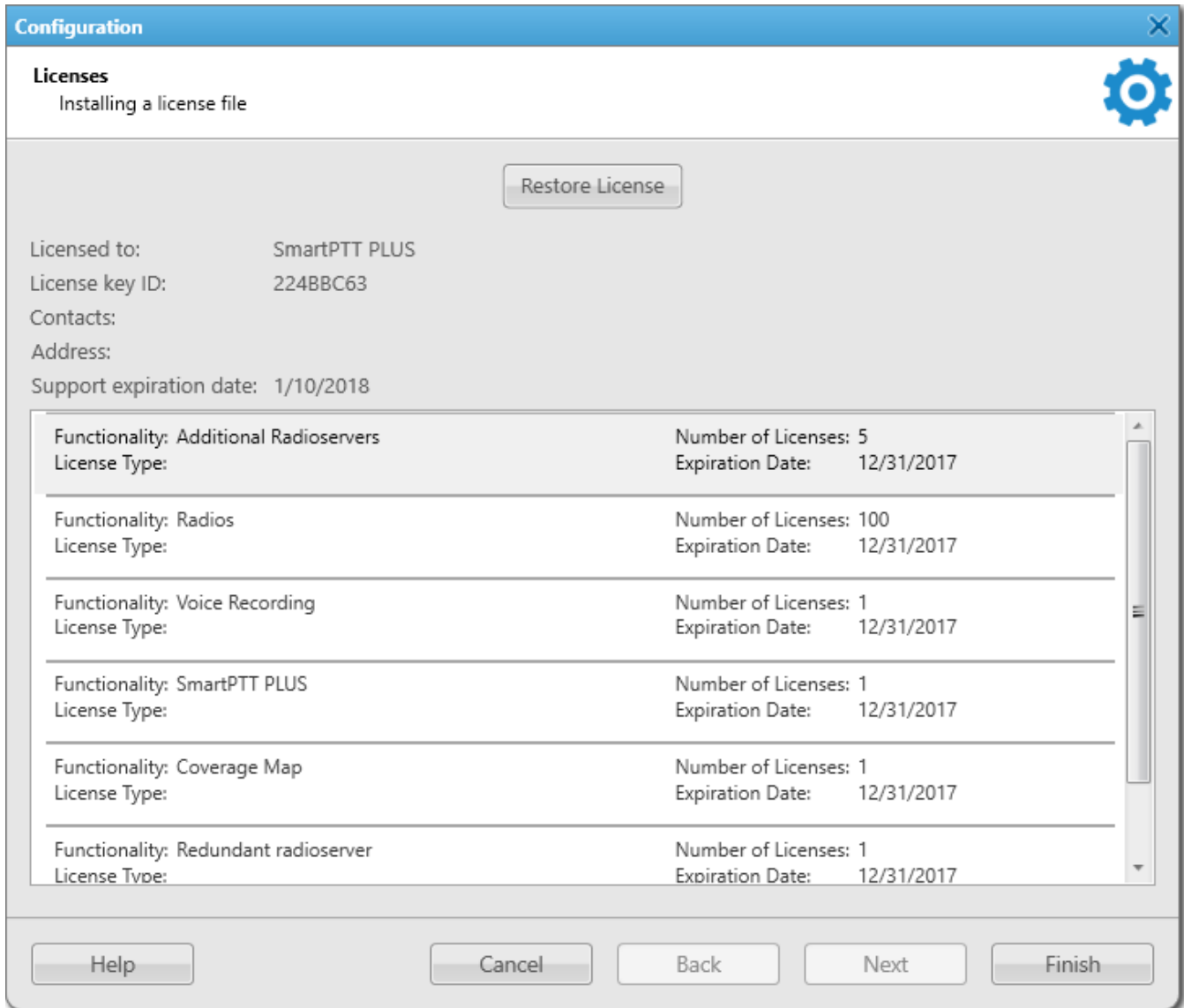
To install the license, on the menu bar of the SmartPTT Dispatcher window, click **Settings (⚙)** → **Licenses**.

In the opened **Licenses** window you can install the license that defines functions available in the system:



Click **Install License** and specify the license file location.

After the license installing, the **Install License** button changes to the **Restore License** button. The system licensing window displays information on the license type and scope of functions. By clicking the **Restore License** button, you return to the previous license. After closing the **License** window, the latest displayed license is applied.



NOTE

If the radioserver and the dispatch console are installed on the same machine, you can install licenses either for SmartPTT Radioserver Configurator or for SmartPTT Dispatcher. If the radioserver and the dispatcher console are installed on different computers, you should install licenses for both applications.

2.11 Database

To connect to the database, on the menu bar, click **Settings (⚙)** → **Database**. The **Database** window appears.

The screenshot shows the 'Database' configuration window. The title bar reads 'Configuration'. The main title is 'Database' with the subtitle 'Settings for connection to MS SQL Server database'. A gear icon is in the top right corner. The 'Database server' section includes a text box for 'Database server name' containing 'localhost\SQLEXPRESS', a dropdown for 'Authorization mode' set to 'Windows NT Authorization', and empty text boxes for 'Account name' and 'Password'. A 'Connect' button is centered below these fields. The 'Database' section displays the message 'Connection to the database server is established.' with 'Create database' and 'Restore database' buttons. A 'Current database' dropdown menu is set to 'SmartPTT'. The bottom of the window features 'Help', 'Cancel', 'Back', 'Next', and 'Finish' buttons.

Before creating a new database, connect to the database server. For this, fill in the **Database server name** box, and click **Connect**. In case of a successful connection, you will see the following message in the **Database** section: *"Connection is established successfully!"*. If connection was not established, you will see a message with the error description at the bottom of the window.

NOTE

For the database server installed together with the SmartPTT Dispatcher application enter the name using the format: Name of PC\SQLExpress (for example, *MYCOMP\SQLExpress*).

Authorization Mode: Allows you to select authorization mode with the database.

SQL Server Authorization: You must have the login and password of the account which has access to the SQL server.

Windows NT Authorization: The user who has logged into the Windows system, must be listed in the SQL server's list of users to make connection.

To create a new database, click **Create Database**. In the opened window, enter the name of the new database and click **Save**.

Current database: Allows you to connect to one of the created databases.

Restore Database: Allows you to restore the current database using automatic backups. You can set up auto backups of the database in **Settings (⚙)** → [Database Auto Backup](#).

NOTE

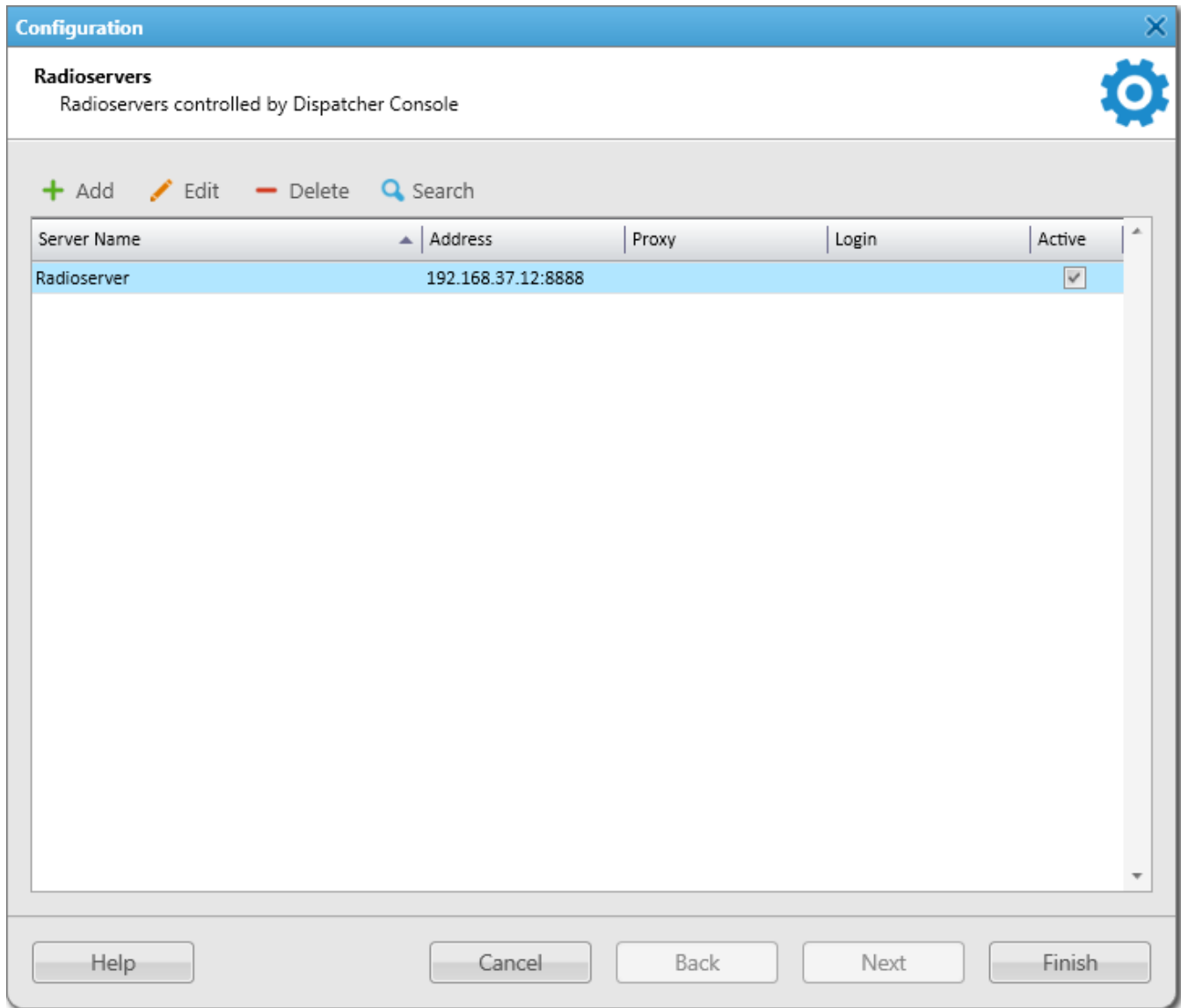
If SmartPTT Dispatcher is connected to a remote database, on default you cannot restore it from a backup file located on a remote database computer.

To save the changes, click **Finish**. To apply the changes with the database, restart the dispatch console.

2.12 Radioservers

In the **Radioservers** window you can add new radioservers, and manage existing radioservers.

The window is available by clicking **Settings (⚙)** → **Radioservers** on the menu bar.



By default, the list of radioservers is empty.

The **Radioservers** window provides the following elements:

Add

Opens the [Radioserver](#) window for configuring settings of a new radioserver. For information on adding radioserver, see [Adding Radioservers](#).

IMPORTANT

If a redundant radioserver is used in the system, you should add both primary and redundant radioservers to SmartPTT Dispatcher.

When the redundant radioserver is added, it is displayed in the **Radio Fleet** panel as active with no objects belonging to it. When the connection with primary server is lost, all objects from the primary radioserver appear under the redundant radioserver.

Edit

Opens the [Radioserver](#) window for configuring the settings of the radioserver already added to SmartPTT Dispatcher.

Delete

Removes the selected radioserver.

Search

Can be used for searching all running radioservers in the network. The searched radioservers appear in the Radioservers table.

Radioservers Table

Contains the radioservers added to SmartPTT Dispatcher. The table consists of the following columns:

- The **Server Name** column contains a radioserver name.
- The **Address** column contains the radioserver IP address and port number.
- The **Proxy** column contains a proxy server IP address and port number.
- The **Login** column contains the operator login.
- The **Active** column contains a check box for activating or deactivating the radioserver.

You can sort the column content by clicking the desired column header.

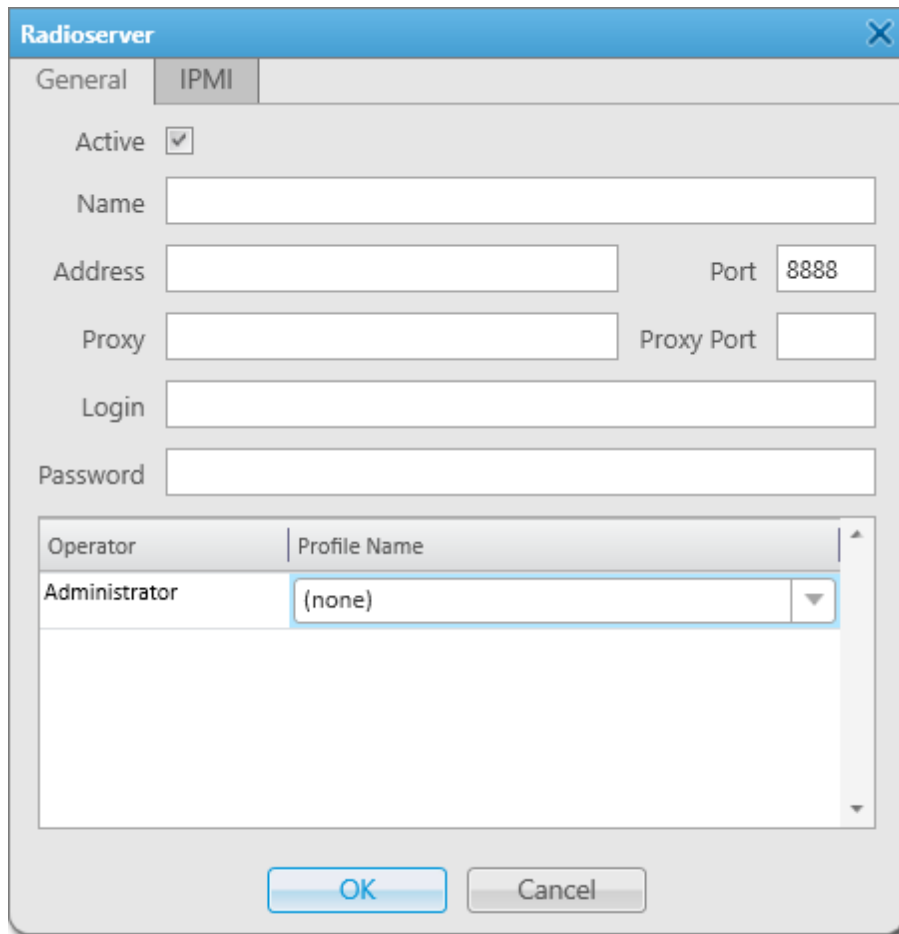
2.12.1 Radioserver Window

In the **Radioserver** window you can configure or edit the settings of a radioserver.

The window provides two tabs:

- The **General** tab
- The **IPMI** tab

General Tab



The screenshot shows the 'Radioserver' window with the 'General' tab selected. The window has a title bar with a close button (X). Below the title bar are two tabs: 'General' and 'IPMI'. The 'General' tab contains the following fields:

- Active:** A checked checkbox.
- Name:** A text input field.
- Address:** A text input field.
- Port:** A text input field containing '8888'.
- Proxy:** A text input field.
- Proxy Port:** A text input field.
- Login:** A text input field.
- Password:** A text input field.

Below these fields is a table with two columns: 'Operator' and 'Profile Name'. The table has one row with 'Administrator' in the 'Operator' column and '(none)' in the 'Profile Name' column. The 'Profile Name' cell has a dropdown arrow on its right side. At the bottom of the window are two buttons: 'OK' and 'Cancel'.

In the **General** tab, you can configure the radioserver settings. The tab provides the following elements:

Active

Makes the radioserver available for connections.

Name

The radioserver name which is displayed in the **Radioservers** window.

Address

The radioserver IP address. The IP address is used for establishing connection between the radioserver and SmartPTT Dispatcher.

Port

The radioserver port number. The default port number is 8888.

Proxy

An IP address of a proxy server. If no proxy server is used, leave the box empty.

Proxy Port

A port number of the proxy server. If no proxy server is used, leave the box empty.

Login and Password

Credential that are used for logging on SmartPTT Dispatcher using the *Windows* authentication. The boxes should be filled only if the *Windows* authentication is activated on the radioserver. For details, see "Radioserver" in *SmartPTT Radioserver Configurator Guide*.

IMPORTANT

The **Login** and **Password** boxes must be empty when *No* authentication is selected in SmartPTT Radioserver Configurator. Otherwise the connection between the radioserver and SmartPTT Dispatcher cannot be established.

Profiles Assigning Table

Provides the list of operators to which you can assign the profiles added in SmartPTT Radioserver Configurator. For details, see "Profiles" in *SmartPTT Radioserver Configurator Guide*.

The table consists of the following columns:

- The **Operator** column contains a list of all active operators added to SmartPTT Dispatcher.
- The **Profile Name** column contains the list of profiles that were added in SmartPTT Radioserver Configurator.

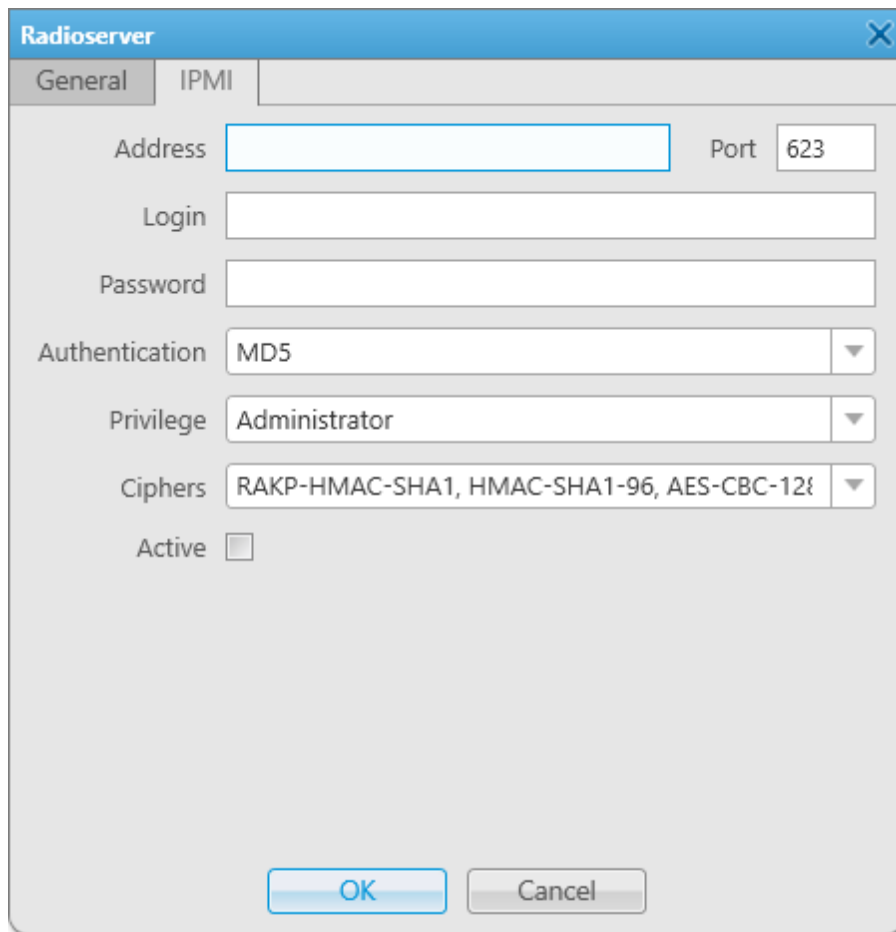
NOTE

If no profile is assigned, an operator can manage all radios, talkgroups, and services provided by the radioserver.

IPMI Tab

IPMI (Intelligent Platform Management Interface) is a standardized computer system interface that is used for out-of-band management of computer systems, and monitoring system operation.

SmartPTT system uses IPMI for managing and monitoring remote radioservers. You can use IMPI for viewing the hardware characteristics of the radioserver machine, and turning it on or off remotely.



The screenshot shows a dialog box titled "Radioserver" with a close button (X) in the top right corner. The dialog has two tabs: "General" and "IPMI". The "IPMI" tab is selected. The form contains the following fields and controls:

- Address:** A text input field.
- Port:** A text input field containing the value "623".
- Login:** A text input field.
- Password:** A text input field.
- Authentication:** A dropdown menu with "MD5" selected.
- Privilege:** A dropdown menu with "Administrator" selected.
- Ciphers:** A dropdown menu with "RAKP-HMAC-SHA1, HMAC-SHA1-96, AES-CBC-128" selected.
- Active:** A checkbox that is currently unchecked.

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

In the **IPMI** tab, you can configure IPMI settings for the radioserver. The tab provides the following elements:

Address

IP address of the radioserver computer that is used for establishing IPMI connection.

Port

The port number of the radioserver computer that is used for establishing IPMI connection.

Login and Password

Obligatory boxes for filling. They must match the login and password set in IPMI configuration settings on the radioserver computer.

Authentication

Provides the list of authentication types. It is recommended to use *MD5* as default authentication type.

Privilege

Provides the list of the privileges with different permissions for the dispatcher. It is recommended to use *Administrator* as default.

For information on the privileges, see the official IPMI documentation.

Ciphers

Provides the list of ciphers to be used. It is recommended to use the default cipher.

For information on the ciphers, see the official IPMI documentation.

Active

Select the check box to activate IPMI functionality for the radioserver.

NOTE

For information on managing a radioserver with using of IPMI, see [Topology](#).

2.12.2 Adding Radioservers

Follow the procedure below to to add a radioserver.

Prerequisites:

- Obtain the radioserver IP address and port set in SmartPTT Radioserver Configurator.
- Obtain information on which type of authentication is used on SmartPTT Radioserver.

Procedure:

1. On the menu bar, click **Settings (⚙)** → **Radioservers**.
2. In the **Radioservers** window, click **Add**.
The **Radioserver** window appears.

3. In the **Radioserver** window, open the **General** tab.
4. In the **General** tab, perform the following actions:
 - a. Select the **Active** check box to activate the radioserver.
 - b. In the **Name** box, type the desired radioserver name.
 - c. In the **Address** and **Port** boxes, type the IP address and port number of the radioserver.
 - d. *Optional:* If you use proxy, in the **Proxy** and **Proxy Port** boxes, type the proxy server IP address and port number.
 - e. Depending on the authentication type, type the required **Login** and **Password** in the corresponding boxes:

If the Windows authentication is used on the radioserver, and the radioserver computer is connected to the domain,

in the **Login** and **Password** boxes, type the domain login and password.

If the Windows authentication is used on the radioserver, and the radioserver computer is not connected to the domain,

in the **Login** and **Password** boxes, type the login and password of the radioserver computer.

If no authentication is selected,

leave the **Login** and **Password** boxes empty.

5. Click **OK** to apply changes and close the window.
6. In the **Radioservers** window, click **Finish**.

Postrequisites:

- To edit the radioserver, in the **Radioservers** window, select it, and then click **Edit**.
- To remove the radioserver, in the **Radioservers** window, select it, and then click **Delete**.

2.12.3 Assigning Profile to Operators

Follow the procedure below to assign the profile to Administrator or Operator account on the desired radioserver.

Prerequisites:

- Ensure at least one radioserver is added in SmartPTT Dispatcher.

- Ensure at least one operator account is added in SmartPTT Dispatcher.
- Ensure the desired profile is added in SmartPTT Radioserver Configurator.

Procedure:

1. On the menu bar, click **Settings (⚙)** → **Radioservers**.
2. In the **Radioservers** window, select the desired radioserver, and click **Edit**.
The **Radioserver** window appears.
3. In the **Radioserver** window, open the **General** tab.
4. In the Profiles Assigning table, find the desired operator name.
5. From the **Profile Name** list, select the profile.
6. Click **OK** to apply changes and close the window.
7. In the **Radioservers** window, click **Finish**.

2.12.4 Configuring IPMI Settings

Follow the procedure below to to configure the radioserver IPMI settings.

Prerequisites:

Ensure at least one radioserver is added. For details, see [Adding Radioservers](#).

Procedure:

1. On the menu bar, click **Settings (⚙)** → **Radioservers**.
2. In the **Radioservers** window, double-click the desired radioserver.
The **Radioserver** window appears.
3. In the **Radioserver** window, open the **IPMI** tab.
4. In the **IPMI** tab, perform the following actions:
 - a. In the **Address** and **Port** boxes, type the IP address and port number of the radioserver computer that is used for establishing IPMI connection.
 - b. In the **Login** and **Password** boxes, type the login and password set in IPMI configuration settings on the radioserver computer.
 - c. From the **Authentication** list, select the desired authentication type.

- d. From the **Privilege** list, select the desired privilege for the dispatcher.
- e. From the **Ciphers** list, select the desired cipher.

NOTE

In the **Authentication**, **Privilege**, and **Ciphers** lists, it is recommended to use the default values.

- f. Select the **Active** check box to activate the IPMI for the radioserver.
5. In the **Radioservers** window, click **Finish**.

Postrequisites:

- To deactivate IPMI on the radioserver, in the **IPMI** tab, clear the **Active** check box.
- To edit the IPMI settings of the radioserver, in the **Radioservers** window, select it, and then click **Edit** → **IPMI**.

3 Tools

From the **Tools** menu you can open all the panels used in SmartPTT Dispatcher.

These are the following panels:

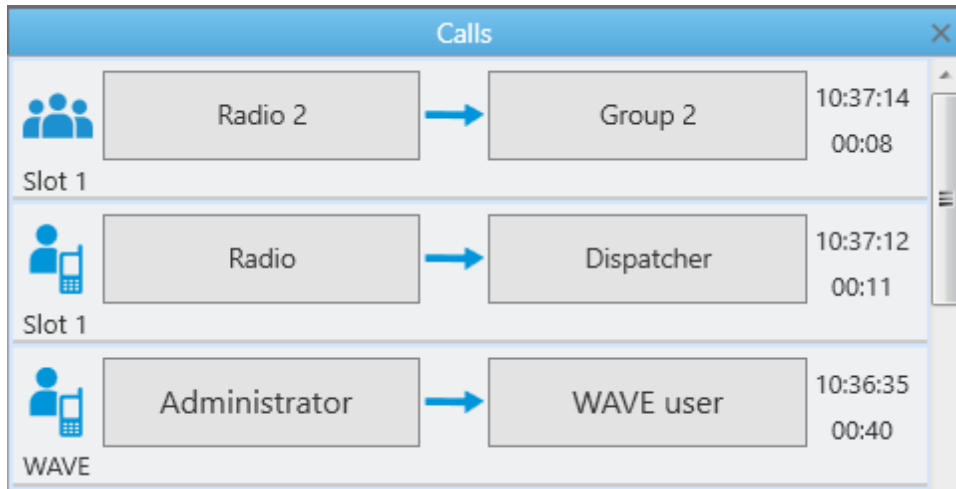
- [Calls](#) panel displays the ongoing call activity and call history in the radio network.
- [Sound](#) panel allows you to monitor and adjust the signal volume.
- [Cross Patches](#) panel allows you to connect talkgroups from different frequency bands or from different network types dynamically.
- [Radio Fleet](#) panel displays a list of radio system objects.
- [Channels](#) panel allows you to see all the active control stations available in the system.
- [Radios](#) panel for quick access to radios and [WAVE users](#).
- [Job Tickets](#) panel from where you can create and supervise job tickets.
- [Lone Workers](#) panel to show lone workers' status, for example, that a lone worker did not call for a longer period than expected, etc.
- [Recent Incoming Calls](#) panel, which gives you information of the recent voice calls made.
- [Notifications](#) panel to get information about the alarms configured by the dispatcher.
- [System Messages](#) panel, which displays errors, disconnection of the radioserver, etc.
- [Server Tasks](#) panel to display server tasks in the background.
- [Custom Console](#) panel created by the SmartPTT Dispatcher to manage radios, talkgroups WAVE users or control stations.

3.1 Calls

The **Calls** panel displays the ongoing call activity and call history in the radio network. The panel displays only calls that occur in the radio system: private, group calls, All Calls, and calls between radios and telephone subscribers.

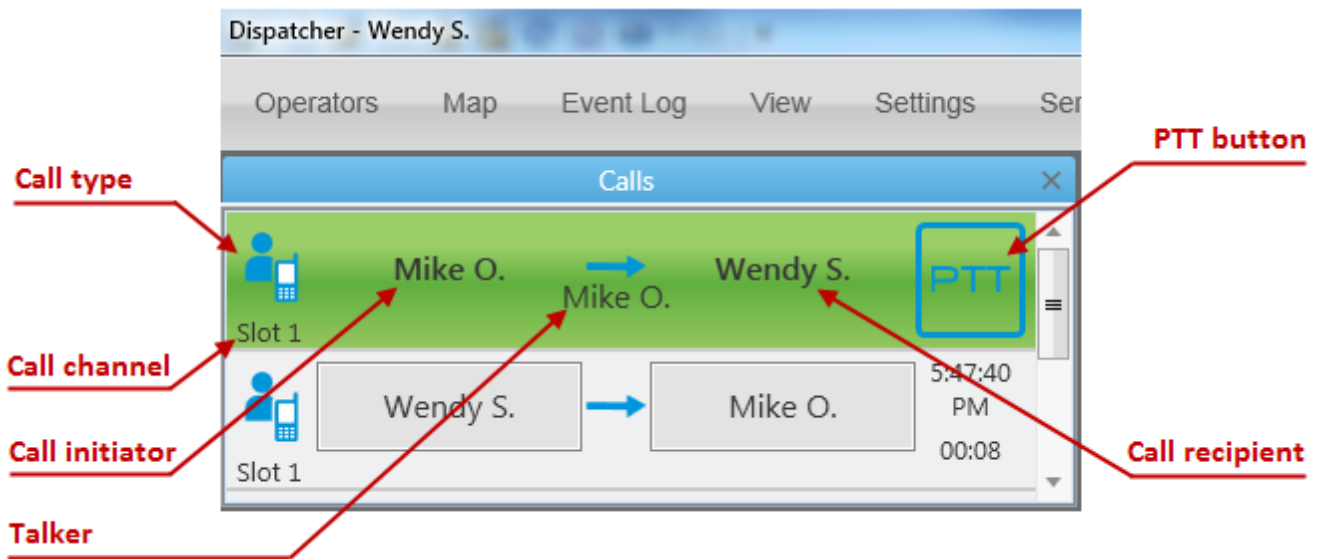
If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

The first time you install SmartPTT, the **Calls** panel opens automatically. The panel can also be opened or closed manually. To do this, expand the **Tools** menu on the menu bar of the SmartPTT Dispatcher window and click **Calls**.

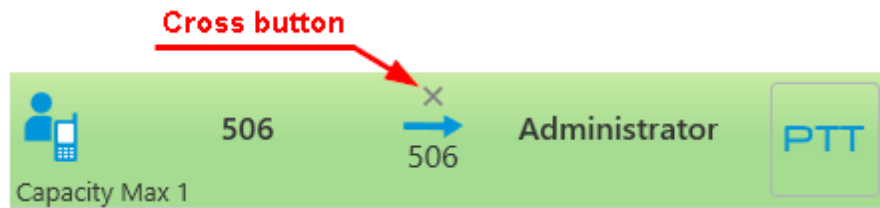


If the **Calls** panel is empty, select a radio or a [WAVE user](#) in the **Radio Fleet** panel and click the **PTT** button to make a call. The corresponding call record will appear on the **Calls** panel and the call will be initiated.







A call record on the **Calls** panel contains several elements.



In the Capacity Max radio system, a call record on the **Calls** panel also contains the **Cross** button that is used to end the call during the hang time or to decline the call.



In the SmartPTT systems, six types of calls exist. Each type has its own indicating icon:

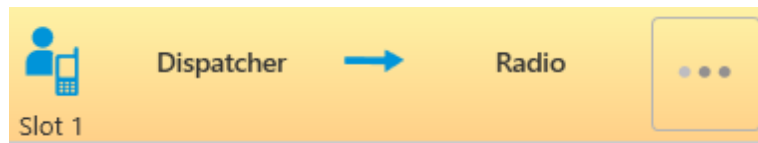
-  Private call
-  Telephone call
-  Group call
-  Group telephone call
-  Emergency call
-  Remote monitoring

From the **Calls** panel the dispatcher can perform the following actions:

- Answer the ongoing call by clicking anywhere on the call record
- See the ongoing call activity. The call status can be determined by the color of the call record
- See history of all registered calls, time of call and its duration
- Make all types of call by clicking the button with the subscriber name
- Decline the incoming call by clicking the Cross button or right-clicking the call record (in the Capacity Max radio system only)
- End the call during the hang time by clicking the Cross button or right clicking the call record (in the Capacity Max radio system only)

Call status is determined by the color of the call record:

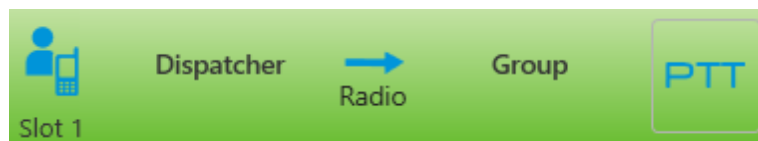
- **Light-orange:** An outgoing call attempt, or a call is in the queue (in conventional systems):



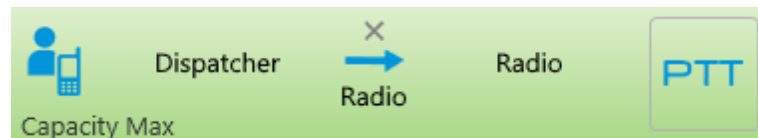
- **Orange:** All outgoing radio calls:



- **Green:** All incoming radio calls or radio monitoring:



- **Light-green:** Incoming call to SmartPTT Dispatcher in the Capacity Max radio system only:



- **Blue:** None of the parties transmit or receive voice (hang time). The radio or the dispatcher can continue the call by pressing the PTT button within hang time. After the hang time expires, pressing the PTT button will initiate a new call. In the Capacity Max radio system the dispatcher can end the call during the hang time by clicking the **Cross** button or right clicking the call record:



When you make a secured call, in the call record the corresponding indication appears. This indication is implemented in the following radio system:

- Capacity Max:

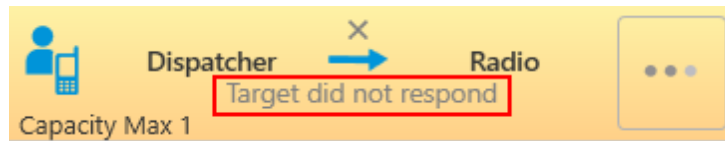


- NAI IP Site Connect:

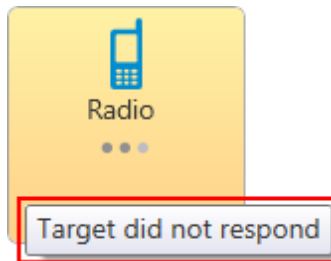


When an outgoing call is queued in Capacity Max radio system, the console displays the cause of a holding in the following areas:

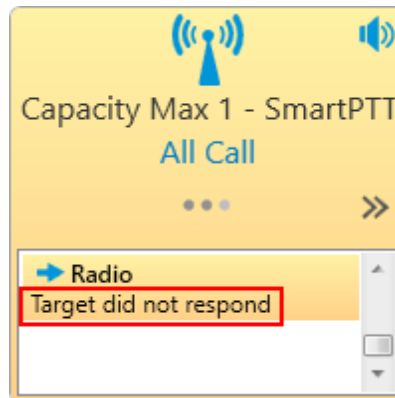
- On the **Calls** panel on the call record:



- On the **Radios** or **Custom Console** panel at pointing to the **Radio** element:



- On the **Channels** or **Custom Console** on the **Channel** element:



- In other systems, the console keeps calling without any notifications:



When an outgoing call is denied in Capacity Max radio system, the console displays the cause in the following areas:

- On the **Calls** panel on the finished call record:



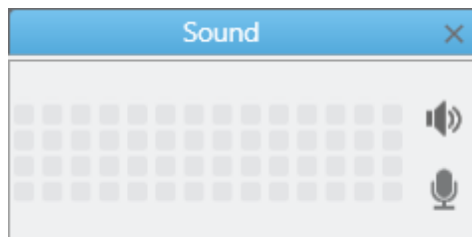
- In the **Additional Information** column of the Event Log:


Events: records - 1000				
Move column header here for grouping				
D.	Event Type	Date/Time	Additional Information	Not r...
←	Call	11.04.2017 15:52:39.223	Call not allowed	<input type="checkbox"/>
←	Call	11.04.2017 15:52:34.887	Call not allowed	<input type="checkbox"/>
←	Call	11.04.2017 15:52:30.803	Call not allowed	<input type="checkbox"/>
←	Call	11.04.2017 15:52:24.223	Call not allowed	<input type="checkbox"/>

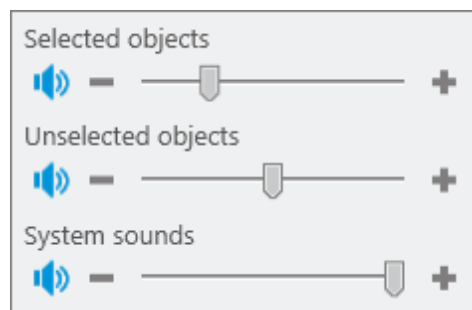
3.2 Sound

The **Sound** panel allows you to monitor and adjust the signal volume.

To open **Sound** panel, expand the **Tools** menu on the menu bar of the SmartPTT Dispatcher window, and click **Sound**.



The  button allows you to adjust the speaker volume.



[Selected objects](#): Allows you to adjust the volume level for selected objects.

[Unselected objects](#): Allows you to adjust the volume level for unselected objects.

[System sounds](#): Allows you to adjust the volume level for system sounds

The  button allows you to adjust the microphone volume.

3.3 Cross Patches

You can use cross patches for establishing connection between talkgroups from different bandwidths or network types.

All participants of the cross patch hear a call made to a cross patch. A call made to a talkgroup included in the cross patch is heard by all participants of the cross patch. It is also true for a call made by a dispatcher or a telephone subscriber.

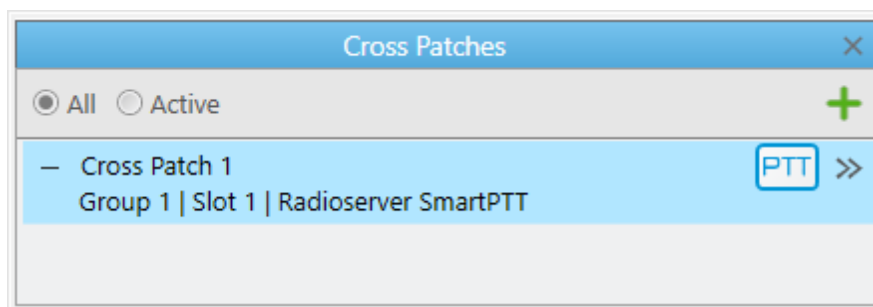
Cross patches are created in SmartPTT Dispatcher, and controlled by Operators. When the dispatch console is closed, all the created cross patches will be saved.

IMPORTANT

Cross patches become inactive when SmartPTT Dispatcher is closed.

3.3.1 Cross Patches Panel

The **Cross Patches** panel is used for creating and managing cross patches.



You can open the **Cross Patches** panel by clicking **Tools** → **Cross Patches** on the menu bar.

NOTE

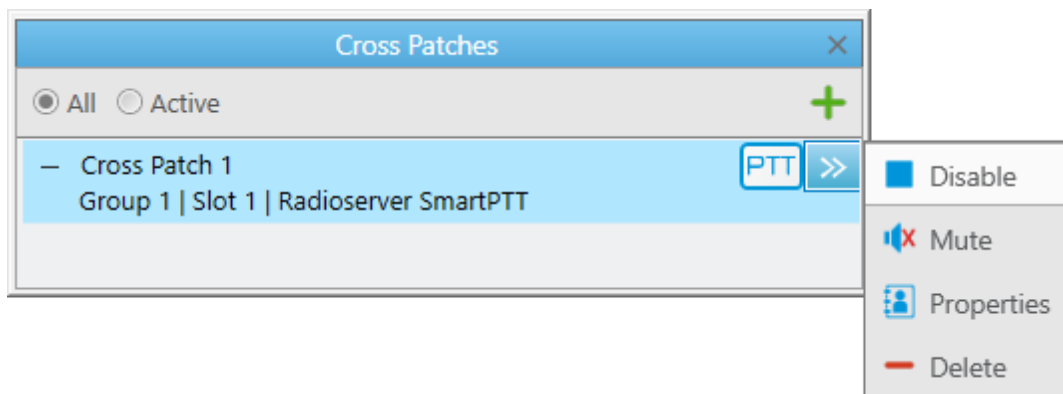
If the radioserver is inactive, the added cross patches are not displayed in the **Cross Patches** panel.

On default, the **Cross Patches** panel provides the following elements:

- **All** shows all existing cross patches.
- **Active** shows only active cross patches.
- **Add cross patch (+)** opens the **Cross Patch** window where you can configure new cross patches. For details, see [Cross Patch Window](#).

Added cross patches appear below as entries. A cross patch entry provides the following elements:

- Expand (–) / Collapse (+) buttons that show or hide the cross patch details.
- Name of the cross patch.
- PTT button that initiates a call to the cross patch.
- The Actions (>>) button that opens the Actions Menu for managing the cross patch.



The Actions Menu of a cross patch provides the following elements:

Disable (■) / Enable (►)

Disables or enables the cross patch.

Mute (🔊) / Unmute (🔊)

Turns on or off the sound for all parties of the cross patch.

If the cross patch is muted, the dispatcher cannot hear participants, but all the cross patch participants can hear the dispatcher.

If the cross patch is unmuted, but one of the talkgroups is muted, the dispatcher can hear all participants except this talkgroup.

Properties ()

Opens the **Cross Patch** window for editing the cross patch. For details, see [Cross Patch Window](#).

Delete ()

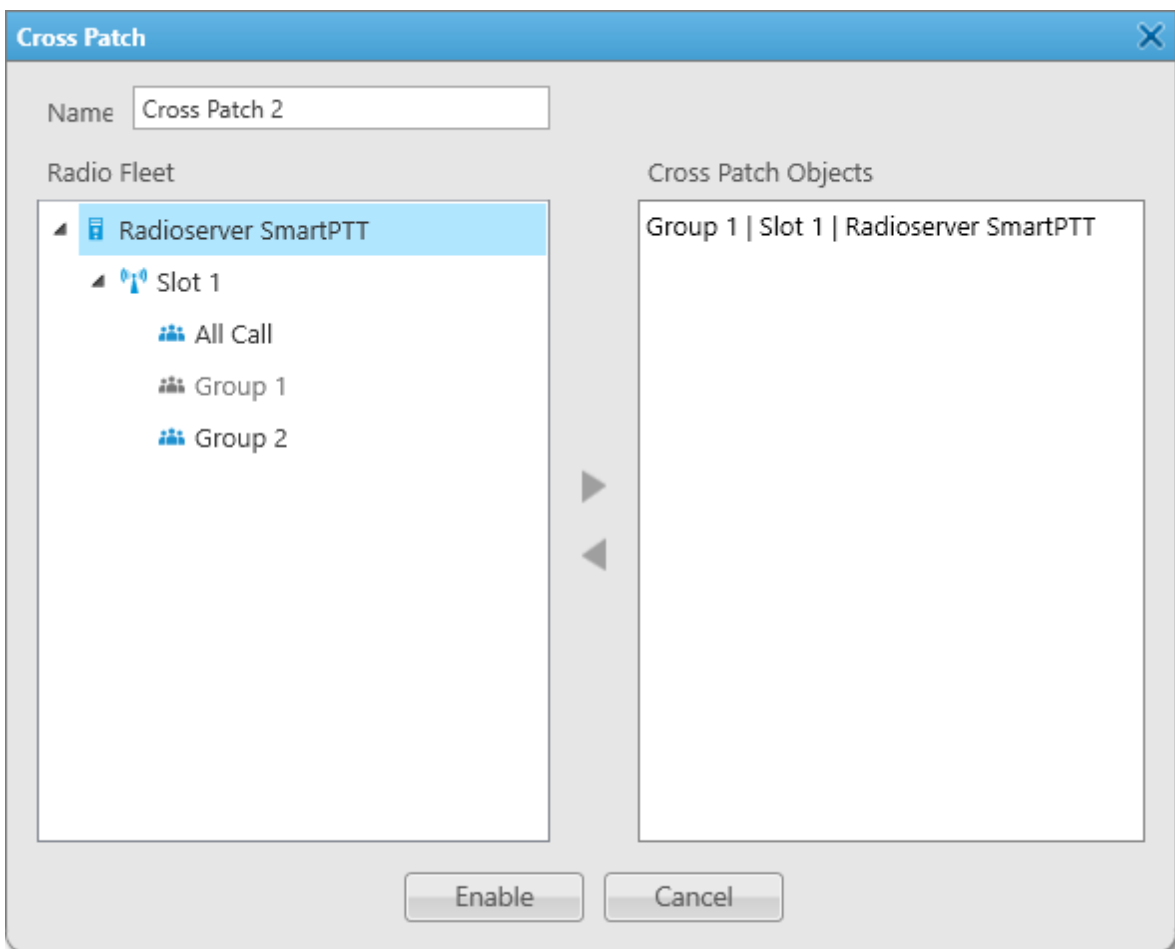
Deletes the cross patch.

NOTE

If the cross patch contains groups from network topologies based on control stations and direct connection, and you can hear hoarse voice, select *DMR Vocoder* as a codec in the sound settings in the dispatch console (see [General Settings](#)) and in the audio settings of the control station in SmartPTT Radioserver Configurator.

3.3.2 Cross Patch Window

In the **Cross Patch** window, you can configure new, and edit the existing cross patches.



The **Cross Patch** window provides the following elements:

Name

Contains the name of the cross patch. You can leave the default name, or type the desired name.

Radio Fleet

Displays objects of the **Radio Fleet** panel that can be added to the cross patch. You cannot add radioservers, control stations, and channels to the cross patch.

Cross Patch Objects

Displays elements that are included in the cross patch in the `<participant name>|<slot name>|<radioserver name>` format.

Add (▶) / Remove (◀)

Add or remove the selected object to or from the **Cross Patch Objects** box. You can also double-click or drag the desired object to add it to or remove from the box.

Enable

Enables the created cross patch. If you edit a cross patch, the button is replaced by the **OK** button.

3.3.3 Managing Cross Patches

3.3.3.1 Creating Cross Patches

Follow the procedure below to create a cross patch.

Procedure:

1. If the **Cross Patches** panel is closed, on the menu bar, click **Tools** → **Cross Patches**.
The **Cross Patches** panel appears.
2. In the **Cross Patches** panel, click **Add cross patch (+)**.
The **Cross Patch** window appears.
3. Add the desired object to the **Cross Patch Objects** box in one of the following ways:
 - Double-click the desired object.
 - Drag the desired object to the box.

- Select the desired object, and then click Add (▶).
4. Click the **Enable** button.
A new cross patch appears in the **Cross Patches** panel, and becomes enabled.

3.3.3.2 Disabling and Enabling Cross Patches

Follow the procedure below to disable or enable a cross patch.

Procedure:

1. If the **Cross Patches** panel is closed, on the menu bar, click **Tools** → **Cross Patches**.
The **Cross Patches** panel appears.
2. In the **Cross Patches** panel, in the right part of the desired cross patch entry, click the **Actions** (») button.
The cross patch Actions Menu appears.
3. In the Actions Menu, depending on the cross patch state, perform one of the following actions:

To disable the cross patch,	click the Disable (■) button. The button changes to Enable (▶); the cross patch entry becomes shaded.
-----------------------------	--


To enable the cross patch,	click the Enable (▶) button. The button changes to Disable (■).
----------------------------	--

3.3.3.3 Editing Cross Patches

Follow the procedure below to edit a cross patch.

Procedure:

1. If the **Cross Patches** panel is closed, on the menu bar, click **Tools** → **Cross Patches**.
The **Cross Patches** panel appears.
2. Open the properties of the existing cross patch in one of the following ways:
 - In the **Cross Patches** panel, double-click the desired cross patch.

- In the **Cross Patches** panel, in the right part of the desired cross patch entry, click the Actions (») button, and then select **Properties** ().

The **Cross Patch** window appears.

3. In the **Cross Patch** window, perform the desired changes.
4. Click **OK** to apply changes and close the window.

3.3.3.4 Initiating Cross Patch Calls

Follow the procedure below to initiate a cross patch call.

Prerequisites:

- Ensure the **Cross Patches** panel is opened. For details, see [Cross Patches Panel](#).
- Ensure the desired cross patch is added and enabled. For details, see [Managing Cross Patches](#).
- Obtain the current settings of the pointing devices and hotkeys from Administrator.

Procedure:

Initiate the cross patch call in one of the following ways:

- Depending on the settings of the pointing devices, press and hold, or click the PTT button of the desired cross patch.
- Select the cross patch, and then depending on the PTT button hotkey settings, press and hold, or press the hotkey.


3.4 Radio Fleet

The **Radio Fleet** panel displays the following objects:

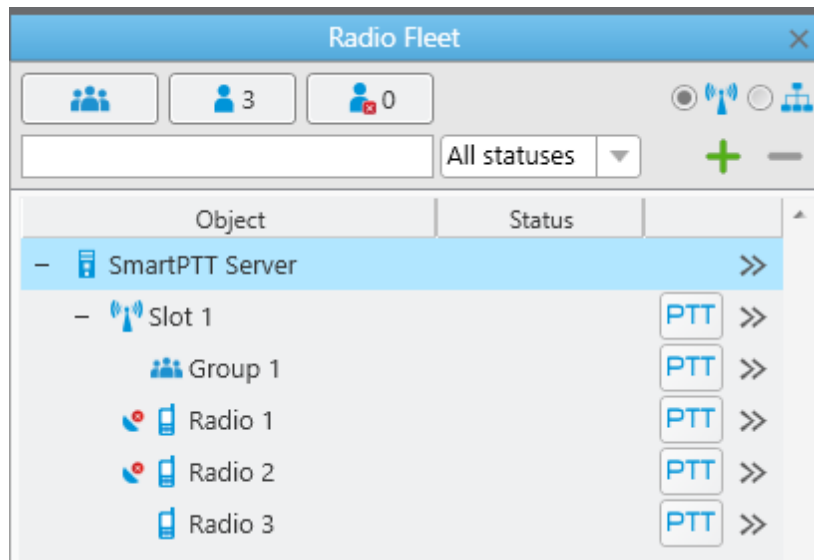
- Radioservers to which the dispatch console is connected
- Control stations
- Virtual control stations (slots)
- Talkgroups

- Radios registered in the system
- WAVE users registered in the system

NOTE




WAVE users are users connected to a WAVE server. SmartPTT Radioserver gets information on WAVE users by means of WAVE Connector program. In SmartPTT Dispatcher the icon  indicates WAVE users. For more information on configuring the WAVE users and the WAVE Connector program, see *WAVE Connector Installation and Configuration Guide*.


The first time you install SmartPTT the **Radio Fleet** panel opens automatically. To open or close the **Radio Fleet** panel manually, expand the **Tools** menu on the menu bar of the SmartPTT Dispatcher window, and click **Radio Fleet**.



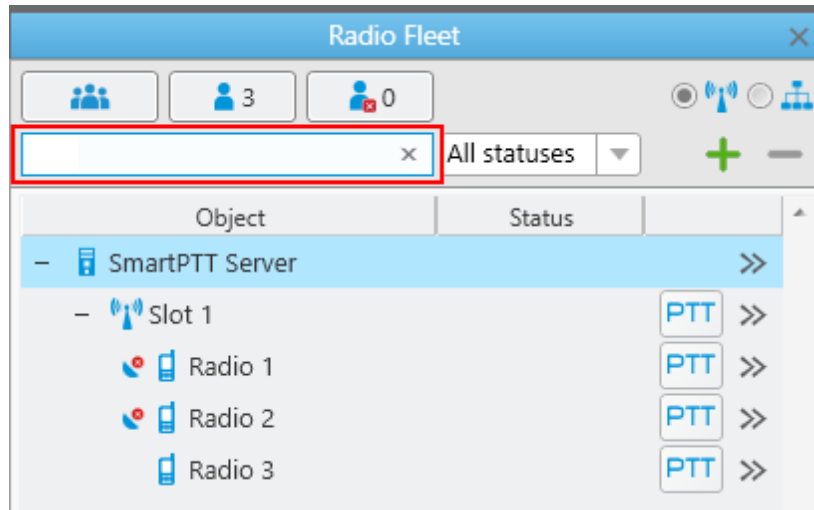
The list consists of the following columns – object, status and the **PTT** button. The **Object** box shows the name of the object. The **Status** box displays the current status of a radio or a WAVE user. The PTT button initiates a call.

If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

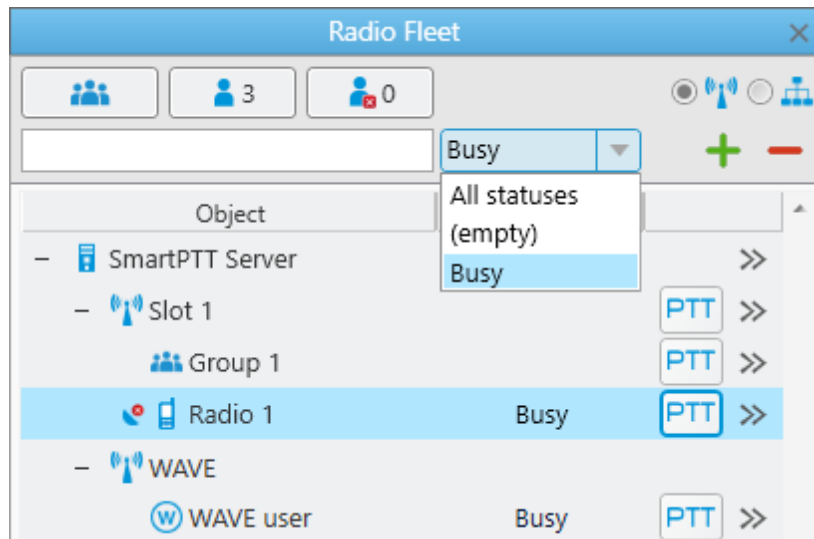
Using    buttons the dispatcher can show or hide talkgroups, radios or WAVE users depending on their presence in the network (online/offline).

To filter radios and WAVE users by the channels, click **Filter by channel** .

To search the desired talkgroup, radio or WAVE user, type the object name or ID in the search box:




To filter radios and WAVE users by a status, select the required status from the list.





Using the Add radio (+) and Delete radio (-) buttons allows the dispatcher to add a new radio or delete the existing one.

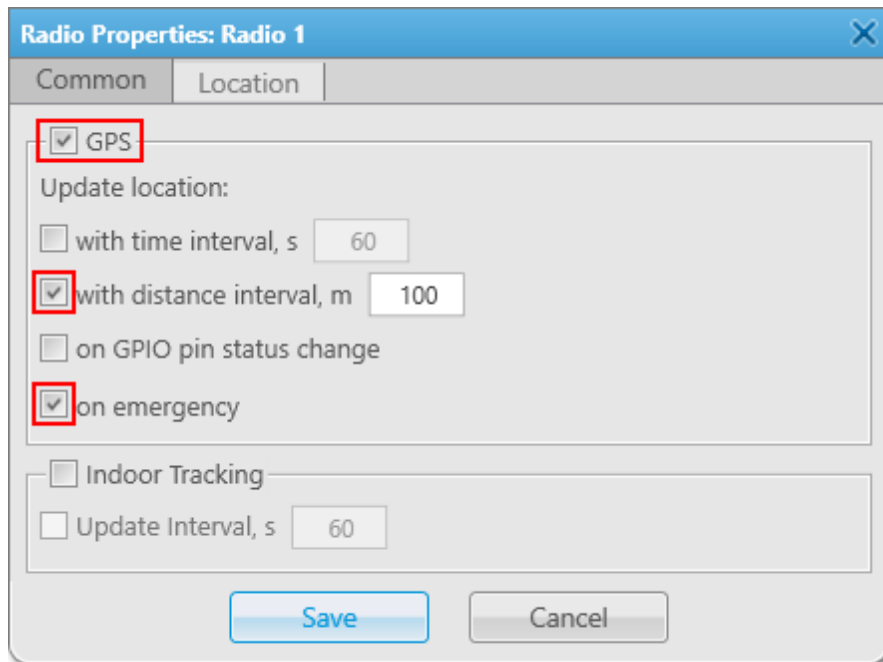
Radios and WAVE users not added in SmartPTT Dispatcher are considered unregistered and displayed in italic in the **Radio Fleet** panel. Unregistered radios and WAVE users are displayed in the list of objects after a radio or a WAVE user is turned on and registration on the radioserver is successfully completed.

 GPS coordinates of a radio are outdated or missing.

-  GPS coordinates of a radio are valid. Validity period of GPS coordinates is defined by the **Validity of GPS coordinates** parameter in **Settings (⚙)** → [Positioning Systems](#).

NOTE

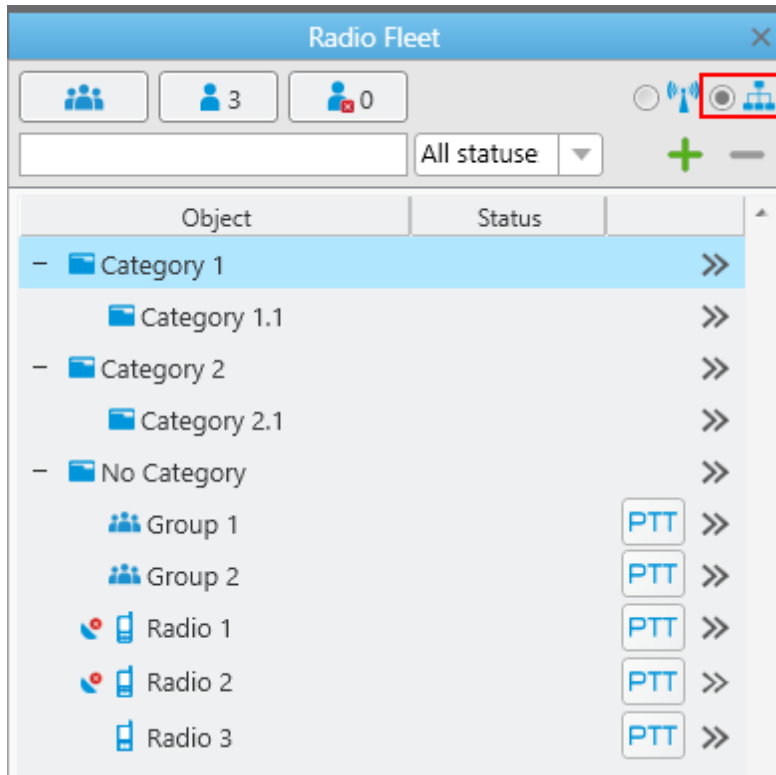
The icons  and  are displayed if GPS support is enabled in the **Properties** window of a radio and at least one location update criterion is selected.

**NOTE**

The location settings are unavailable to WAVE users.

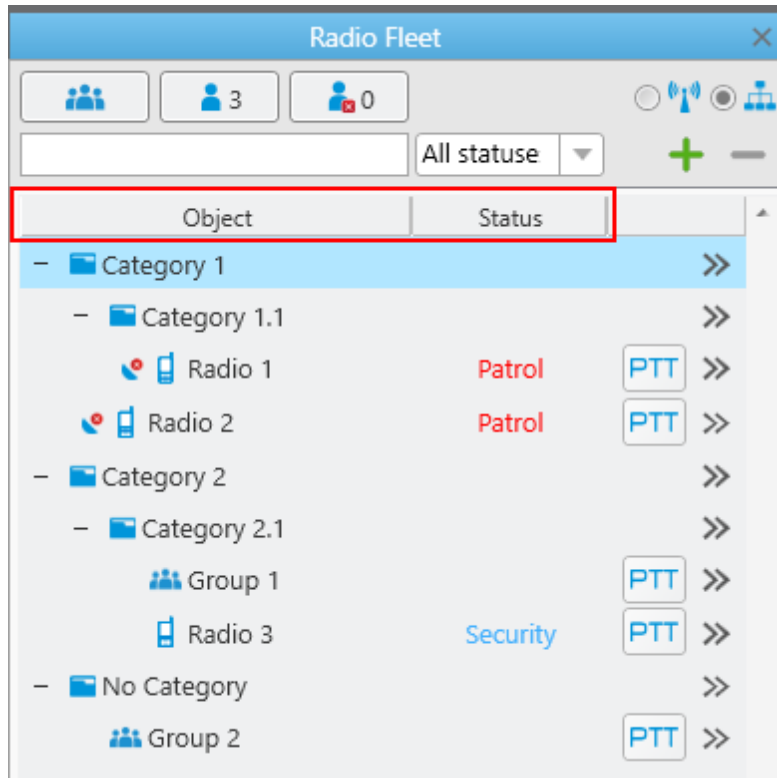
Filter by category

You can also filter radios and WAVE users by categories. To do that, click **Filter by category** .



NOTE

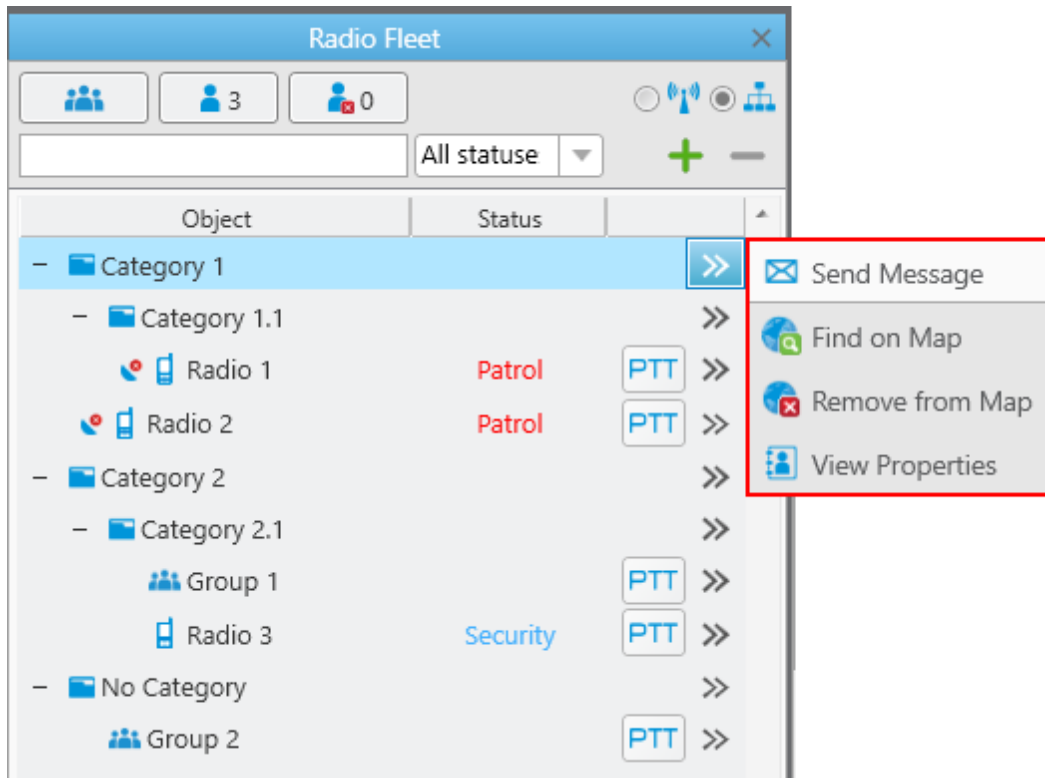
If in the **Radio Fleet** panel no categories exist, add them in the [Categories](#) menu if needed.



Object: A column containing category folders and objects added in the **Settings (⚙)** → [Categories](#) menu. **No Category** folder and included objects are shown if the correspondent [check box](#) was selected.

Status: A column displaying statuses defined in the radio properties.

The Actions (>>) button opens list of actions applied to all radios and WAVE users of a category.



Send Message: Opens a window for message sending.

NOTE

This action is unavailable for WAVE users.

Find on Map: Shows all objects related to the category on the map.

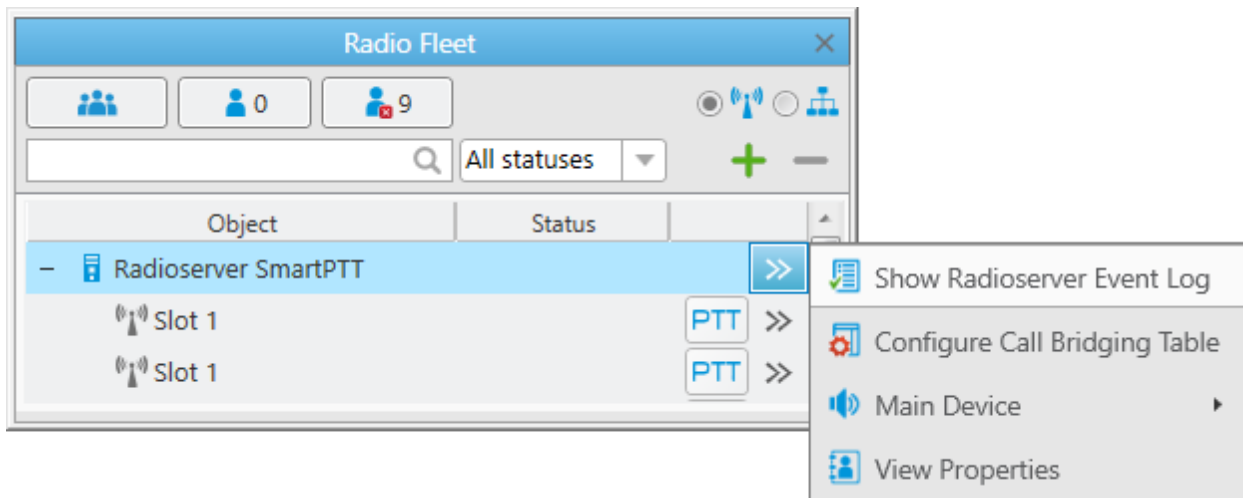
Remove from Map: Hides all objects related to the category on the map.

View Properties: Opens category properties window. You also can open the window by left-clicking the needed category. For additional information, see [Editing Category](#).

Actions Menu

The Actions (>>) button opens the Actions Menu that contains a list of actions which can be applied to a radio, a [WAVE user](#), a radioserver, a control station or a talkgroup.

The Actions Menu of Radioserver



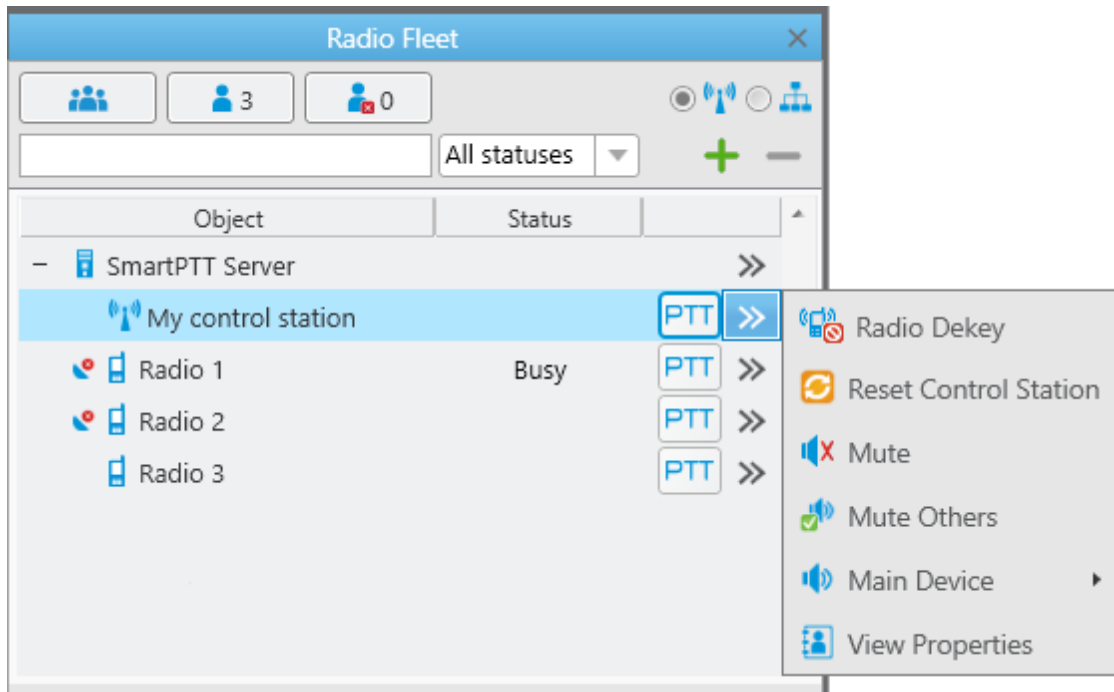
Show Radioserver Event Log: Displays the radioserver event log for the specified period of time. For more information on the event log, see [SmartPTT Dispatcher Event Log](#).

Configure Call Bridging Table: Opens the **Bridging Configuration** window for configuring bridging service. For more information on bridging, see [Bridging Service](#).

Main Device: Shows what audio output device is currently used for the radioserver. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

View Properties: Opens the [radioserver Properties window](#).

The Actions Menu of Hardware Control Station



Exit Emergency Mode: Disables emergency mode.

NOTE

The **Exit Emergency Mode** action becomes available after a radio sends the emergency signal.

Radio Dekey: Forced interruption of calls on the channel. This option is available only for hardware control stations and in IP Site Connect network.

Reset Control Station: Resets the control station.

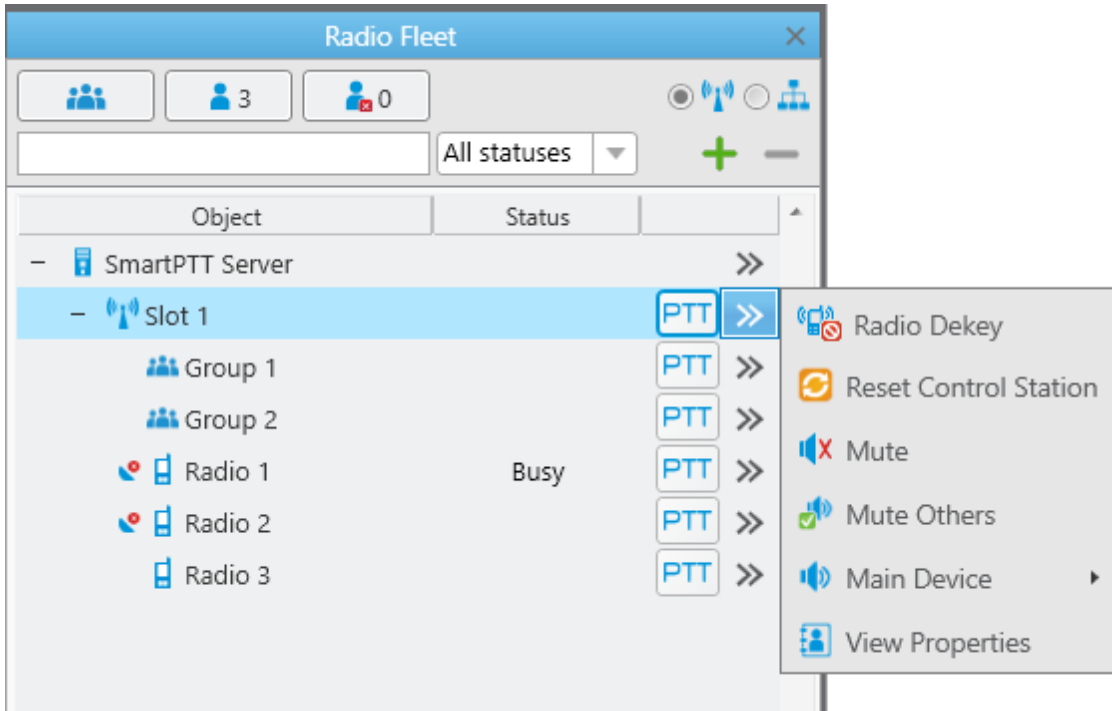
Mute/Unmute: Turns off/on the control station mute mode.

Mute Others: Leaves sound on only for this control station; other control stations are muted.

Main Device: Shows what audio output device is currently used for the control station. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

View Properties: Opens the [control station Properties window](#).

The Actions Menu of Virtual Control Station



Radio Dekey: Forced interruption of calls on the channel. This option is available only for hardware control stations and in IP Site Connect network.

Reset Control Station: Resets the control station.

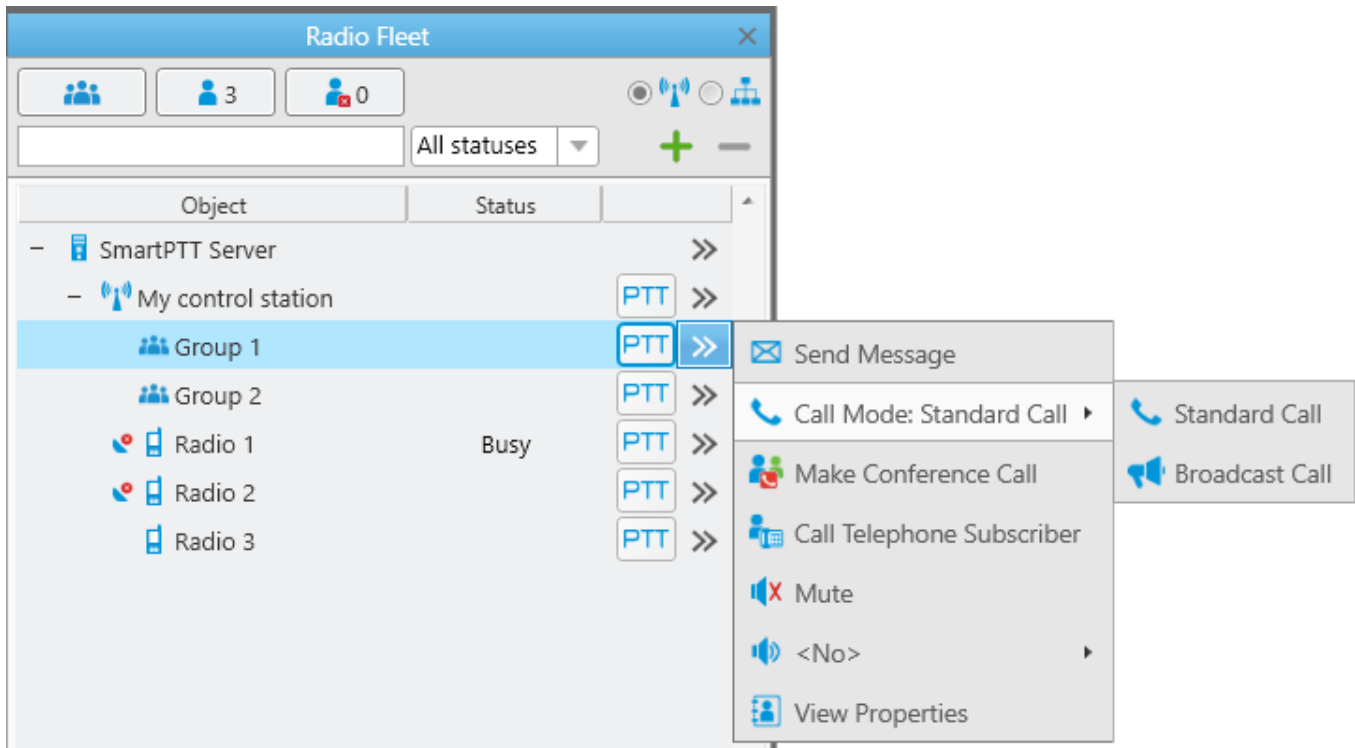
Mute/Unmute: Turns off/on the control station mute mode.

Mute Others: Leaves sound on only for this control station; other control stations are muted.

Main Device: Shows what audio output device is currently used for the control station. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

View Properties: Opens the virtual control station **Properties** window.

The Actions Menu of Talkgroup



Exit Emergency Mode: Disables emergency mode. The Exit Emergency Mode action becomes available only after a radio has sent the emergency signal.

Send Message: Opens a window for creating and sending messages.

Call Mode: Available only in the Capacity Max systems and shows the current call mode for the talkgroup.

Standard Call: Stands for the two-way Group Call

Broadcast Call: Stands for the one-way Group Call.

NOTE

All talkgroups in the Capacity Max systems are broadband groups. So, the Group Call for these talkgroups in any call mode is broadcast over all the sites associated with the talkgroups.

Make Conference Call: Opens the **Conference Call** window and starts the conference call.

Call Telephone Subscriber: Opens the window with the list of registered telephone subscribers.

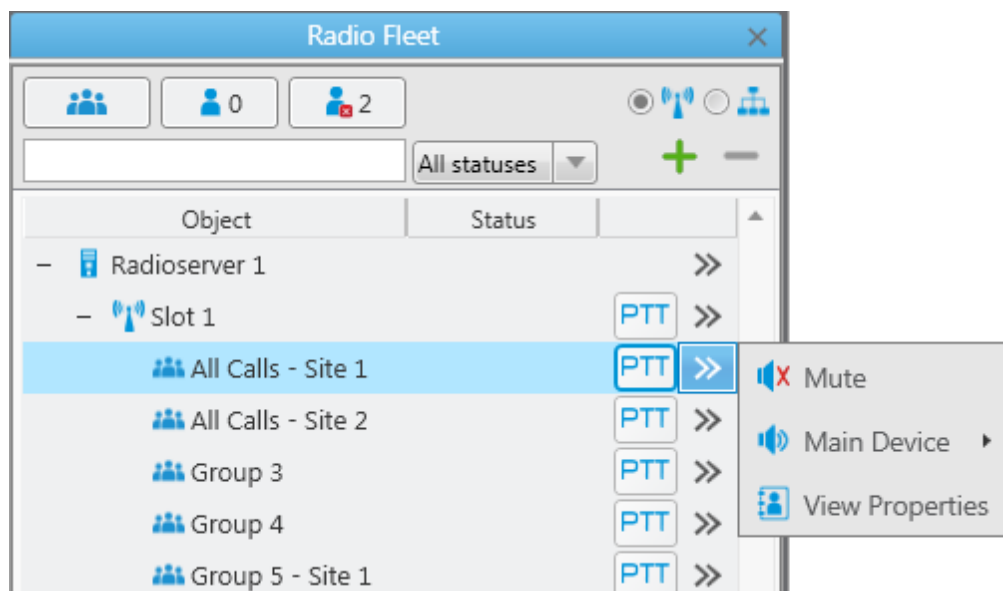
Mute/Unmute: Turns on/off mute mode for this group.

Main Device: Shows what audio output device is currently used for the talkgroup. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

The **Call Window** of a talkgroup contains some of the actions available to the talkgroup. The main function of the **Call Window** is to give the ability to apply actions to the talkgroup and to view the action log. To open the window, double-click on the talkgroup.

View Properties – opens the [Properties window](#) of the talkgroup.

The Actions Menu of All Call Limited to Site

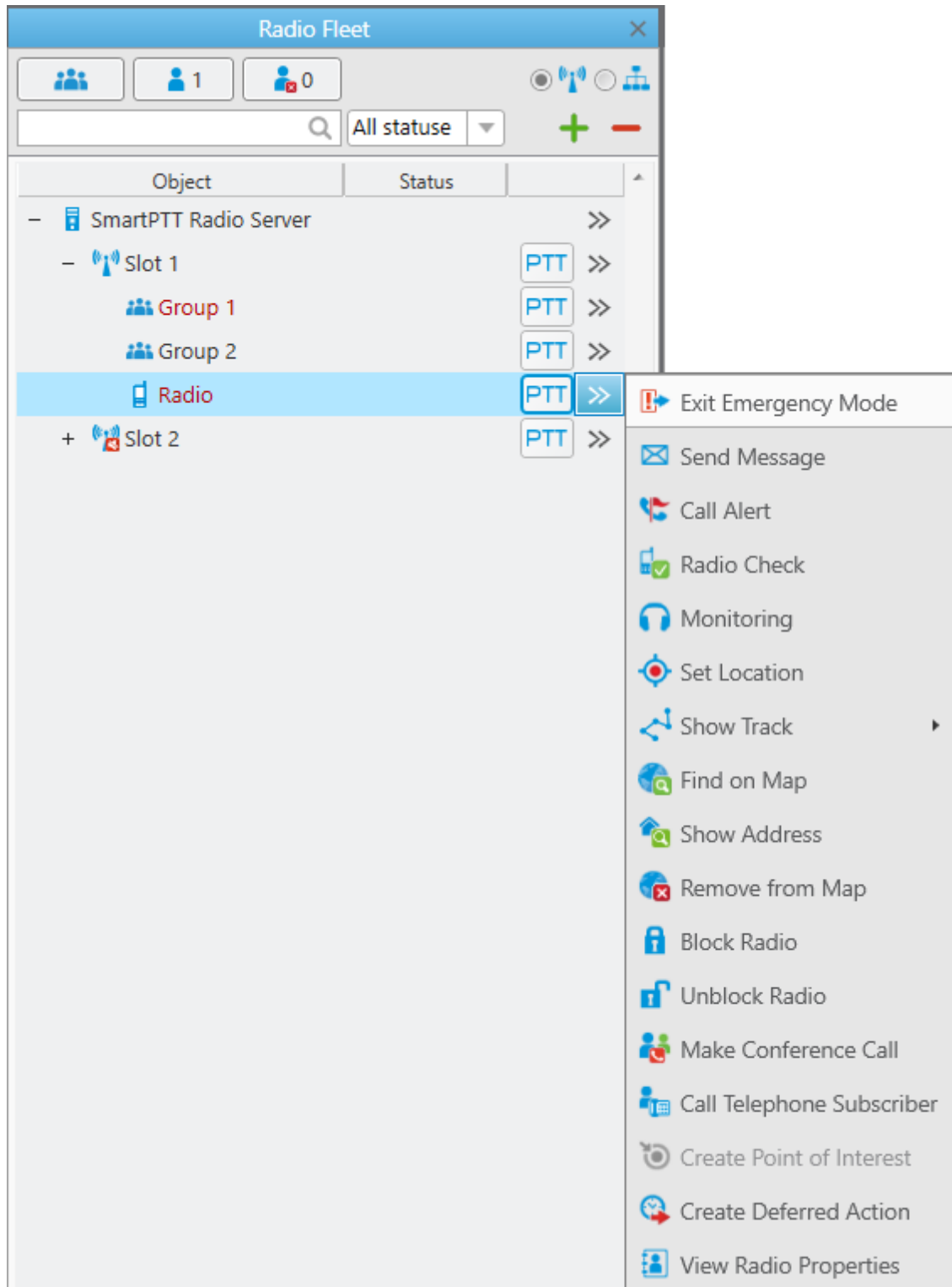


Mute/Unmute: Turns on/off mute mode for the All Call. This can be useful if you don't want to hear the All Call initiated by another dispatcher.

Main Device: Shows what audio output device is currently used for the All Call. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

View Properties: Opens a window where you can add a comment about the All Call.

The Action Menu of Radio



Exit Emergency Mode: Disables emergency mode. The **Exit Emergency Mode** action becomes available after a radio sends the emergency signal.

Send Message: Opens a window for creating and sending messages.

Send Call Alert: Sends a call alert to the radio.

Radio Check: Sends the radio check command to the radio.

Monitoring: Allows you to listen to the radios without their awareness.

Set Location: Allows you to define location of a radio on the map manually, without GPS data. If GPS support is enabled in the radio [Properties](#) window (in the **Location** tab), the location set manually has a validity period which is defined in the **Positioning Systems** settings in the **Validity of GPS coordinates** box. If GPS support is not enabled in the radio [Properties](#) window, the location set manually is always valid.

If you select the option with no open maps in the dispatcher, the **Select Map** window appears.

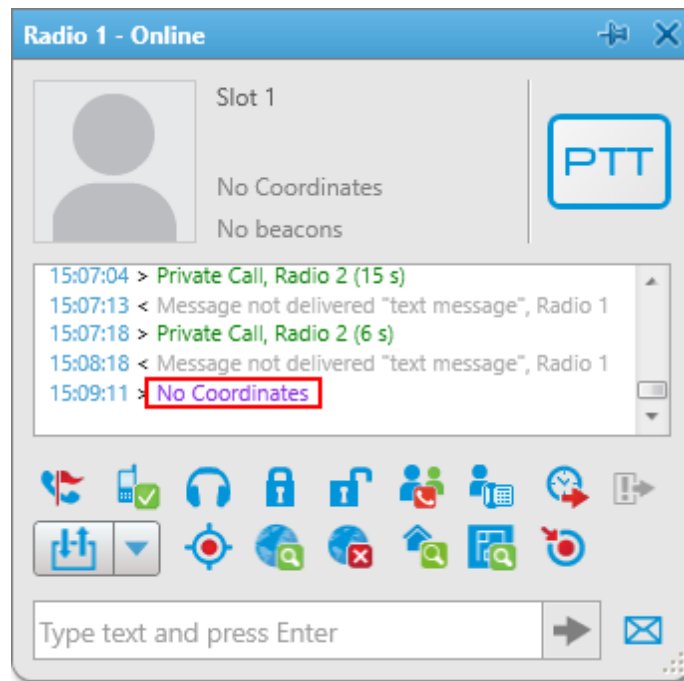
Show Track: Shows the radio track on a map for a period of time (for the last hour, for today, or another time period).

If you select the option with no open maps in the dispatcher, the **Select Map** window appears.

Find on Map: Shows the radio on the map by requesting the radio coordinates. If there are more than one radio on the same position on the map, the radio marker will be placed above all other markers.

If you select the option with no open maps in the dispatcher, the **Select Map** window appears.

Show Address: Displays the radio address based on the current GPS coordinates. If it is impossible to define the address, the notification **No Coordinates** appears. When you reopen **Call Window** (after it was closed), previously received information on the address is not displayed.



Remove from Map: Removes the radio from the map.

Find on Indoor Map: Shows the radio on the building map by requesting the radio coordinates. The **Find on Indoor Map** action is available for a radio if the **Indoor Tracking** check box is selected in the [Properties](#) window of the radio.

Block Radio: Sends the Block Radio command to the radio.

Unblock Radio: Sends the Unblock Radio command to the radio.

Make Conference Call: Opens the **Conference Call** window and starts the conference call.

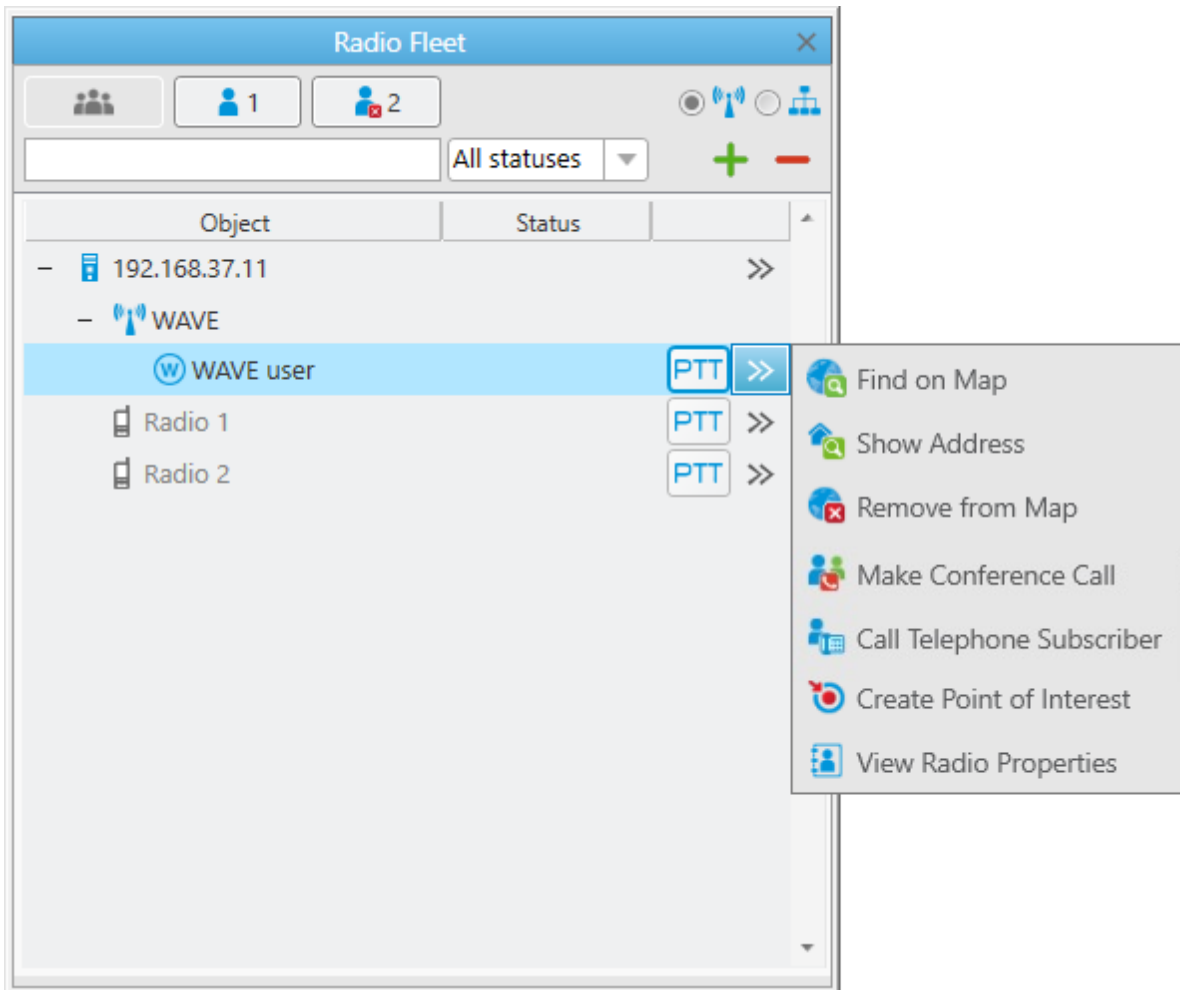
Call Telephone Subscriber: Opens the window with the list of registered telephone subscribers.

Create Point of Interest: Creates POI at the current place of the radio. If there are no coordinates, the system uses the latest coordinates received from the radio. If coordinates are absent altogether, nothing happens.

Create Deferred Action: Opens a window for creation of a deferred action.

View Properties: Opens the radio [Properties window](#).

The Action Menu of WAVE User



Find on Map: Shows the WAVE user on the map. If there are more than one WAVE user or radio on the same position on the map, this WAVE user label will be placed above all other labels.

Show Address: Displays the WAVE user address based on the current GPS coordinates. If it is impossible to define the address, the notification **No Coordinates** appears. When you reopen **Call Window** (after it was closed), previously received information on the address is not displayed.

Remove from Map: Removes the WAVE user from the map.

Make Conference Call: Opens the **Conference Call** window and starts the conference call.

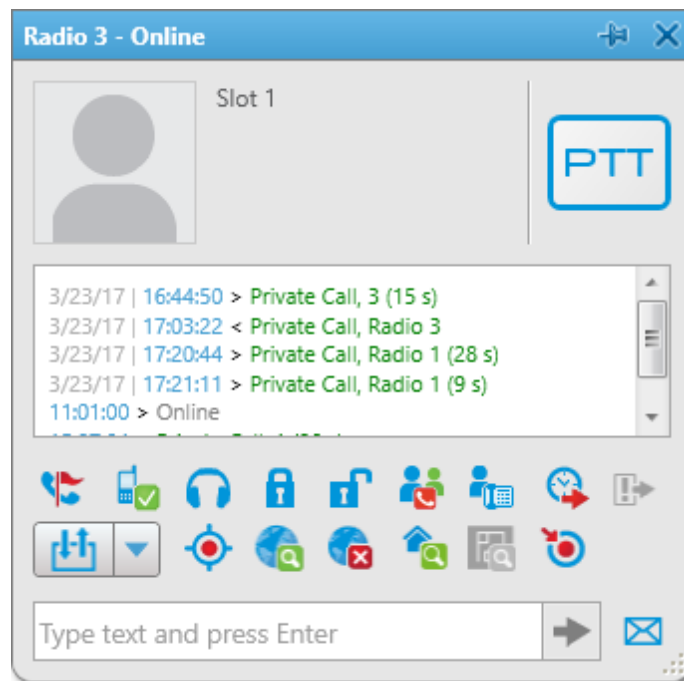
Call Telephone Subscriber: Opens the window with the list of registered telephone subscribers.

Create Point of Interest: Creates POI at the current place of the WAVE user. If there are no coordinates, the system uses the latest coordinates received from the WAVE user. If coordinates are absent altogether, nothing happens.

View Radio Properties: Opens the WAVE user [Properties](#) window.

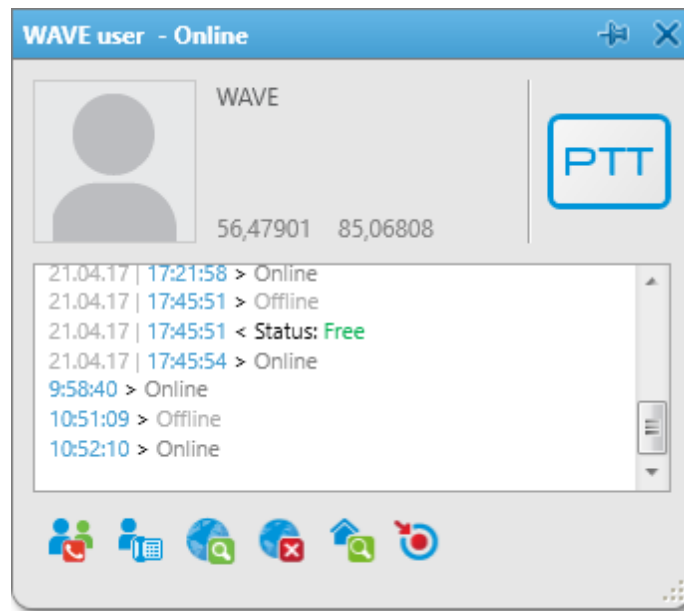
Call Window

The **Call Window** of a radio or a [WAVE user](#) contains some of actions available to it. The main function of the **Call Window** is to give the ability to apply actions to the radio or the WAVE user and to view the action log. To open the window, double-click on the radio or the WAVE user. To customize the appearance and behavior of the **Call Window**, to the [Call Window settings](#).








NOTE

In a WAVE user call window the following actions are available only: **Make Conference Call, Call Telephone Subscriber, Find on Map, Remove from Map, Show Address, Create Point of Interest.**

**Call Indication**

The **PTT** button is located in several places: in the **Radio Fleet** panel and in the **Call Window**. Depending on the call status, the **PTT** button can be displayed in the following colors:

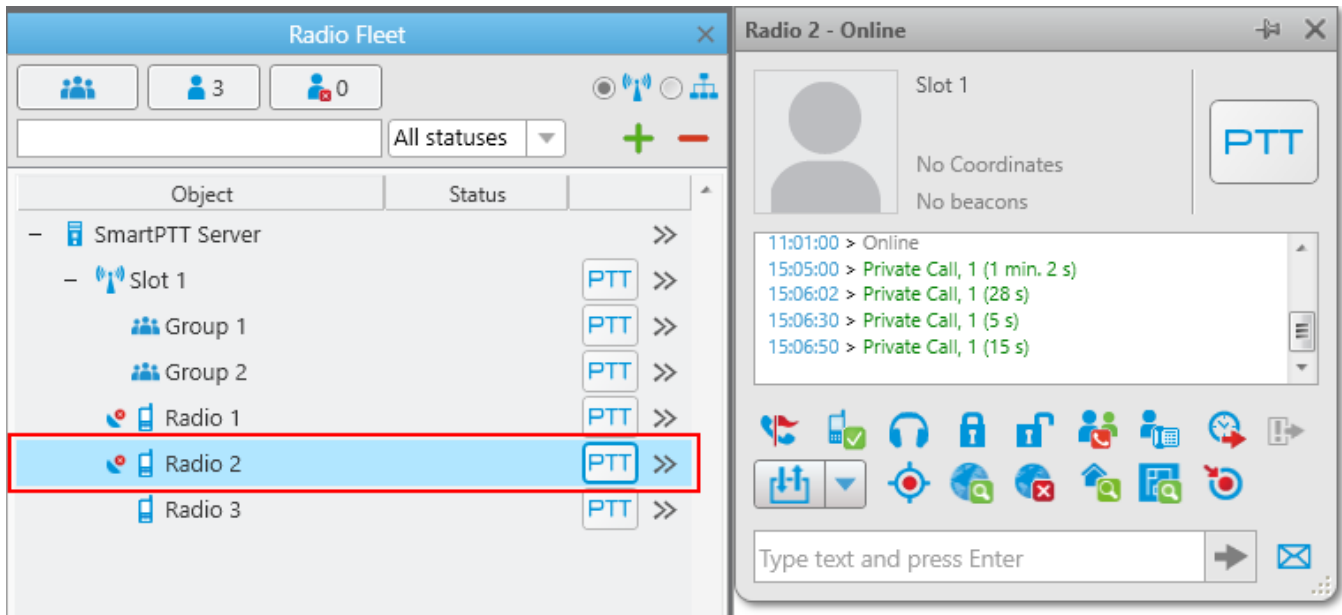
-  **Light orange:** Outgoing call attempt, or a call in the queue (in conventional systems)
-  **Orange:** All outgoing radio calls
-  **Light green:** Incoming call attempt to SmartPTT Dispatcher in the Capacity Max systems only
-  **Green:** All incoming radio or [WAVE user](#) calls or a radio or WAVE user monitoring.
-  **Blue:** None of the parties transmit or receive voice (hang time). The radio or the WAVE user or the dispatcher can continue the call by pressing the PTT button within hang time. After the hang time expires, pressing the PTT button will initiate a new call. In the Capacity Max systems the dispatcher can end the call during the hang time by right clicking PTT in the Call Window.

How to change radio name

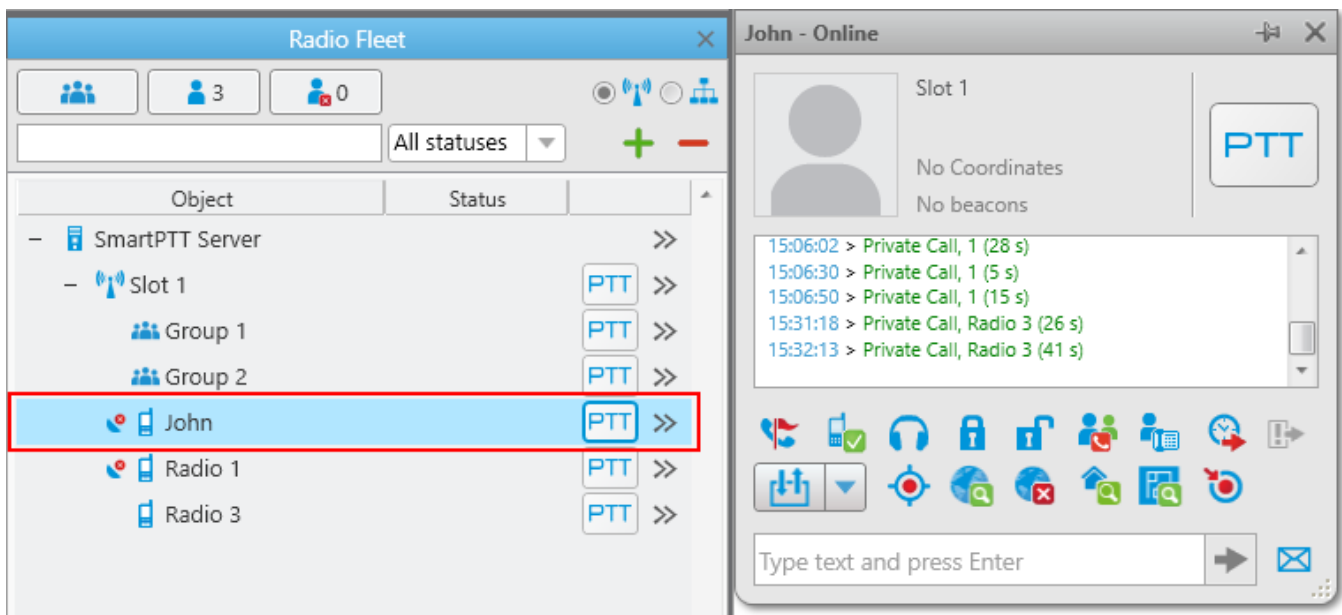
A radio subscriber can easily change his or her name by using the radio. The new name will appear in the **Radios panel**.

To do it, you need to send the text message *profile%name:<new name>* to the Slot ID set in your system.

Before sending:



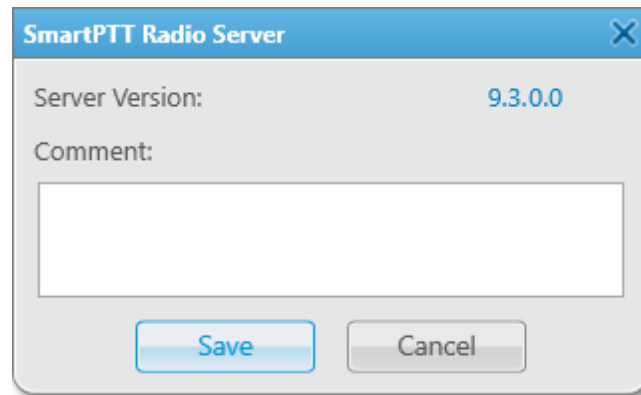
After sending the message:



The Properties Window

To open the **Properties** window of a radioserver, a control station, a talkgroup, a radio, a [WAVE user](#), a dispatcher or a telephone subscriber, right-click on the corresponding item.

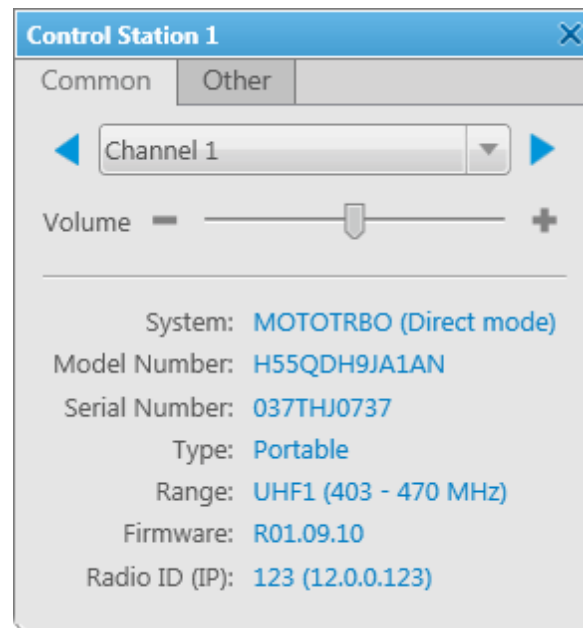
The Properties Window of Radio Server



Server Version: The version of the radio server. If the version of SmartPTT Radioserver does not match the version of SmartPTT Dispatcher, the version number is displayed in red.

Comments: Text box for additional information.

The Properties Window of Hardware Control Station

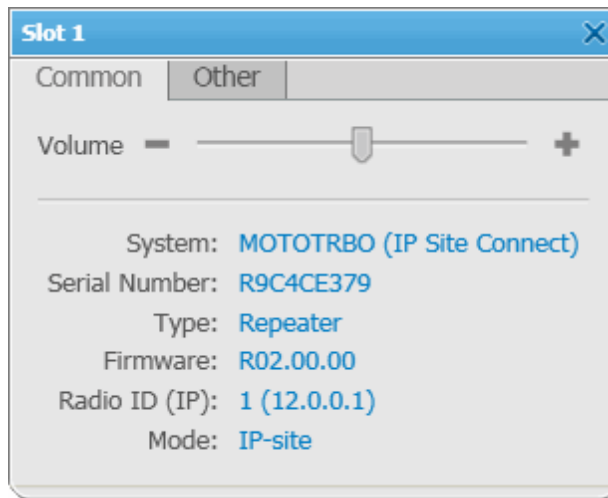


The window displays information on the control station, for example, model number, serial number, control station type, frequency range, firmware version, control station identifier.

You can change the channel of the control station by selecting it from the list or clicking arrow buttons.

The **Volume** slider allows you to set a volume on the channel. This option also effect on the emergency alert and subscriber voice at the emergency call.

The Properties Window of Virtual Control Station



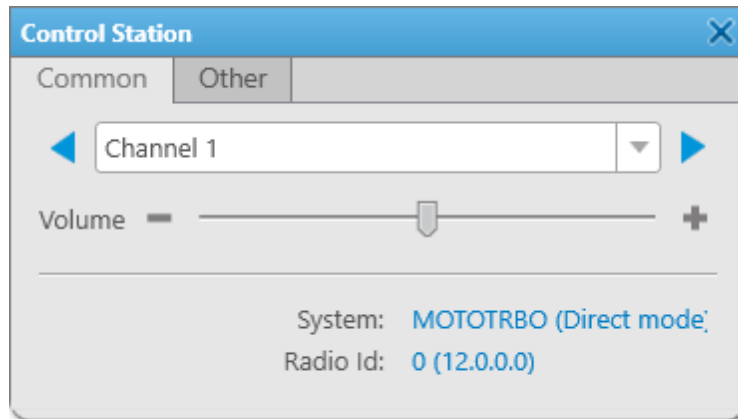
The window displays information about the control station, for example, serial number, firmware version, control station identifier, type of network configuration.

The **Volume** slider allows you to set a volume on the channel. It also regulates the volume of the emergency alert.

NOTE

The adjusted volume level of the selected channel affects the volume of all incoming voice calls (including emergency calls) on all the audio devices of the given channel.

The Properties of Remote Input Output (I/O) Control Station

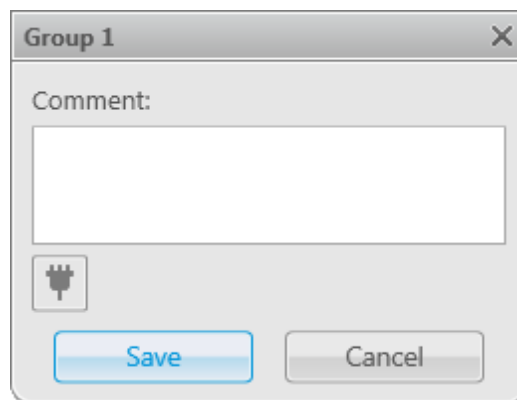


The window displays information on the remote I/O SmartPTT Radioserver Configurator.


You can change the channel of the control station by selecting it from the list or clicking arrow buttons.

The **Volume** slider allows you to set a volume on the channel. This option also effect on the emergency alert and subscriber voice at the emergency call.

Talkgroup Properties Window

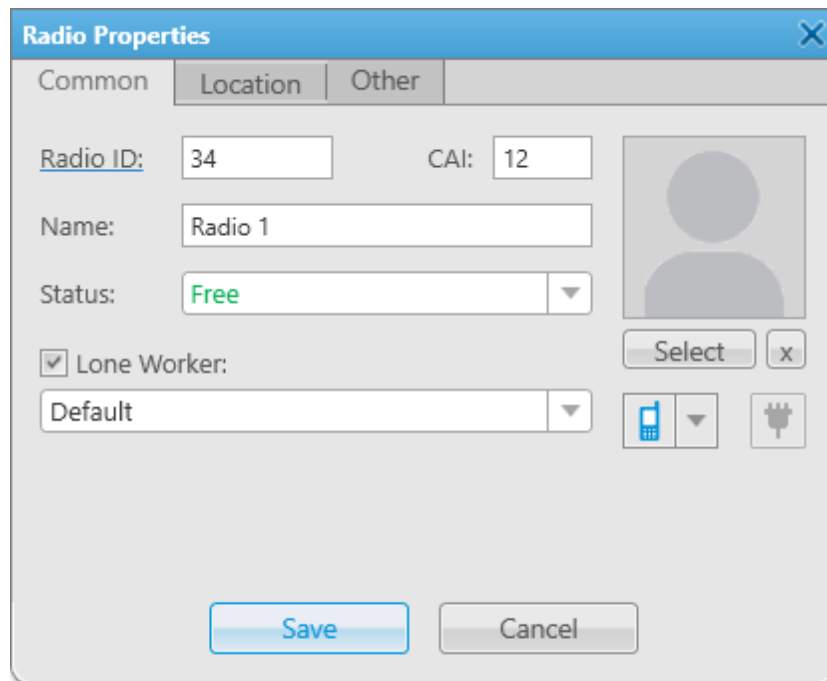


Comments: Text box for additional information.

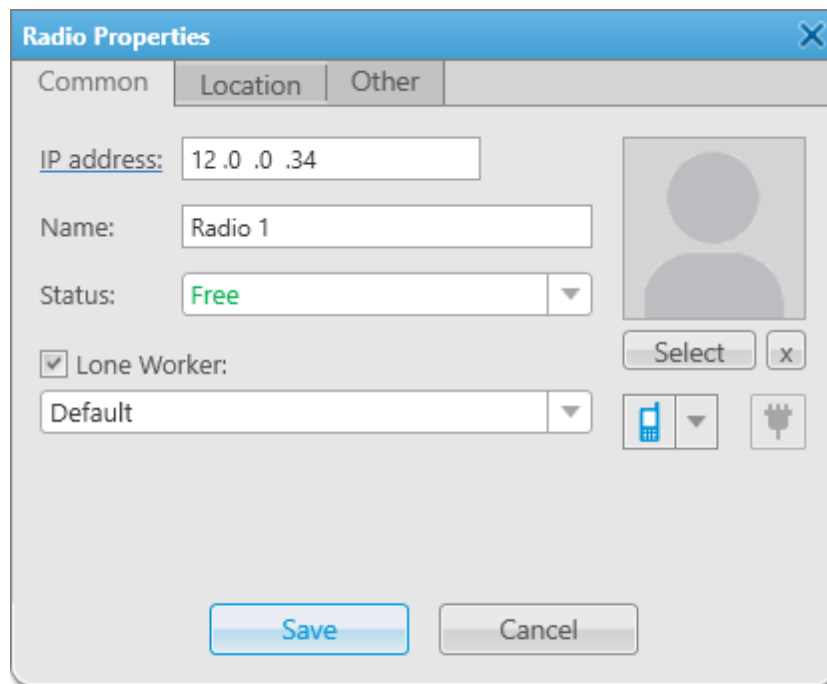
Click the **Telemetry** button  to select telemetry command for the talkgroup.

Radio and WAVE User Properties Window

The **Common** tab with different radio ID input formats:




The image shows a screenshot of the 'Radio Properties' dialog box with the 'Common' tab selected. The 'Radio ID' field contains the number '34' and the 'CAI' field contains '12'. The 'Name' field is 'Radio 1' and the 'Status' is 'Free'. There is a checked 'Lone Worker' checkbox and a dropdown menu set to 'Default'. On the right side, there is a 'Select' button, an 'x' button, and two icons: a mobile phone and a power plug. At the bottom, there are 'Save' and 'Cancel' buttons.



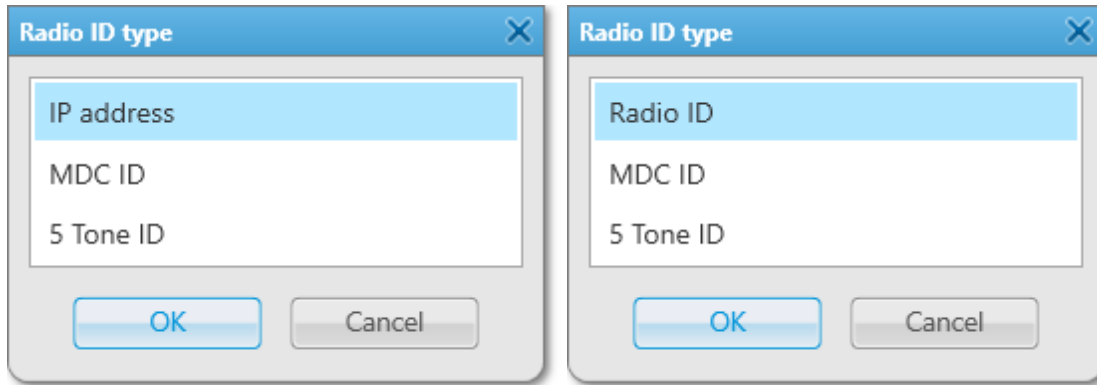
The image shows a screenshot of the 'Radio Properties' dialog box with the 'Common' tab selected. The 'IP address' field contains '12.0.0.34'. The 'Name' field is 'Radio 1' and the 'Status' is 'Free'. There is a checked 'Lone Worker' checkbox and a dropdown menu set to 'Default'. On the right side, there is a 'Select' button, an 'x' button, and two icons: a mobile phone and a power plug. At the bottom, there are 'Save' and 'Cancel' buttons.

NOTE

You can change radio ID input format from **CAI+Radio ID** to radio **IP address** in [General Settings](#).

If you add a new radio or WAVE user by clicking the **Add Radio** () button, you can select the radio ID type.

In the upper-left corner of the **Radio Properties** window, click the name of the box, and in the open **Radio ID type** window, select the desired radio ID type (**Radio ID/IP address**, **MDC ID**, or **5 Tone ID**):



WARNING

If you edit the existing radio or WAVE user, you cannot change the radio ID type or its value.

Radio ID: A unique identifier of a radio or WAVE user. You can set the **Radio ID** value in the range from 1 to 16776415 for non-Capacity Plus - Single Site network and from 1 to 65535 for Capacity Max - Single Site network.

CAI: A network identifier that should be combined with **Radio ID**. You can set the **CAI value** in the range from 1 to 126, but we recommend you to use the default 12 value

IP address: IP address of a radio or WAVE user.

MDC ID: The identifier of the radio or WAVE user configured to the analog mode with active Motorola Data Communication (MDC 1200) signaling.

This parameter requires 4-digit hexadecimal number in the range from 0001 to DEEE. No numbers with "F" digit in any place should be used.

5 Tone ID: A radio or WAVE user identifier. If the radio works on the analog channel and supports the 5 Tone signaling (SelectV). It must match the **5 Tone Radio ID** in the **General Settings** tab of the radio or WAVE user *MOTOTRBO CPS* settings. You can set the value in the range from 0 to 9 or from A to G.

Name: A radio or WAVE user name.

Status: A radio or WAVE user status.

NOTE

For information on adding statuses, see [Status](#).

Select: Click to upload the radio or WAVE user image if there is any. To delete the selected image, click the cross symbol on the left to **Select**.



Click the button to select the icon of the radio or WAVE user.



Click the **Telemetry** button to specify [telemetry](#) actions to the radio or WAVE user.

Lone Worker: Select the check box to assign the **Lone Worker Profile** to a radio or WAVE user. Select from the list the profile of the lone worker.

NOTE

For information on adding lone worker profiles, see [Lone Worker Rules](#).

The **Location** tab:

Radio Properties

Common Location Other

GPS

Update location:

with time interval, s

with distance interval, m

on GPIO pin status change

on emergency

Indoor Tracking

Update Interval, s

Save Cancel

GPS: Select the check box to see the radio or WAVE user on the map. The radio or WAVE user must support **GPS**.

NOTE

To set up GPS for the SmartPTT Radioserver, specify the required settings described in the **GPS** section of the SmartPTT Radioserver Configurator help file.

The **Update location** area allows you to specify the location update criteria:

with time interval, s: The time interval in seconds after which the GPS coordinate request will be sent to the radio or WAVE user. You can set *7.5 s*, *15 s*, *30 s*, *60 s*, *120 s*, *240 s* or *480 s* location update time interval. The value should not be less than the value set in SmartPTT Radioserver Configurator.

NOTE

You can set 7.5 s interval in SmartPTT Dispatcher using 7 or 8 values only. These values are considered as 7.5 s update period.

with distance interval, m: The distance interval in meters or feet after which the GPS coordinate request will be sent to the radio or WAVE user.

on GPIO pin status change: The GPS coordinate request will be sent to the radio or WAVE user when the status of telemetry contacts changed.

on emergency: The GPS coordinate request will be sent to the radio or WAVE user when the radio sends an emergency signal.

Indoor Tracking: Select the check box to see the radio or WAVE user on the building plan by the dispatcher request (the **Find on Indoor Map** action) or after the predefined time period (the **Update Interval, s** box in the **Location** tab of the radio **Properties** window).

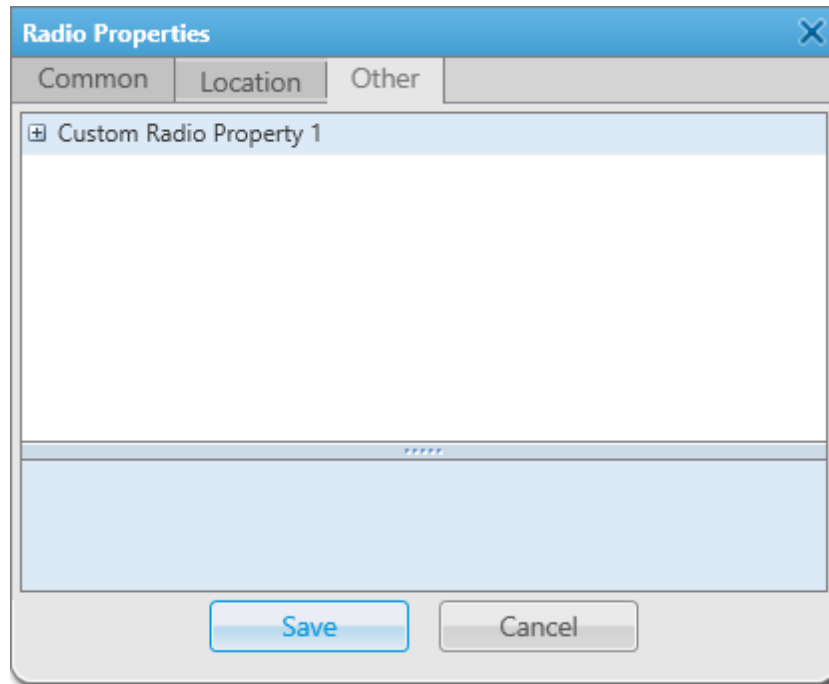
The radio or WAVE user must support Indoor Tracking. **If you use *Motorola* source (iBeacon technology), the Update Interval** box must be selected and specified together with the **Indoor Tracking** box for enabling Indoor support for a radio or WAVE user.

NOTE

To set up Indoor Tracking for SmartPTT Radioserver, specify the required settings described in the **Indoor Tracking** section of the SmartPTT Radioserver Configurator help file.

Update Interval, s: The time interval in seconds for location data update from special beacons, which are installed in buildings. The box is mandatory in case of *Motorola* source (iBeacon technology) use.

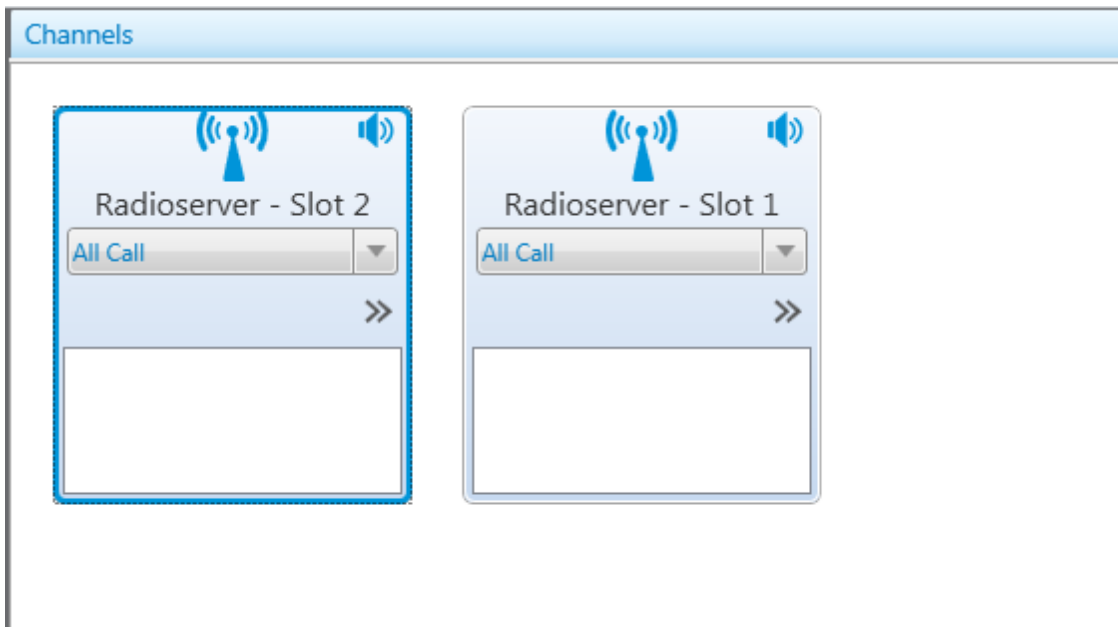
The **Custom** tab:



The **Custom** tab contains [custom radio properties](#), which were added by the system administrator. If there are no any added custom properties, the **Custom** tab is absent.

3.5 Channels

The **Channels** panel allows you to see all the active control stations available in the system.



In this panel you can do the following:

- Make an All Call or a group call depending on the selected type of call.
- Mute or unmute the channel. If the channel is muted, the dispatcher won't hear the talkers on the channel.
- View information about the current call on the channel: the call state, the called party and the call originator.
- Perform other actions from the Actions Menu which can differ depending on whether the channel is physical or virtual.

For information on the Actions Menu of control stations, see [Radio Fleet](#).

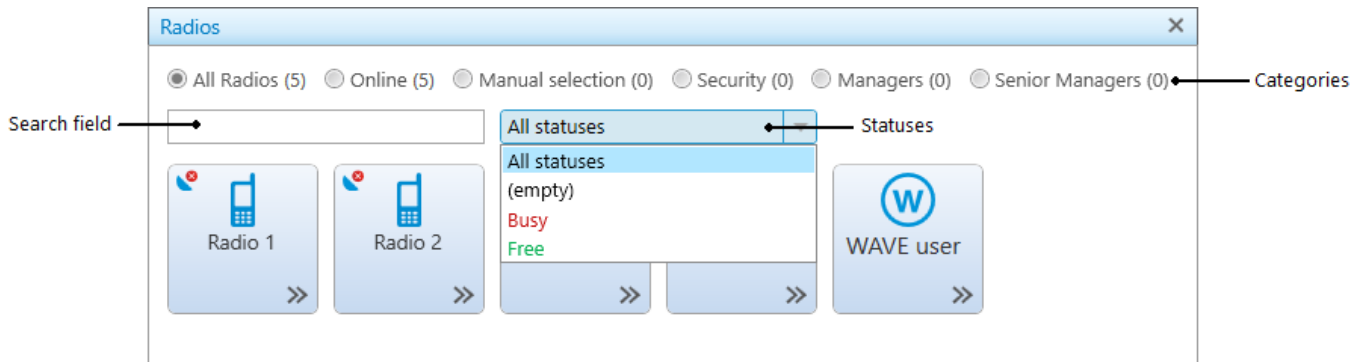
If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, during a call the name of the user authorized on the radio is displayed next to the radio name in the parentheses.

For details, see [General Settings](#).

3.6 Radios

The **Radios** panel provides convenient interface to perform voice calls, to edit properties of a radio or a [WAVE user](#) and to filter the list of radios and WAVE users by generating a list of control buttons.

To open the **Radios** panel, click **Tools** → **Radios**.



You can perform the following actions on the **Radios** panel:

- Filter the list of radios and WAVE users by various criteria
- Customize the list of radios and WAVE users
- Call a radio or a WAVE user
- Find the necessary radio or WAVE user in the filtered list by its name or ID, using the **Search** box
- Open the radio or WAVE user [Call Window](#), by right clicking the corresponding control button on the panel
- Open the radio or WAVE user Actions Menu by clicking the Actions (>>) button

The **Radios** panel contains the following filter criteria:

All Radios: All registered radios and WAVE users (online and offline).

Online: Online radios and WAVE users only.

Manual selection: Customized list of radios and WAVE users.

Categories: Radios and WAVE users of the specific category, predetermined in the [Categories](#) window. If there are no any added categories, this filter is absent.

The **All Radios**, **Online**, **Manual selection**, **Categories** filter criteria show in brackets the number of radios including WAVE users in the list, filtered by one of these criteria.

Statuses: Radios and WAVE users with the selected status. The statuses are predetermined in the [Statuses](#) window. If there are not any added statuses, this filter is absent.

NOTE

The **Statuses** criteria is applied to the list of radios and WAVE users already filtered by one of the following criteria: **All Radios**, **Online**, **Manual selection**, or **Categories**.

To customize the list of radios and WAVE users, select the **Manual selection** radio button and drag the necessary objects to the panel from the **Radio Fleet** panel. To delete the objects from the customized list, select a radio or a WAVE user and press the **Delete** button.

To make a call to a radio or a WAVE user, click its button, or select a radio or a WAVE user and click the **PTT** button. The **PTT** settings defined in [Control Devices](#) are applied to this panel.

You can distinguish between radio and WAVE user states on the panel. Different states differ by color of the control button and the frame around it. The colors are the same as in [Custom Consoles](#).



The icon on the radio or WAVE user button shows that the dispatcher did not answer the call from a radio or a WAVE user. The figure next to it shows the number of missed calls.

3.7 Job Tickets

The **Job Tickets** panel provides controls for sending special assignments to radios and tracking their execution. You can send job tickets both to individual radios and to talkgroups.

IMPORTANT

The **Job Tickets** functionality is not available in the Capacity Max systems.

NOTE

Only radios equipped with a display can receive job tickets. The radios that do not support the **Job Tickets** functionality but have a display receive job tickets as messages, for example `<JTS> Job Ticket ? 1 Create weekly report`. To check whether the radio supports this functionality, contact your System Administrators.

You can open the **Job Tickets** panel by clicking **Job Tickets** on the **Tools** menu .

The **Job Tickets** panel consists of three areas:

- Filters
- Job Ticket Management
- Status Change Log

Job Tickets

Filters

Job ticket:

Assignee:

Status:

Created:

Updated:

Show complete job tickets

Job Ticket	Descripti...	Assignee	Status	Created	Expires	Updated	Delivery Status
#22 Task 1	Do Task 1	Radio 2		21.05.2018 10:08:36	22.05.2018 10:08:36	21.05.2018 10:08:36	Not Sent
#22 Task 1	Do Task 1	Radio 1		21.05.2018 10:08:36	22.05.2018 10:08:36	21.05.2018 10:08:36	Not Sent
#23 Task 2	Do Task 2	Radio 3		21.05.2018 10:08:48	22.05.2018 10:08:48	21.05.2018 10:08:48	Not Sent

Status Change Log

Date/Time	Status
21.05.2018 10:08:48	

3.7.1 Filters Area

In the **Filters** area, you can filter the job tickets displayed in the [Job Tickets Table](#) by one or multiple parameters.

By default, the filters area is collapsed. You can expand it by clicking the Expand button () located in the upper left corner of the panel, to the left of the **Filters** area name.

☐ Filters

Job ticket:

Assignee:

Status:

Created:

Updated:

The **Filters** area provides the following controls for filtering the entries in the Job Tickets Table:

- The **Job Ticket** check box activates the list for selecting the job ticket name.
- The **Assignee** check box activates the list for selecting the job ticket assignee (radio or talkgroup).
- The **Status** check box activates the list for selecting the job ticket status. For information on statuses, see [Management Area](#).
- The **Created** check box activates the boxes for setting the start and end points of the time period during which the job ticket was created.
- The **Updated** check box activates the boxes for setting the start and end points of the time period during which the job ticket was updated.
- The **Apply** button applies the selected filters.
- The **Clear** button cancels all the applied filters.

For information on applying filters, see [Filtering Job Tickets](#).

3.7.2 Management Area

The Management area includes a list of job tickets and controls for managing them.

Show complete job tickets



Job Ticket	Descripti...	Assignee	Status	Created	Expires	Updated	Delivery Status
#22 Task 1	Do Task 1	Radio 2		21.05.2018 10:08:36	22.05.2018 10:08:36	21.05.2018 10:08:36	Not Sent
#22 Task 1	Do Task 1	Radio 1		21.05.2018 10:08:36	22.05.2018 10:08:36	21.05.2018 10:08:36	Not Sent
#23 Task 2	Do Task 2	Radio 3		21.05.2018 10:08:48	22.05.2018 10:08:48	21.05.2018 10:08:48	Not Sent

The following controls are available:

Show complete job tickets

If selected, displays all entries in the [Job Tickets Table](#) irrespective of their status. If cleared, hides the job tickets with the *Complete* status from the table. If the job ticket is assigned to a talkgroup, it will be hidden if the latest radio status received from the group is *Complete*.

Add

The button opens a window for adding a new job ticket. For details, see [Adding Job Tickets](#).

Delete

The button cancels the selected job tickets and deletes them from the [Job Tickets Table](#). For details, see [Adding Job Tickets](#).

If the **Send notification to radio when uncompleted job ticket was deleted by dispatcher** check box is selected in the [Job Ticket Statuses](#) window, the assignees of the deleted job tickets receive a text message with information on the job ticket cancellation.

Resend

The button opens the **Job Ticket** window where you can edit the parameters of the job ticket before resending. You can resend it by clicking **OK**. This function can be useful in case of a delivery failure, if the assignee does not react to the job ticket for a long time, or if you want to check if a specific member of the talkgroup received it.

NOTE

Before resending a job ticket, ensure that automatic numbering is turned on and each new job ticket is assigned a unique number. Radios do not receive job tickets with the same names even though they are displayed as separate entries in the Job Tickets Table. For details, see [Job Ticket Statuses](#).

Update Status

The button initiates update of job ticket statuses after a period of the dispatch console inactivity (for example, if the console computer was turned off or lost connection to the server). If no changes occurred during the inactivity period, a dialog box with a message indicating no registered updates appears.

Below the controls, the Job Tickets Table is located. By default, it displays all job tickets sent from the current console. If you apply filtering, the table displays only the entries that meet the filter criteria.

The Job Tickets Table consists of the following columns:

Column Name	Description
Job Ticket	Includes the number assigned to the job ticket by the automatic numbering functionality and the job ticket name that is set during the Adding Job Tickets procedure.
Description	The job ticket description that is set during the Adding Job Tickets procedure.
Assignee	The radio or talkgroup to which the job ticket was sent. The parameter is set during the Adding Job Tickets procedure.
Status	The status indicating the execution of the job ticket by the assignee. When the assigned radio changes the job ticket status, the status in the Job Tickets Table changes accordingly. If the job ticket is assigned to a talkgroup, the status in the table shows the latest status update and the name of the radio that updated it. All status

Column Name	Description
	updates performed by members of the talkgroup are available in the Status Change Log table.
Created	The date and time when the job ticket was created.
Expires	<p>The date and time when the job ticket becomes invalid. The expiration time is calculated automatically and depends on the Validity Period that is set during the Adding Job Tickets procedure. The expired job tickets are not hidden when the Show complete job tickets check box is cleared.</p> <p>When the validity period expires, the status of the job ticket in the Job Tickets Table changes to <i>Ticket Outdated</i>. If the job ticket assignee is offline and the validity period expires before the assignee appears online, the job ticket will not be sent. Until the validity period expires, the assignee will receive it as soon as they appear online.</p>
Updated	The date and time when the job ticket status was last updated by the assignee.
Delivery Status	<p>The status indicating if the job ticket was sent. The following delivery statuses are available both for radios and talkgroups:</p> <ul style="list-style-type: none"> • Sent – the job ticket was sent but no information on its delivery is available. • Not sent – the job ticket was not sent due to issues with SmartPTT Dispatcher connection to the server. <p>Job tickets sent to individual radios may also have the following statuses:</p> <ul style="list-style-type: none"> • No status – the assignee is transmitting and its receiving channel is busy. As soon as the transmission finishes, the status changes to <i>Delivered</i>. • Delivered – the job ticket was received by the assignee.

Column Name	Description
	<ul style="list-style-type: none"> • Outdated – the job ticket validity period expired but the assignee can still update its status. The radio does not receive the job ticket if it appears online after the validity period expiration. <p>SmartPTT Dispatcher does not provide information on which of the radios in the talkgroup received the job ticket. To check the job ticket delivery status for a specific radio, you can resend this ticket to the desired radio individually.</p>

You can sort the job tickets displayed in the table by columns and arrange the entries in ascending or descending order by clicking the name of the desired column. You can sort entries only by one column, clicking the name of another column automatically discards the sorting order applied earlier.

3.7.3 Status Change Log Area

The **Status Change Log** area appears only if one of the job tickets in the [Job Tickets Table](#) is selected. It provides information on the selected job ticket updates and displays the history of the status changes in the table format.

Status Change Log

Date/Time	Status
21.05.2018 10:08:48	

The Status Change Log Table consists of the following columns:

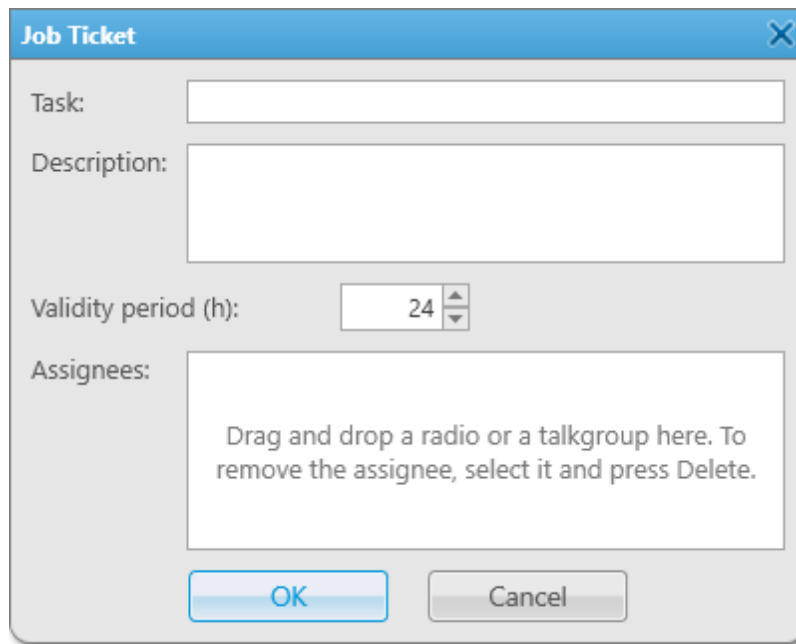
- The **Date/Time** column contains date and time of the selected job ticket status update.
- The **Status** column contains the status that the selected job ticket acquired after the current update.

3.7.4 Adding Job Tickets

Follow the procedure below to add a new job ticket and send it to a single or multiple radios or talkgroups.

Procedure:

1. If the **Job Tickets** panel is closed, on the menu bar, click **Tools** → **Job Tickets**.
2. In the Management area, click the **Add** button.
The **Job Ticket** window appears.



3. In the **Task** box, type the name of the job ticket.
4. In the **Description** box, type a short description of the job ticket. The maximum description length is 200 symbols.
5. In the **Validity period (h)** box, enter the amount of time (in hours) for which the job ticket will be valid. The default value is 24 hours. The minimum value is 1 hour.

NOTE

Subscriber units do not receive information about the job ticket validity period and cannot see if it has already expired. To ensure the job ticket task is not performed after its expiration time, you can delete it from the Job Tickets Table, send another job ticket indicating the cancellation or state the validity period in the **Description** box before sending it.

6. Drag and drop the desired radio or talkgroup from the **Radio Fleet** panel to the **Assignees** box.
If you want to remove an assignee, select it in the **Assignees** box, and then press the Delete key.
7. Click **OK** to send the job ticket.

Postrequisites:

To delete a job ticket, in the Management area of the **Job Tickets** panel, click the desired job ticket, and then click the **Delete** button. In the dialog box prompting for deletion confirmation, click **OK**.

3.7.5 Filtering Job Tickets

Follow the procedure below to filter the job tickets in the Job Tickets Table.
For information on Job Tickets Table, see [Management Area](#).

Procedure:

1. If the **Job Tickets** panel is closed, on the menu bar, click **Tools** → **Job Tickets**.
2. To set the desired filter parameter, perform one of the following actions:

To filter job tickets by name,	in the box on the right of the Job ticket check box, select the desired job ticket name.
To filter job tickets by assignee,	in the box on the right of the Assignee check box, select the desired radio or talkgroup.
To filter job tickets by status,	in the box on the right of the Status check box, select the desired job ticket status.
To filter job tickets by creation date and time,	in the box on the right of the Created check box, set the start and end points of the desired job ticket creation time range.
To filter job tickets by update date and time,	in the box on the right of the Updated check box, set the start and end points of the desired job ticket update time range.

NOTE

You can select more than one check box to specify the filtering conditions.

Example

If you set the start point at 01.04.2018 00:00:00 and the end point at 07.04.2018 23:59:59 in the **Updated** filter boxes, only the job tickets that were updated no earlier than 1 April 2018 and no later than 7 April 2018 will appear in the Job Tickets Table.

3. Click **Apply** to apply the selected filters.

Postrequisites:

To clear the applied filters and display all entries in the Job Tickets Table, click the **Clear** button.

3.8 Monitoring

The **Monitoring** panel is a complex tool which gives a comprehensive outlook on the whole radio system.

It includes four tabs:

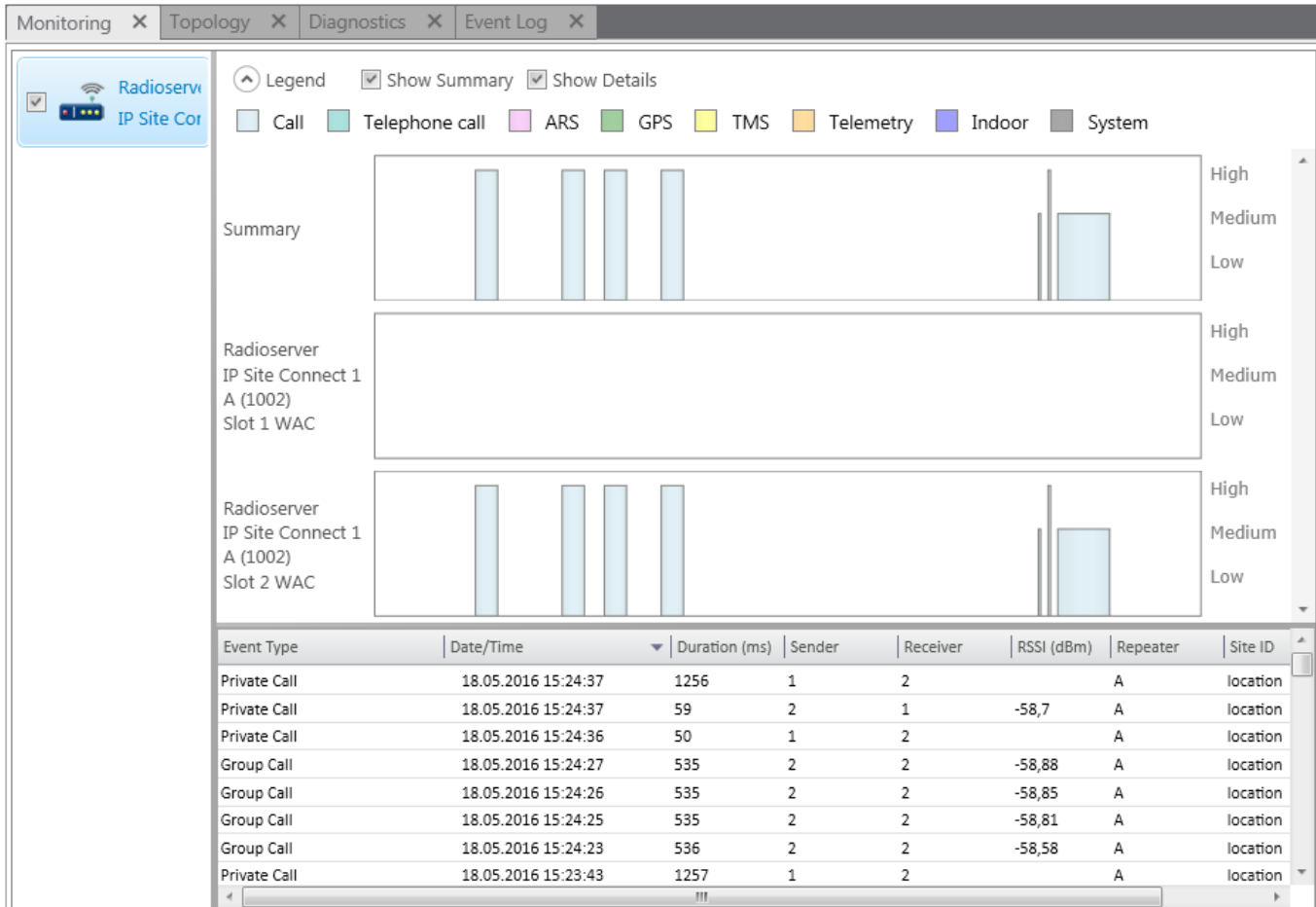
- [Monitoring](#)
- [Topology](#)
- [Diagnostics](#)
- [Event Log](#)

3.8.1 Monitoring

Monitoring is a graphical representation of data and voice received from MOTOTRBO repeaters, which allows observing the ongoing system operation.

Each logical channel has a section for displaying transmitted packets in the form of colored vertical bars. The height of the bar corresponds to the level of the received signal; and the color corresponds to the event type according to the legend.

In order to see the radioserver and its network in the **Monitoring** tab, ensure that the Monitoring service is enabled for this radioserver in SmartPTT Radioserver Configurator.



To use Monitoring in SmartPTT Dispatcher you should activate it in the SmartPTT Radioserver Configurator program. You can learn how to activate and configure it from SmartPTT Radioserver Configurator User guide.

Graphical representation of data packets is displayed only for the selected network.

NOTE

The list on the left shows only active networks of SmartPTT Radioserver. If a network becomes inactive, it disappears from the list.

Show Summary: When selected, events from different slots appear in one block.

Show Details: When selected, events from different slots appear in separate blocks.

When checking both parameters, all the three blocks are displayed.

Data is displayed in blocks:

Name	Description
Call	All Call, group calls, private calls, remote monitoring, emergency calls
Telephone call	Telephone calls
ARS	Registration information, that is information about radio availability in the network (ARS service)
GPS	GPS coordinates of radios and WAVE users (GPS service)
TMS	Text messages (TMS service)
Telemetry	Telemetry commands and signals
Indoor	Data from beacons showing radio locations inside a building (i.e., Indoor Positioning)
System	System events from and to MOTOTRBO equipment (data confirmation, private call confirmation, alarms, remote monitoring (only a command), Radio Check and some other)

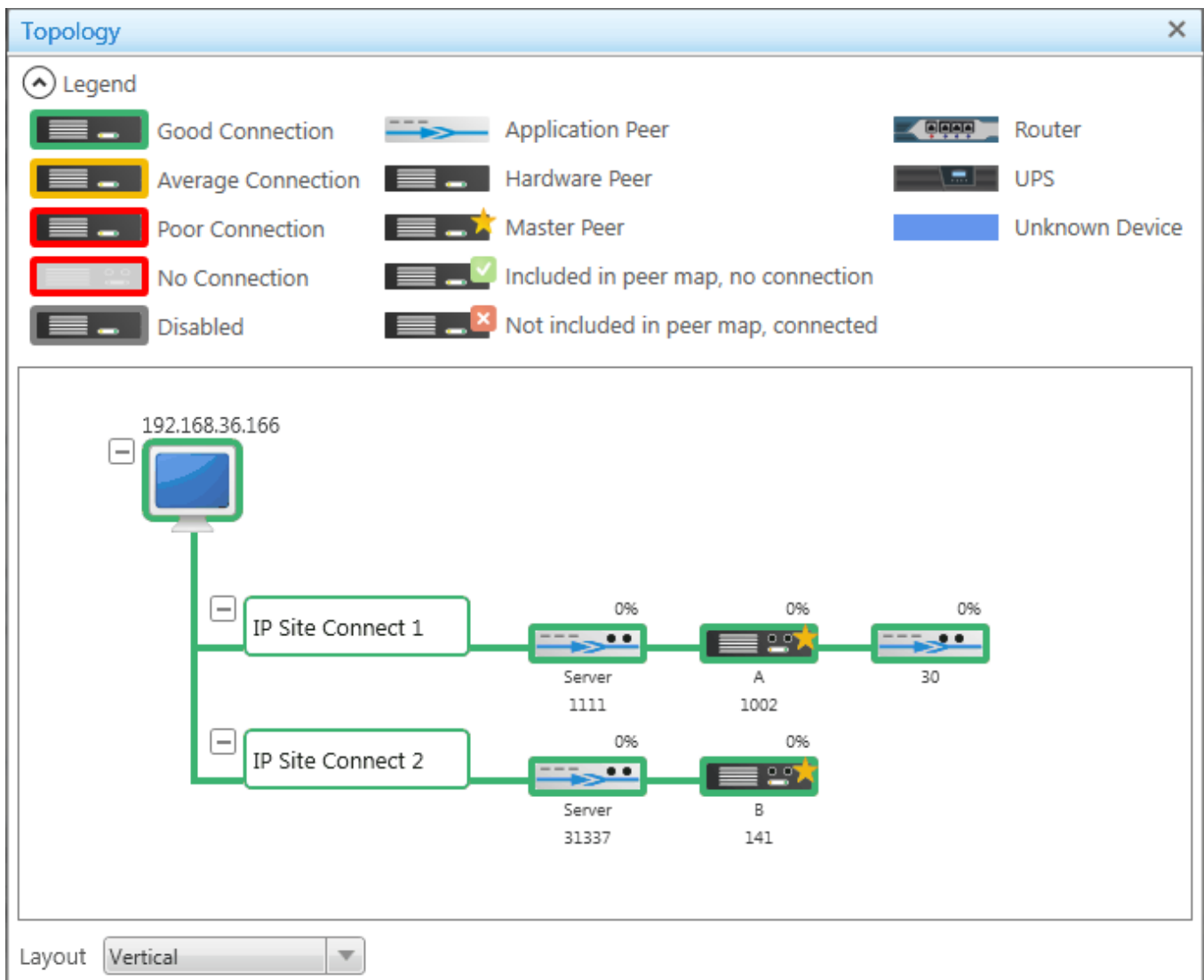
Levels displayed on the right to the blocks (*High, Medium, Low*) correspond to the RSSI level ranges: -80 or more (*High*), -80 to -100 (*Medium*) and -100 or lower (*Low*).

The event log at the bottom of the screen gives more detailed information, namely the type of transmitted data (ARS, GPS, Message, Emergency Call, etc.), date and time of the event, its duration, initiator's and addressee's IDs, repeater ID and RSSI level, site ID (applied to LCP systems only), network name.

3.8.2 Topology

Topology is a schematic representation of active networks. A network topology is set in SmartPTT Radioserver Configurator and displayed in SmartPTT Dispatcher.

If network configuration is not set in SmartPTT Radioserver Configurator, the network topology will be generated automatically based on the information received from the available network repeaters. Repeaters, which are added but not active, are marked red. When the repeater is not added to the network topology, and the connection with the repeater is lost, it disappears from the network topology.

















NOTE

In order to see the radioserver and its network in the **Topology** tab, ensure that the **Monitoring** service is enabled for this radioserver in SmartPTT Radioserver Configurator.

The **Topology** tab displays objects of a network depending on their type or condition.







Topology Objects

Topology Object	Description
	SmartPTT Radioserver
	Network in folded state
	Repeater is not connected
	Virtual repeater (i.e., SmartPTT Radioserver), or MNIS
	Slave hardware repeater
	Master hardware repeater
	Master virtual repeater
	Repeater is not connected, but it is included in the peer map
	Repeater is connected, but it is not in the peer map
	Location in a folded state

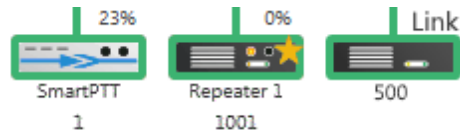
Topology Object	Description
	Location in an unfolded state
	UPS (Uninterruptible Power Supply)
	Router
	Unknown device (any other device)

The **Topology** tab indicates link types between objects of a network.

Link Types

Link Type	Description	Visual Element	Example
Wireline connection	Connection to repeater is wireline	Solid line	
Wireless connection	Connection to repeater is wireless	Dashed line	
Normal link (no alarms)	Device is connected or no alarms registered on device	Green line	
Minor alarms	Minor alarm is registered on device or there are more than 5 packets lost or corrupted	Yellow line	
Major alarms	Major alarm on device or no connection	Red line	
Dead link	Repeater is turned off	Gray line	

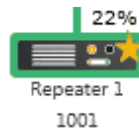
Repeater loading on both logical channels is displayed above each repeater. If you use a repeater to link one site to another site in Backhaul Systems, the **Link** or **Drop** text (depending on the repeater role) appears instead of the load percentage.



Loading grows steadily, not sharply, until the maximum value. When both logical channels are used, the maximum value is 100%, when only one logical channel is used – 50%.

Repeater ID is displayed at the bottom of the repeater name.

A busy channel is represented by a yellow LED on the repeater.



Application peer ID is specified in SmartPTT Radioserver Configurator (**Peer ID**).

NOTE

All the repeaters used in one network should have unique ID's.

Radioserver

To fold and unfold the network, right-click on the radioserver and select **Fold** or **Unfold** respectively. To fold and unfold the desired node, click Fold (**+**) or Unfold (**-**) respectively.

To view radioserver parameters and the ongoing performance information, right-click on the radioserver image and select **Information**.

The screenshot shows the 'Information' dialog box for a radioserver. The dialog box is divided into several sections:

- Operating System:** Microsoft Windows XP Professional
- Processor Load:**
 - CPU, %: 20
 - Free Memory, Mb: 208
 - Total Memory, Mb: 2023
 - Used Memory, %: 89
- Hard Disks:**
 - Disk: C:\
 - Free, Gb: 51
 - Total, Gb: 99
 - Used, %: 48
- Network Interfaces:**
 - Network Interface: 192.168.50.2
 - Subnet Mask: 255.255.255.0
- Sensors:**

Name	Description	Value
FAN 1	Normal	1849.00 RPM
FAN 2	Normal	2025.00 RPM
FAN 3	Requested Sensor, data,...	
FAN 4	Normal	2704.00 RPM
FAN 5	Normal	1764.00 RPM
FAN 6	Requested Sensor, data,...	
CPU1 Vcore	Normal	0.97 Volts
CPU2 Vcore	Normal	1.06 Volts
CPU1 DIMM	Normal	1.52 Volts

Operating System: Provides information on the OS used on the server.

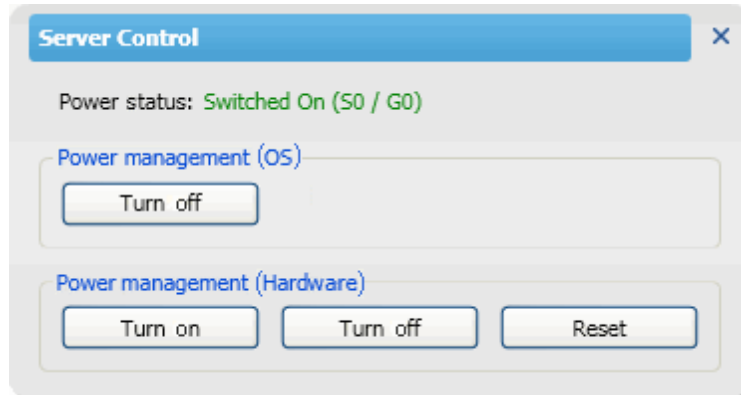
Processor Load: Displays current CPU load and other information about PC memory.

Hard Disks: Provides information on the available hard disks of the PC and their characteristics.

Network Interfaces: Displays the network interface and the sub network mask of the PC.

Sensors: Displays platform status (for example, system temperatures, voltages, fans, power supplies and chassis intrusion).

To operate remotely, right-click on the radioserver image and select **Control**. To be able to control the radioserver remotely, make sure that IPMI parameters are set in the settings of the radioserver. If the IPMI settings are correct, the following window will open:



Power Status: Shows the current status of the radioserver. There can be three statuses:

- **Switched On**
- **Switched Off**
- **N/A Unknown** (in this case check that [IPMI settings](#) are correct)

Power Management (OS): Allows to turn off the radioserver at the OS level.

Power Management (Hardware): Allows to turn on/off or to hard reset the radioserver computer at the hardware level.

NOTE

If the radioserver computer is blocked, you can turn off the radioserver computer only at the hardware level.

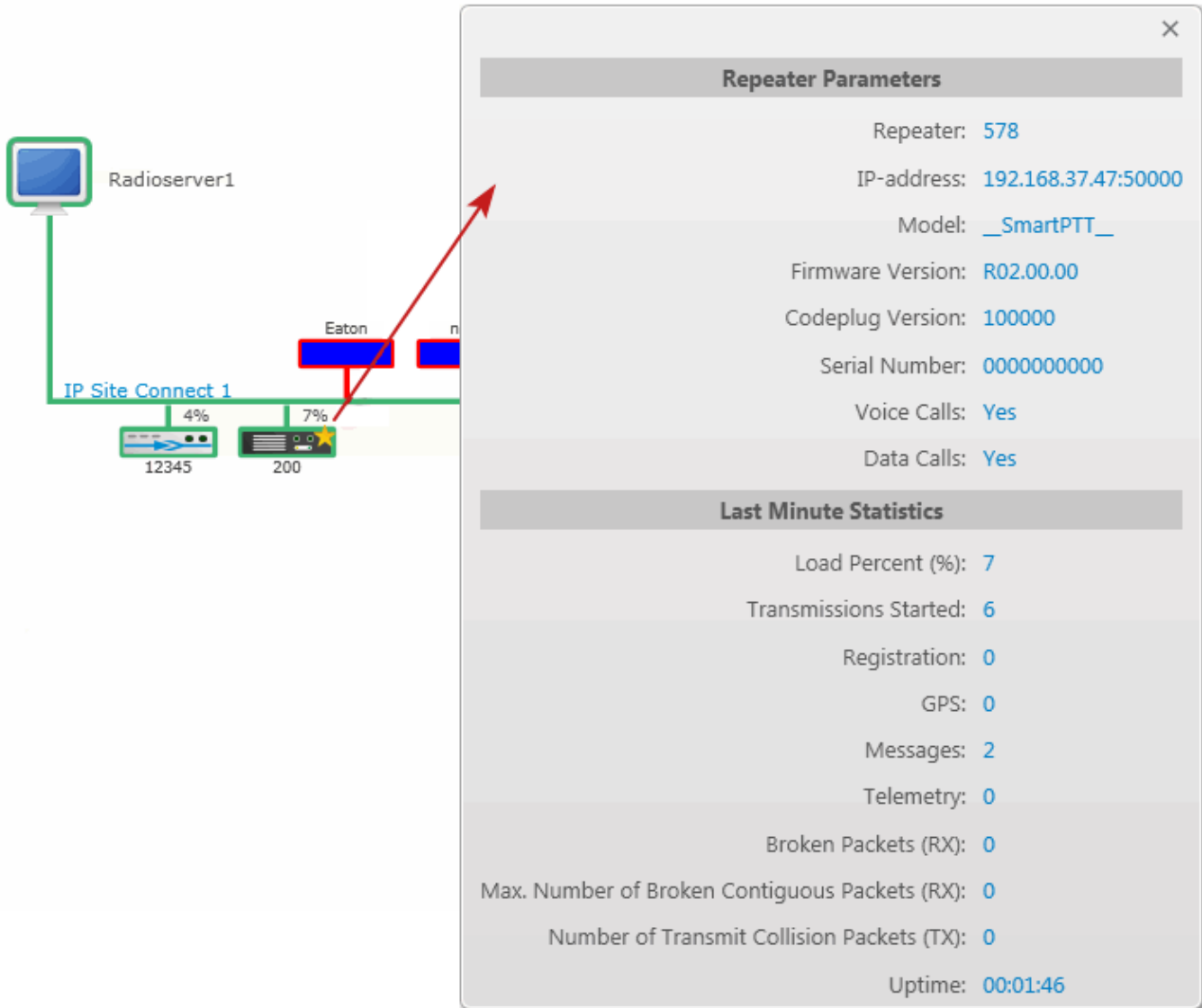
If you have more than one radioserver, you can arrange them in the **Topology** tab either vertically or horizontally.

The layout can be selected in the **Layout** list at the bottom of the **Topology** tab. The selected layout is applied not only to radioserver elements, but to all elements, which can be folded and unfolded.

Repeater

To view repeater parameters and statistics, right-click the repeater element, and select **Information**.

NOTE
Parameters of backhaul repeater chains repeater include its ID and model only.



The diagram shows a network topology where a Radioserver1 is connected to an IP Site Connect 1. This IP Site Connect 1 is then connected to two repeaters. The first repeater is labeled 'Eaton' and has a red box around it with an arrow pointing to a 'Repeater Parameters' dialog box. The dialog box displays the following information:

Repeater Parameters	
Repeater:	578
IP-address:	192.168.37.47:50000
Model:	__SmartPTT__
Firmware Version:	R02.00.00
Codeplug Version:	100000
Serial Number:	0000000000
Voice Calls:	Yes
Data Calls:	Yes

Last Minute Statistics	
Load Percent (%):	7
Transmissions Started:	6
Registration:	0
GPS:	0
Messages:	2
Telemetry:	0
Broken Packets (RX):	0
Max. Number of Broken Contiguous Packets (RX):	0
Number of Transmit Collision Packets (TX):	0
Uptime:	00:01:46

Repeater parameters

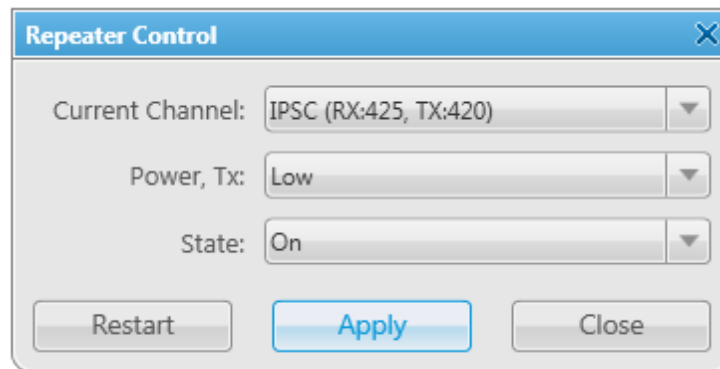
Name	Description
Repeater	Repeater ID
IP-address	Repeater IP address
Model	Repeater model number
Firmware Version	Version of firmware used in repeater
Codeplug Version	Repeater parameter block version
Serial Number	Repeater serial number
Voice Calls	Ability to transmit voice (Yes, No)
Data Calls	Ability to transmit data (Yes, No)

Statistics

Name	Description
Load Percent (%)	Channel loading on repeater for the last 10 seconds
Transmissions Started	Number of times the PTT button was pressed
Registration (ARS)	Number of registration packets transmitted for the last minute
GPS	Number of GPS coordinates transmitted for the last minute
Messages	Number of text messages transmitted for the last minute
Telemetry	Number of telemetry packets transmitted for the last minute

Name	Description
Broken Packets (RX)	Number of packets (Rx) with errors, received for the last minute
Maximum Number of Broken Contiguous Packets (RX)	Maximum number of broken packets (Rx) in a row
Number of Transmit Collision Packets (TX)	Number of not transmitted packets due to collisions on the channel
Uptime	The time during which the repeater is available in the network

To operate remotely, right-click the repeater element and select **Control**. The **Repeater Control** window appears.



NOTE

You cannot operate virtual repeaters remotely, therefore, the **Repeater Control** window is available only for hardware repeaters connected to the radioserver.

Current Channel: Channel used by the repeater. Channels are set in repeater settings with the help of *MOTOTRBO CPS*.

Power, TX: Transmitter power of repeater. There are high and low modes. Bands for both modes are specified in *MOTOTRBO CPS*.

State: Allows switching the repeater to **active** or **not active** mode. When in the **not active** mode, repeater does not transmit any signals. To switch the repeater to the **active** mode, select *On* in the **State** box.

Restart: Allows restarting repeater remotely.

Apply: Applies settings specified in the **Repeater Control** window.

Close: Closes the **Repeater Control** window without making changes in the repeater settings.

Uninterruptible Power Supply (UPS)

Currently, you can select between Eaton, UPS ATS-Converters and Apc 5000 and any other UPS if you select *Unknown* in the **Type** box.

To view parameters and status information of a UPS, right-click on its symbol and select **Information**.

Identification

Name	Description
Model	UPS model
Serial Number	Device serial number
Firmware	Firmware version
IP-address	IP-address
Network Mask	Network mask

State

Name	Description
Alarm Details	Informs about issues in UPS operation
Input Power Source	Input Power Source
Output Power Source	Output Power Source
Last Battery Replacement	Date and time when battery was replaced last time

Parameters

Name	Description
Input Voltage (V)	Input voltage level (V)
Input Frequency (Hz)	Input frequency level (Hz)
Output Voltage (V)	Output voltage level (V)
Output Frequency (Hz)	Output frequency level (Hz)
Output Current (A)	Output current level (A)
Output Power (W)	Output power level (W)
Load (%)	UPS loading in percent
Battery Charge (%)	Battery charge left in percent
Charge Left (hh:mm)	Battery charge left in hours and minutes

Router

Currently, you can select between Cisco and Huawei routers and any other router if you select *Unknown* in the **Type** box.

To view parameters and other information of the router, right-click on the element and select **Information**.

Identification

Name	Description
Model	Router model
Serial Number	Router serial number

Alarms: Gives information about issues in the router operation.

Unknown Device

Unknown device is any kind of device.

To view information on the device, right-click on the element and select **Information**.

Parameters

Name	Description
System Name	Name of the device
System Description	Description of the device
Alarm Details	Informs about issues in the device operation

Location

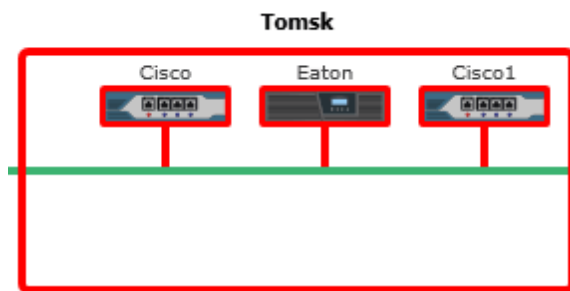
To change the way **Location** is displayed, right-click on the **Location** element, or click on the **Plus/Minus** icon. There are two display modes:

- Folded
- Unfolded

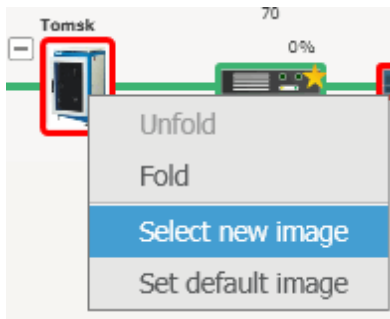
Folded: Location is displayed as an image inside a box.



Unfolded: Displays which devices, repeaters and routers are used in this location.



To change the default image of **Location**, right-click on the object. The drop-down list appears where you can either upload your own image or set the default image.



3.8.3 Diagnostics

Diagnostics provides information about the current state of the connected MOTOTRBO repeaters and alarms.

The screenshot shows the Diagnostics tool interface. The main window displays a table with columns: Radio Network, Location, Name, Codeplug Version, Serial Number, Signaling..., Condition, Lock, Power Level, and Channel. The table contains two rows of data:

Radio Network	Location	Name	Codeplug Version	Serial Number	Signaling...	Condition	Lock	Power Level	Channel
IP Site Connect 1	-	Server	00.00.00	000000000	DigitalOnly				Softwar
IP Site Connect 1	-	Repeater Tomsk 1	14.00.07	484TPE2494	DigitalOnly				IPSC

On the right side, there is a detailed view for 'Repeater Tomsk 1'. It includes sections for Alarms, Diagnostics (with a Refresh button), Repeater statistics, Repeater properties, and Supported alarms. The Repeater statistics section shows the following data:

Repeater load (%)	14
Slot-1 load (%)	29
Slot-2 load (%)	0
Transmissions started	2
Registration	0
Location	0
Messages	0
Telemetry	0
Broken packets (RX)	0
Max. number of broken contiguous packets (F)	0
Number of transmit collision packets (TX)	0
Uptime	00:00:27:37

To select columns to be displayed, right-click the menu bar with the column names. The following list opens.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Radio Network | <input checked="" type="checkbox"/> Channel Name |
| <input checked="" type="checkbox"/> Alarm | <input checked="" type="checkbox"/> Rx Frequency |
| <input checked="" type="checkbox"/> Location | <input checked="" type="checkbox"/> Tx Frequency |
| <input checked="" type="checkbox"/> Name | <input checked="" type="checkbox"/> Online |
| <input checked="" type="checkbox"/> Peer ID | <input checked="" type="checkbox"/> Master |
| <input checked="" type="checkbox"/> IP Address | <input checked="" type="checkbox"/> Controller |
| <input checked="" type="checkbox"/> Model | <input checked="" type="checkbox"/> Application Peer |
| <input checked="" type="checkbox"/> Firmware Version | <input checked="" type="checkbox"/> Voice Calls |
| <input checked="" type="checkbox"/> Codeplug Version | <input checked="" type="checkbox"/> Data Calls |
| <input checked="" type="checkbox"/> Serial Number | <input checked="" type="checkbox"/> Slot-1 WAC |
| <input checked="" type="checkbox"/> Signaling Mode | <input checked="" type="checkbox"/> Slot-2 WAC |
| <input checked="" type="checkbox"/> Condition | <input checked="" type="checkbox"/> Description |
| <input checked="" type="checkbox"/> Lock | <input checked="" type="checkbox"/> Role in backhaul chain |
| <input checked="" type="checkbox"/> Power Level | <input checked="" type="checkbox"/> Proxy relay |

For repeaters that are involved in the backhaul communication, the following additional information is provided:

Master: Shows the name of the master repeater in Backhaul Repeater Chain (BRC).

Role in Backhaul Chain: Shows if the repeater provides SmartPTT Dispatcher with access to BRC (proxy) for communicating with other sites (link), or for managing transmissions in BRC (drop).

Proxy relay: Shows the name of the proxy repeater of BRC.

NOTE

By default, all items in the list are selected and all columns appear in the table.

On the right side of the panel you can find all the technical information about the repeater selected in the table, including the repeater's statistics, its properties, and alarms (if there are any). You can also get the latest information on RSSI levels per slot and other parameters by clicking the **Refresh** button under **Diagnostics**.

3.8.4 Event Log

The event log of monitoring is one of the best ways to learn about hardware alarms, for example, it informs about repeater connection or about the states of connected routers and UPS.

RadioServer	Network	Site	Event Time	Device Type	Repeater	Device Name	Device ID	Alarm Severity	Description
RadioServer	IP Site Connect 1	-	05.06.2015 18:10:20	Repeater	30000		192.168.37.128:61867	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 18:10:20	Repeater	14		192.168.37.170:50000	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 18:02:53	Repeater	141	Motorola	192.168.37.141:50101	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 18:00:33	Repeater	1888	SmartPTT	192.168.37.73:50000	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 15:54:25	Repeater	1	SmartPTT	192.168.37.72:50000	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 15:36:36	Repeater	1		192.168.37.72:50000	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:21:24	Repeater	111		192.168.37.73:50011	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 15:20:21	Repeater	111		192.168.37.73:50011	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:20:07	Repeater	111		192.168.37.73:50011	-	Repeater disconnected
RadioServer	IP Site Connect 1	-	05.06.2015 15:19:10	Repeater	111		192.168.37.73:50011	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:12:13	Repeater	30000		192.168.37.128:61867	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:12:11	Repeater	18569		192.168.37.137:50000	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:12:08	Repeater	1888		192.168.37.73:50000	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:11:47	Repeater	14		192.168.37.170:50000	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 15:11:46	Repeater	141		192.168.37.141:50101	-	Repeater connected
RadioServer	IP Site Connect 1	-	05.06.2015 8:58:36	Repeater	12	Server	192.168.37.33:50000	-	Repeater connected
RadioServer	IP Site Connect 1	-	04.06.2015 18:02:00	Repeater	12	Server	192.168.37.33:50000	Critical	Repeater disconnected
RadioServer	IP Site Connect 1	-	04.06.2015 18:02:00	Repeater	30000		192.168.37.128:61867	-	Repeater disconnected

NOTE

Events with severity **Critical**, **Major** and **Minor** are highlighted with red, pink and yellow respectively.

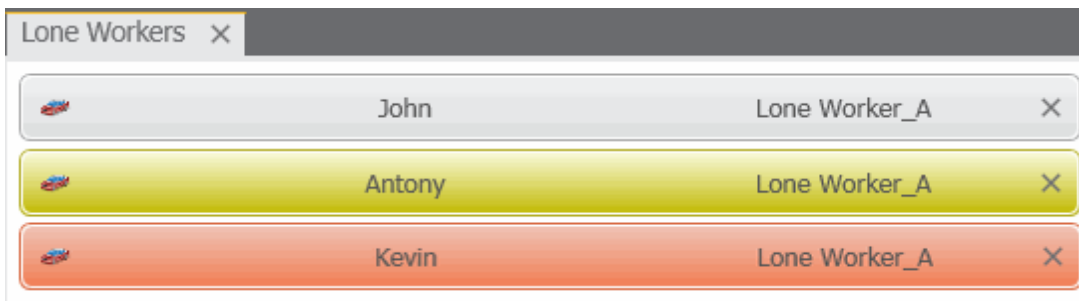
Besides reviewing current events, **Event Log** provides the ability to view saved events for the particular time period.

To review events for a time period, select **Show Logged Events**, define the period limits by using the calendars for start and end dates, select the radioserver from the drop-down list and click **Apply**.

3.9 Lone Workers

The **Lone Workers** panel displays the list of radios and [WAVE users](#) which are in the **Lone Worker** mode and their current status. This was designed for a better supervision over lone workers.

To open the **Lone Workers** panel, expand the **Tools** menu on the menu bar of the SmartPTT Dispatcher window, and click **Lone Workers**. The following window appears:



The **Lone Workers** panel shows radios and WAVE users working in the **Lone Worker** mode marked with specific color. The color shows if the radio or the WAVE user meets the requirements set for the lone worker profile the radio or the WAVE user belongs to:

- **Light gray:** The lone worker did not violate the rule
- **Yellow:** Rule violation: the event, described by the rule, has occurred. Alert Timer starts
- **Red:** The lone worker did not react in a specified way after Alert Timer expired

NOTE

For more information how to set rules for lone workers, see [Lone Worker Rules](#).

To turn off the **Lone Worker** mode, click the cross button.

If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

3.10 Recent Incoming Calls

The **Recent Incoming Calls** panel shows the latest radios which made a call in the radio network. It also provides quick access to the call window of the radios.

To open the panel, on the **Tools** menu click **Recent Incoming Calls**.



If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

To call a radio, click it in the panel. This opens the **Call Window** of the radio.

To change the number of radios in the panel, change the [Recent Incoming Calls](#) settings.

3.11 Notifications

The **Notification** window informs the dispatcher that the set of rules were not fulfilled and the alarms were activated.

The following rules are displayed in the **Notifications** window:

- Rules and Alerts
- GPS Rules
- Lone Worker Rules

When the specified event happens and one of the rules triggers, the notification window appears automatically to display the alarm notification.

The usual notification is composed of the following parts:

- Caption
- Radio or [WAVE user](#) name and time

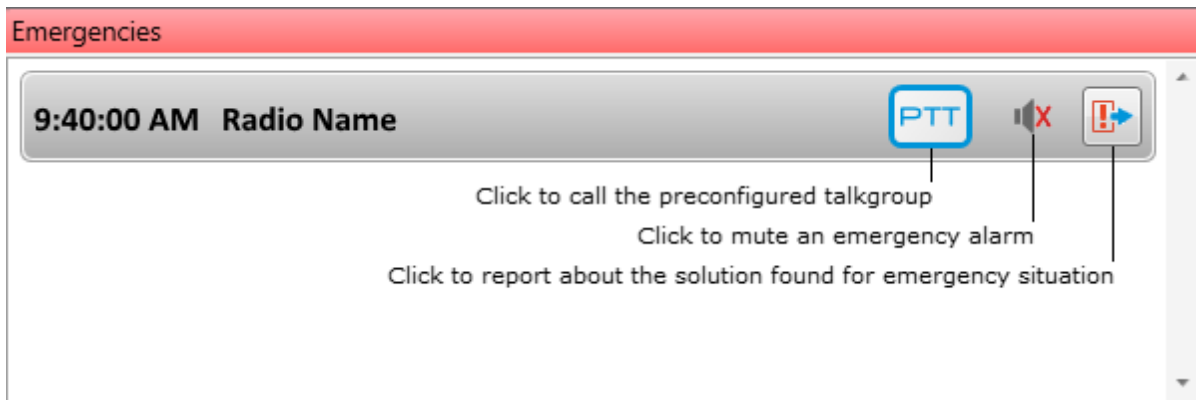
- Text of the alarm





If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

3.11.1 Emergencies

The **Emergencies** panel appears in SmartPTT Dispatcher when a radio sends an emergency alarm.



Operator can perform the following actions:

- Call the talkgroup which is preconfigured in the radio via the MOTOTRBO CPS program. To start the call it should click **PTT**.
- Mute the emergency alarm by clicking **Mute** .
- Report about the solution found for the situation. When operator clicks **Close Emergency** , the panel closes. However, the emergency mode of the radio stops only when it is turned off on the radio.

3.12 System Messages

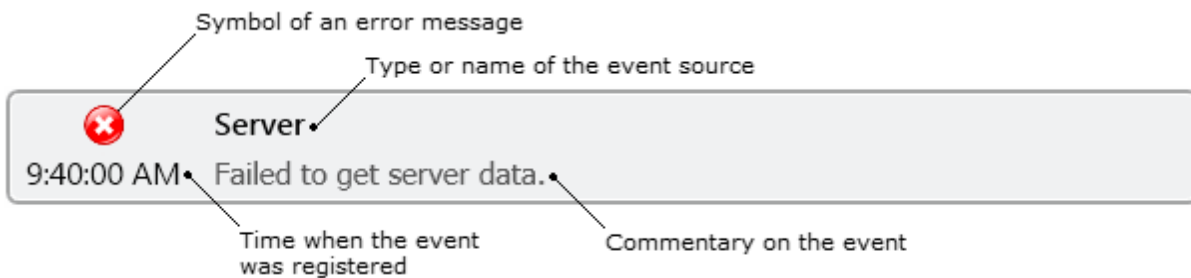
The **System Messages** panel displays messages on events related to the radio network functionality.

The system messages can inform you about the following:

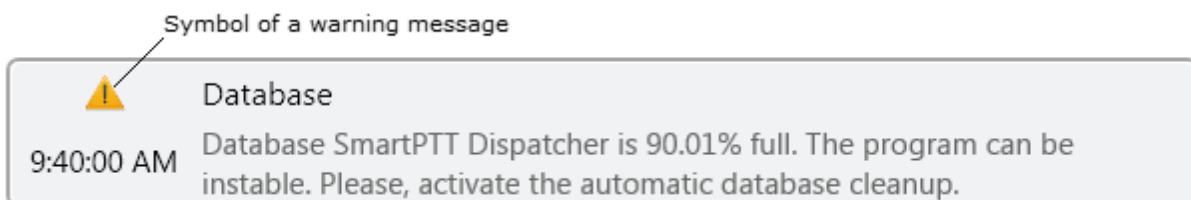
- The statuses of the connections to the radio networks
- The statuses of the connections to the radio network components
- The activity statuses of the network components
- The statuses of the connection to the server and more

You can see three types of messages:

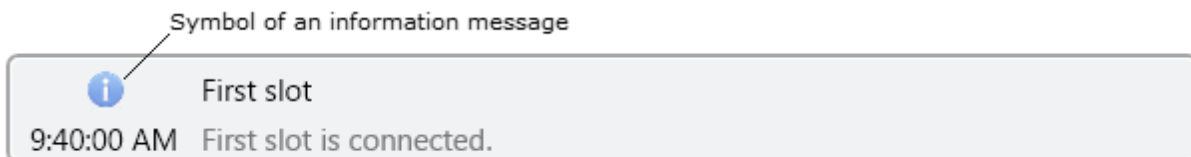
- Error messages for losing a great functionality:



- Warning messages for losing a minor functionality:



- Information messages about getting or restoring functionality:



You can configure rules for message appearance in the [Events and Notifications](#) menu.

You can learn a source of the event from the message:

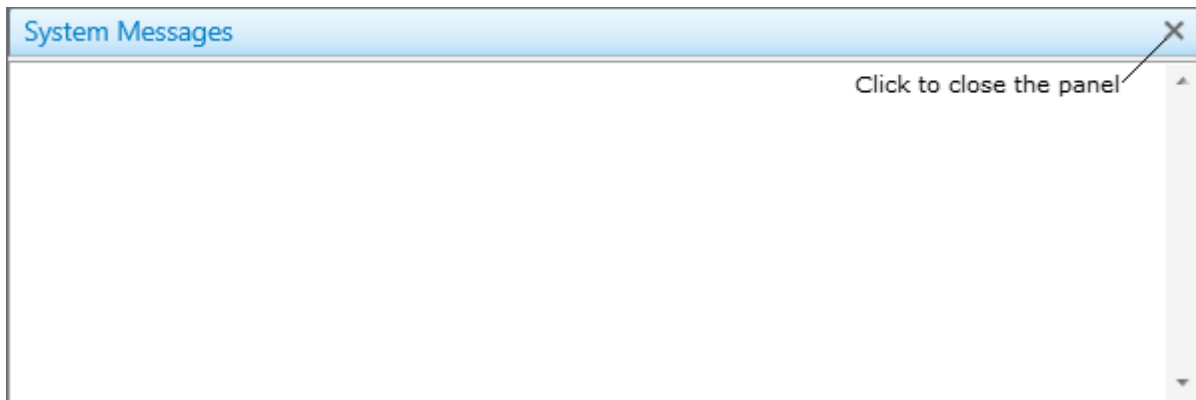
- Client, i.e. the SmartPTT Dispatcher program

- Server, i.e. the SmartPTT Radioserver program
- Client-Server Connection
- Database, i.e. the SmartPTT Dispatcher database
- Your radio network and its components

You can also see a time of the event and commentary on it.

You can show the **System Messages** panel in two ways:

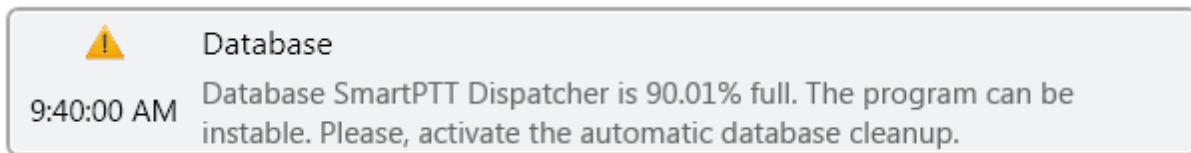
- On the **Tools** menu, click **System Messages**. The **System Messages** window appears.



- By configuring its automatic showing in the [System Messages](#) menu.

To close the **System Messages** panel click **Close** x.

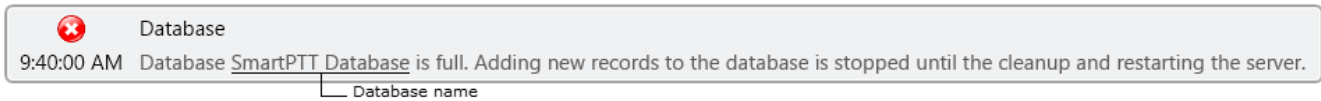
Warning Message Example



This message appears when amount of records in the database exceeds 90% of the maximum size of the database. It will appear at the start of SmartPTT Dispatcher and will reappear every 30 min until database is not cleaned up.

In rare cases you can see a message that database in 100% full. It appears only when 0.005% of free space left in the database.

Error Message Example

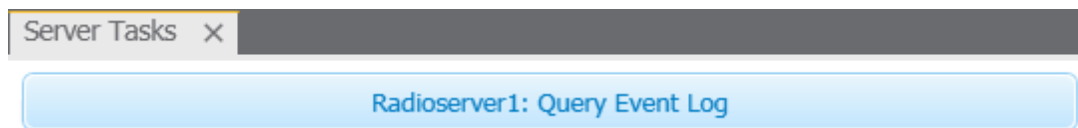


This message indicates that amount of records in the database reached its maximum. It will appear at the start of SmartPTT Dispatcher and will reappear every 30 min until database is not cleaned up.

3.13 Server Tasks

The **Server Tasks** window shows the list of commands from the dispatch application the radioserver is processing at a given moment of time.

For now, only a few commands are displayed in the **Server Tasks** window, for example, the command to create the radioserver event log.



4 Map

SmartPTT supports different maps, like Google Maps, OpenStreetMap, Baidu Maps, raster maps, maps in Polish format, and vector maps in various formats. Together with many useful tools like showing and animating a track, defining points of interest, maps provide the dispatcher with a better control over radios and [WAVE users](#). You can open the Call Window by double-clicking on a radio or a WAVE user displayed on the map, or open the Actions Menu by clicking with the right mouse button.

If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, on the radio label the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

Google Maps

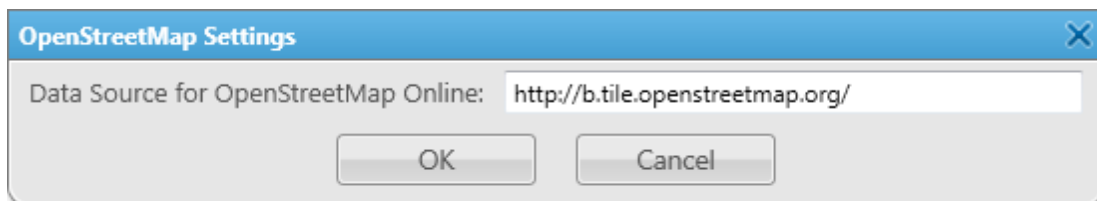
To open Google Maps, expand the **Map** menu on the menu bar of SmartPTT Dispatcher and click **Google Maps**.

OpenStreetMap

To open the online OpenStreetMap, expand the **Map** menu on the menu bar and click **OpenStreetMap** → **Open Online Map**.

To open an offline OpenStreetMap, expand the **Map** menu on the menu bar and click **OpenStreetMap** → **Open Map from File**. In the window that appears select a map file in the .osm or .tileurl format.

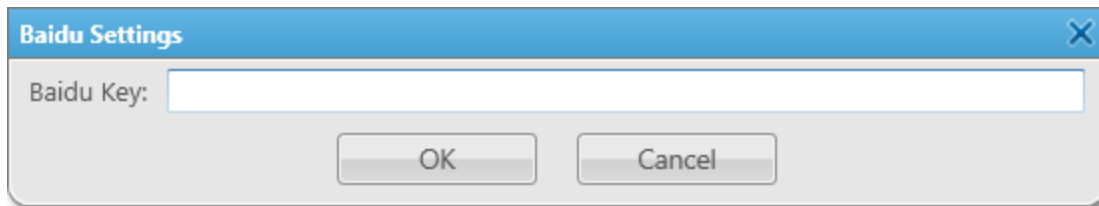
To open an OpenStreetMap from a local server, expand the **Map** menu on the menu bar and click **OpenStreetMap** → **Settings**. In the **Data Source for OpenStreetMap Online** box specify the path to the local server. If you want to get back to the default address, leave the **Data Source for OpenStreetMap Online** empty and click **OK**.



Baidu Maps

To open the online Baidu map, expand the **Map** menu on the menu bar of SmartPTT Dispatcher and click **Baidu Maps** → **Open map**.

Baidu Maps are available in SmartPTT Dispatcher only if you have a valid Baidu API key. The key must be specified in the **Baidu Settings** window (**Baidu Maps** → **Settings**).



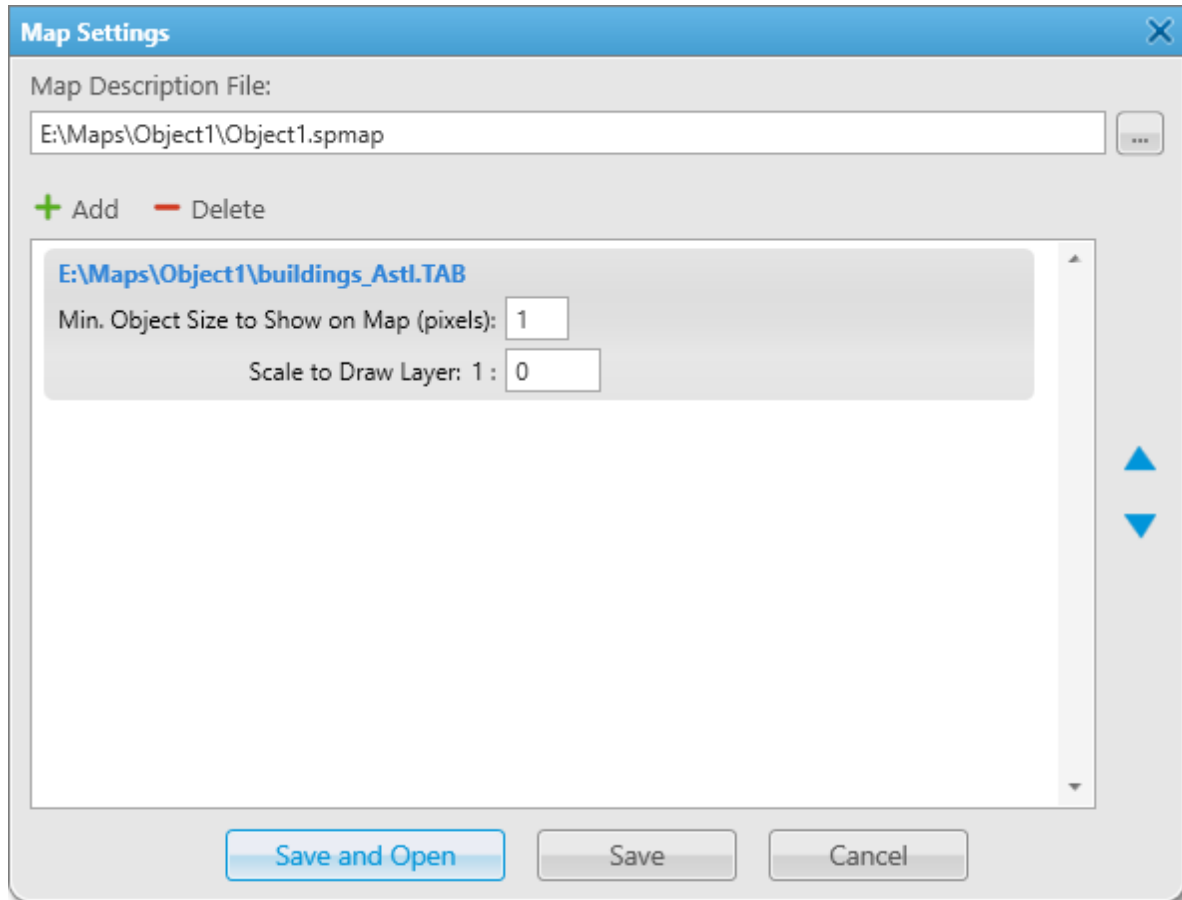
To obtain the Baidu key, address your System Administrator.

Maps in Polish Format

To open a map in Polish format, expand the **Map** menu on the menu bar of SmartPTT Dispatcher and click **Map in Polish Format**. In the window that appears select the desired map file in the .mp format.

MapInfo

To set a MapInfo map for SmartPTT Dispatcher, expand the **Map** menu on the menu bar and click **MapInfo** → **New Map**. In the **Map Settings** window click **Add** and in the window that appears select a map layer – a file in the TAB format. You can add multiple TAB files and determine the drawing order of the layers using the arrows on the right. To delete a layer, select the TAB file and click **Delete**.



Min. Object Size to Show on Map (pixels): Minimum size of the object displayed on the map in pixels. Affects the detail level of the displayed map.

Scale to Draw Layer: 1: Scale factor for a layer. The layer objects will not appear on the map when you are zoomed in or out beyond the specified scale.

In the **Map Description File** box specify the path to the map file. Click **Save** when you are finished. The file will be saved in the .spmap format. To open the map right after you saved it, click **Save and Open**.

To open a MapInfo map, expand the **Map** menu on the menu bar and click **MapInfo** → **Open Map**. In the window that appears select a file in the .spmap or .ttkgp format. You can create a map in the .ttkgp format using the TatukGIS Viewer free version (<http://www.tatukgis.com/Products/EditorViewer/Editions/Viewer.aspx>).

Raster Maps

To open a raster map, expand the **Map** menu on the menu bar of SmartPTT Dispatcher and click **Raster maps** → **Open map**. In the window that appears select the file in the .map format.

To create a map based on a map image, see the [Raster Maps](#) section.

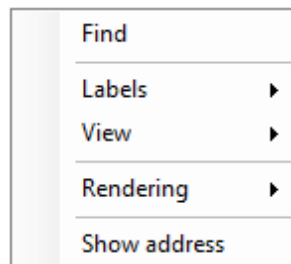
How to Use Maps

To move the map press and hold the left mouse button, and move where necessary. Or use arrow keys to move (this is applicable to the offline map).

To zoom in scroll the mouse wheel forward. To zoom out scroll the mouse wheel back. You can also use the keys "+" and "-" to zoom in and zoom out.

Majority of maps allow you to display the object address. To do this, right-click at any place on the map. The object address appears.

Certain types of maps may have the additional functions such as a context menu. Right-click the map. The context menu appears.



Using this menu you can:

- Search on the map
- Select elements to be labeled on the map
- Change the map appearance


- Select the map rendering type
- Display the object address at any place on the map, where the given menu is opened

4.1 Raster Map

To configure raster map settings, expand the **Map** menu on the menu bar of the SmartPTT Dispatcher window and click **Raster Map** → **New Map**. The configuration window is displayed for creating geographic raster maps based on an image.

The screenshot shows a 'Configuration' dialog box titled 'Raster Map' with the subtitle 'Create Raster Maps from Image File'. The dialog includes a text field for 'Select Image of Map' containing 'E:\Maps\New Map1.jpg', a 'Map Parameters' section with 'Width: 1920' and 'Height: 1080', and a 'Points' table with four rows and five columns: 'Point', 'Longitude', 'Latitude', 'X', and 'Y'. Each cell in the table contains an empty text input field. At the bottom right of the dialog is an 'Open...' button, and at the bottom are 'Help', 'Cancel', and 'Finish' buttons.

Point:	Longitude:	Latitude:	X:	Y:
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

To create a map, select the map image using the browse button .

On the selected map image mark reference points (crossroads, places of interest, etc.) with the help of Google Earth and calculate their coordinates. Coordinates are calculated in the following way:

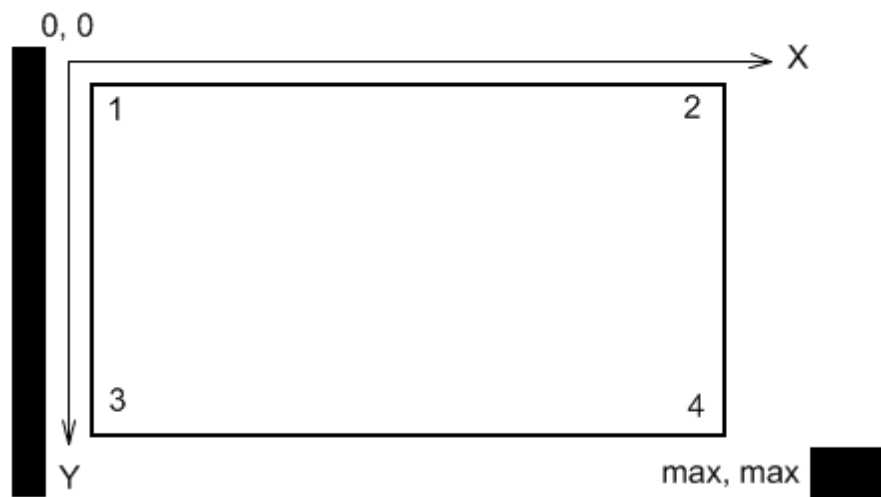
*Longitude and Latitude = Degree + ((Minute * 60) + Second) / 3600* (this is a conversion from degrees, minutes and seconds into normal values), where X and Y are corresponding coordinates (in pixels) on the image.

The longitude corresponds to the horizontal coordinate (X) and the latitude corresponds to the vertical coordinate (Y). The longitude value can range from -180 degrees (the most distant longitude to the west from the Greenwich Meridian set to 0) to +180 degrees (the most distant longitude to the east from the Greenwich Meridian). In fact -180 degrees and +180 degrees are the same longitude. The latitude value can range from -90 degrees (the South Pole) to +90 degrees (the North Pole).

Longitude and Latitude coordinates, already converted into normal values and corresponding to the radio or [WAVE user](#) current locations, are also shown in the radio or the WAVE user Call Window.

You need four points. Point selection criteria are:

- Point 1 is located as close as possible to the top left image corner
- Point 2 is located as close as possible to the top right image corner
- Point 3 is located as close as possible to the bottom left image corner
- Point 4 is located as close as possible to the bottom right image corner



After all coordinates are entered, click **Finish**. In the window that appears set the raster map name and click **Save**.

To edit or check object locations in the created raster map, click **Open**. Locate the raster map in the window which is displayed.

NOTE

The created raster map files and the image map file must be in the same folder.

4.2 Raster Maps From Database

SmartPTT Dispatcher allows you to work with large raster offline maps with a size of more than 5000x5000 pixels. The functionality is used for displaying SmartPTT system objects located at a long distance from each other. This is achieved by dividing the original raster image into pieces and storing them in the database.

To create a raster map database, send your query to our [technical support service](#) and attach the raster map image in the .jpeg format with the list of geographical positions on the map (e.g., in the .txt or .map format).

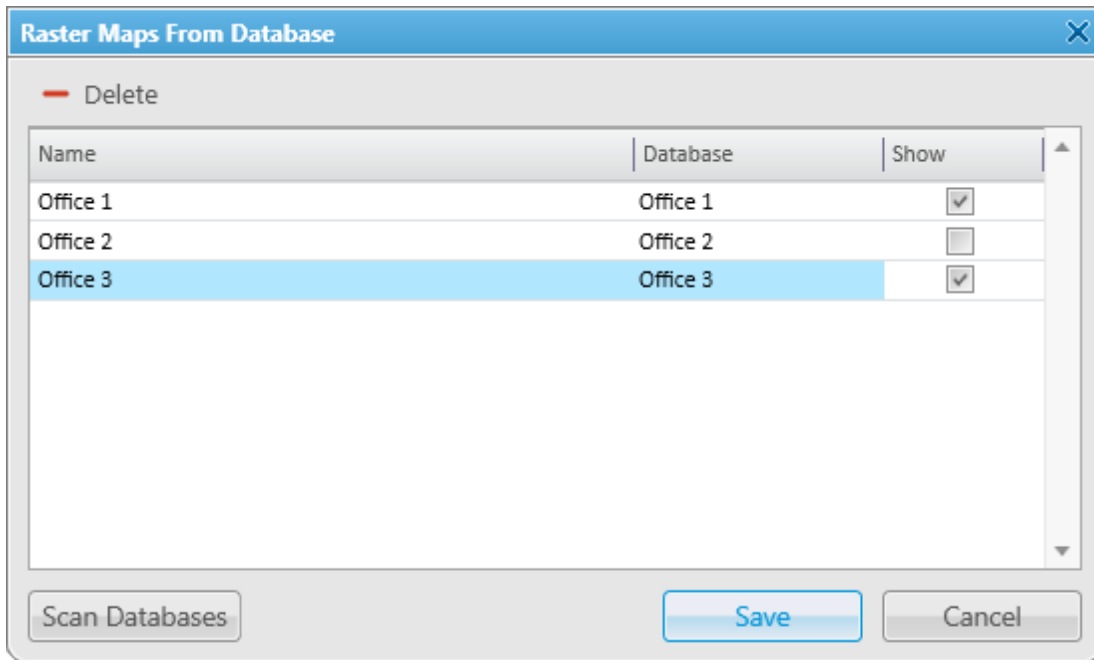
Geographical positions are necessary to anchor image points to the geographical coordinates. The list of geographical positions must contain four points at the corners of the map. In response to your request our technical support specialist will provide you the database backup of the map in the .bak format.

NOTE

If the attachment(s) size exceeds the limit of 50 MB, split the file to several small files using the archiver or file manager, or upload it to the file hosting service. In the latter case include a link to the file in your query message.

Then restore the database from the received backup. For details, see [Restore Dispatcher Settings](#).

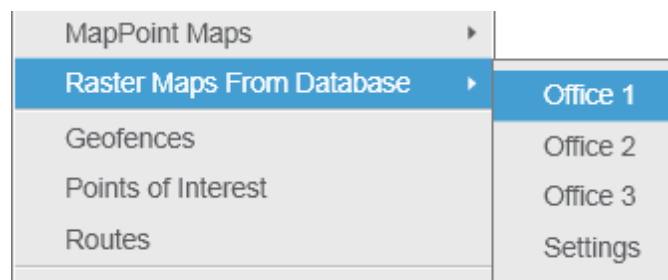
After the database is restored, expand the **Map** menu on the menu bar and click **Raster Map From Database** → **Settings**. Click **Scan Databases** in the window that appears, and you will see a list of all available maps stored in the databases of the selected server (see [Database Settings](#), the **Database Server Name** box).



Name: Name of the map stored in the database. To change the name of the map, double-click on the name in the **Name** box and type a new name.

Database: Name of the database.

Show: If the check box is selected, the map is available in the **Map** menu. To open the map, expand the **Map** menu and select the required map under **Raster Maps From Database**.



To remove the map from the list, select the map and click **Delete**. To save your changes, click **Save**. If you want to undo the last changes, click **Cancel**.

4.3 Indoor Tracking

Big organizations with huge premises require constant control over their employees' displacement inside buildings. For this purpose Indoor Tracking system was implemented. Indoor Tracking system allows getting data from special beacons and transmitting it to SmartPTT Dispatcher or any other client application using API. Contact our technical support (<http://support.smartptt.com/hc/en-us>) for SmartPTT Client API documentation.

Currently, SmartPTT system supports the following technologies and products:

- **iBeacon technology:** With the use of MOTOTRBO radios with the firmware version 2.6 and above and the beacons that support iBeacon technology
- **Blufi option boards (RF800):** With special beacons (Connect-RTLS RF800)
- **Kilchherr option boards (K-TERM 44):** With special beacons (K-TERM 70IC Beacon Transmitter)

NOTE

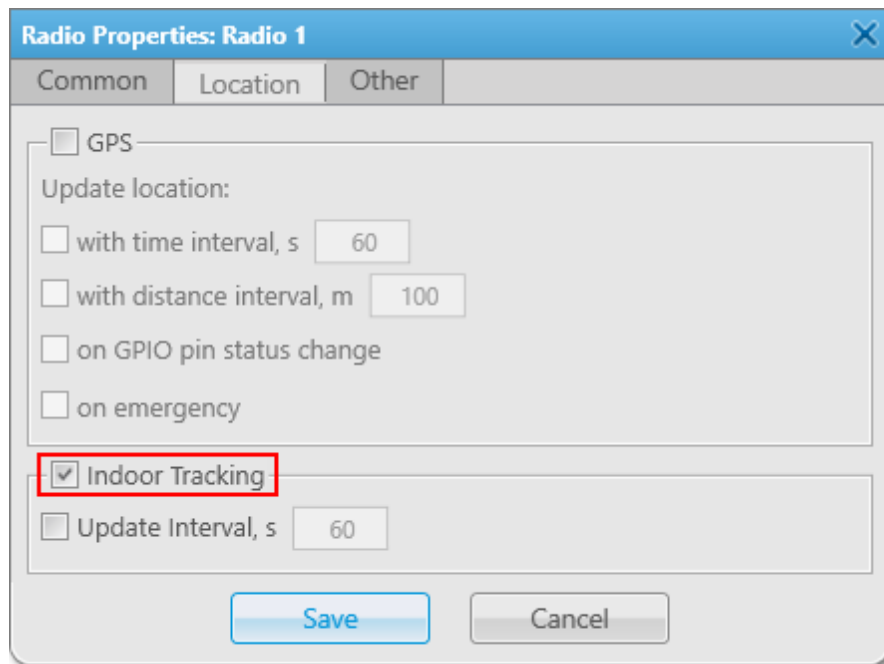
The **Indoor Tracking** feature is available only for MOTOTRBO radios with the firmware version 2.6 and above or for radios with special option boards (see above). Also, it is necessary to configure special settings in SmartPTT Radioserver Configurator and SmartPTT Dispatcher. The required settings for SmartPTT Radioserver are described in the **Indoor Tracking** section of the SmartPTT Radioserver Configurator help file.

The screenshot displays the SmartPTT Dispatcher interface. The main window shows a floor plan with several beacons marked: Beacon 1594, Beacon 6499, Beacon 6501, and Beacon 1593. A track is visible with a timestamp of 06.05.2015 10:21:18. The interface includes a sidebar with options like 'Floor Plan', 'Save', 'Save As...', 'Add beacon', 'Geofences', 'Routes', and 'Edit Plan'. Below the map, there is a 'Track details' table for the selected track.

Date/Time	Floor	Beacons
06.05.2015 10:20:08	BuildingPlan	Beacon 6499, Beacon 6501
06.05.2015 10:20:20	BuildingPlan	Beacon 6499
06.05.2015 10:20:31	BuildingPlan	Beacon 1594, Beacon 6499
06.05.2015 10:20:43	BuildingPlan	Beacon 1594
06.05.2015 10:21:06	BuildingPlan	Beacon 6501, Beacon 1594, Beacon 6499
06.05.2015 10:21:18	BuildingPlan	Beacon 6501, Beacon 1594, Beacon 6499
06.05.2015 10:21:35	BuildingPlan	Beacon 6501, Beacon 1594, Beacon 6499

If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, on the radio label the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).

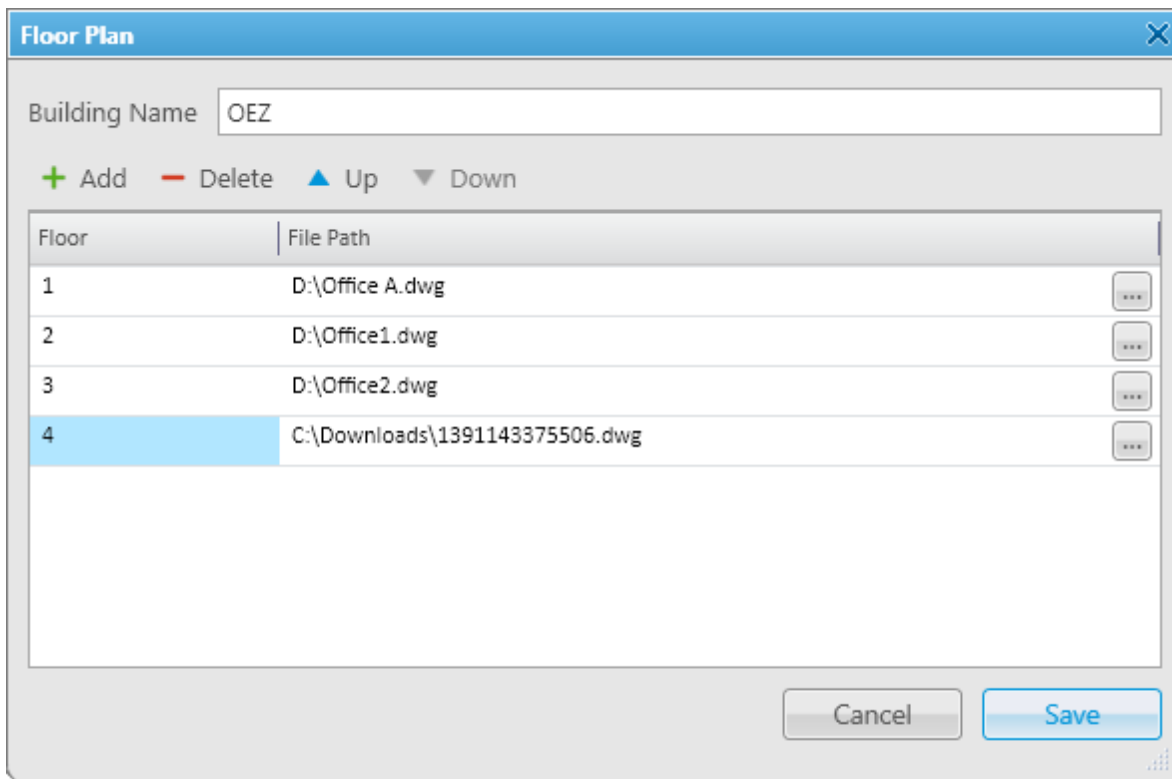
To enable Indoor support for a radio in SmartPTT Dispatcher, open the [Properties](#) window of the radio and in the **Location** tab select **Indoor Tracking**.



NOTE

If you use the *Motorola* source (iBeacon technology), the **Update Interval** box must be selected and specified together with the **Indoor Tracking** box for enabling Indoor support for a radio.


To create a building plan, expand the **Map** menu on the menu bar of the SmartPTT Dispatcher window and click **Indoor Tracking** → **New Building Map**. In the **Floor Plan** window you can create a plan of the building floor or of a multi-store building.



Building Name: A name of the building plan.

To add a floor of a building, click the **Add** button. To remove a floor of a building, select it from the list and click **Delete**. To change the floor order inside the building, use the **Up** and **Down** buttons.

Floor: A name or an ordinal number of a floor in a building. To change the name of the floor, click the old name in the **Floor** box and type a new value.

File Path: A path to the floor plan file. You can use a floor plan in the .dwg format or a raster image. To attach a plan to the floor, click the  button and select the required file.

NOTE

.dwg (drawing) is a binary file format used for storing two and three dimensional design data and metadata. It is the native format for several CAD packages including nanoCAD, AutoCAD, IntelliCAD.

Save: You can save the floor or the building plan changes to the .splanx (archive) format.

To open a building plan, expand the **Map** menu on the menu bar of the SmartPTT Dispatcher window and click **Indoor Tracking** → **Open Indoor Map**. To control more than one building at the same time in SmartPTT Dispatcher, you can open several **Indoor Tracking** panels.


Building Floor Plan

Save: You can save the building plan changes to a .splanx file.

Save As: You can save a copy of the building plan with another name.

View Mode (2D or 3D): A mapping of the building plan in a two- or three-dimensional form. This feature is available only for floor plans in the .dwg format.

Add Beacon: You can add a beacon to the building plan.

For that, in the **Beacon Settings** window specify the beacon number and name in the corresponding boxes and click **OK**. The beacon icon  appears instead of the mouse cursor. Place it on the map where the beacon is located and left click. If you use the *Motorola* source, specify the number of the beacon in the **Beacon Number** box in the *Major.Minor* format, where the *Major* value is separated from the *Minor* value by a dot. *Major* stands for the group number of the beacons and *Minor* stands for the individual number of the beacon in the group.

If you use the *BluFi* or *Kilchherr* source, specify the **Beacon IDs** in the **Beacon Number** box. If the beacon name is not specified in the **Beacon Name** box, the value from the **Beacon Number** box will be displayed as the beacon name on the building plan. To remove the beacon from the plan, double-click on the beacon and in the window that appears click **Delete**.

Geofences: Allows you to unite the existing beacons to control the radios moving about the building. These geofences are used in Indoor positioning rules.

Routes: Allows you to create routes for radios. These routes are used in Indoor positioning rules.

Edit Plan: Opens the **Floor Plan** window that allows you to change the floor name, the floor order inside the building, or the floor plan file.

Grid Size: The grid size of the building plan. For building plans based on raster images, the **Grid Size** option is not available.

Label Size: The size of the radio and beacon labels displayed on the building plan.

Beacons: Select a color for a beacon label.

Radios: Select a color for a radio label.

Radios on Plan: A list of radios which support the [Indoor Tracking](#) feature. Select the check box, to display the radio labels on the building plan.

Radio Tracks: Here you can record tracks of radios and watch them in real time, or check old records. To watch the radio move about the building, click **Add Track**. In the window that appears specify the following parameters:

Source: The radioserver whose data will be used for building a track. If the drop-down list is empty, check that Event Log is activated in SmartPTT Radioserver Configurator.


Radio: Radio ID or name.

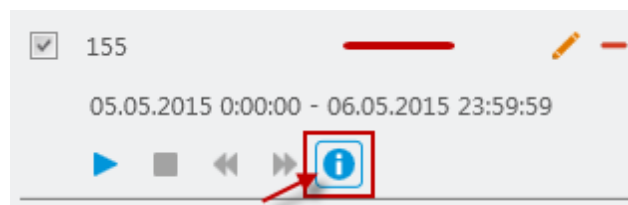
User: User name.

Color: The color of the future radio track.

Start Date: Start time and date of the track record.

End Date: End time and date of the track record. To watch the radio moving in real time, select **Update in real time**.

Show All: Shows tracks of all the radios from the **Radios on Plan** list. You can see details of each track. To open **Track details**, click :



Clear All: Removes all the track records displayed at the moment.

The following buttons allow to control the way the building plan is displayed:



Zooming up the marked area of the building plan. Click the button, then left-click on the building plan and mark the necessary area.



Zooming up or zooming out the entire building plan. To zoom in, click the button and withholding the button pressed move the mouse pointer up. To zoom out – move the mouse pointer down. Also, use the wheel button to change the scale of the building plan.



Moving the building plan. Click the button and withholding the button pressed relocate the plan.



Fits the scale of the building plan to the size of the **Indoor Tracking Overview Map** panel.

The following object is available for three-dimensional building plans only. It allows to change an angle of the displayed building plan.

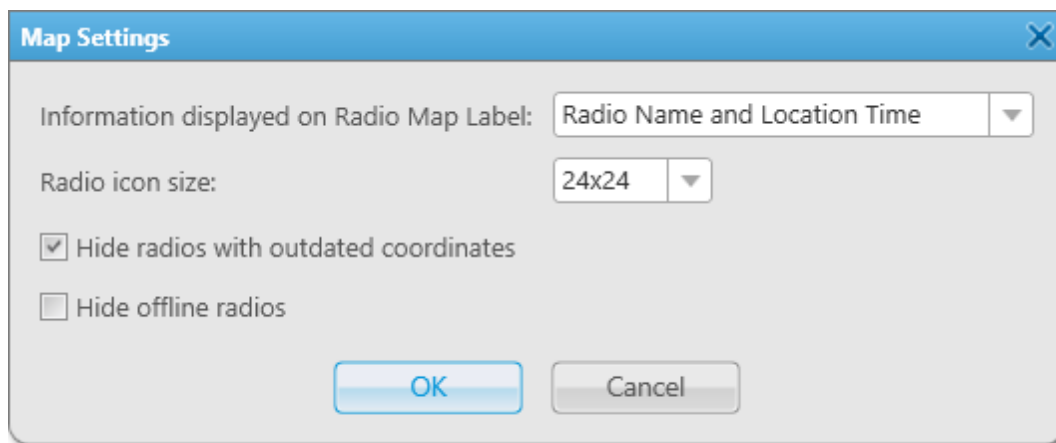


4.4 Map Settings

Follow the procedure below to configure the settings of displaying radios or WAVE users on a map.


Procedure:

1. On the menu bar of the SmartPTT Dispatcher, click **Map** → **Map Settings**.
The **Map Settings** window appears.



2. In the **Map Settings** window, from the **Information displayed on Radio Map Label** list, select the information to be displayed on a radio or a [WAVE user](#) map label:
 - To show radio name and coordinates time on the map, select *Radio Name and Location Time*.
 - To show on the map radio name only, select *Radio Name*.
 - To show any radio data, select *None*.
3. From the **Radio icon size** list, select the size of a radio or WAVE user icon on the map.
4. *Optional:* Select the **Hide radios with outdated coordinates** check box to hide map labels for radios and WAVE users with outdated GPS coordinates.

NOTE

GPS coordinates become outdated if they were not updated during the period set in the **Settings**  **Positioning Systems** window, in the **Validity of GPS coordinates** box.

5. *Optional:* Select the **Hide offline radios** check box to hide a map label when a radio or a WAVE user goes offline.
6. Click **OK** to apply changes and close the window.

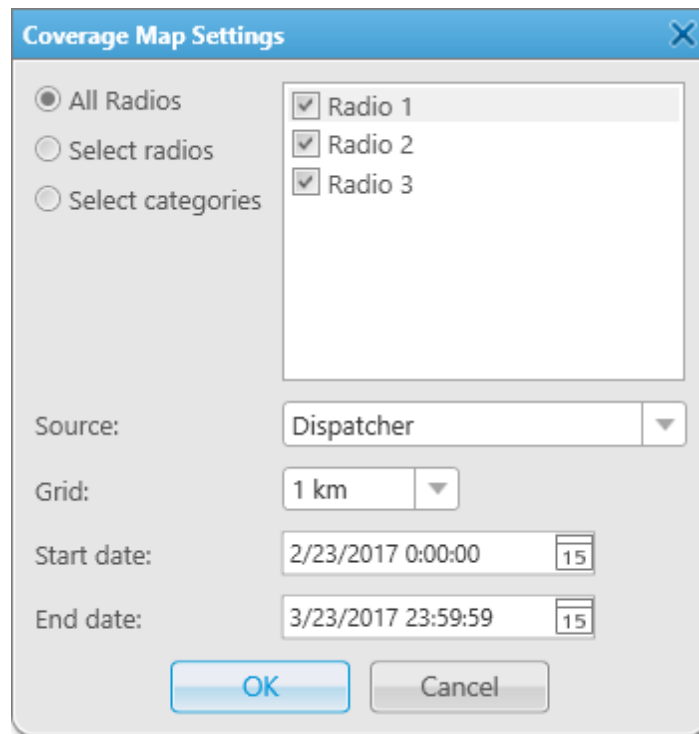
4.5 Coverage Map

Coverage maps give you information about signal strength (RSSI) of a particular radio in a particular place. To build a coverage map for a radio, make sure that it has GPS enabled, and there is GPS data in the database.

WARNING

SmartPTT 9.0 supports the Coverage Map function in systems with MOTOTRBO Network Interface Service 2.60 or earlier. Support for newer MOTOTRBO Network Interface Service versions is implemented in SmartPTT 9.1.

To build a coverage map, click **Map** → **Coverage map** → **Show**.



All Radios: Select this option to build a coverage map for all the radios on the list.

Select radios: Select this option to build a coverage map for the selected radios only.

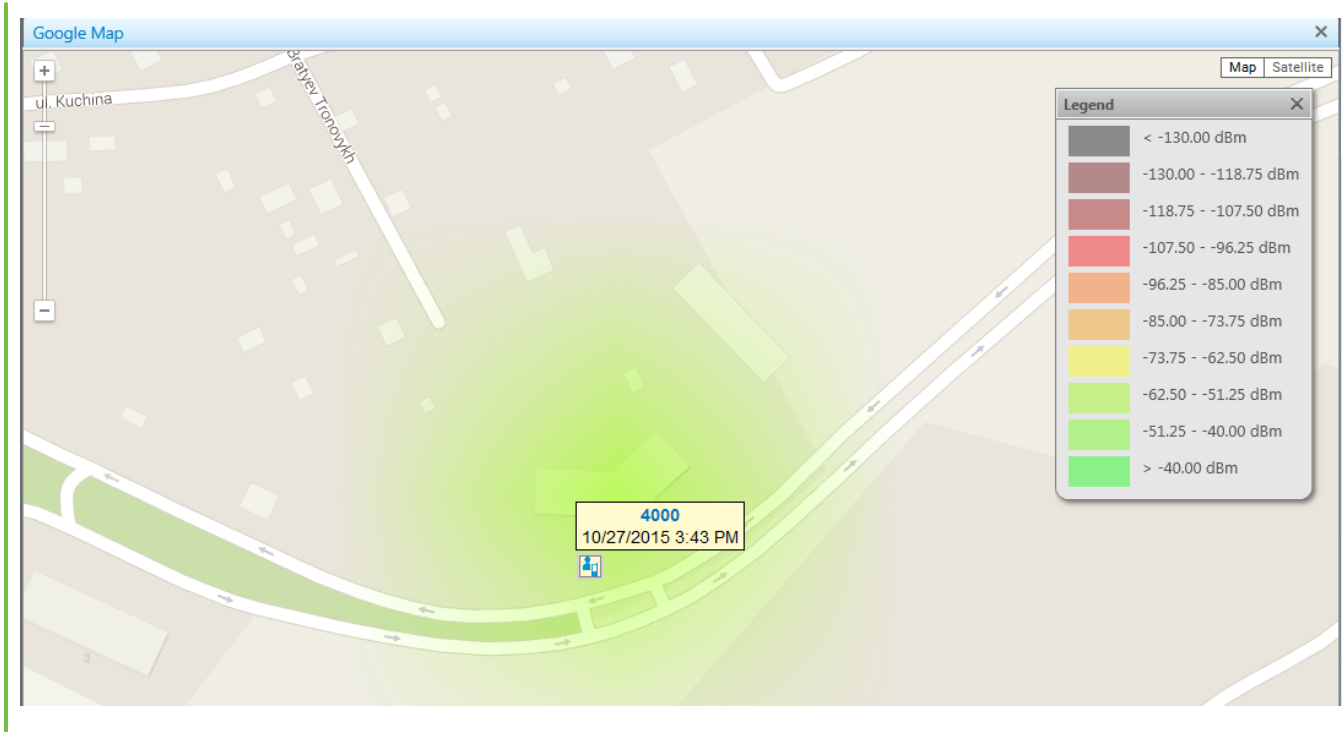
Select categories: Select this option to build a coverage map for all the radios of the selected category.

Source: Defines the source, whose database will be used for drawing the track. If *Dispatcher* is selected, the data is taken from the local database. If a radioserver is selected, the data is taken from the database of the chosen radioserver.

Grid: Defines a radius for checking signal strength. The system of units selected in **Settings (⚙️)** → **Positioning systems** → **System of Units** will be applied to this parameter.

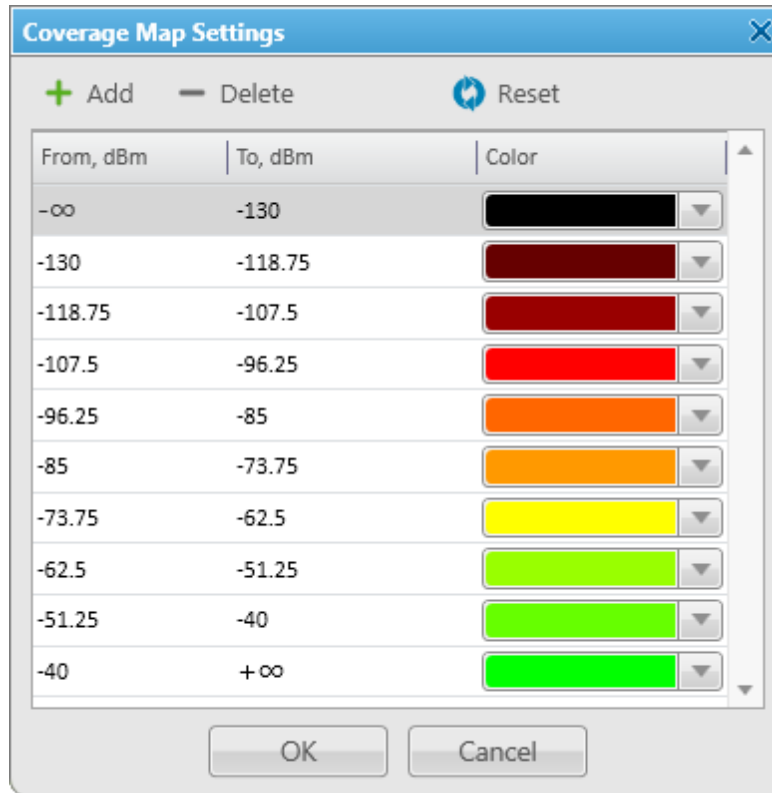
Start date/End date: Defines over which period the data will be used for the map.

Example



Coverage Map Settings: Window identifies the colors used for different RSSI ranges in the coverage map.

You can adjust the legend on your own, change colors for different RSSI ranges, add and delete RSSI ranges. To do it, click **Map** → **Coverage map** → **RSSI ranges**.



To clean the map, select **Map** → **Coverage map** → **Hide**.

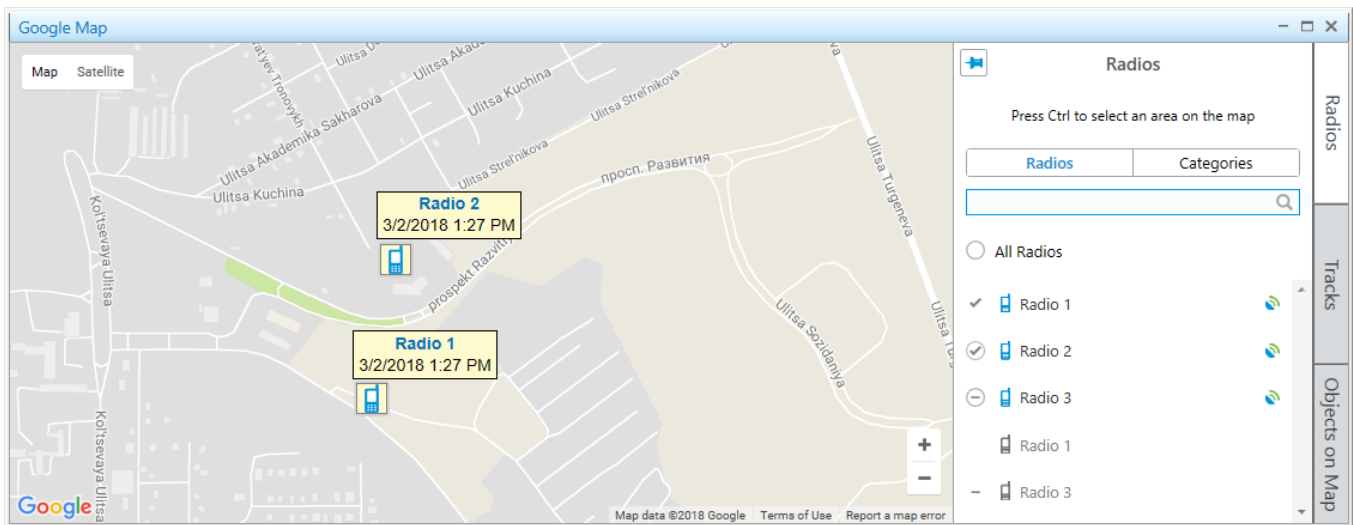
4.6 Map Control Panel


On a map in SmartPTT Dispatcher you can see the control panel in the right part of the screen. The panel provides features to manage displaying of radios, [WAVE users](#), and other objects on maps.

On the panel users can perform the following actions:

- Configure displaying of radios and WAVE users on a map.
- Display information on radios and WAVE users movements on a map for a period of time by using tracks.
- Animate tracks of radios and WAVE users.
- Display important objects on a map by adding points of interest.

- Configure geofences for radios.
- Configure routes for radios.

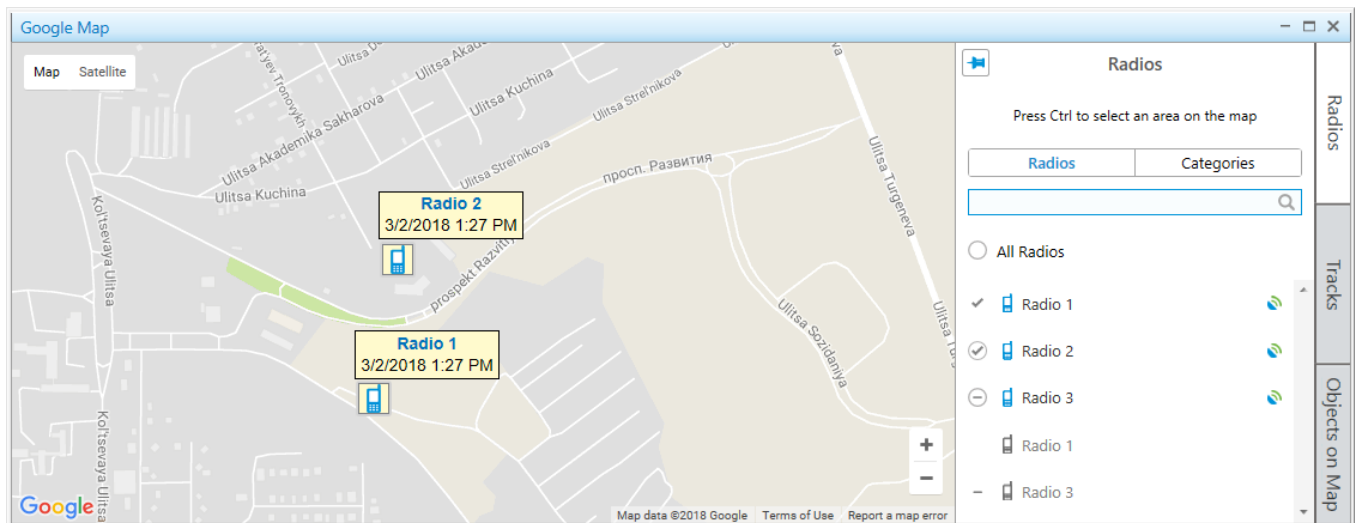


By default, the expanded control panel is unfixed, and it automatically collapses by clicking on a map. The Fix () button fixes the expanded panel, and in this state you can collapse it only by clicking **Radios**, **Tracks**, or **Objects on Map** buttons.

4.6.1 Radios

The **Radios** panel displays the list of mobile and portable radios that provide their coordinates to the SmartPTT dispatch system. The user of the dispatch console may operate with the limited amount of radios.

You can open the panel by clicking **Radios** in the right part of the open map.



NOTE

For information on configuring radios displaying on a map, see [Managing Radios on Map](#).

The **Radios** panel consists of two tabs:

- **Radios** displays a list of radios
- **Categories** displays a list of radio categories and list of radios for every category

Both tabs have the following elements:

Search box



You can search a radio in the list of radios by entering its name or ID.

All Radios

You can use the element to control displaying of all radios on a map.

Radio

Shows the name of the radio that either provides its GNSS coordinates to SmartPTT or which location is set by the dispatch console user. Radios can be in one of two states:

- Online ()
- Offline ()

Valid coordinates ()

Indicates that GPS coordinates of a radio are valid. You can see it to the right of the radio name.

Outdated coordinates ()

Indicates that GPS coordinates of a radio are outdated or missing. You can see it to the right of the radio name.

NOTE

Validity period of GPS coordinates is determined by the **Validity of GPS coordinates** parameter in [Positioning Systems](#).

Indicators of radio state

Indicators determine radio displaying on a map. You can use indicators to change displaying of certain radios, radio categories (in the **Categories** tab), or all radios (the **All Radios** element).

In the **Radios** panel, indicators have the following states:

Fixed on map ()

A radio (or a radio category) is fixed on a map and it does not hide even if the radio goes offline or its coordinates become outdated.

Hidden on map ()

A radio (or a radio category) is hidden on a map and does not appear on it even if the radio becomes online or sends its valid coordinates.

On map ()

A radio is displayed on a map, but is hidden when the radio goes offline or its coordinates become outdated.

The indicator can be set by right-clicking when the following conditions are met: **a)** radio is online, and the **Hide offline radios** check box is cleared in the [Map Settings](#) window, and **b)** database has up-to-date location of the radio, and the **Hide radios with outdated coordinates** check box is cleared in the [Map Settings](#) window.

Not on map (-)

A radio is hidden on a map because its coordinates outdated or it is offline. When the radio becomes online or sends its valid coordinates, it appears on the map.

The indicator can be set by right-clicking when the following conditions are met: **a)** radio is offline, and the **Hide offline radios** check box is selected in the [Map Settings](#) window, and **b)** database has only outdated location of the radio, and the **Hide radios with outdated coordinates** check box is selected in the [Map Settings](#) window.

Mixed state (○)

The indicator appears in the following conditions: **a)** after right-clicking the **All Radios** element to restore all radios to the states they were in before clicking the indicators, or **b)** next to the radio categories names when radios in the categories are in mixed states.

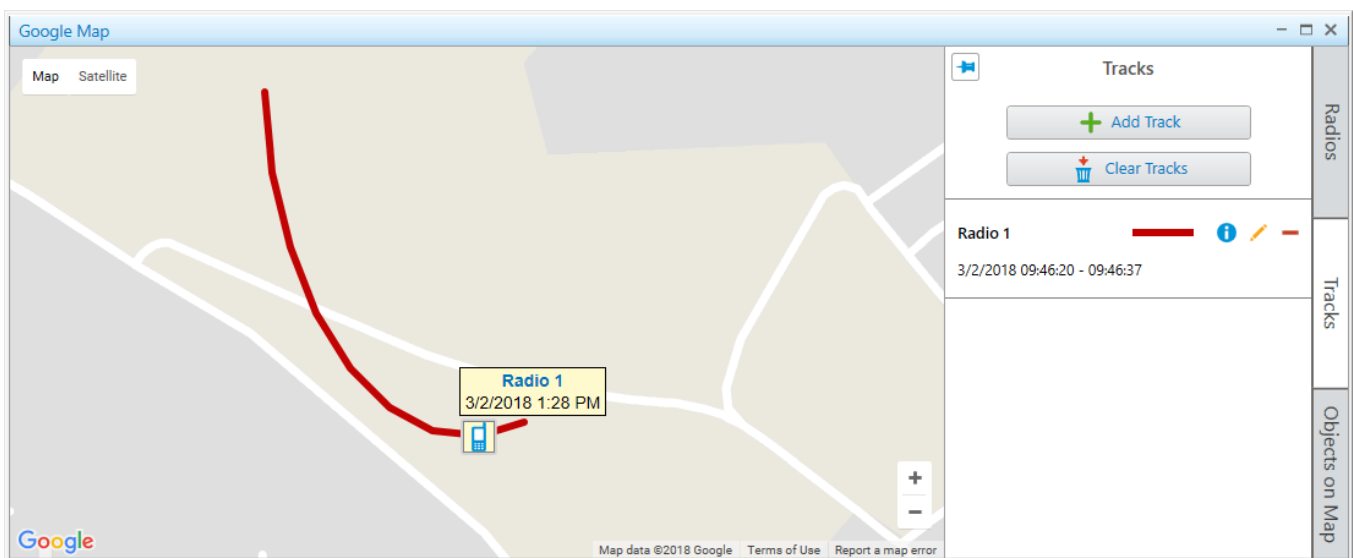
On any open map, users can select an area by pressing Ctrl and left mouse button to find radios in the area. The **Radios** panel with radios in the selected area opens. You can cancel the selection, by clicking the **Cancel Selection** button.

For details, see [Displaying Radios in Area](#).

4.6.2 Tracks

In the **Tracks** panel you can manage radios tracks, display them, and track radio movements on a map.

You can open the panel by clicking **Tracks** in the right part of the open map.



When you start working with a map, the following controls are available in the panel:

Add Track

Opens the **Track** panel for adding a new track on the map.

For details, see [Track](#).

Clear Tracks

Deletes all tracks from the current map.

When at least one track is added in the **Tracks** panel, the track entry appears on the panel. A track entry contains the following elements and controls:

Radio name

Displays a name of a radio for which the track is shown.

Date and time of a track

Displays a period of a track, set in the **Track** panel when the track is added.

Color and thickness of a track

Displays a color and thickness of a track line, which are set in the **Track** panel when the track is added.

Track Details ()

Opens the **Track Details** panel for the track animating.

For details, see [Track Details](#).

Edit ()

Opens the **Track** panel for the track editing.

NOTE

If you edit a track with **30 minutes**, **1 hour** or **Today** period, the track will be changed for the set period according to the moment the editing is finished.

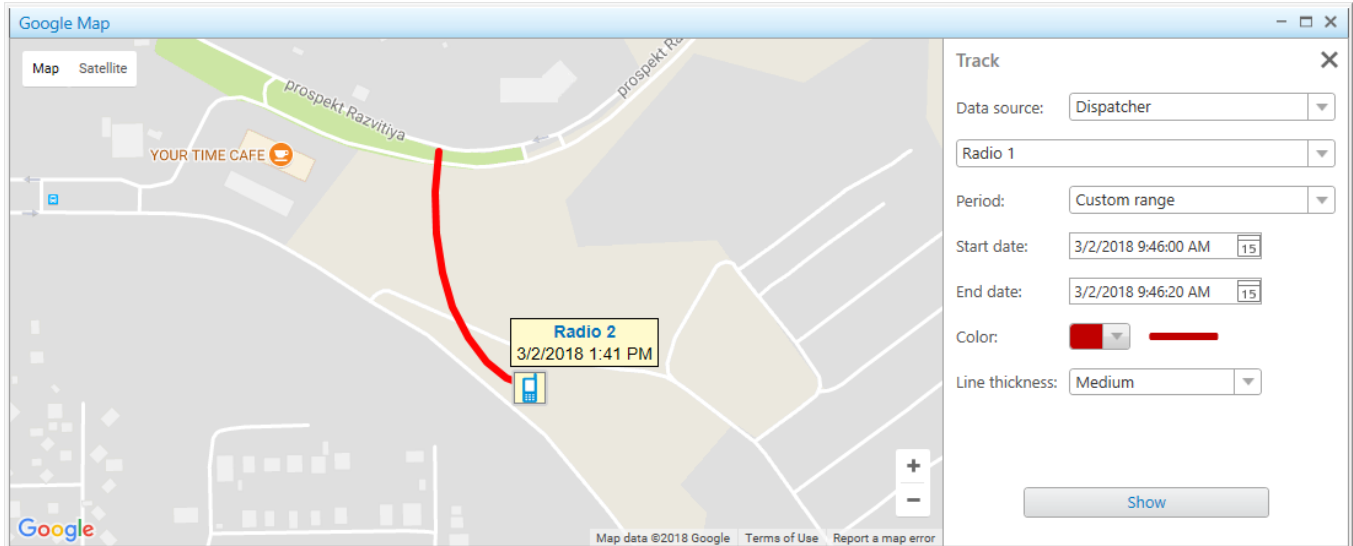
Delete ()

Deletes the track from the map and from the **Tracks** panel.

4.6.2.1 Track

In the **Track** panel you set parameters for showing a radio track on the current map.

You can open the panel by clicking the **Add Track** button in the [Tracks](#) panel.



NOTE

For information on displaying a track on a map, see [Displaying Tracks](#).

The **Track** panel provides the following elements:

Data source

Contains a list of available SmartPTT Dispatcher or radioserver databases to show a track of the selected radio.

Radios

A list that contains available radios to show a track. If the track is added from the Actions Menu of a radio, in the list of radios, the radio is selected automatically.

For information on radio Actions Menu, see [Radio Fleet](#).


Period

In the list you can select a period of radio moving to show a track:

- The **30 minutes** period shows radio movement for the last 30 minutes.
- The **1 hour** period shows radio movement for the last hour.
- The **Several hours** period shows radio movement for the last several hours.

- The **Today** period shows radio movement for today, starting from 00:00:00 hours of the current day until the moment the track is shown.
- The **Custom range** period shows radio movement for the desired time period.

Start date and End Date

The boxes appear when from the **Period** list the **Custom range** value is selected. You should enter the start and end dates of radio movement period. When you click , the calendar opens. In these boxes you also may enter the desired time manually in the *hh:mm:ss* format.

Hours

The box appears when in the **Period** list the **Several hours** value is selected. You should enter the amount of hours.

Color

Provides a palette with track line colors. The example of the line with the selected color appears on the right.

Line thickness

Provides parameters of a track line thickness. The example of the line with the desired thickness appears above the box.

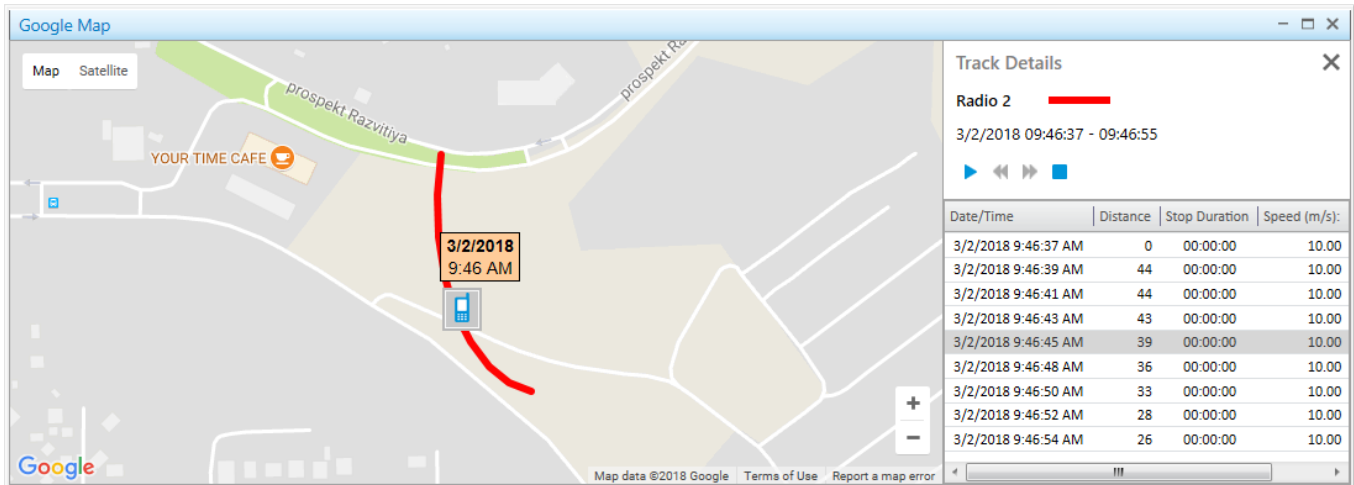
Show

Shows the track on the current map, and adds the track entry to the [Tracks](#) panel.

4.6.2.2 Track Details

In the **Track Details** panel you can get information on a track and animate it.

You can open the **Track Details** panel by clicking **Track Details (i)** of the track entry in the **Tracks** panel. For details, see [Tracks](#).



NOTE

For information on track animating, see [Animating Tracks](#).

The **Track Details** panel contains the following elements and controls:

- **Track name** corresponds to the name of a radio for which the track is shown.
- **Track line color and thickness** displays the track line color and thickness set in the [Track](#) panel when the track is added.
- **Date and time** displays a track period set in the [Track](#) panel when the track is added.
- Track playback controls:
 - **Start Playback (▶)** starts the track animation.
 - **Pause Playback (||)** pauses the track animation.
 - **Stop Playback (■)** stops the track animation.
 - **Decrease speed (◀)** decreases the track animation speed.
 - **Increase speed (▶▶)** increases the track animation speed.

NOTE

The system remembers the last track animation speed and uses it during next track animation.

- Track details table contains the following columns:
 - The **Date and time** column displays date and time for each track point.
 - The **Distance** column displays the distance between the track points.
 - The **Stop duration** column displays the duration when the radio stops moving.
 - The **Speed** column displays the radio movement speed in the each track point.
 - The **Precision** column displays the coordinates precision.

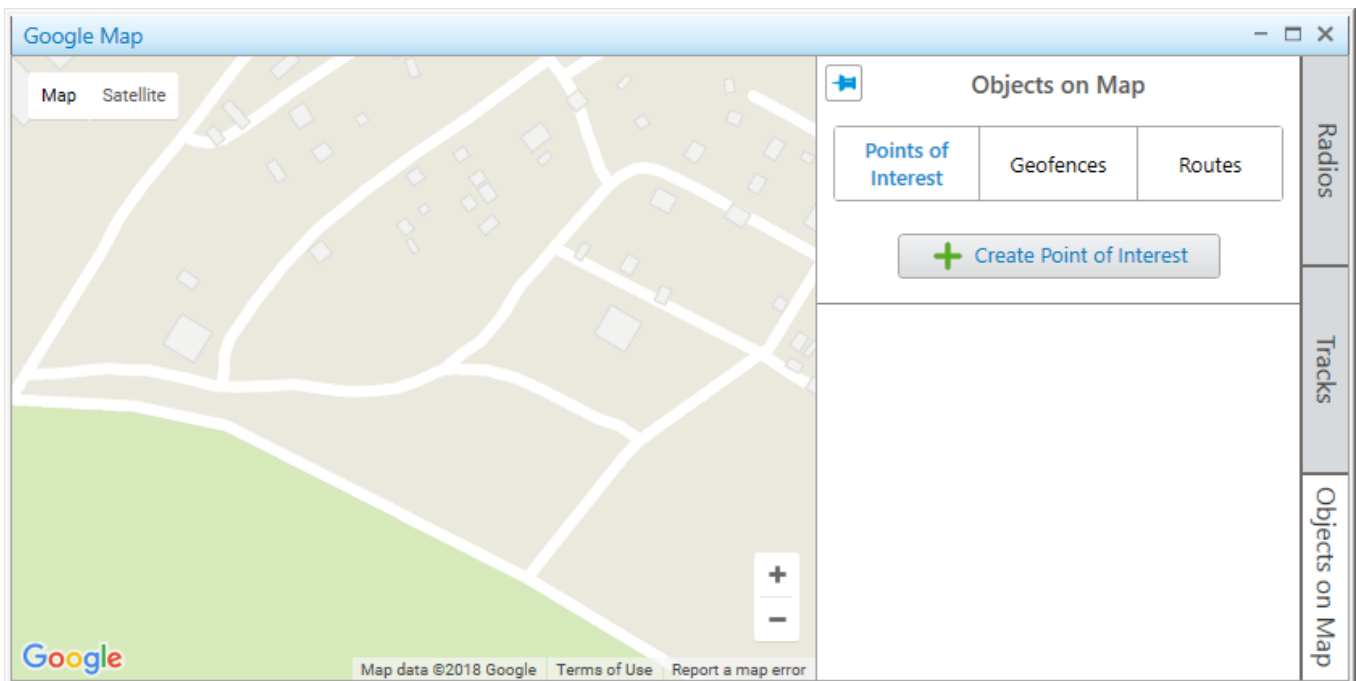
You can double-click a table line to show a track on the map in the desired moment of time.

4.6.3 Objects on Map

In the **Objects on Map** panel you can add the following elements to a map:

- Points of interest to mark important objects
- Geofences to select areas
- Routes to connect key points

You can open the panel by clicking **Objects on Map** in the right part of the open map.



You can manage objects on maps in the corresponding tabs.

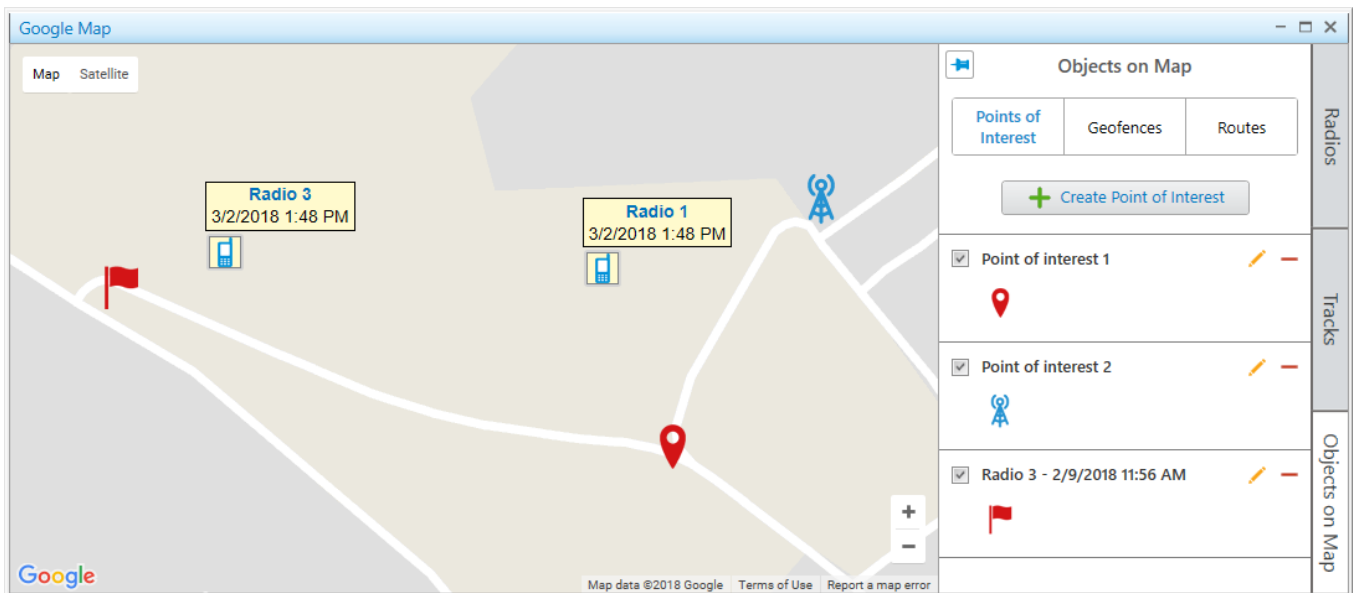
For details, see [Points of Interest](#), [Geofences](#), or [Routes](#).

NOTE

The tabs with added points of interest, geofences, and routes are the same for all maps.

4.6.3.1 Points of Interest

In the **Points of Interest** tab you can go to the panel for managing the existing points of interest on maps, or adding new points of interest.



NOTE

For information on adding a point of interest on map, see [Adding Points of Interest](#).

When you start working with a map, only one control is available in the tab:

Create Point of Interest

Opens the **Point of Interest** panel for adding a new point of interest on the map.

When at least one object is added in the **Points of Interest** tab, the following elements and controls are available:

Show on Map

You can select or clear the check box to display or hide a point of interest on a map.

Point of Interest Name

Displays a point of interest name which is set in the **Point of Interest** panel when the object is added. When you click the point of interest name, the map is centered on it.

Point of Interest Marker

Marker image of a point of interest which is selected in the **Point of Interest** panel when the point of interest is added. When you click the point of interest marker, the map is centered on the point.

Edit ()

Opens the **Point of Interest** panel, where you can edit a point of interest parameters.

Delete ()

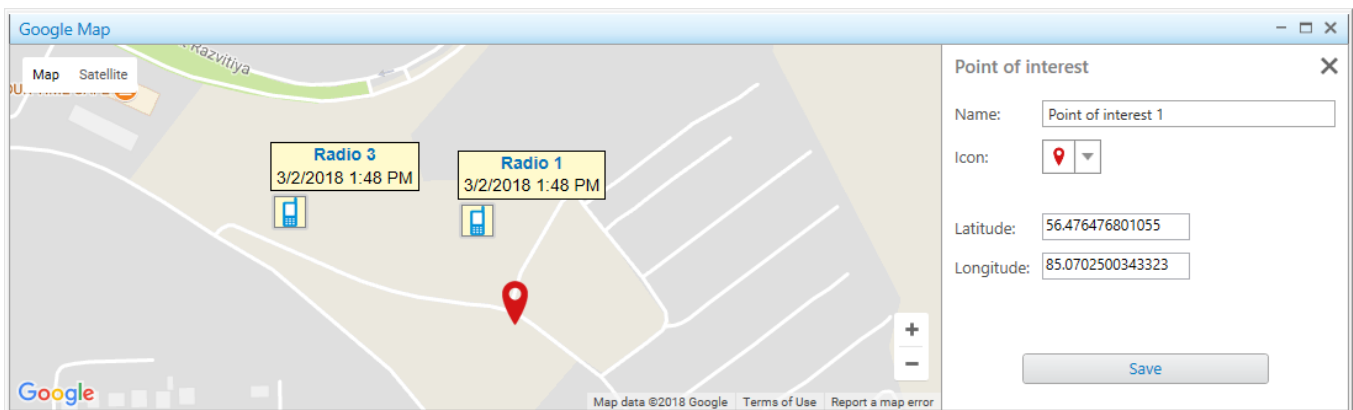
Removes a point of interest from the **Points of Interest** tab and from all maps.

4.6.3.1.1 Point of Interest

In the **Point of Interest** panel you can configure parameters of a new point of interest, or edit the existing points of interest.

The panel opens when you create a new point of interest, or edit the existing.

For details, see [Adding Points of Interest](#), or [Editing Objects Using Map](#)



The **Point of Interest** panel contains the following controls and elements:

Name

In the box you should type a name of a point of interest. The name appears when you hover the mouse cursor over the point of interest on a map.

Icon

You can select the icon from the list or load the desired image. The icon is used as the point of interest marker.

Latitude and Longitude

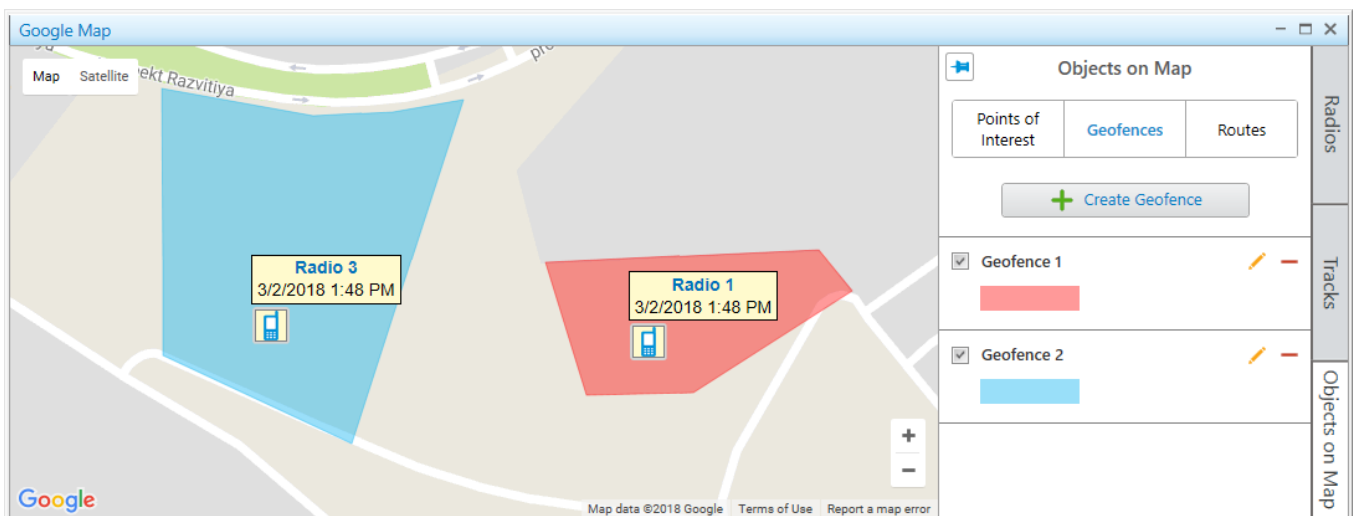
You should enter coordinates of a point of interest. An alternative way of adding a point of interest is to click the desired location on a map.

Save

Adds the point of interest to the points of interest list which is available on all maps.

4.6.3.2 Geofences

In the **Geofences** tab you can go to the panel for managing the existing geofences on maps, or adding new geofences.



NOTE

For information on adding a geofence on a map, see [Adding Geofences Using Map](#).

When you start working with a map, only one control is available in the tab:

Create Geofence

Opens the **Geofence** panel for adding a new geofence on a map.

When at least one geofence is added in the **Geofences** tab, the following elements and controls are available:

Show on Map

You can select or clear the check box to display or hide a geofence on a map.

Geofence Name

Displays a geofence name which is set in the **Geofence** panel when the object is added. When you click the geofence name, the map is centered on it.

Geofence Color

Displays color of a geofence, set in the **Geofence** panel, when the object is added. When you click the geofence line, the map is centered on it.

Edit ()

Opens the **Geofence** panel, where you can edit a geofence parameters.

Delete ()

Removes a geofence from the **Geofences** tab and from all maps.

Geofences can be used in positioning rules to track radios in the area.

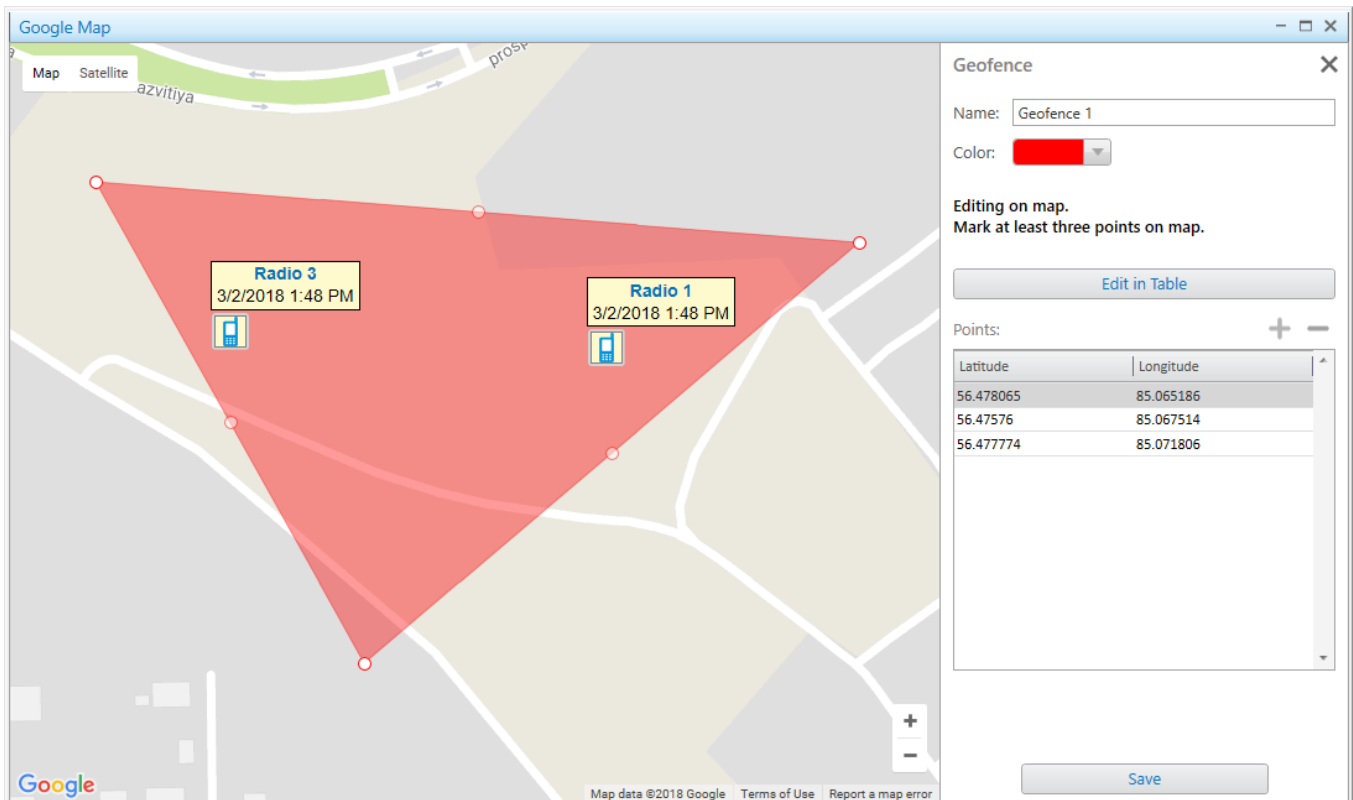
For details, see [Positioning Rules](#).

4.6.3.2.1 Geofence

In the **Geofence** panel you can configure parameters of a new geofence, or edit the existing geofences.

The panel opens when you create a new geofence, or edit the existing.

For details, see [Adding Geofences Using Map](#) and [Adding Geofences Using Map](#)



The **Geofence** panel contains the following controls and elements:

Name

In the box you should type a name of a geofence.

Geofence Color

Displays color of geofence, set in the **Geofence** panel, when the geofence is added.

Edit in Table

Activates adding or editing the existing geofence points using the **Points** table. When you click the button, its name changes to **Edit on Map**.

Points Table

You can activate the table by clicking **Edit in Table**. You can add coordinates by clicking the **Add coordinate (+)** button. The order of the geofence points in the table corresponds to the points sequence on a map.

Edit on Map

Activates adding or editing the existing geofence points on a map. To add a geofence, click at least three points on the desired locations of a map.

Save

Adds the geofence to the geofence list which is available on all maps.

4.6.3.3 Routes

In the **Routes** tab you can go to the panel for managing the existing routes on maps, or adding new routes.



NOTE

For information on adding a route on a map, see [Adding Routes Using Map](#).

When you start working with a map, only one control is available in the tab:

Create Route

Opens the **Route** panel for adding a new route on the map.

When at least one route is added in the **Routes** tab, the following elements and controls are available:

Show on Map

You can select or clear the check box to display or hide a route on a map.

Route Name

Displays a route name which is set in the **Route** panel when the object is added. When you click the route name, the map is centered on it.

Color and thickness of a route line

Displays color and thickness of a route line, which are set in the [Route](#) panel. When you click the route line, the map is centered on it.

Edit ()

Opens the **Route** panel, where you can edit a route parameters.

Delete ()

Removes a route from the **Routes** tab and from all maps.

Routes can be used in positioning rules to track that radios follow the desired route.

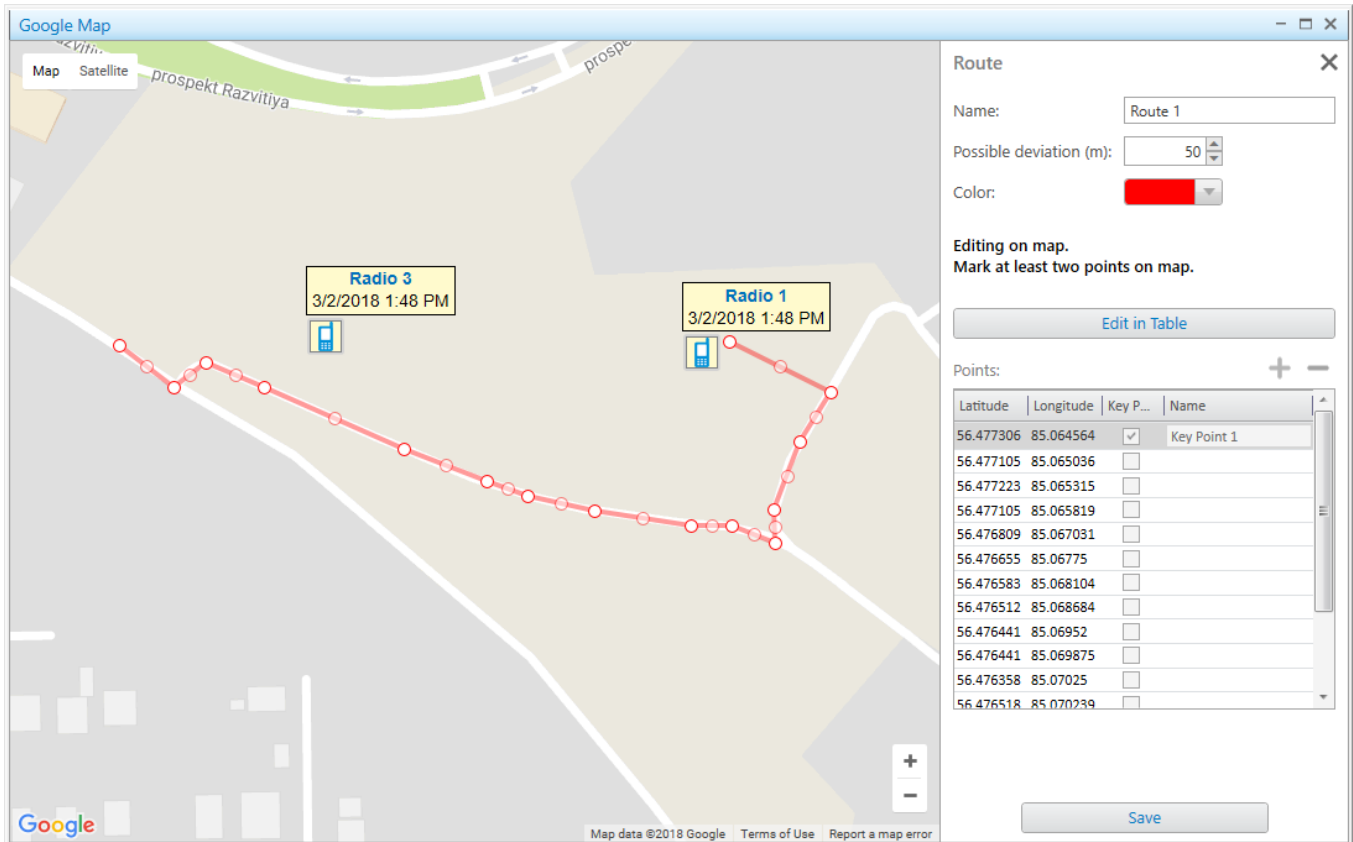
For details, see [Positioning Rules](#).

4.6.3.3.1 Route

In the **Route** panel you can configure parameters of a new route, or edit the existing routes.

The panel opens when you create a new route, or edit the existing.

For details, see [Adding Routes Using Map](#) and [Adding Geofences Using Map](#).



The **Routes** panel contains the following controls and elements:

Name

In the box you should type a name of a route.

Possible deviation (m)

You can set a possible distance the radio can deviate from the route line. The maximum value is 999 m.

Color

Contains a palette with colors for a route line.

Edit in Table

Activates adding or editing the existing route points in the **Points** table. When you click the button, its name changes to **Edit on Map**.

Points Table

You can activate the table by clicking **Edit in Table**. You can add coordinates by clicking the **Add coordinate (+)** button. The order of the route points in the table corresponds to the points sequence on a map. A point of a route can become a **Key point** with its **Name**. Key points are used for creating [Radio Location](#) reports.

NOTE

A key point appears on a route line as a circle after clicking the **Save** button. At hovering the mouse cursor over the point on the map, the key point name set in the **Name** column appears.

Edit on Map

Activates adding or editing the existing route points on a map. To add a route, click at least two points on the desired locations of a map.

Save

Adds the route to the route list which is available on all maps.

4.6.4 Managing Radios on Map

Managing radios on maps includes the following actions:

- Showing or hiding radios. For details, see [Displaying Radios](#).
- Showing or hiding radio categories. For details, see [Displaying Radio Categories](#).
- Displaying radios in the selected area. For details, see [Displaying Radios in Area](#).
- Setting locations for radios. For details, see [Setting Radio Location](#).

4.6.4.1 Displaying Radios

Follow the procedure below to configure displaying radios on the map.


Prerequisites:

Determine the radios to display or hide on the map.

NOTE

For information on all radio state indicators and other elements of the **Radios** panel, see [Radios](#).


Procedure:

1. In the right part of the open map, click **Radios**.
The **Radios** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Radios** panel, select the **Radios** tab.
4. Configure radios displaying on the map:
 - To display or hide all radios, click the indicator next to **All Radios**, until the desired state appears.
 - To display or hide the radio, click the indicator next to the radio name, until the desired state appears.

NOTE

Radios are hidden or displayed on a map depending on the map settings. For details, see [Map Settings](#).

Postrequisites:

- To cancel the changes of displaying the radio, right-click the indicator next to the radio name.
- To cancel the changes of displaying all radios, right-click the indicator next to **All Radios**.
The indicator changes to **Mixed State** ().

4.6.4.2 Displaying Radio Categories

Follow the procedure below to configure displaying radio categories on the map.


Prerequisites:

Determine the radio categories to display or hide on the map.

NOTE

For information on all radio state indicators and other elements of the **Radios** panel, see [Radios](#).


Procedure:

1. In the right part of the open map, click **Radios**.
The **Radios** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Radios** panel, select the **Categories** tab.
4. Configure radio categories displaying on the map:
 - To display or hide all radios and all categories, click the indicator next to **All Radios**, until the desired state appears.
 - To display or hide radios of the category, click the indicator next to the category name, until the desired state appears.
5. *Optional:* Select the desired category and configure displaying of the desired radios:
 - To display or hide the radio, click the indicator next to the radio name, until the desired state appears.

NOTE

Radios are hidden or displayed on a map depending on the map settings. For details, see [Map Settings](#).

Postrequisites:

- To cancel the changes of displaying the radio, right-click the indicator next to the radio name.
- To cancel the changes of displaying all radios, right-click the indicator next to **All Radios**.
The indicator changes to **Mixed State** ().

4.6.4.3 Displaying Radios in Area

Follow the procedure below to display the list of radios located on the selected area of the map.

Prerequisites:

Determine the desired area on the map, where you want to see radios.

Procedure:

Press and hold Ctrl and with the left button of mouse select the desired area.

In the **Radios** panel, the list of radios which are in the selected area appears.

Postrequisites:

To cancel the selection and display all radios in the list, click the **Cancel selection** button.

4.6.4.4 Setting Radio Location

Follow the procedure below to set the radio location on a map.

Prerequisites:

Determine the radio for which you want to set the location.

Procedure:

1. Open the **Set Location** panel in one of the following ways:
 - If the desired map is open, in the **Radios** panel in the right part of the screen, right-click the desired radio, and then select **Set Locations**.
 - If the desired map is closed, in the Actions Menu or Call Window of the radio, click **Set Locations** and select the map.
The **Set Location** panel opens.
For information on the Actions Menu or Call Window of a radio, see [Radio Fleet](#).
2. Set the radio location in one of the following ways:
 - Click the desired place on the map.
 - In the **Set Location** panel, in the **Latitude** and **Longitude** boxes, type the desired coordinates.
3. Click **Save** to save changes.
The radio appears on the map.

Postrequisites:

To remove the radio from the map, in the Actions Menu or call window of the radio, click **Remove from Map**.

4.6.5 Managing Tracks

4.6.5.1 Displaying Tracks

Follow the procedure below to display a radio track on the map.


Prerequisites:

- Ensure the operator has rights to manage tracks. For details, see [Operators](#).
- Ensure that saving GPS locations in databases is turned on in the [Positioning Systems](#).

NOTE



Track can be shown on map when the radio has a least one coordinate.

Procedure:

1. In the right part of the open map, click **Tracks**.
The **Tracks** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Tracks** panel, click **Add Track**.
The **Track** panel opens.
4. From the **Data Source** list in the **Track** panel, select the database which is used for creating the track.
5. From the **Radios** list, select the radio whose track is displayed.
6. From the **Period** list, select the time period of the track.
 - If from the **Period** list the *Several hours* value is selected, in the **Hours** box, enter the desired amount of hours.
 - If from the **Period** list the *Custom range* is selected, in the **Start Date** and **End Date** boxes, set the desired date and time.
7. From the **Color** palette, select the track line color on the map.

8. From the **Line Thickness** list, select the desired thickness of the track line.
9. Click **Show** to display the track on the map.
The track appears on the map, and the track entry appears in the **Tracks** panel.

Postrequisites:

- To edit the track, in the **Tracks** panel, select the desired track in the list, and click **Edit** ().
- To remove a track, in the **Tracks** panel, select the desired track in the list, and click **Delete** ().
- To delete all tracks on the current map, in the **Tracks** panel, click **Clear Tracks**.






4.6.5.2 Animating Tracks

Follow the procedure below to animate a radio track on the map.

Prerequisites:

Ensure the desired radio track is in the list of tracks.

Procedure:

1. In the right part of the open map, click **Tracks**.
The **Tracks** panel opens.
2. *Optional:* Click **Fix** () to fix the panel.
3. Select from the tracks list the desired track, and click **Track Details** ().
The **Track Details** panel opens.
4. In the **Track Details** panel, click **Start Playback** ().
The track starts animating on the map. The button **Start Playback** () changes to **Pause Playback** ().

NOTE

You can control the animation speed of the track with the corresponding controls. For details, see [Track Details](#).

5. *Optional:* To display the radio position at certain time, double-click the desired entry in the track details table.

Postrequisites:

To stop the track animation, click **Stop Playback** (■).

4.6.6 Managing Objects on Map


4.6.6.1 Adding Points of Interest

Follow the procedure below to add a point of interest on the map.


Prerequisites:

Ensure the operator has the rights to configure points of interest. For details, see [Operators](#).

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, open the **Points of Interest** tab.
4. On the **Points of Interest** tab, click **Create Point of Interest**.
The **Point of Interest** panel opens.
5. In the **Name** box of the **Point of Interest** panel, type the name of the point of interest.
6. *Optional:* From the **Icon** list, select an image for the point on the map.

NOTE

You can download the image by clicking the button (). Images of large size are cropped to 48x48.

7. Set the point location on the map in one of the following ways:
 - Click the desired location on the map.
 - In the **Latitude** and **Longitude** boxes, type the desired coordinates.

8. Click **Save** to save the point of interest.

The added point appears on the map, and in the list of the **Points of Interest** tab of the **Object on Map** panel.

Postrequisites:

- To display or hide the point of interest on the map, in the points list, next to the desired point name select or clear the **Show on Map** check box.
- To edit the point of interest, see [Editing Objects Using Panel](#).
- To remove the point of interest, see [Deleting Objects](#).

4.6.6.2 Adding Geofences


4.6.6.2.1 Adding Geofences Using Map

Follow the procedure below to add a geofence on the map.

Prerequisites:

Ensure the operator has the rights to configure geofences. For details, see [Operators](#).

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, open the **Geofences** tab.
4. On the **Geofences** tab, click **Create Geofence**.
The **Geofence** panel opens.
5. In the **Name** box of the **Geofence** panel, type the name of the geofence.
6. From the **Color** palette, select the color for the geofence on the map.
7. Set the geofence location on the map by clicking at least three desired points on the map.
Double-click the last point to finish drawing.
8. Click **Save** to save the geofence.
The added geofence appears on the map, and in the list in the **Geofences** tab of the **Objects on Map** panel.

Postrequisites:

- To show or hide the geofence, in the **Geofences**, select or clear the **Show on map** check box.
- To edit the geofence, see [Editing Objects Using Panel](#) or [Editing Objects Using Map](#).
- To remove the geofence, see [Deleting Objects](#).



4.6.6.2.2 Adding Geofences Using Table

Follow the procedure below to add a geofence on the map.


Prerequisites:

Ensure the operator has the rights to configure geofences. For details, see [Operators](#).

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, open the **Geofences** tab.
4. On the **Geofences** tab, click **Create Geofence**.
The **Geofence** panel opens.
5. In the **Name** box of the **Geofence** panel, type the name of the geofence.
6. From the **Color** palette, select the color for the geofence on the map.
7. Click the **Edit in Table** button.
The **Points** table becomes active.
8. Add at least three points by clicking the **Add coordinate** () button.
The lines for adding coordinates appear in the table.
9. In the table, perform the following actions:
 - a. In the **Latitude** column, type the desired latitude of points.
 - b. In the **Longitude** column, type the desired longitude of points.
10. Click the **Save** button.
The current panel changes to the **Objects on Map** panel.

Postrequisites:

- To delete a point from the table, select the desired line with coordinates and click **Delete coordinate** ().
- To show or hide the geofence, in the **Geofences**, select or clear the **Show on map** check box.
- To edit the geofence, see [Editing Objects Using Panel](#) or [Editing Objects Using Map](#).
- To remove the geofence, see [Deleting Objects](#).

4.6.6.3 Adding Routes


4.6.6.3.1 Adding Routes Using Map

Follow the procedure below to add a route on the map.

Prerequisites:

Ensure the operator has the rights to configure routes. For details, see [Operators](#).

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, open the **Routes** tab.
4. On the **Routes** tab, click **Create Route**.
The **Route** panel opens.
5. In the **Name** box of the **Route** panel, type the name of the route.
6. In the **Possible deviation (m)** box, enter the possible deviation from the route.
7. From the **Color** palette, select the color for the route on the map.
8. Set the route location on the map by clicking at least two desired points on the map.
Double-click the last point to finish drawing.
9. Click **Save** to save the route.
The added route appears on the map, and in the list in the **Routes** tab of the **Object on Map** pane.

Postrequisites:

- To show or hide a route, in the **Routes** tab, select or clear the **Show on map** check box.
- To edit a route, see [Editing Objects Using Panel](#) or [Editing Objects Using Map](#).
- To remove a route, see [Deleting Objects](#).



4.6.6.3.2 Adding Routes Using Table

Follow the procedure below to add a route on the map.

Prerequisites:

Ensure the operator has the rights to configure routes. For details, see [Operators](#).

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, open the **Routes** tab.
4. On the **Routes** tab, click **Create Route**.
The **Route** panel opens.
5. In the **Name** box of the **Route** panel, type the name of the route.
6. In the **Possible deviation** box, enter the distance the radio can deviate from the route line.
7. From the **Color** palette, select the color for the route on the map.
8. Click the **Edit in Table** button.
The **Points** table becomes active.
9. Add at least two points by clicking the **Add coordinate** () button.
The lines for adding coordinates appear in the table.
10. In the table, perform the following actions:
 - a. In the **Latitude** column, type the desired latitude of points.
 - b. In the **Longitude** column, type the desired longitude of points.

- c. *Optional:* In the **Key point** column select the check box.

NOTE


Key points can be displayed in the Radio Locations report. For details, see [Radio Locations](#).

- d. *Optional:* In the **Name** column, in the box, enter the key point name.

11. Click the **Save** button.

The current panel changes to the **Objects on Map** panel.

Postrequisites:

- To remove a point from the table, select the desired line with coordinates and click **Delete coordinate** ().
- To remove a key point from the route, in the **Points** table, clear the **Key point** check box next to the desired point.
- To show or hide a route, in the **Routes** tab, select or clear the **Show on map** check box.
- To edit a route, see [Editing Objects Using Panel](#) or [Editing Objects Using Map](#).
- To remove a route, see [Deleting Objects](#).

4.6.6.4 Editing Objects



4.6.6.4.1 Editing Objects Using Map



Follow the procedure below to edit a point of interest, geofence, or a route on the map.

Prerequisites:

Ensure at least one desired object is added on the map.

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, select the desired tab.
4. On the selected tab, in the the desired object entry, click **Edit** ().
The panel with the object parameters opens.

5. In the open panel perform the desired changes:
 - To edit a point of interest, click the desired place on the map.
 - To edit a geofence or a route, drag the object points to the desired position.
6. *Optional:* To cancel changes, perform one of the following actions:
 - *For Google maps:* To cancel the last action on the map, click ().
 - To cancel changes and close the panel, in the upper-right corner of the panel, click ().
The panel changes to the **Objects on Map** panel.
7. If the **Point of interest**, **Geofence**, or **Route** panel is open, click **Save**.
The changes are applied and the panel changes to the **Objects on Map** panel.



4.6.6.4.2 Editing Objects Using Panel

Follow the procedure below to edit a point of interest, geofence, or a route in the **Objects on Map** panel.

Prerequisites:

Ensure that at least one desired object exists in the list.

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. Select the tab with the desired object in the **Objects on Map** panel.
4. On the selected tab, in the the desired object entry, click **Edit** ().
The panel with the object parameters opens.
5. In the open panel, perform the desired changes.
6. Click the **Save** button.
The current panel changes to the **Objects on Map** panel.


4.6.6.5 Deleting Objects

Follow the procedure below to remove a point of interest, geofence, or a route.

Prerequisites:

Ensure that at least one desired object is on the list.

Procedure:

1. In the right part of the open map, click **Objects on Map**.
The **Objects on Map** panel opens.
2. *Optional:* Click Fix () to fix the panel.
3. On the **Objects on Map** panel, select the tab with the desired object.
4. On the selected tab, in the the desired object entry, click **Delete (-)**.
The object disappears from the map and from the selected tab.

5 Event Log

5.1 SmartPTT Dispatcher Event Log

The SmartPTT Dispatcher Event Log provides information on all events registered in the SmartPTT Dispatcher database.

To display events in the Event Log, you should activate it.

For information on activating the event log, see [Enabling Event Logging for SmartPTT Dispatcher](#).

You can open the Dispatcher Event Log by clicking **Event Log** → **All Events** on the menu bar.

D...	Event Type	Date/Time	Additional Infor...	Not read	Operator	Radioserver	Channel	Radio	Source
	Status	2/9/2018 10:18:48 AM	Online ->Offline	<input type="checkbox"/>	Administrator			34	34
	Call	2/8/2018 4:56:41 PM	1, 105	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	1	1
	Registration	2/8/2018 4:56:34 PM		<input type="checkbox"/>	Administrator	Radioserver	Slot 1	22	22
	Call	2/8/2018 4:56:27 PM	1	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	1	1
	Call	2/8/2018 4:56:23 PM	1	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	1	1
	Call	2/8/2018 4:56:19 PM	1	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	1	1
	Call	2/8/2018 4:56:09 PM	1, 105	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	1	1
	Message	2/8/2018 4:56:06 PM	Ppl.eh	<input checked="" type="checkbox"/>	Administrator	Radioserver	Slot 1	22	22
	Call	2/8/2018 4:56:03 PM	105	<input type="checkbox"/>	Administrator	Radioserver	Slot 2	105	105
	Call	2/8/2018 4:55:14 PM	22	<input type="checkbox"/>	Administrator	Radioserver	Slot 1	22	22
	Call	2/8/2018 4:50:14 PM	M 16	<input type="checkbox"/>	Administrator	Radioserver	Slot 1	22	M 16

Direction: ← Outgoing Channel: Note

Event type: 🔄 Status Status: Offline

Source: 34 Additional information: Online ->Offline

Destination:

Date/Time: 2/9/2018 10:18:48 AM

The Event Log provides the following elements:

Event Log Table

Contains information on all events registered in the database.

For information on the table, see [Dispatcher Event Log Table](#).

NOTE

You can activate recording of incoming and outgoing calls in SmartPTT Dispatcher. For details, see [Records](#).

Brief Event Description

Located in the lower part of the Event Log panel, and contains the same information on the selected event as the Event Log Table.

Note

Contains notes a dispatcher can type for event log entries. The text from the box is also shown in the **Note** column of the Event Log Table.

The Event Log entries can be selected in the following ways:

- Clicking a single entry selects only one entry.
- Clicking multiple entries with the Ctrl or Shift key held down selects multiple entries.

For events of the *Call* type, the following actions are available in the Event Log panel and in the **Play Records** window:

- Downloading call records to a folder. If a single call record is downloaded, you can also change the name of the downloaded audio file.

NOTE

By default, the records are downloaded in the OGG format.

For information on setting the format of downloaded audio files, see [Records](#).

- Playing call records.
- Opening call records location.

These actions can be performed from the shortcut menu that appears at right-clicking one or multiple selected entries of the incoming and outgoing calls.

WARNING

Playing, downloading and opening location of the call records is unavailable for the calls made before activating the incoming and outgoing calls recording functionality.

- For information on the **Downloading audio files** window, see [Window of Call Records Downloading](#).
- For information on the **Play records** window, see [Play Records Window](#).
- For information on the call records downloading procedure, see [Downloading Call Records](#).
- For information on the call records playback procedure, see [Playing Call Records](#).
- For information on the call records location opening procedure, see [Opening Call Records Location](#).

5.1.1 Dispatcher Event Log Table

The Event Log Table of SmartPTT Dispatcher contains the following columns with the corresponding filters:

Column Name	Description	Filter
Direction	Shows whether the event is incoming (→), or outgoing (←).	Can be filtered by <i>Incoming</i> or <i>Outgoing</i> direction.
Event Type	Shows the type of the event: <ul style="list-style-type: none"> Registration: <ul style="list-style-type: none"> Online (👤) Offline (👤) Power down (🛑) Call (📞) Message (✉) Telemetry (📡) Alarm (🚨) Status (🌐) Block radio: <ul style="list-style-type: none"> Block (🔒) Unblock (📄) Job Ticket (📄) User Authorization: <ul style="list-style-type: none"> Sign In (→) Sign Out (←) Radio Check (📞) Lone Worker (🚧) Radio Kill (🔒) 	Can be filtered by event types.
Date/Time	Shows the date and time of the event.	Can be filtered by date and time.
Not Read	Shows whether the message was read.	Can be filtered by read or unread status.

Column Name	Description	Filter
Additional Information	Contains the specific information depending on the event type. For details, see Additional Information Column .	Can be filtered by values containing in the column.
Operator	Shows the operator who registered the event.	Can be filtered by operator names.
Radioserver	Shows the radioserver on which the event was registered.	Can be filtered by radioserver names.
Channel	Shows the channel on which the event was registered.	Can be filtered by channel names.
Radio	Shows the radio or WAVE user that can be a source or target of the event. Also shows all radios and WAVE users that participated in a group call.	Can be filtered by radio or WAVE user names.
User	Shows the radio user which can be a source or target of the event.	Can be filtered by radio user names.
Source	Shows the name or ID of an event initiator.	Can be filtered by event initiators.
Talkgroup	Shows the talkgroup which participated in the event.	Can be filtered by talkgroup names.
Status	Shows the event status. For information on possible event statuses, see Status Column .	Can be filtered by statuses.
Duration	Shows the event duration in seconds.	Can be filtered by call duration.
Connection Type	Shows the connection type of the event.	Can be filtered by <i>IP, PBX, or Radio</i> connection type.
Destination	Shows the recipient ID or name.	Can be filtered by event recipients.

Column Name	Description	Filter
Record	Shows whether the call was recorded. All event types except for Call always have <i>No</i> value.	<i>Yes</i> or <i>No</i> filters can be used.
Lone Worker	Shows whether a lone worker profile is assigned to a radio or WAVE user.	<i>Yes</i> or <i>No</i> filters can be used.
Note	Contains the text of a note attached to the event log entry by dispatcher.	Can be filtered by the text typed in the Note box.

If in the **General Settings** window the **Show radio user name** check box is selected, and on SmartPTT Radioserver the user authorization service is activated and users are added, then in the **Source**, **Destination** and **Additional Information** columns the name of the user authorized on the radio is displayed next to the radio name in brackets.

For information on the check box, see [General Settings](#).

5.1.1.1 Additional Information Column

Depending on the event type, the **Additional information** column contains the following information:

Event Type	Information in the column
Registration	Empty column.
Call	Identifiers of call initiators, or operator name, or cause of a call denial.
Message	Message text.
Telemetry	Description of telemetry action set in telemetry settings. For details, see Telemetry .
Alarm	Date and time of alarm acknowledgment, and the operator name who acknowledged it.

Event Type	Information in the column
Status	Changing of radio status. For information on radio statuses, see Status .
Block radio	Empty column.
Job Ticket	Job ticket number, name, and its description.
User Authorization	Empty column.
Lone Worker	Empty column at activating/deactivating lone worker profile. The column is filled when the profile changes.
Radio Check	Empty column.
Radio Kill	Empty column.

5.1.1.2 Status Column

Depending on the event type, the following statuses are available in the **Status** column:

Event Type	Information in the column
Registration	<ul style="list-style-type: none"> • Offline • Online • Power down
Call	<ul style="list-style-type: none"> • Group Call • Private Call • All Call • Call Alert • Monitoring • Emergency Call • Call Alert not delivered
Message	<ul style="list-style-type: none"> • Message delivered • Message not delivered

Event Type	Information in the column
	<ul style="list-style-type: none"> • Message accepted • Message sent • Message not sent
Telemetry	<ul style="list-style-type: none"> • Outgoing telemetry • Incoming telemetry
Alarm	<ul style="list-style-type: none"> • While the emergency is not accepted, the column is empty • Emergency accepted
Status	Radio status name set in Status
Block radio	<ul style="list-style-type: none"> • Unblocked • Blocked • Block failed • Unblock failed • Undelivered • Target did not respond
Job Ticket	<ul style="list-style-type: none"> • Status change • Delivered • Not delivered • Sent • Not sent
User Authorization	<ul style="list-style-type: none"> • User Authorization Sign Out • User Authorization Sign In
Lone Worker	<ul style="list-style-type: none"> • Profile changed • On • Off
Radio Check	<ul style="list-style-type: none"> • Radio is available • Radio is unavailable • Target did not respond

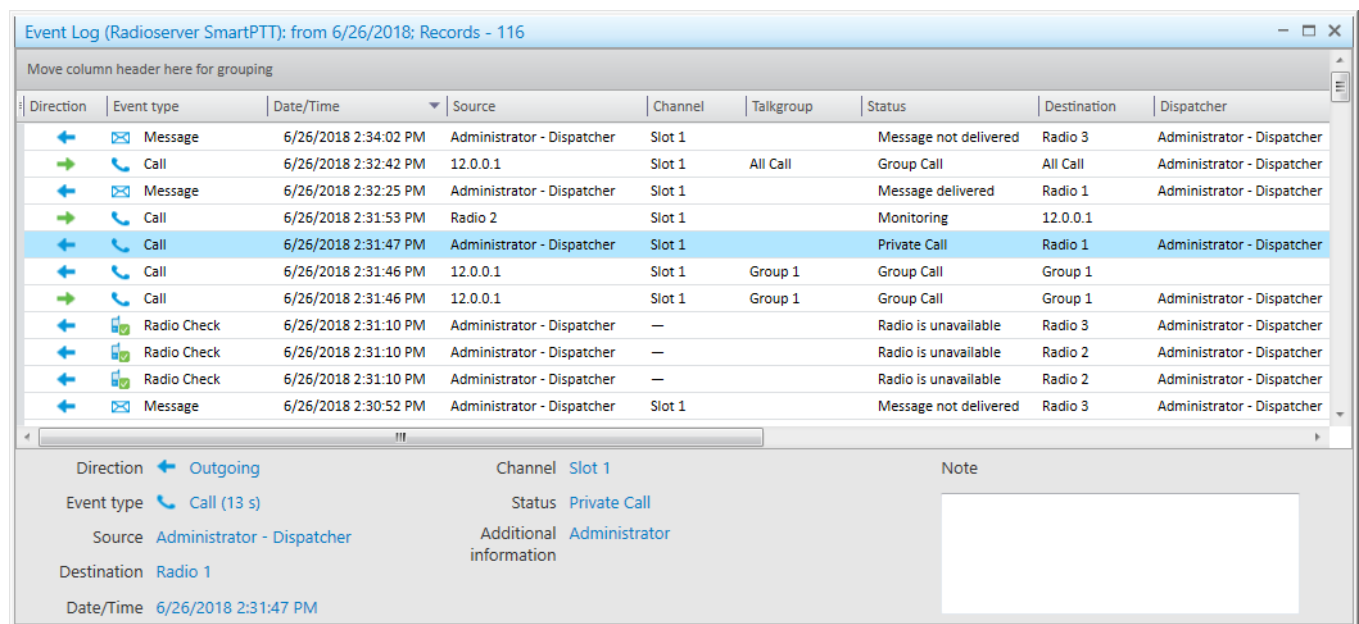
Event Type	Information in the column
Radio Kill	<ul style="list-style-type: none"> Delivered Not delivered

5.2 SmartPTT Radioserver Event Log

The Radioserver Event Log panel provides information on events from all dispatch systems connected to the radioserver.

The Radioserver Event Log can be activated and configured in SmartPTT Radioserver Configurator. For information on configuring radioserver event log, see “Event Log” in *Radioserver Configurator User Guide*.

For information on opening the Radioserver Event Log, see [Displaying SmartPTT Radioserver Event Log](#).



The Radioserver Event Log provides the following elements::

Radioserver Event Log Table

Contains the columns with all information about events.

For information on the table, see [Radioserver Event Log Table](#).

Brief Event Description

Located in the lower part of the Radioserver Event Log panel, and contains the same details of the event as the Radioserver Event Log Table.

Note

Contains notes a dispatcher can type for event log entries. The text from the box is also shown in the **Note** column of the Radioserver Event Log Table.

The Event Log entries can be selected in the following ways:

- Clicking a single entry selects only one entry.
- Clicking multiple entries with the Ctrl or Shift key held down selects multiple entries.

For events of the *Call* type, the following actions are available in the Event Log panel and in the **Play Records** window:

- Downloading call records to a folder. If a single call record is downloaded, you can also change the name of the downloaded audio file.

NOTE

By default, the records are downloaded in the OGG format.

















For information on setting the format of downloaded audio files, see [Records](#).

- Playing call records.
- For information on the **Downloading audio files** window, see [Window of Call Records Downloading](#).
- For information on the **Play records** window, see [Play Records Window](#).
- For information on the call records downloading procedure, see [Downloading Call Records](#).
- For information on the call records playback procedure, see [Playing Call Records](#).

5.2.1 Radioserver Event Log Table

The Radioserver Event Log table contains the following columns with the corresponding filters:

Column Name	Description	Filter
Direction	Shows whether the event is incoming (→), or outgoing (←).	Can be filtered by <i>Incoming</i> or <i>Outgoing</i> direction.

Column Name	Description	Filter
Event Type	Shows the type of the event: <ul style="list-style-type: none"> • Registration: <ul style="list-style-type: none"> • Online () • Offline () • Power down () • Call () • Message () • Telemetry () • Alarm () • Status () • Block radio: <ul style="list-style-type: none"> • Block () • Unblock () • Job Ticket () • User Authorization: <ul style="list-style-type: none"> • Sign In () • Sign Out () • Radio Check () • Lone Worker () • Radio Kill () 	Can be filtered by event types.
Date/Time	Shows the date and time of the event.	Can be filtered by date and time.
Channel	Shows the channel on which the event was registered.	Can be filtered by channel names.
Talkgroup	Shows the talkgroup which participated in the event.	Can be filtered by talkgroup names.
Source	Shows the name or ID of an event initiator.	Can be filtered by event initiators.
Dispatcher	Shows the operator who participated in the event.	Can be filtered by operator names.

Column Name	Description	Filter
Status	Shows the event status. For information on possible event statuses, see Status Column .	Can be filtered by statuses.
Duration	Shows the event duration in seconds.	Can be filtered by call duration.
Additional Information	Contains the specific information depending on the event type. For details, see Additional Information Column .	Can be filtered by values containing in the column.
Record	Shows whether the call was recorded. All event types except for Call always have <i>No</i> value.	Yes or No filters can be used.
Destination	Shows the recipient ID or name.	Can be filtered by event recipients.
Note	Contains the text of a note attached to the event log entry by dispatcher.	Can be filtered by the text typed in the Note box.
User	Shows the radio user which can be a source or target of the event.	Can be filtered by radio user names.

If in the **General Settings** window the **Show radio user name** check box is selected, and on SmartPTT Radioserver the user authorization service is activated and users are added, then in the **Source**, **Destination** and **Additional Information** columns the name of the user authorized on the radio is displayed next to the radio name in brackets.

For information on the check box, see [General Settings](#).

5.3 Play Records Window

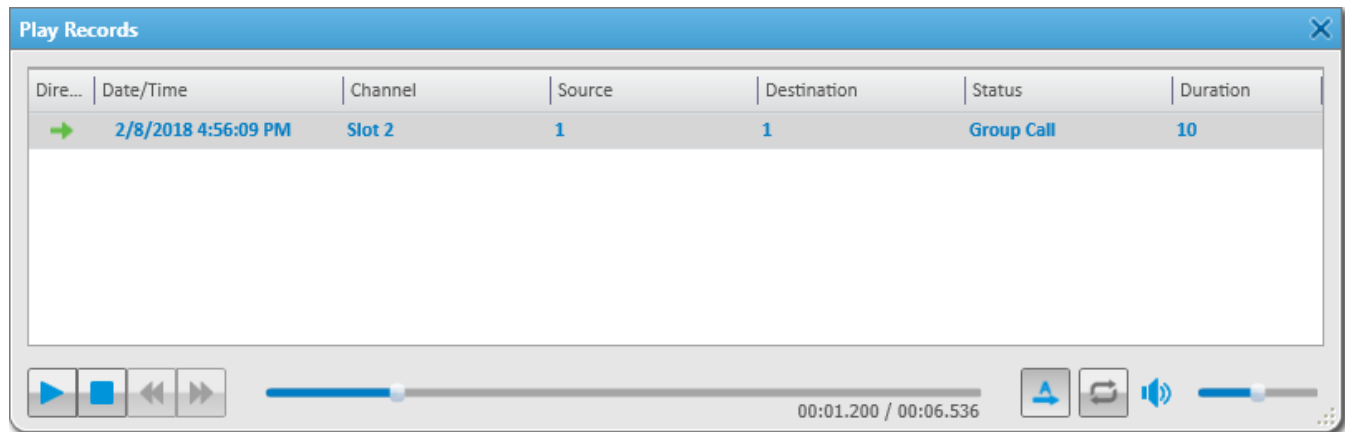
In the **Play Records** window you can play call records, download them, or open their location.

NOTE

The opening of call records location is unavailable for SmartPTT Radioserver Event Log.

The window opens when one or multiple call records are played.

For information on playing, see [Opening Call Records Location](#).



The **Play Records** window provides the following elements:

Call Record Table

Contains records of calls selected in the Event Log Table. Consists of columns identical to the columns of the Event Log Table. For details, see [Dispatcher Event Log Table](#) or [Radioserver Event Log Table](#).

Start Playback (▶) / Pause Playback (⏸)

Plays the selected record or pauses the currently played.

Stop Playback (■)

Stops playback of the current record.

Return to Previous Record (◀)

Plays the previous record.

Go to Next Record (▶)

Plays the next record.

Play All Records (⏮)

Activates the mode to play all the records one by one. The mode is active by default.

Replay (↺)

Activates the mode to replay the current record.

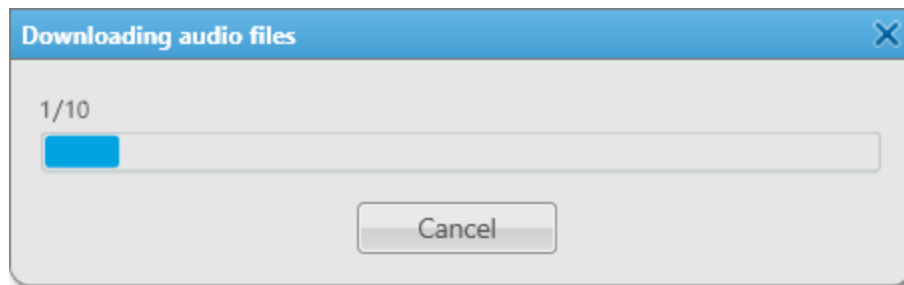
If more than one record is in the call record table and the **Play All Records** button is pressed, the records in the table are replayed one by one.

Volume Slider

Adjusts the volume of the audio records playback.

5.4 Window of Call Records Downloading

The process of call records downloading is displayed in the **Downloading audio file** window (if a single call record is downloaded) or in the **Downloading audio files** window (if multiple call records are downloaded).

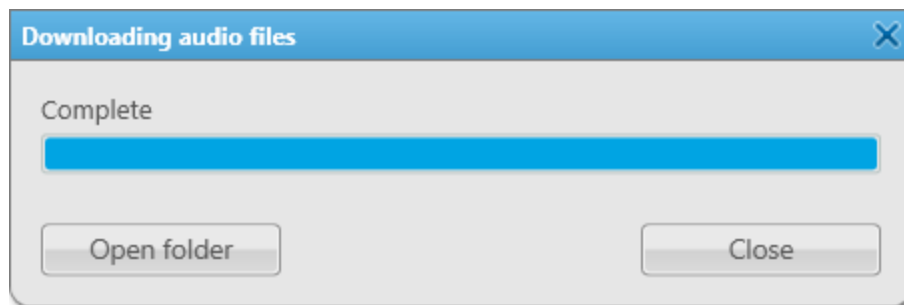


The window is open when you start a single or more call records downloading.

For information on the procedure of call records downloading, see [Downloading Call Records](#).

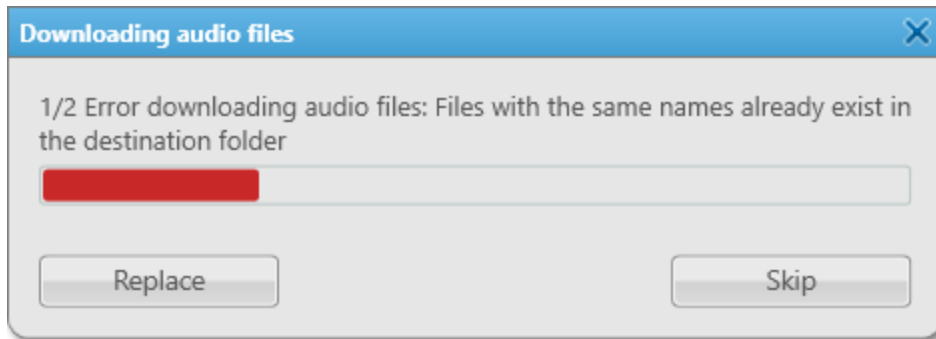
If a call or call records are downloaded successfully, the *Complete* message appears, and the **Cancel** button changes to the **Open folder** and **Close** buttons.

Using these buttons, you can open the destination folder of downloaded call records or close the window.



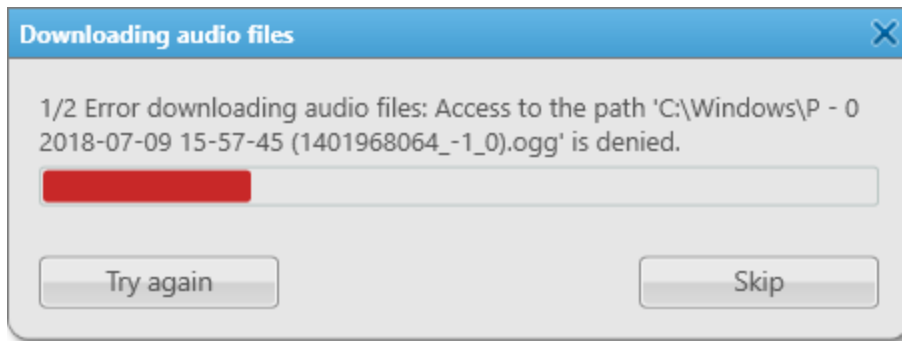
When multiple call records are downloaded and the destination folder contains audio files with the same names as the downloaded call records, the corresponding error occurs. The **Cancel** button changes to the **Replace** and **Skip** buttons.

Using these buttons, you can replace the audio file or skip it and resume download.



When other errors occur, the corresponding message with an error type appears and the **Cancel** button changes to the **Try again** and **Skip** buttons.

Using these buttons, you can try to repeat to download the call record again or skip it and resume download.



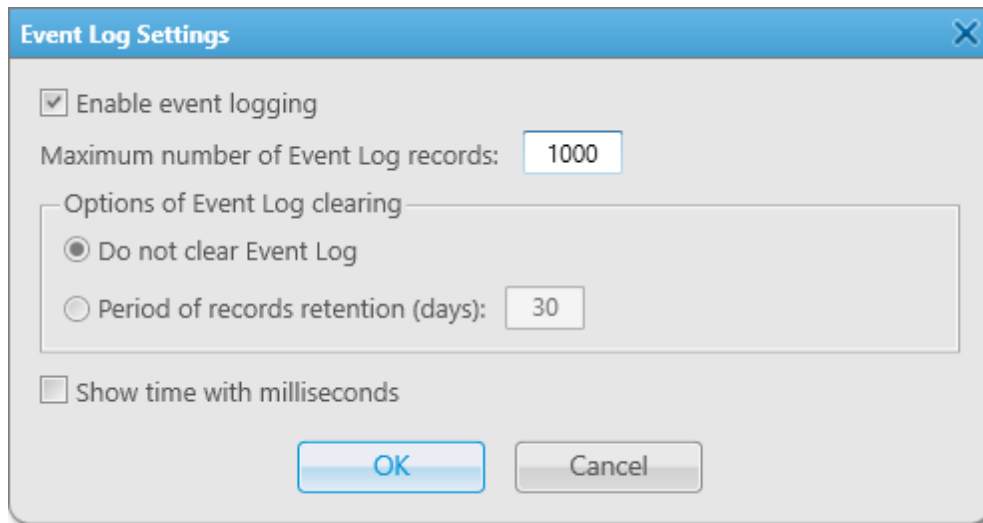
5.5 Managing Event Log

5.5.1 Enabling Event Logging for SmartPTT Dispatcher

Follow the procedure below to enable event logging for SmartPTT Dispatcher.

Procedure:

1. On the menu bar, click **Event Log** → **Event Log Settings**.
The **Event Log Settings** window appears.



2. In the **Event Log Settings** window, select the **Enable event logging** check box to record events to the SmartPTT Dispatcher database.
3. *Optional:* In the **Maximum number of Event Log records** box, type the desired value. The maximum value is 9999.
4. In the **Options of Event Log clearing** area, click the desired option button:
 - Click **Do not clear Event Log** to record new events to the database until the hard drive is full.
 - Click **Period of records retention (days)** to delete records made a specified amount of days ago.
5. *Optional:* If **Period of records retention (days)** is selected, type the desired amount of days to keep records. The maximum value is 999.

6. *Optional:* Select the **Show time with milliseconds** check box to display milliseconds in the **Data/Time** column of the event log.
7. Click **OK** to apply changes and close the window.

5.5.2 Displaying SmartPTT Radioserver Event Log

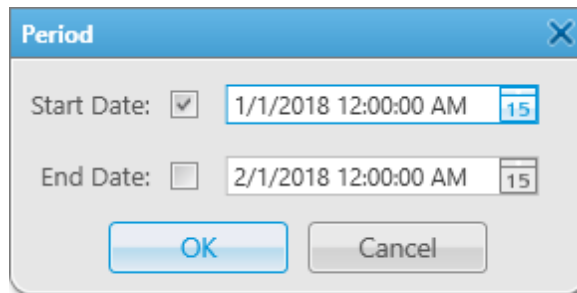
Follow the procedure below to open the Radioserver Event Log panel.

Prerequisites:

Ensure the radioserver event log is activated in SmartPTT Radioserver Configurator. For details, see “Event Log” in *Radioserver Configurator User Guide*.

Procedure:

1. In the **Radio Fleet**, in the right part of the radioserver entry, click the Actions button (>>), and then select **Show Radioserver Event Log** (📄).
The **Period** window appears.




2. In the open **Period** window, set the period of events to be shown in the Radioserver Event Log:

To show events starting from the specified date only, select the **Start Date** check box.

To show events before the specified date only, select the **End Date** check box.

To show events for a certain period of time only, select the **Start Date** and the **End Date** check boxes.

To show all events from the dispatcher database, clear the **Start Date** and the **End Date** check boxes.

3. Click the Date () button, and select the desired start and end dates, or enter the dates manually.
4. *Optional:* In the boxes with the dates, type the start and end time.
5. Click **OK** to apply changes, and display the Dispatcher Event Log.
If events for the specified period exist in the database, they are displayed in the open Dispatcher Event Log.

5.5.3 Viewing Unread Messages

Follow the procedure below to view unread messages in the SmartPTT Dispatcher Event Log.

Procedure:

View unread messages in one of the following ways:

- Click **Event Log** → **Unread Messages** on the menu bar.
- Click **Unread messages: <number>** if it is displayed in the lower-left corner of SmartPTT Dispatcher.

The **Event Log: messages not read** panel appears.

Dispatcher - Administrator

Tools Map Event Log Service Reports

Event Log: messages not read: Records - 3

Move column header here for grouping

Direction	Event type	Date/Time	Additional information	Not read	Radioserver	Destination	Status	Operator	Char
←	Message	5/31/2018 1:50:41 PM	text message example	<input checked="" type="checkbox"/>	Radioserver SmartPTT	Radio 3	Message not delivered	Administrator	Slot :
←	Message	5/31/2018 1:49:37 PM	text message example	<input checked="" type="checkbox"/>	Radioserver SmartPTT	Radio 3	Message delivered	Administrator	Slot :
←	Message	5/29/2018 1:04:07 PM	text message example	<input checked="" type="checkbox"/>	Radioserver SmartPTT	Radio 3	Message not delivered	Administrator	Slot :

Direction: ← Outgoing Channel: Slot 1 Note: Not read

Event type: Message Status: Message delivered

Source: Administrator Message: text message example

Destination: Radio 3

Date/Time: 5/31/2018 1:49:37 PM

Unread messages: 3 The license belongs to:

5.5.4 Events

5.5.4.1 Displaying All Events

Follow the procedure below to display all events of SmartPTT Dispatcher.

Procedure:

On the menu bar, click **Event Log** → **All Events**.

The Dispatcher Event Log panel with all events appears.

NOTE

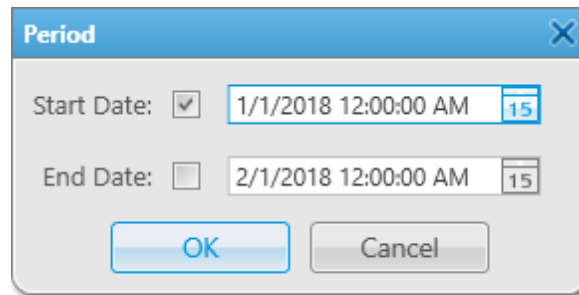
Alerts and events initiated in the emergency mode are displayed in the Event Log in red.

5.5.4.2 Displaying Events for Period

Follow the procedure below to display events of SmartPTT Dispatcher for a certain period.

Procedure:

1. On the menu bar, click **Event Log** → **Events for Period**.
The **Period** window appears.




2. In the open **Period** window, set the period to show events:

To show events starting from the specified date only, select the **Start Date** check box.

To show events before the specified date only, select the **End Date** check box.

To show events for a certain period of time only, select the **Start Date** and the **End Date** check boxes.


To show all events from the dispatcher database, clear the **Start Date** and the **End Date** check boxes.

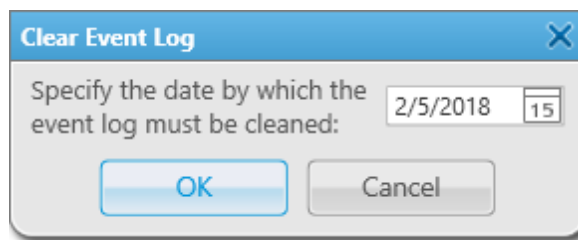
3. Click the Date () button, and select the desired start and end dates, or enter the dates manually.
4. *Optional:* In the boxes with the dates, type the start and end time.
5. Click **OK** to apply changes, and display the Radioserver Event Log.
If events for the specified period exist in the database, they are displayed in the open Radioserver Event Log.

5.5.4.3 Clearing Event Log

Follow the procedure below to remove all event log entries added before the specific date in the SmartPTT Dispatcher Event Log.

Procedure:

1. On the menu bar, click **Event Log** → **Clear Event Log**.
The **Clear Event Log** window appears.
2. In the open **Clear Event Log** window, set the desired date manually, or click the Date () button.



3. Click **OK** to remove event log entries.
All event log entries added before the set date disappear from the Dispatcher Event Log.

5.5.5 Call Records

5.5.5.1 Downloading Call Records

Follow the procedure below to download call records from the SmartPTT Dispatcher or SmartPTT Radioserver Event Log, or from the **Play Records** window.

Procedure:

Depending on the amount of desired records, download them in one of the following ways:

To download a single call record, perform the following actions:

1. Right-click the desired call record, and then click **Download audio file**.
2. In the window that appears, specify the folder for saving the audio file and the file name, and then click **Save**.
The **Downloading audio file** window appears displaying information on the download progress.

To download multiple call records, perform the following actions:

1. Select the desired records.
2. Right-click any of the selected records, and then click **Download audio files**.
3. In the window that appears, specify the existing folder or create a new one for saving the audio files, and then click **Save**.
The **Downloading audio files** window appears displaying information on the download progress.

Postrequisites:

- To open the folder with the downloaded call records, click **Open in File Explorer**.
- If an error occurred during the download, see [Window of Call Records Downloading](#).

5.5.5.2 Playing Call Records

Follow the procedure below to play call records from the SmartPTT Dispatcher or SmartPTT Radioserver Event Log.



Procedure:

1. Depending on the amount of desired records, play them in one of the following ways:



To play a single call record,	right-click the desired call record, and then click Play audio file .
-------------------------------	--

To play multiple call records,	perform the following actions:
	<ol style="list-style-type: none"> 1. Select the desired records. 2. Right-click any of the selected records, and then click Play selected records.

The **Play Records** window appears and the playback of the selected records starts.

2. *Optional:* In the **Play Records** window, configure the playback options:
 - Click **Play all records** () to play all selected records one by one.
 - Click **Replay** () to activate the call records replay.

Postrequisites:

- To put the playback on pause, click **Pause Playback** ().
- To stop the playback, click **Stop Playback** ().

5.5.5.3 Opening Call Records Location

Follow the procedure below to open the call records location from the SmartPTT Dispatcher Event Log.

NOTE

This function is unavailable for the SmartPTT Radioserver Event Log.

Procedure:

Depending on the amount of desired records, open their location in one of the following ways:

To open the location of a single call record,	right-click the desired call record, and then click Open in File Explorer . The folder containing the selected call record opens in a new window.
To open the location of multiple call records,	perform the following actions: <ol style="list-style-type: none">1. Select the desired records.2. Right-click any of the selected records, and then click Open in File Explorer. The folder or folders containing the selected records open in a new window.

5.5.6 Event Log Elements

The procedures below are applicable both to Dispatcher and Radioserver Event Log.

5.5.6.1 Sorting Events

Follow the procedure below to sort events.

Procedure:

Sort entries of the desired column in one of the following ways:

- To sort the entries in ascending order, click the column header until the Up (▲) icon appears.
- To sort the entries in descending order, click the column header until the Down (▼) icon appears.

Postrequisites:

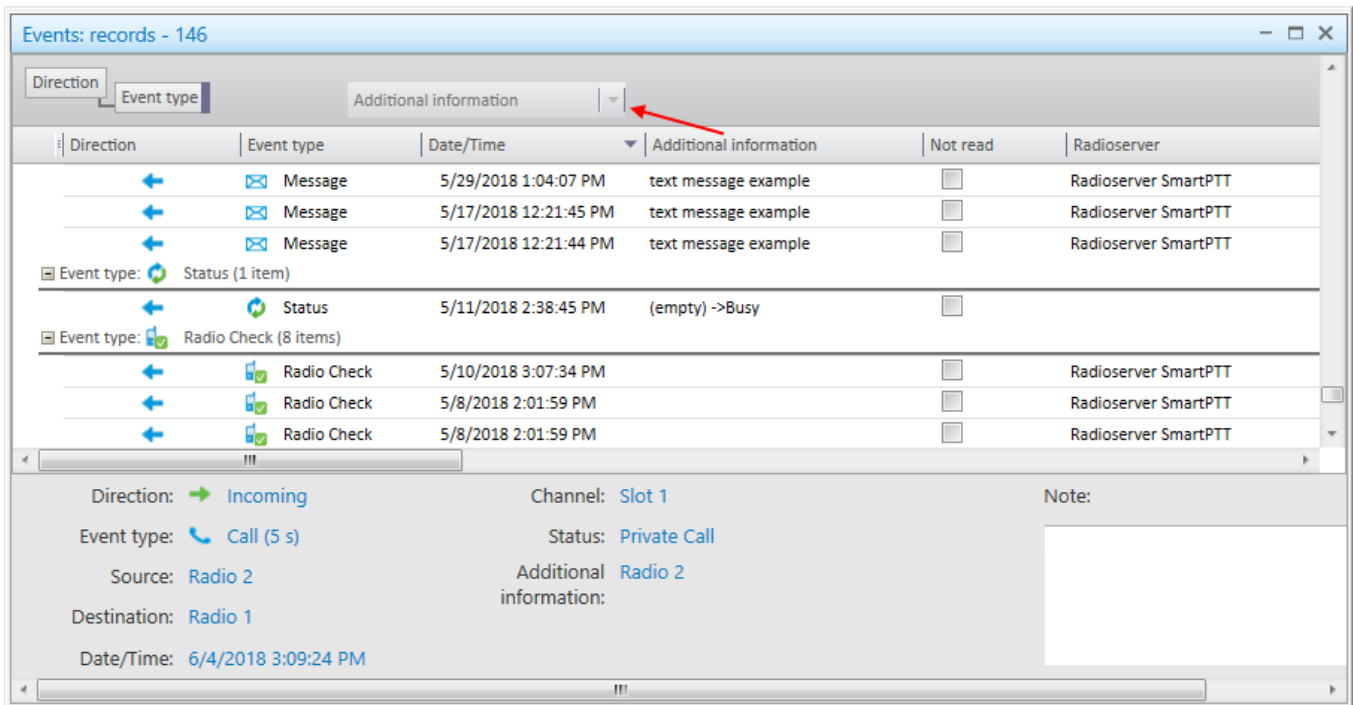
To cancel entries sorting, click the column header until the sorting icon disappears.

5.5.6.2 Grouping Events

Follow the procedure below to group log entries by columns.

Procedure:

1. Click the column header, and drag it to the **Move column header here for grouping** area.
2. *Optional:* Repeat step 1 to group entries in several columns.



Postrequisites:

To cancel grouping, drag the header from the **Move column header here for grouping** area, and drop it when the cross icon (×) appears.

5.5.6.3 Filtering Events

Follow the procedure below to filter column contents by specific values.

Procedure:

1. Point to the desired column header, and then click the appeared icon (▾).
2. From the list, select the desired check boxes, or click the **Select All** button.
Next to the filtered column header the filter icon (▾) appears.

Postrequisites:

To cancel filtering, click the filter icon, and then click the **Clear Filter** button.

5.5.6.4 Displaying Columns

Follow the procedure below to hide or show columns.

Procedure:

Right-click any column header, and select the desired titles from the list.

- Event Type
- Date/Time
- Additional Information
- Not read
- Operator
- Radioserver
- Channel
- Radio
- Source
- Talkgroup
- Status
- Duration
- Connection Type
- Repeater IP
- Destination
- Record
- Lone Worker
- Note
- User

NOTE

By default, all the columns are displayed in the event log.

5.5.6.5 Moving Columns

Follow the procedure below to change the order of columns.


Procedure:

Drag the desired column header to the left or right of any other column.

5.5.6.6 Keeping Column Positions

Follow the procedure below to keep the desired columns position independently of scrolling.

Procedure:

In the column headers, drag the element () to the right of the column you want to keep the position.

All columns to the left of the element are fixed.

6 Service

In the **Service** menu you can carry out a range of secondary functions, including:

- [Radio Check](#) to send the radio check command to radios.
- [Call Priority](#) to initiate high priority calls by default or increase the priority of the desired call.
- [Voice Notifications](#) to play voice notifications.
- [Deferred Actions](#) to view and edit deferred actions.
- [Received Files](#) to view files received by the radioserver via SmartPTTFile Transfer.
- [Radio Kill](#) to block a radio irreversibly.
- [System Information](#) to check event statistics registered on the radioserver or in the dispatcher console and other information on the system.
- [Export Radio List](#) to save the list of registered radios and [WAVE users](#) in .xml or .xls formats.
- [Import Radio List](#) to import previously exported list of radios and [WAVE users](#).
- [Upload to KML](#) to export current geographical position of radios in .kml format.
- [Import Connect Plus Logs](#) to import data from the Connect Plus radio system.
- [Save Dispatcher Settings](#) to save current settings of the dispatcher console and database to restore them in the future.
- [Restore Dispatcher Settings](#) to restore saved settings of the dispatcher console and the database.

6.1 Radio Check

Radio Check is a signaling feature that provides the ability to check whether a radio is currently available in the radio system. This feature can be useful if the radio does not respond, or if you want to check its status manually before the Radio Inactivity Timeout expires.

When the radio receives a Radio Check command, it automatically sends the acknowledgment, no user involvement is required. The only indication available to the user of the checked radio is the Busy LED on it.

You can send the Radio Check command to all MOTOTRBO radios in the dispatched radio systems. No special license or configuration is required.

NOTE

The Radio Check feature is not supported by radios with MDC and 5 Tone IDs.

The following statuses are available for the checked radios:

- The *Radio is available* status means that the checked radio is online.
- The *Radio is unavailable* status means that the checked radio is offline.

You can send the Radio Check command in one of the following ways:

- Using the controls provided by SmartPTT Dispatcher panels or radio Call Window. For details, see [Sending Radio Check from Dispatcher Panels](#).
- Using the IP address or the ID of the target radio. This method is recommended in the following cases:
 - If the target radio is not displayed in SmartPTT Dispatcher.
 - If you use the IP Address radio ID input format.
 - If you use the CAI + radio ID input format and each radio in the dispatched radio systems has a unique ID.

For information on radio ID input format, see [General Settings](#).

NOTE





If you use the *CAI + radio ID* radio ID input format, and more than one radio with the same radio ID operate in the dispatched radio system, it is recommended that you use the controls provided by SmartPTT Dispatcher panels or radio Call Window for sending the Radio Check command. For details, see [Sending Radio Check from Dispatcher Panels](#).

6.1.1 Sending Radio Check from Dispatcher Panels

Follow the procedure below to send the Radio Check command to the radio displayed in one of the SmartPTT Dispatcher panels.

Procedure:

Send the Radio Check command in one of the following ways:

To send the Radio Check command from the Radio Fleet panel,	click the Actions (>>) button on the desired radio, and then click Send Message ().
To send the Radio Check command from the Radios panel,	click the Actions (>>) button on the desired radio tile, and then click Send Message ().
To send the Radio Check command from the Maps panel,	on the map or in the expandable Radios panel, right-click the desired radio, and then click Send Message ().
To send the Radio Check command from the radio Call Window ,	in the Call Window of the desired radio, click Message (). For information on Call Windows, see Radio Fleet .

The target radio status is displayed in the **Event Log** and the log box of the target radio Call Window. For details, see [SmartPTT Dispatcher Event Log](#) and [Radio Fleet](#).

6.1.2 Sending Radio Check Using Radio ID

Follow the procedure below to send the Radio Check command using the target radio IP address or radio ID.

Prerequisites:

Depending on the selected radio ID input format, obtain the IP address or radio ID of the desired radio.

For information on radio ID input format, see [General Settings](#).

Procedure:

1. On the menu bar, click **Service** → **Radio Check**.

The **Radio Check** window appears.

2. Depending on the selected radio ID input format, perform one of the following actions:

If the *IP Address* input format is selected, in the **IP** box, type the radio IP address.

If the *CAI + Radio ID* input format is selected, in the **Radio ID** box, type the radio ID.

3. Click **Send** to send the Radio Check command to the radio.

The radio status appears in the **Status** column of the **Event Log** and in the Call Window of the target radio. For details, see [Dispatcher Event Log Table](#) and [Radio Fleet](#).

NOTE

If the target radio is not displayed in SmartPTT Dispatcher, its status appears only in the **Event Log**. In this case, the **Call Window** does not appear.

4. To close the **Radio Check** window, click **Cancel**.

6.2 Call Priority

The Call Priority feature provides the ability to initiate high priority calls by default or increase the priority of the desired call in SmartPTT Dispatcher.

NOTE

The feature is available only in the Capacity Max radio system.

The Call Priority feature is available in SmartPTT Dispatcher when Administrator or Operator has the proper profile assigned. The profile must have the **High priority of calls** or **Allow priority increasing** check boxes selected for the Capacity Max systems in which the Call Priority feature is required.

For information on profile configuring, see SmartPTT Radioserver Configurator User Guide.

For information on profile assigning, see [Assigning Profile to Operators](#).

Depending on which check box is selected in the profile settings, the Call Priority feature affects dispatcher calls in the following ways:

- If the **High priority of calls** is selected, the call interrupts normal priority call by default.
- If the **Allow priority increasing** is selected in the profile, you can increase priority of a call from normal to high by clicking **Services** → **Increase call priority** before initiating the call. For details, see [Increasing Call Priority](#).

NOTE

High priority calls, Emergency Calls, and All Calls cannot be interrupted.

6.2.1 Initiating High Priority Calls

Follow the procedure below to initiate the high priority call.

Prerequisites:

Ensure **Increase call priority** is available in the **Services** menu.

Procedure:

1. Increase the priority of a call:
 - Select the object or objects to which you want to initiate the high priority call
 - On the menu bar, click **Services** → **Increase call priority**.
2. Initiate a call to the selected object.

If the normal priority call is being made on the channel, it will be interrupted.

NOTE

Other high priority calls, Emergency Calls, and All Calls are not interrupted.

Postrequisites:

If the call initiating is unsuccessful, repeat step 2 in a while.

6.3 Voice Notifications

The **Voice Notifications** feature provides the ability to play preconfigured audio files in SmartPTT Dispatcher talkgroups.

Using this feature, you can send a voice notification to selected talkgroups to inform them of emergencies or deliver other important information as an audio message.

Voice notifications can only be created and configured in SmartPTT Radioserver Configurator. For details, see “Voice Notifications” in *Radioserver Configurator User Guide*.

If the radio channel is busy when a voice notification is sent, the notification may interrupt the active transmission. The voice notification priority depends on the system settings. For information on the voice notifications priority in the dispatched radio systems, contact your system administrator.

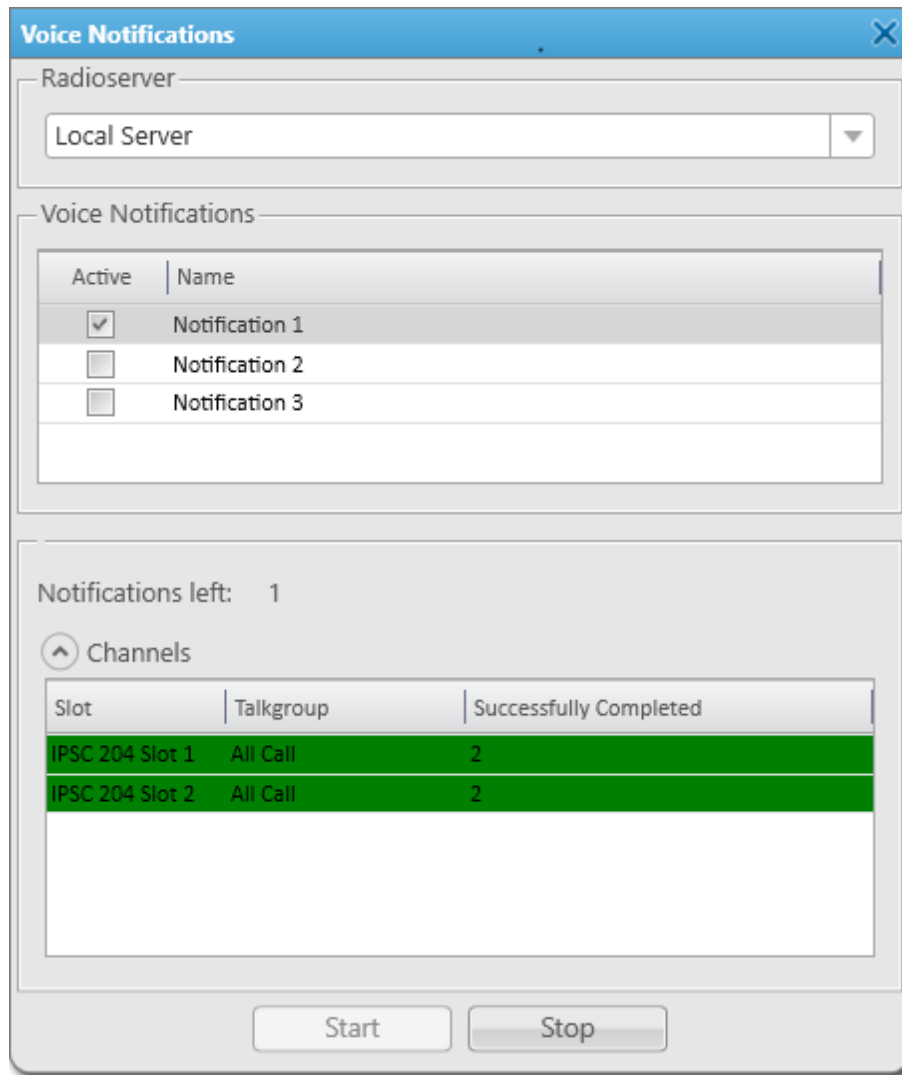
NOTE

SmartPTT Dispatcher does not provide voice notification details. To obtain information on the selected audio file, channels, and playback parameters, contact your system administrator.

Voice notifications can be played in one of the following ways:

- From the **Voice Notifications** window. For details, see [Playing Voice Notifications](#).
- From the **Voice Notification** element in Custom Consoles. For details, see [Custom Consoles](#).
- Automatically, when triggered by a rule configured in SmartPTT Radioserver Configurator. For details, see “Rules” in *Radioserver Configurator User Guide*.

During the voice notification playback, the playback details are available in the **Voice Notifications** window even if the notification is played from a custom console or is triggered by an event configured in the rule in SmartPTT Radioserver Configurator.



The **Voice Notifications** window provides the following elements:

Radioserver

Contains the list of available servers that are currently active and registered in SmartPTT Dispatcher.

Voice Notifications

Contains the table of the voice notifications configured in SmartPTT Radioserver Configurator. The table consists of the following columns:

- The **Active** column contains the check box indicating the status of the voice notification. The selected check box indicates that the voice notification is currently playing or is being sent.
- The **Name** column contains the name of the voice notification.

You can sort the voice notifications in the table by columns and arrange the entries in ascending or descending order by clicking the name of the desired column. You can sort entries only by one column, clicking the name of another column automatically discards the sorting order applied earlier.

Notifications left

Shows how many playbacks of the voice notification are left.

For information on the voice notification parameters, see "Voice Notifications" in *Radioserver Configurator User Guide*.

Collapse (^)/Expand (v)

Hide and show the **Channels** table.

Channels

Contains the table with information on the currently playing voice notification.

The table consists of the following columns:

- The **Slot** column displays the channel on which the voice notification is or has been played.
- The **Talkgroup** column shows the name of the talkgroup for which the voice notification is or has been played.
- The **Successfully Completed** column shows the number of successful voice notification playbacks.

The color of the **Channels** table entries indicates the voice notification playback status for each of the channels. The following color indicators are available:

- The yellow entry color indicates that the voice notification is currently playing.
- The green entry color indicates that the voice notification has been successfully played.
- The red entry color indicates that the voice notification was not played due to connection, audio file, or hardware problems.

Start

Initiates playback of the selected voice notification.

Stop

Terminates the voice notification playback. The playback cannot be resumed from the point where it was stopped.

6.3.1 Playing Voice Notifications

Follow the procedure below to play a voice notification from the **Voice Notification** window in SmartPTT Dispatcher.

Procedure:

1. On the menu bar, click **Service** → **Voice Notifications**.
The **Voice Notifications** window appears.
2. In the **Radioserver** area, select the desired server from the list.

NOTE

Only the servers that are currently active and registered in SmartPTT Dispatcher are displayed in the **Radioserver** list.

3. In the **Voice Notifications** area, in the **Voice Notifications** table, click the voice notification that you want to play.
The information on the selected voice notification playback appears in the **Channels** table in the bottom part of the window.
4. In the bottom part of the window, click **Start** to start the voice notification playback.

Postrequisites:

To stop the voice notification playback, click **Stop**.

NOTE

If you click the **Stop** button, you will not be able to resume the current voice notification playback.

6.4 Deferred Actions

Deferred actions feature provides the ability to create and deliver various messages to offline and online radios. Offline radios receive the sent messages after becoming online, and online radios receive them right after sending.

In SmartPTT Dispatcher the following types of deferred actions are possible:

- Actions with voice messages
- Actions with text messages
- Actions with combined messages (both voice and text)

NOTE

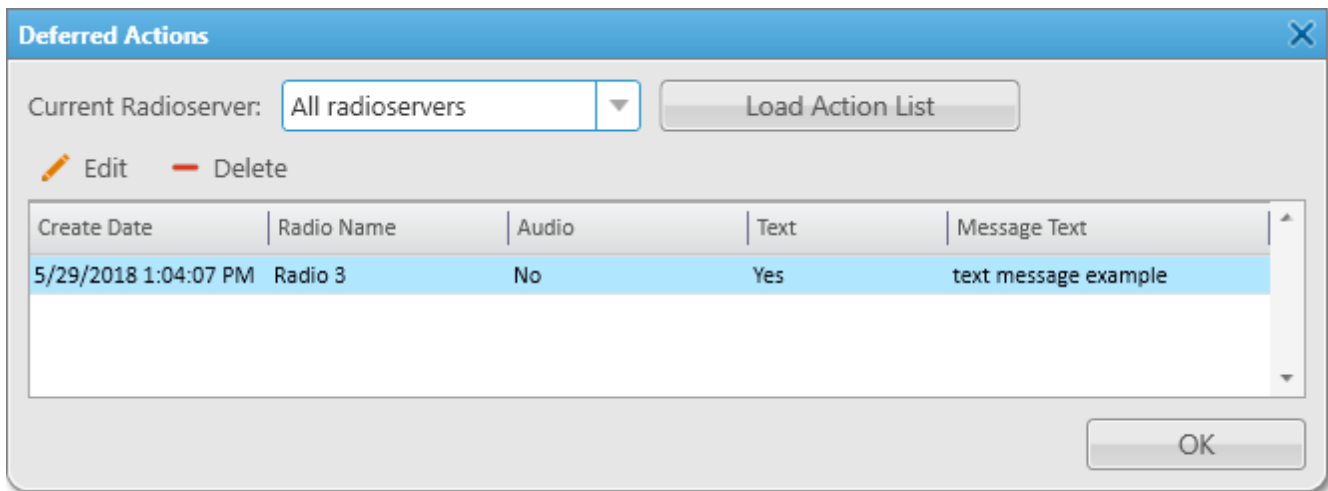
Deferred Actions can be created by Administrators, or Operators with the corresponding rights. For information on operator rights, see [Operators](#).

6.4.1 Deferred Actions Window

In the **Deferred Actions** window, you can manage existing deferred actions.

You can open the window in one of the following ways:

- By clicking **Service** → **Deferred Actions** on the menu bar.
- By clicking **View Deferred Actions** in the **Create Deferred Actions** window.
For details, see [Create Deferred Action Window](#).



The **Deferred Actions** window provides the following elements:

Current Radioserver

Provides a list of radioservers from which you can load existing actions to the Deferred Actions Table located below.

NOTE

If the desired radioserver is not in the list, it may be inactive.
For information on radioservers, see [Radioservers](#).

Load Actions List

Loads new deferred actions from the active radioserver or all active radioservers, or refreshes the Deferred Actions Table if no new actions were added.

You can load only incomplete actions. When the action is complete, it disappears from the Deferred Actions Table.

Edit

Opens the **Create Deferred Action** window in which you can edit the deferred action. For information on the window, see [Create Deferred Action Window](#).

Delete

Deletes the selected deferred action.

Deferred Actions Table

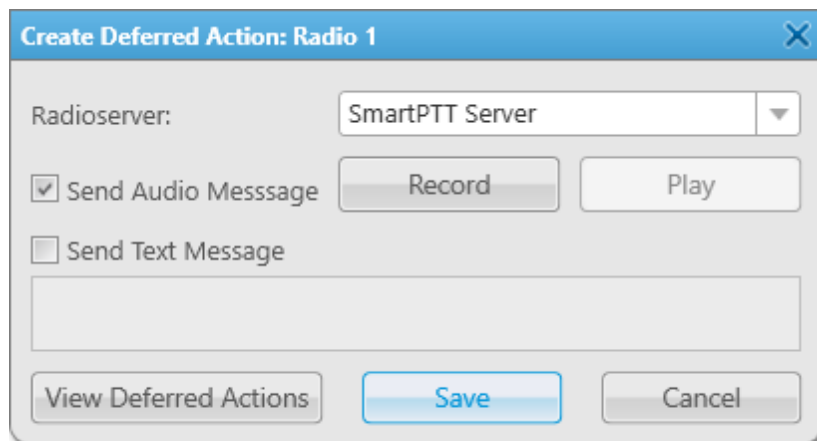
Displays all existing incomplete actions.

The table consists of the following columns:



- The **Create Date** column contains the date and time when the action was created.
- The **Radio Name** column contains the action receiver name specified in the radio properties.
- The **Audio** column contains information on whether the action has a voice message attached.
- The **Text** column contains information on whether the action has a text message attached.
- The **Message Text** column contains the text of the attached message.

6.4.2 Create Deferred Action Window

In the **Create Deferred Action** window, you can create voice and text messages (or both) that are sent to radios when they become online.



You can open the window in one of the following ways:

- By clicking **Create Deferred Action** () in the Actions Menu of the desired radio. For information on the Actions Menu, see [Radio Fleet](#).
- By clicking **Create Deferred Action** () in the Call Window of the desired radio. For information on the Call Window, see [Radio Fleet](#).

The **Create Deferred Action** window provides the following elements:

Radioserver

Provides the list of active radioservers to which the radio belongs.

Send Audio Message

Unlocks the **Record** and **Play** buttons:

- The **Record** button starts voice message recording. When clicked, changes to the **Stop** button.
- The **Play** button plays the recorded voice message. When clicked, changes to the **Stop** button.

Send Text Message

Unlocks the box below for typing a text message. If you clear the **Send Text Message** after typing, the text will be kept in the unavailable box, and will not be included into the action when you save it.

NOTE

You can create deferred combined actions that include both audio and text messages.

View Deferred Actions

Closes the **Create Deferred Action** window without saving, and opens the **Deferred Actions** window.

For information on the **Deferred Actions** window, see [Deferred Actions Window](#).

Save

Creates the action and sends the message to the radioserver. Information on the action creating appears above the **Save** button.

After the radio receives the deferred action, its entry appears in the event log and in the radioserver event log. If only a text message is sent, its entry appears also in the log box of the radio Call Window.

6.4.3 Deferred Actions Procedures

6.4.3.1 Creating Deferred Audio Messages





Follow the procedure below to create a deferred audio message.

Prerequisites:

Ensure the recording device is connected to the computer, and is active.

Procedure:

1. Open the **Create Deferred Action** window in one of the following ways:

To open the window from the Radio Fleet panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Radios panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Maps panel,	on the map or in the expandable Radios panel, right-click the desired radio, and then click Create Deferred Action ().
To open the window from the radio Call Window,	in the radio Call Window, click Create Deferred Action (). For information on on Call Windows, see Radio Fleet .

2. In the **Create Deferred Action** window, from the **Radioserver** list, select the desired radioserver.
3. Select the **Send Audio Message** check box.
The **Record** button becomes available.
4. Click the **Record** button.
The button changes to the **Stop** button; other elements become unavailable.
5. Speak to the microphone.
6. Click the **Stop** button after you finished speaking.
The **Stop** button changes to the **Record** button; the **Play** button becomes available.
7. *Optional:* Click **Play** to listen to the recorded message.

8. Click the **Save** button.

If the action creating is successful, the **The action was successfully saved** message appears.

Postrequisites:

To re-record the deferred audio message, repeat steps 4-7.





If the re-recording is successful, the **Changes were successfully saved** message appears.

6.4.3.2 Creating Deferred Text Messages

Follow the procedure below to create a deferred text message.

Procedure:

1. Open the **Create Deferred Action** window in one of the following ways:

To open the window from the Radio Fleet panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Radios panel or the Custom Console panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Maps panel,	on the map or in the expandable Radios panel, right-click the desired radio, and then click Create Deferred Action ().
To open the window from the radio Call Window,	in the radio Call Window, click Create Deferred Action (). For information on on Call Windows, see Radio Fleet .

2. In the **Create Deferred Action** window, from the **RadioServer** list, select the desired radioserver.
3. Clear the **Send Audio Message** check box.
The **Record** button becomes unavailable.
4. Select the **Send Text Message** check box.
The box for typing message below becomes available.
5. Type the desired message in the box.

6. Click the **Save** button.

If the action creating is successful, the **The action was successfully saved** message appears.

Postrequisites:

To change the message text, delete the text from the box, and then type a new text.

6.4.3.3 Creating Deferred Combined Messages





Follow the procedure below to create a deferred combined message that includes both audio and text messages.

Prerequisites:

Ensure the recording device is connected to the computer, and is active.

Procedure:

1. Open the **Create Deferred Action** window in one of the following ways:

To open the window from the Radio Fleet panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Radios panel or the Custom Console panel,	click the radio Actions (>>) button, and then click Create Deferred Action ().
To open the window from the Maps panel,	on the map or in the expandable Radios panel, right-click the desired radio, and then click Create Deferred Action ().
To open the window from the radio Call Window,	in the radio Call Window, click Create Deferred Action (). For information on on Call Windows, see Radio Fleet .

2. In the **Create Deferred Action** window, record the sound message.
For details, see steps 3-7 of the [Creating Deferred Audio Messages](#) procedure.
3. In the **Create Deferred Action** window, type the text message.
For details, see steps 4-5 of the [Creating Deferred Text Messages](#) procedure.

4. Click the **Save** button.

If the action creating is successful, the **The action was successfully saved** message appears.

6.4.3.4 Managing Deferred Actions

Follow the procedure below to manage an existing deferred action.

Prerequisites:

Ensure the radioserver whose deferred actions you want to manage is online.

Procedure:

1. Open the **Deferred Actions** window:

To open the window from the **Create Deferred Action** window, click the **View Deferred Actions** button.

To open the window from the menu bar, click **Service** → **Deferred Actions**.

2. In the **Deferred Actions** window, from the **Current Radioserver** list, select the radioserver whose actions you want to manage.
3. Click the **Load Action List** button.
Existing deferred actions appear in the Deferred Actions Table below.
4. In the Deferred Actions Table, select the desired deferred action.

5. Perform the desired operation:

To edit the deferred action,

perform the following actions:

1. Click **Edit**.
The **Create Deferred Action** window appears.
2. In the **Create Deferred Action** window, perform the desired changes.
3. Click the **Save** button.
If the action changing is successful, the **Changes were successfully saved** message appears.

To delete the deferred action,

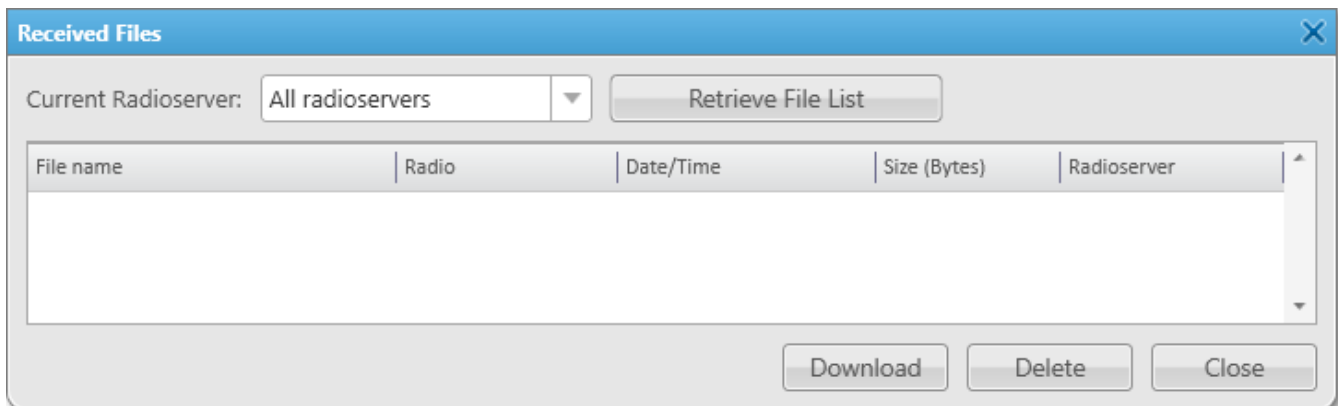
click **Delete**.

The selected deferred action disappears from the Deferred Actions Table.

6.5 Received Files

SmartPTT Dispatcher provides the ability to view files sent from radios with the help of a free application SmartPTT File Transfer.

To view the files received from radios, expand the **Service** menu on the menu bar and click **Received Files**. The following window appears:



Current Radioserver: Allows selecting files from one available radioserver or all available radioservers.

Retrieve File List: Loads received files for the selected radioserver.

Download: Opens the window for saving the selected file. You can also open this window by double-clicking on the selected file.

Delete: Deletes the selected file from the list.

Close: Closes the **Received Files** window.

6.6 Radio Kill

Radio Kill is a signaling feature that provides the ability to irreversibly disable the radio. This function can be useful if the radio is reported to be lost or stolen to avoid its usage for unauthorized access to the radio system. The Radio Kill command affects the radio physical integrity. As a result, the radio becomes inoperable and unresponsive.

WARNING

The only way to restore the radio after sending the Radio Kill command is to send it to the Motorola service center. Therefore, this feature must only be used if other options are inapplicable.

The Radio Kill feature is available only in Capacity Max radio systems. No special license is required.

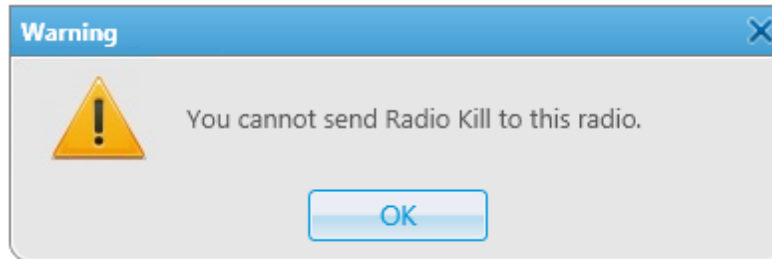
The Radio Kill command can be performed by Administrators and Operators that were granted required permissions in SmartPTT Dispatcher **General Settings**. For details, see [Operators](#).



The Radio Kill window contains the single **Radio ID** box where you need to type the ID of the target radio. If your SmartPTT Dispatcher is configured to use the *IP address* radio ID input format, you need to contact your system administrator to request the target radio ID.

Alternatively, you can convert it from the radio IP address. For details, see [Converting Radio IP Address to Radio ID](#).

The Radio Kill command can only be sent to the radios that are currently online and registered in the dispatched radio system, i.e. they are displayed in the **Radio Fleet, Radios, Maps**, or Custom Console panels in SmartPTT Dispatcher. If you send the Radio Kill command to the radio that is not allowed to your profile or SmartPTT Radioserver, an error message indicating the command failure appears.



6.6.1 Sending Radio Kill

Follow the procedure below to send the Radio Kill command to the radio.

WARNING

The only way to restore the radio after sending the Radio Kill command is to send it to the Motorola service center. Therefore, this feature must only be used if other options are inapplicable.

Prerequisites:

- Obtain the desired radio ID. For details, see [Converting Radio IP Address to Radio ID](#), or contact your system administrator.
- Ensure that the desired radio is displayed in one of the SmartPTT Dispatcher panels (**Radio Fleet, Radios, Maps**, or Custom Console).
- Ensure that the desired radio is online.

Procedure:

1. On the menu bar, click **Service** → **Administration** → **Radio Kill**.
The **Radio Kill** window appears.
2. In the **Radio ID** box, type the desired radio ID.
To the right of the **Radio ID** box, the name assigned to the radio in the SmartPTT Dispatcher database appears.

3. Check the displayed information, and then click **OK**.
4. In the **Enter Password** window, in the **Operator password** box, type the password that you use to log in to SmartPTT Dispatcher, and then click **OK**.
To cancel sending the Radio Kill command, click **Cancel**.

NOTE

If the **Warning** window appears, some of the required conditions have not been fulfilled. Unless all required conditions are met, sending the Radio Kill command to the specified radio is impossible.

6.6.2 Converting Radio IP Address to Radio ID

Follow the procedure below to convert the radio identifier in IPv4 format to the decimal Radio ID format.

NOTE

The radio IP address in the IPv4 format consists of four decimal numbers (called octets) separated by dots.

Prerequisites:

Obtain the desired radio IPv4 address from the **Radio Properties** window. For details, see [Radio Fleet](#).

Procedure:

1. Multiply the third octet of the IP address by 256.

2. Multiply the second octet of the IP address by 65,536.
3. Add the fourth octet of the IP address to the values obtained in steps 1 and 2.
The resulting number is the target Radio ID.

Example

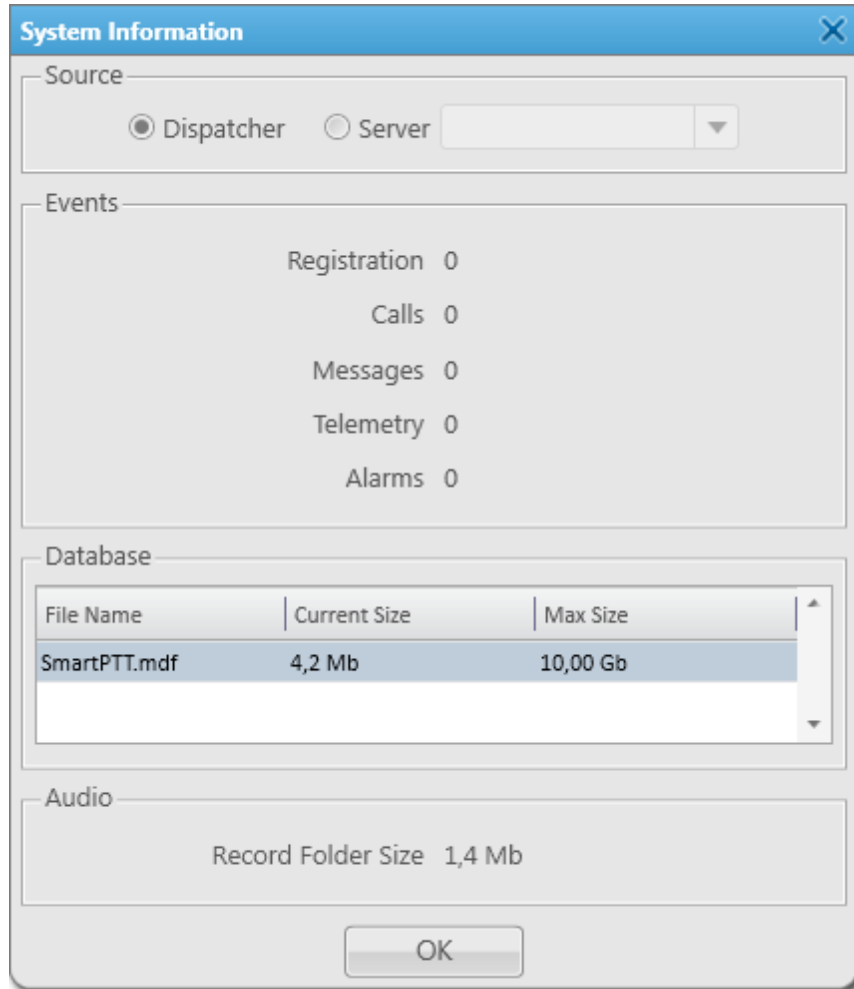
If the radio IP address is *82.200.101.162*, its ID is calculated in the following way:

1. $101 \times 256 = 25,856$
2. $200 \times 65,536 = 13,107,200$
3. $162 + 25,856 + 13,107,200 = 13,133,218$

13133218 is the Radio ID.

6.7 System Information

The **System Information** window provides the summary of system information stored in SmartPTT Dispatcher and on SmartPTT Radioserver.



The **System Information** window contains the following areas:

Source

Provides controls for selecting the source of system information displayed below. The following options are available:

- The **Dispatcher** option displays information on the current SmartPTT Dispatcher.
- The **Server** option displays information on the SmartPTT Radioservers to which the current SmartPTT Dispatcher is connected.

If more than one SmartPTT Radioserver is available, you can select the desired radioserver in the box on the right.

Events

Contains the summary of system events logged in the selected SmartPTT program. You can see the event log summary for each of the following event types:

- **Registration** – the number of subscribers' registrations.
- **Calls** – the number of the logged incoming and outgoing calls.
- **Messages** – the number of the logged incoming and outgoing text messages.
- **Telemetry** – the number of the sent telemetry commands and received telemetry data messages.
- **Alarms** – the number of the logged system alarms.

Database

Contains the table with information on the size of SmartPTT system databases. The table consists of the following columns:

- The **File Name** column displays the name of the database.
- The **Current Size** column displays the current size of the database.
- The **Max Size** column displays the size limit for the database.

NOTE

The maximum database size is set during the SQL Server configuration and depends on the SQL Server version and edition.

You can sort the database entries in the table by columns and arrange the entries in ascending or descending order by clicking the name of the desired column.

When the database reaches 90% of its maximum size, a warning message prompting to perform the automatic database cleanup appears. It also indicates the percentage of the hard drive space it currently occupies relative to the **Max Size** value.

When the database size reaches its Max Size value, another warning message appears. It indicates that new records cannot be added to the database until it is cleaned up.

Warning messages appear at every start of the SmartPTT program whose database is approaching or reached its maximum size. Warning messages appear every 30 min until you clean up the relevant database.

Audio

Provides information on the size of the folder where the selected SmartPTT program stores audio records.

6.7.1 Viewing System Information

Follow the procedure below to view information on the desired component of the SmartPTT system.

Procedure:

1. On the menu bar, click **Service** → **System Information**.
The **System Information** window appears.
2. In the **Source** area, select the desired component:

To view information on SmartPTT Dispatcher,	click Dispatcher .
---	---------------------------

To view information on SmartPTT Radioserver,	perform the following actions: <ol style="list-style-type: none"> 1. Click Server. 2. <i>Optional:</i> If the console computer is connected to multiple radioservers, from the list in the Server box, select the desired radioserver.
--	--

Information on the selected system component appears below the **Source** area.
For information on the data displayed in the window, see [System Information](#).

3. To close the window, click **OK**.

6.8 Export Radio List

The **Export Radio List** feature provides the ability to export current properties and settings of the radios and WAVE users from the SmartPTT Dispatcher database to a separate file.

The exported files can be used for the following purposes:

- Transfer of the exported radio list to another SmartPTT Dispatcher.

- Adding new radios and WAVE users to the radio list.
- Updating properties and settings of the exported radios and WAVE users.
- Performing the radio system analysis.
- Generating reports.

For information on options of the radio list import in SmartPTT Dispatcher, see [Import Radio List](#).

You can export the radio list in one of the following formats:

- Microsoft Excel 1997-2003 (.xls)
- .xml
- .CSV

The choice of the export format depends on the export purposes and does not affect its informational content.

The exported file provides information in the form of a table whose columns correspond to radio and WAVE user properties in SmartPTT Dispatcher.

XLS file example

Export Radio List

ID	Radio IP address	Network ID	Radio ID	Name	GPS	MDC ID	Icon	Show on map	Lone Worker	Select 5 ID	Indoor Support	Indoor Request	Indoor Update Interval	GPS update with time interval	Time Interval	GPS update with distance interval	Distance Interval	GPS on GPIO pin status change	GPS on emergency
50331660	12.0.0.3	12	3	Radio 1	True			True	False		True	False	60	True	60	True	100	True	True
67108876	12.0.0.4	12	4	Radio 2	True			True	False		True	True	60	True	60	False	100	True	True
83886092	12.0.0.5	12	5	Radio 3	False			False	False		False	False	60	False	60	False	100	False	False

The exported table consists of the following columns:

Column Name	Description
ID	Automatically generated radio or WAVE user ID.
Radio IP Address	Radio or WAVE user IP address.
Network ID	Radio or WAVE user network ID that is set in MOTOTRBO CPS (the CAI Network parameter).
Radio ID	Unique radio or WAVE user identifier.
Name	Radio or WAVE user name in SmartPTT Dispatcher.

Column Name	Description
GPS	Indicates whether SmartPTT Dispatcher processes the radio or WAVE user GPS coordinates.
MDC ID	Identifier of the radio from an analog radio system in MDC-1200 format.
Icon	Path to the the icon that is set for the radio or WAVE user in SmartPTT Dispatcher. If the default icon is used, the cell is left empty.
Show on map	Indicates whether the radio or WAVE user is displayed on the map in SmartPTT Dispatcher.
Lone Worker	Indicates whether the radio or WAVE user is in the Lone Worker mode.
Select 5 ID	Identifier of the radio from an analog radio system in the Select 5 format.
Indoor Support	Indicates whether the radio location relative to the beacons is displayed on the building layout in the Indoor Tracking feature.
Indoor Request	Indicates whether the a time interval for sending location data requests to the radio is set.
Indoor Update Interval	Time interval in seconds after which location data requests are sent to the radio.
GPS update with time interval	Indicates whether a time interval for sending GPS coordinates requests to the radio or WAVE user is set.
Time Interval	Time interval in seconds after which GPS coordinate requests are sent to the radio or WAVE user.
GPS update with distance interval	Indicates whether the radio or WAVE user Update location with distance interval parameter for the GPS feature is set.
Distance Interval	Distance in meters or feet after which the GPS coordinates request to the radio or WAVE user is sent.
GPS on GPIO pin status change	Indicates whether the GPS coordinates request is sent to the radio when the status of the GPIO pin changes.

Column Name	Description
GPS on emergency	Indicates whether the GPS coordinates request is sent to the radio when it sends an emergency alarm.

NOTE

Some properties have only two possible values: *true* and *false*. For these properties, the *True / False* values in .xls and .csv files correspond to the *Yes / No* values in .xml files.

If a property is not applicable to the radio or WAVE user, the cell in the corresponding column is left empty.

For information on radio and WAVE user properties and settings, see [Radio Fleet](#).

For information on exporting the radio list, see [Exporting Radio List](#).


6.8.1 Exporting Radio List

Follow the procedure below to export the list of radios and WAVE users to a file.

Prerequisites:

Ensure that you have access rights to the desired export destination folder.

Procedure:

1. On the menu bar, click **Service** → **Export Radio List**.
The **Export Radio List** window appears.
2. In the **Format** area, select the desired export format.
3. To the right of the **Save Export File As** box, click Browse ().

4. In the **Specify File Name** window, specify the path to the desired folder, and then perform one of the following actions:

To export the radio list to a new file, in the **File name** box, type the name for the exported file, and then click **Save**.

To export the radio list to an existing file, perform the following actions:

1. Select the file that you want to replace, and then click **Save**.
2. In the **Confirmation window**, click **OK**.

-
5. In the window indicating successful radio list export, click **OK**.

6.9 Import Radio List

The **Import Radio List** feature provides the ability to import a list of radios and WAVE users with their properties and settings to SmartPTT Dispatcher.

This feature can be used for the following purposes:

- Transfer of the radio list from another SmartPTT Dispatcher.
- Adding new radios and WAVE users to the SmartPTT Dispatcher radio list.
- Updating current properties and settings of radios and WAVE users in the SmartPTT Dispatcher radio list.

For information on the radio list export options in SmartPTT Dispatcher, see [Export Radio List](#).

You can import the radio list from a file in one of the following formats:

- Microsoft Excel 1997-2003 (.xls)
- .xml
- .csv

For information on radio and WAVE user properties, see [Radio Fleet](#).

For information on importing the radio list, see [Importing Radio List](#).


6.9.1 Importing Radio List

Follow the procedure below to import the list of radios and WAVE users from a file.

Prerequisites:

Obtain the format of the file that you want to import. For details, see [Import Radio List](#).

Procedure:

1. On the menu bar, click **Service** → **Import Radio List**.
The **Import Radio List** window appears.
2. In the **Format** area, select the format of the file that you want to import.
3. To the right of the **Choose File to Import** box, click Browse ().
4. In the **Specify File Name** window, specify the file that you want to import, and then click **Open**.

NOTE

Only files in the format selected in step 2 are displayed in the **Specify File Name** window.

5. In the bottom part of the **Import Radio List** window, select the desired option.

To add new radios and WAVE users from the imported file,	select Add New Records .
---	---------------------------------

To update properties and settings of existing radios and WAVE users,	select Update Existing Records .
---	---

To add new and update the existing radios and WAVE users,	select Add New Records and Update Existing Records .
--	---

6. In the **Import Radio List** window, click **OK**.
To cancel the radio list import, click **Cancel**.
7. In the window indicating successful radio list import, click **OK**.
8. Restart SmartPTT Dispatcher to complete the radio list import.

NOTE

If the imported file contains no changes that can be uploaded to the current radio list, a window indicating the absence of changes appears.

6.10 Upload to KML

The **Upload to KML** feature provides the ability to export radio and WAVE user coordinates from SmartPTT Dispatcher to a separate KML file.

The exported KML file contains location information only on those radios and WAVE users that are currently displayed on the map in SmartPTT Dispatcher.

For information on location tracking settings of radio and WAVE users, see [Radio Fleet](#).

NOTE

If the **Validity of GPS coordinates** period for a radio or WAVE user has expired, they will not be displayed on the map.

For information on **Positioning Systems** settings, see [Positioning Systems](#).

You can export the location data to a local file or to a file on an FTP server.

Depending on the settings, the location information in the exported file may be fixed or receive regular updates.

If the relevant check box is selected in the export settings, the exported file will be updated at a defined interval to reflect the location changes in the dispatched radio system.

For information on exporting location data to a local KML file, see [Exporting Coordinates to Local KML File](#).

For information on exporting location data to a KML file on an FTP server, see [Exporting Coordinates to KML File on FTP Server](#).

Exported files can be viewed on web in a browser or in desktop applications. The KML file format is used in Google Maps, Google Earth, and other services based on Google maps.

6.10.1 Exporting Coordinates to Local KML File


Follow the procedure below to export radio and WAVE user coordinates to a local KML file.

Prerequisites:

Ensure the following conditions are met:

- Desired radios and WAVE users are displayed on the map in SmartPTT Dispatcher. For details, see [Radio Fleet](#).
- You have access rights to the desired export destination folder.

Procedure:

1. On the menu bar, click **Service** → **Upload to KML**.
The **Export to KML** window appears.
2. At the top of the window, click **Local File**.
3. To the right of the **KML File** box, click Browse ().
4. In the **Select KML File** window, specify the path to the desired folder, and then perform one of the following actions:

To export radio and WAVE user coordinates to a new file,

in the **File name** box, type the name for the exported file, and then click **Save**.

To export radio and WAVE user coordinates to an existing file,

perform the following actions:

1. Select the file that you want to replace, and then click **Save**.
2. In the **Confirmation** window, click **OK**.


5. *Optional:* Set up automatic update of the location data in the exported file:
 - a. In the **Export to KML** window, select the **Auto upload time interval** check box.
 - b. In the box to the right of the **Auto upload time interval** check box, specify the interval in seconds at which the exported file will be updated.

NOTE

If you leave the **Auto upload time interval** box empty or move the exported file to another location, the location data in the file will not be updated.

6. At the bottom of the **Export to KML** window, click **Export**.

Postrequisites:

- To cancel the coordinates export and save current export settings, in the **Export to KML** window, click **Cancel**.
- To cancel the coordinates export without saving current export settings, in the **Export to KML** window, click Close () or press Esc.

6.10.2 Exporting Coordinates to KML File on FTP Server

Follow the procedure below to export radio and WAVE user coordinates to a KML file on an FTP server.

Prerequisites:

- Ensure that the desired radios and WAVE users are displayed on the map in SmartPTT Dispatcher.
For details, see [Radio Fleet](#).
- Ensure that you have access rights to the desired export destination folder.
- *Optional:* Obtain user login and password for access to the desired FTP server.

Procedure:

1. On the menu bar, click **Service** → **Upload to KML**.
The **Export to KML** window appears.
2. At the top of the window, click **FTP**.
3. In the **KML File** box, specify the path and the name for saving the exported file. For example, `ftp://myserver/smartptt/Radios_smartptt.kml`
4. *Optional:* If the target FTP server requires user authentication, in the **Login** and **Password** boxes, type the login and password for access to the FTP server.
5. *Optional:* Set up automatic update of the location data in the exported file:
 - a. In the **Export to KML** window, select the **Auto upload time interval** check box.
 - b. In the box to the right of the **Auto upload time interval** check box, specify the interval in seconds at which the location data in the exported file will be automatically updated.

NOTE

If you leave the **Auto upload time interval** box empty or move the exported file to another location, the location data in the file will not be updated.

6. At the bottom of the **Export to KML** window, click **Export**.
7. In the window indicating successful export, click **OK**.

Postrequisites:

- To cancel coordinates export and save current export settings, in the **Export to KML** window, click **Cancel**.
- To cancel coordinates export without saving current export settings, in the **Export to KML** window, click Close (×) or press Esc.

6.11 Import Connect Plus Logs

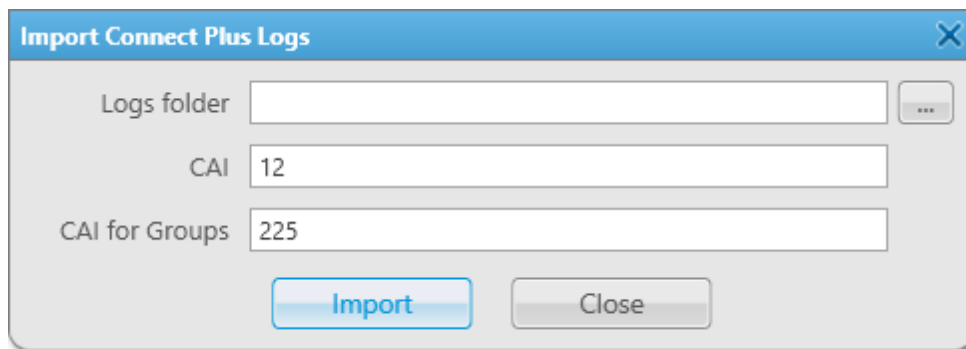
The **Import Connect Plus Logs** feature provides the ability to import event logs from Connect Plus radio systems to the SmartPTT Dispatcher Event Log.

The imported logs are generated by the XRC Controller and can be used to provide new dispatchers with information on the dispatched radio system activities that occurred before they joined it.

In the **Import Connect Plus Logs** window you are prompted to specify the **CAI** and **CAI for Groups** parameters that must be provided by your System Administrator.

The **CAI** value can range from 1 to 126. The default and recommended value is 12.

The **CAI for Groups** value can range from 225 to 239. The default and recommended value is 225.



For information on importing Connect Plus logs to the SmartPTT Dispatcher Event Log, see [Importing Connect Plus Logs](#).


6.11.1 Importing Connect Plus Logs

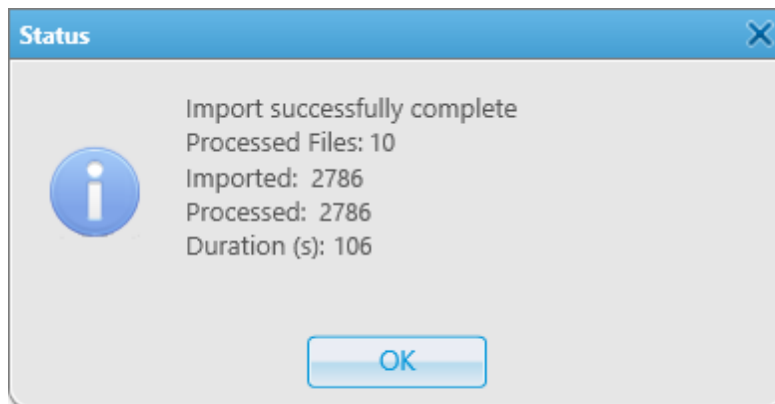
Follow the procedure below to import Connect Plus logs to the SmartPTT Dispatcher Event Log.

Prerequisites:

- Obtain the following information from your System Administrator:
 - Path to the folder where the log files are stored.
 - CAI of the desired radio system.
 - Group CAI of the desired radio system.
- Ensure that you have access rights to the folder where the log files are stored.

Procedure:

1. On the menu bar, click **Service** → **Import Connect Plus Logs**.
The **Import Connect Plus Logs** window appears.
2. To the right of the **Logs folder** box, click Browse ().
3. In the **Browse For Folder** window, specify the folder where the log files are stored, and then click **OK**.
4. In the **Import Connect Plus Logs** window, in the **CAI** box, type the radio system CAI.
5. In the **CAI for Groups** box, type the radio system Group CAI.
6. Click **Import**.
When the import is complete, the **Status** window with the import summary appears.



7. In the **Status** window, click **OK**.

6.12 Save Dispatcher Settings

Starting from version 8.3 you can save and restore not only the event log database, but also the dispatch console settings such as:

- Opened panels
- Application interface language
- Other settings

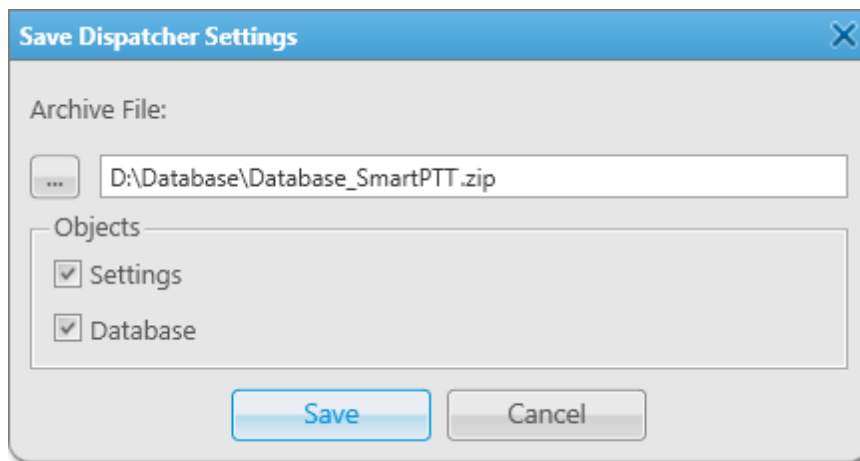
NOTE

This feature is unavailable if SmartPTT Dispatcher is connected to the remote database.

Follow the procedure below to save current settings or database.

Procedure:

1. Open the **Service** menu, and select **Save Dispatcher Settings**.
The **Save Dispatcher Settings** window appears.



2. In the **Archive File** box, specify the path to the folder where you want to save the archive.
3. In the **Objects** area, define what you want to save. You can select both check boxes, if needed:
 - Select the **Settings** check box to save the dispatch console settings.
 - Select the **Database** check box to save the dispatch console database.
4. Click **Save**, to save the selected objects.

6.13 Restore Dispatcher Settings

This feature allows you to restore the saved dispatch console settings or database (see how to save the dispatch console settings [here](#)).

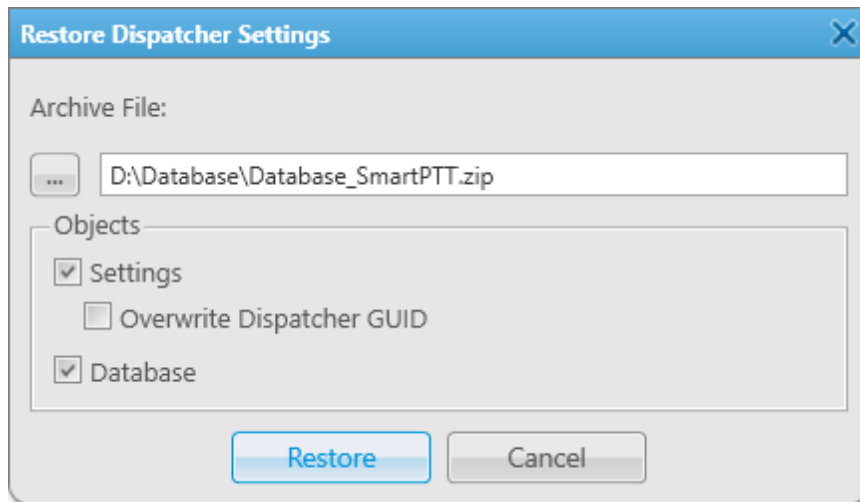
NOTE

This feature is unavailable if SmartPTT Dispatcher is connected to the remote database.

Follow the procedure below to restore the saved settings.

Procedure:

1. Open the **Service** menu, and select **Restore Dispatcher Settings**.
The **Restore Dispatcher Settings** window appears.



2. In the **Archive File** box, specify the path to the archive folder.
3. In the **Objects** area, define what you want to restore. Select more than one check box if needed:
 - Select the **Settings** check box to restore the dispatch console settings.
 - Select the **Database** check box to restore the dispatch console database.
 - Select the **Override Dispatcher GUID** check box, if you transfer the dispatcher from one computer to another, or restore the current dispatcher settings.

WARNING

If you want to copy only settings of a dispatch console to the current dispatcher, do **not** select the **Override Dispatcher GUID** check box.

4. Click **Restore** to restore the selected objects.
5. Restart SmartPTT Dispatcher to apply the restored settings.

7 Reports

In the **Reports** menu you can build a range of reports on the basis of various events in the system. The **Reports** menu provides the following elements:

- **Report Wizard** to build a report on the basis of the Dispatcher or Radioserver Event Log events.
For details, see [Report Wizard](#).
- **Radio Activity Report** to view the number of all calls and group calls during a defined time period.
For details, see [Radio Activity Report](#).
- **Radio Locations** to display GPS coordinates of the selected radios and [WAVE users](#).
For details, see [Radio Locations](#).
- **Radio Movement** to display the radio and [WAVE user](#) movement on the basis of received GPS data.
For details, see [Radio Movement](#).
- **Online Radios** to view a list of registered and non-registered online radios and [WAVE users](#).
For details, see [Online Radios](#).
- **Monitoring Reports** to display consolidated information collected during monitoring process.
For details, see [Monitoring Reports](#).
- **Lone Workers** to view information about events that occur when a radio or a [WAVE user](#) is in the Lone Worker mode.
For details, see [Lone Workers](#).
- **Indoor Tracking** to view information on radio movements inside buildings, based on beacon data.
For details, see [Indoor Tracking](#).

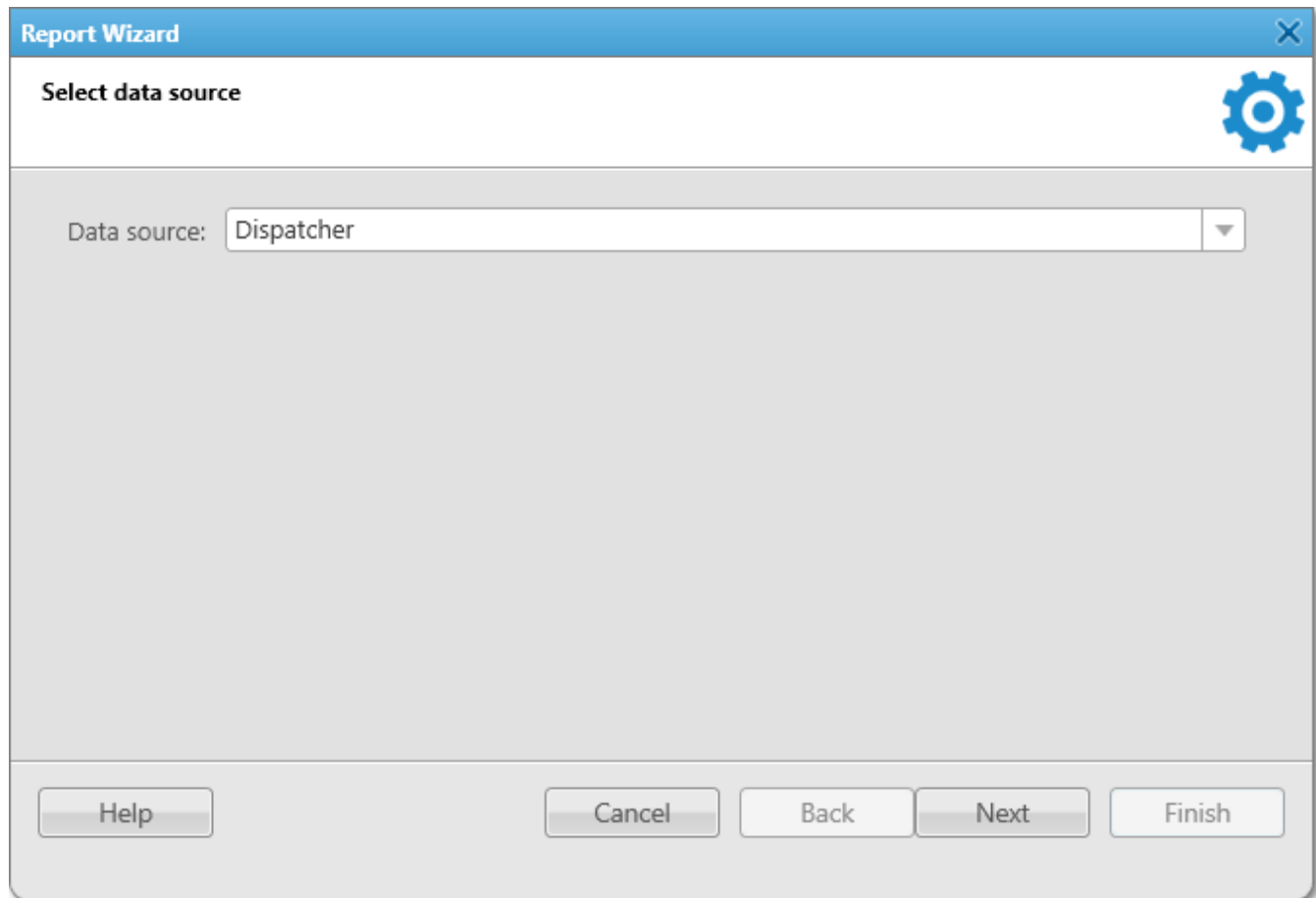
7.1 Report Wizard

Report Wizard functionality provides flexible report creation based on the information stored in the SmartPTT Dispatcher **Event Log**.

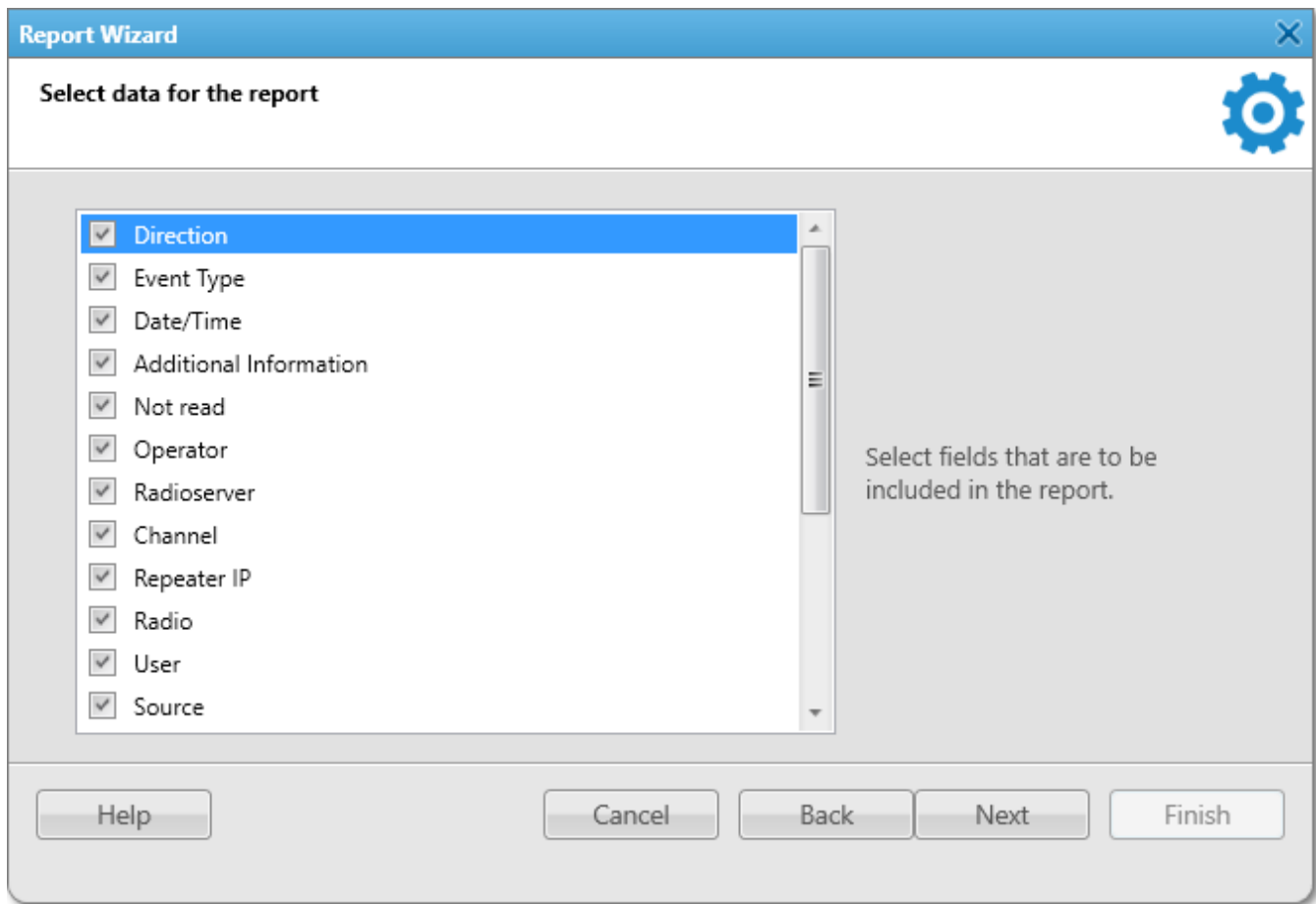
Using the **Report Wizard** it is possible to select the necessary boxes for the report, specify grouping and sorting boxes, specify filtering criteria. Reports generated by the **Report Wizard** are exported to Microsoft Excel.

To use the **Report Wizard**, expand the **Reports** menu on the menu bar of the SmartPTT Dispatcher window and click **Report Wizard**. The **Report Wizard** window appears:

1. In the **Report Wizard** window select the data source of the future report. You can select between the database of the dispatch console and the database of the radioserver. To be able to select the radioserver database, ensure the radioserver is up and running.



2. Select boxes which you want to include in the report and click **Next**.




3. Define the structure of the report – its grouping and sorting and click **Next**.

NOTE

If both boxes are not specified, the report will be grouped and sorted by default.

Report Wizard ✕

Group and sort report data 

Group by: ▾

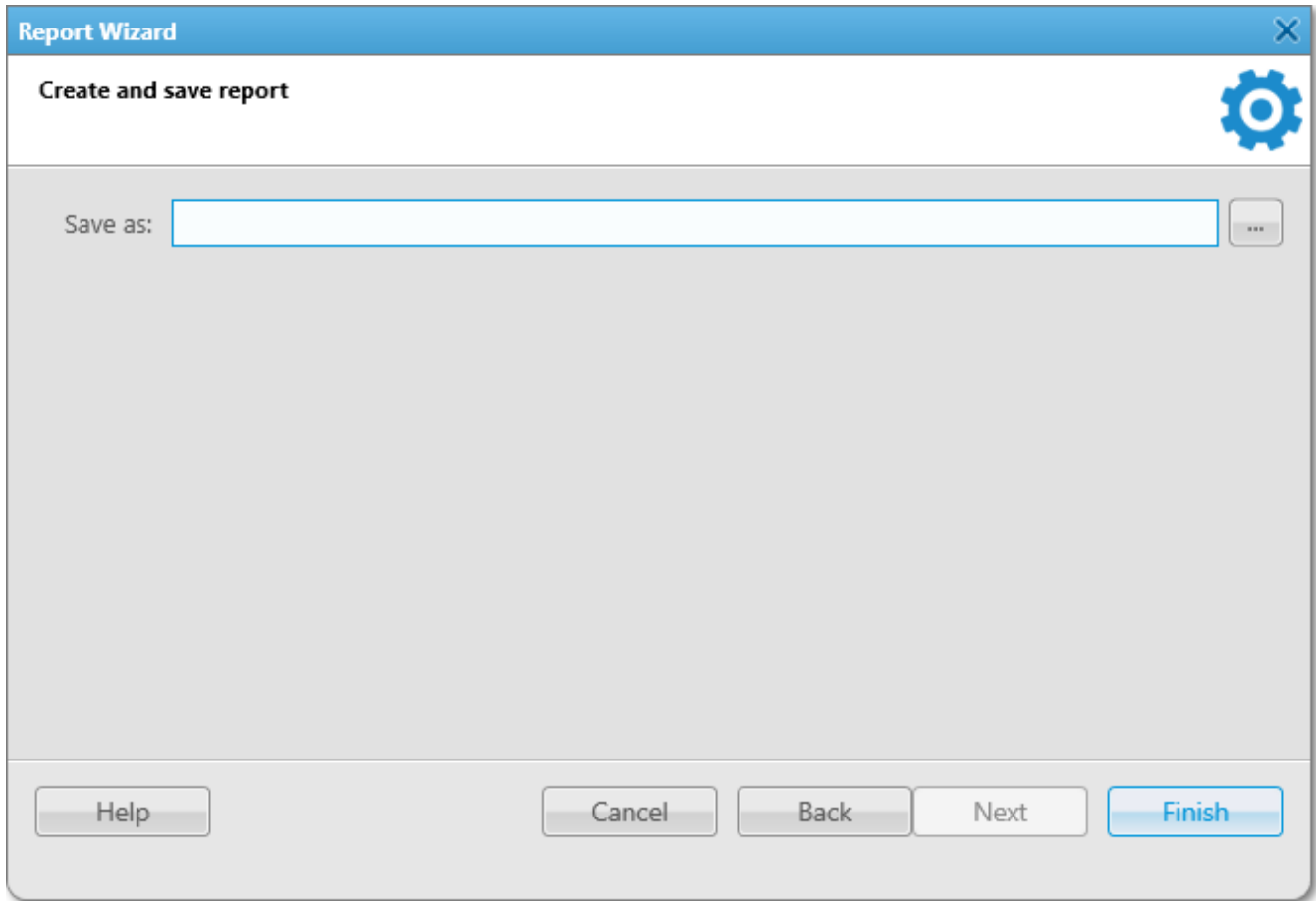
Sort by: ▾

4. Filter the report by values. Click **Next** to continue.

	Active	Condition	Value
Direction	<input type="checkbox"/>	Equal to	Incoming
Event Type	<input type="checkbox"/>	Equal to	Registration
Date	<input checked="" type="checkbox"/>	Between	3/28/2017 15 - 3/28/2017 15
Radioserver	<input type="checkbox"/>	Equal to	Not Specified
Channel	<input type="checkbox"/>	Equal to	Not Specified
Repeater IP	<input type="checkbox"/>	Equal to	Not Specified
Talkgroup	<input type="checkbox"/>	Equal to	Not Specified
Radio	<input type="checkbox"/>	Equal to	Not Specified

Buttons: Help, Cancel, Back, Next, Finish

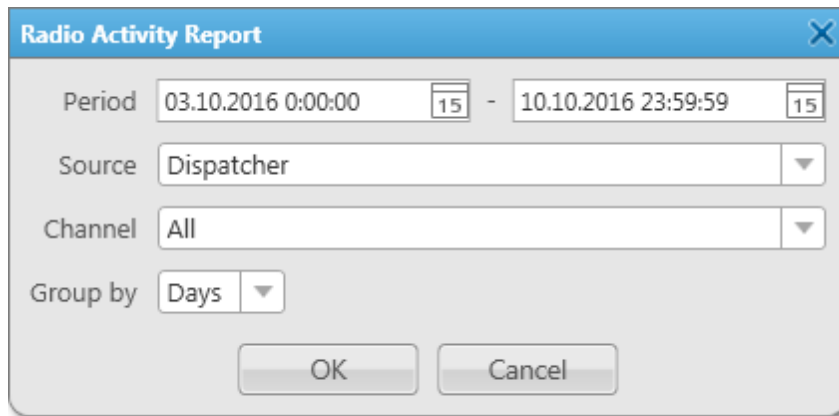
5. Specify the file name of the report. To complete the process, click **Finish**. The report can be saved in .html, .mht, .xls, .xlsx, .csv, and .txt formats.



7.2 Radio Activity Report

Radio Activity Report gives information about quantity and duration of All Calls and Group Calls with a breakdown into hours or days.

To create the report, expand the **Reports** menu and select **Radio Activity Report**. The **Radio Activity Report** window appears:



The screenshot shows a dialog box titled "Radio Activity Report" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Period:** Two date-time input fields. The first is "03.10.2016 0:00:00" and the second is "10.10.2016 23:59:59", separated by a hyphen. Each field has a small calendar icon to its right.
- Source:** A dropdown menu with "Dispatcher" selected.
- Channel:** A dropdown menu with "All" selected.
- Group by:** A dropdown menu with "Days" selected.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Period: Defines the time frame for the report data.

Source: Defines the source, which database will be used for the report. If *Dispatcher* is selected, the data is taken from the local database. Apart from *Dispatcher*, any available radioserver can be chosen as a data source. In that case all data is taken from the database of the chosen radioserver.

Channel: Allows to build a report for a particular channel or for all control stations.

Group by: Defines the level of detail, whether you want to see the report information divided into days, hours or minutes.

The report can be saved in .pdf, .html, .mht, .rtf, .xls, .xlsx, .csv, .txt, .image or .xps formats.

Example

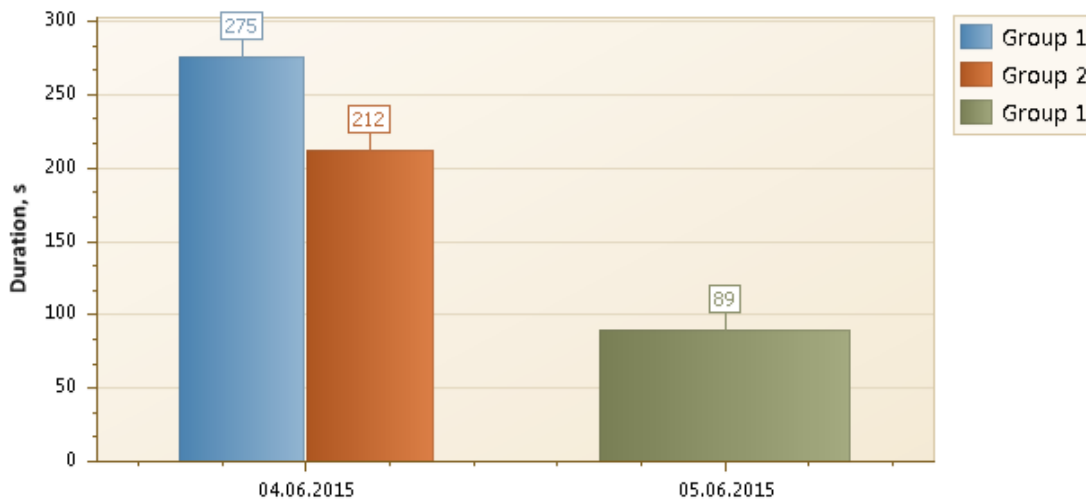
Radio Activity Report

from 04.06.2015 0:00:00 to 08.06.2015 23:59:59

	Amount of Calls	Duration, hh:mm:ss
Total Calls	25	00:09:36
Group 1	21	00:06:04
Group 2	4	00:03:32

Hourly Details

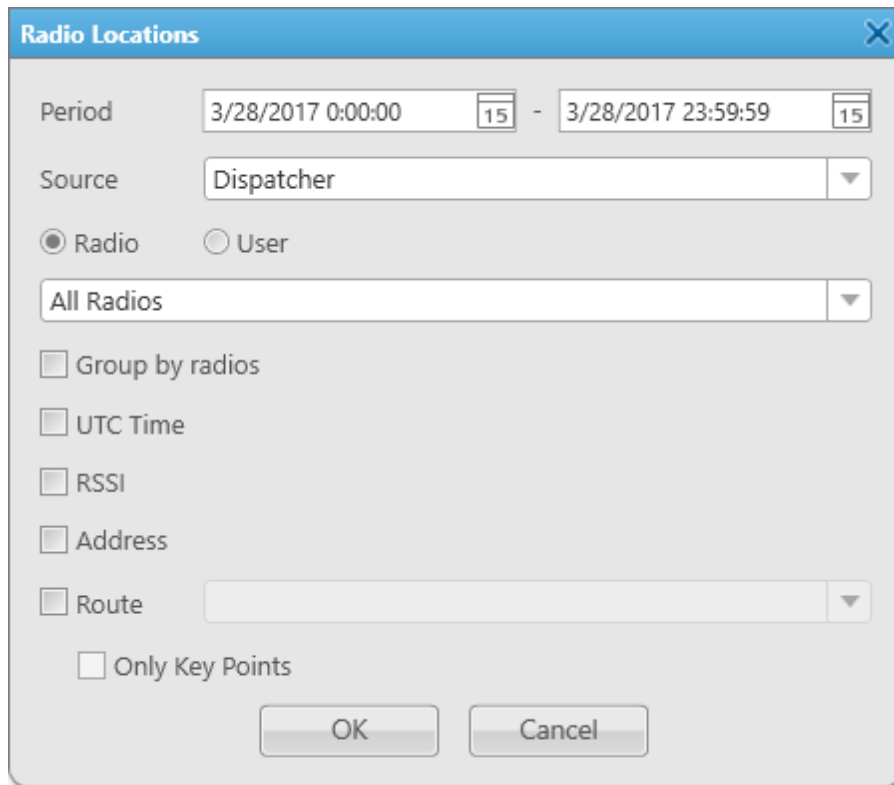
	Amount of Calls	Duration, hh:mm:ss	Period
Total Calls	9	00:08:07	04.06.2015 17:00 - 04.06.2015 18:00
Group 1	5	00:04:35	04.06.2015 17:00 - 04.06.2015 18:00
Group 2	4	00:03:32	04.06.2015 17:00 - 04.06.2015 18:00
Total Calls	16	00:01:29	05.06.2015 15:00 - 05.06.2015 16:00
Group 1	16	00:01:29	05.06.2015 15:00 - 05.06.2015 16:00



7.3 Radio Locations

SmartPTT Dispatcher allows creating a report on radio and [WAVE user](#) locations. The report can be saved in .pdf, .html, .mht, .rtf, .xls, .xlsx, .csv, .txt, .image or .xps formats.

To create the report, expand the **Reports** menu on the menu bar and click **Radio Locations**. The **Radio Locations** window appears:



The screenshot shows the 'Radio Locations' dialog box. It features a title bar with the text 'Radio Locations' and a close button. The main area contains the following elements: a 'Period' field with a date range of '3/28/2017 0:00:00' to '3/28/2017 23:59:59'; a 'Source' dropdown menu currently set to 'Dispatcher'; two radio buttons, 'Radio' (which is selected) and 'User'; a dropdown menu showing 'All Radios'; a list of checkboxes for 'Group by radios', 'UTC Time', 'RSSI', 'Address', and 'Route'; and a checkbox for 'Only Key Points'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Period: Defines the time frame of the report.

Source: Defines the source, whose database will be used for the report. If *Dispatcher* is selected, the data is taken from the local database. Apart from *Dispatcher*, any available radioserver can be chosen as a data source. In that case the data is taken from the database of the chosen radioserver. To build a report based on the radioserver database, make sure that **Event Log** is enabled and connected in SmartPTT Radioserver Configurator.

Radio: Defines a radio or WAVE user for which the report is generated. The list of radios is taken from the current database. When *All Radios* is selected, the report will be generated for all radios and WAVE users which have GPS coordinates in the database.

User: Defines a radio user for whom the report is generated. The list of users is taken from the current database. When *All Users* is selected, the report will be generated for all users which have GPS coordinates in the database.

Group by radios: Groups data in the report by radios or WAVE users.

UTC Time: If selected, the report period time and the event time in the report are shown in UTC (UTC+00:00). If **UTC Time** is not selected, the report period time and the event time in the report are shown according to the time zone set on the computer of dispatcher (for example, UTC+05:00).

RSSI: If selected, the signal strength of the received signal (RSSI) is displayed in the report.

Address: Allows displaying address information based on the received coordinates. The addresses are received from one of the two services Google Maps or OpenStreetMap. The service is selected in **Settings (⚙)** → **Positioning Systems** → **Address Data Provider**. If the **Address** check box is not selected, there will be a link **Find on Map** instead of the address. You can use the link to see the address.

Route: Defines the route on the basis of which the **Radio Locations** report is to be generated.

Only Key Point: Displays only the key points of the route in the report.

Click **OK** to create the report.

Example

Radio Location Report
from 01.03.2015 0:00:00 to 12.05.2015 23:59:59

Date	Radio	Latitude	Longitude	Speed m/s	Precision (ft)	RSSI (dBm)	Address
04.03.2015 17:10:11	4000	56,47897	85,06805	0,38	33,12	-58,64	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:08:57	4000	56,47897	85,06808	0,24	57,72	-58,71	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:08:39	4000	56,47897	85,06808	0,15	51,83	-58,68	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:08:23	4000	56,47897	85,06808	0,05	58,72	-58,62	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:08:07	4000	56,47897	85,06808	0,39	53,80	-58,57	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:07:55	4000	56,47897	85,06806	1,19	108,91	-58,65	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:07:47	4000	56,47898	85,06811	0,23	104,32	-58,72	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:07:03	4000	56,47898	85,06811	0,10	48,55	-58,63	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:06:51	4000	56,47898	85,06811	0,05	316,60	-58,55	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:05:37	4000	56,47898	85,06812	0,49	100,37	-58,65	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:05:15	4000	56,47899	85,06812	0,23	144,66	-58,71	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055
04.03.2015 17:04:59	4000	56,47899	85,06810	0,48	119,75	-58,70	ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055

To set up the format of **Latitude**, **Longitude**, **Speed** and **Precision** columns of the **Radio Location Report**, see [Positioning Systems](#), the **GPS tab**, in SmartPTT Dispatcher.

NOTE

The Universal Transverse Mercator Coordinate System format is not applicable to this report. If it is selected, Latitude and Longitude are displayed in Decimal degrees format.

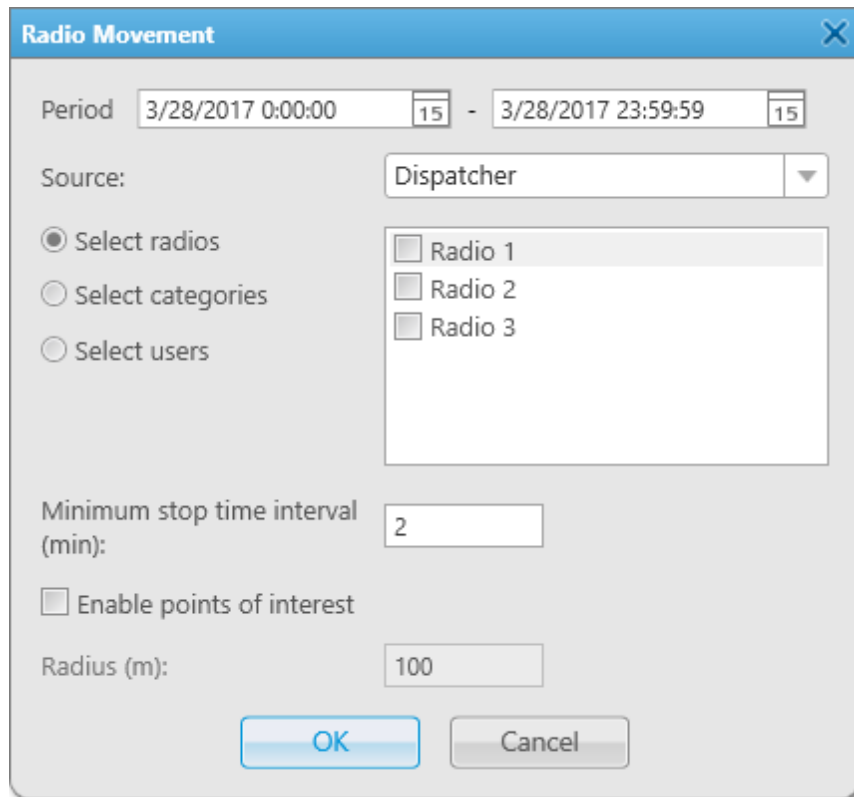
NOTE

The **Precision** column does not provide data for GPS batches and shows empty.

7.4 Radio Movement

The **Radio Movement** report provides information about the radio and [WAVE user](#) movement on the basis of received GPS data.

To create a report, on the **Reports** menu, click **Radio Movement**. The following window appears:



The screenshot shows a dialog box titled "Radio Movement" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- Period:** Two date-time pickers showing "3/28/2017 0:00:00" and "3/28/2017 23:59:59", each with a "15" minute interval spinner.
- Source:** A dropdown menu currently set to "Dispatcher".
- Select radios:** A radio button that is selected.
- Select categories:** An unselected radio button.
- Select users:** An unselected radio button.
- Radio Selection List:** A list box containing three items: "Radio 1", "Radio 2", and "Radio 3", each with an unchecked checkbox.
- Minimum stop time interval (min):** A text input field containing the number "2".
- Enable points of interest:** An unchecked checkbox.
- Radius (m):** A text input field containing the number "100".
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Period: Defines the time frame for the report data.

Source: Defines the source, whose database will be used for building the report for selected radios, WAVE users, categories or radio users. If Dispatcher is selected, the data is taken from the local database. If a radioserver is selected, the data is taken from the database of the chosen radioserver.

Select radios: Select the radios or WAVE users whose GPS data will be used to build the report.

Select categories: Select the categories of radios or WAVE users whose GPS data will be used to build the report.

Select users: Select the radio users whose GPS data will be used to build the report.

Minimum stop time interval (min): Used to define the time when the radio or the WAVE user stops. If it stays at the same place longer than the specified time interval, the it is supposed to be parked.

Enable points of interest: Select to use [the points of interest](#) when building the report.

NOTE

When **Enable points of interest** is selected, in the **Radio Movement** report the **Location** box will contain only the name of the point of interest.

Radius (m): Specify the allowed distance deviation from the point of interest.

NOTE

The **Radius** box is available only if **Enable points of interest** is selected.

To build the report, click **OK**. To cancel this action, click **Cancel**.

After clicking **OK**, the report opens automatically. The report can be saved in the .pdf, .html, .mht, .rtf, .xls, .xlsx, .csv, .txt, .image or .xps formats.

Example

Radios Movement Report

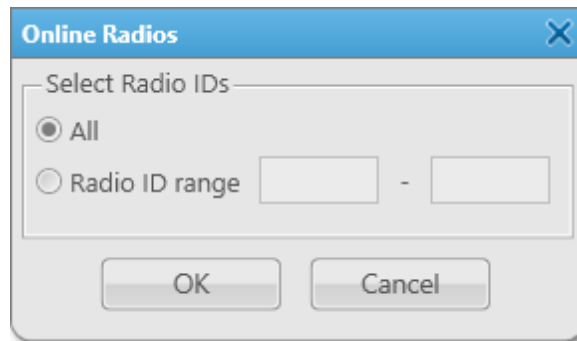
Period: 05.08.2016 0:00:00 - 02.09.2016 23:59:59 (UTC+7)

Start time	Stop time	Moving time	Distance, km	Maximum speed, km/h	Location	Stop time interval	Idle time
Radio: 1							
24.08.2016							
-	-	-	-	-	ElcomPlus	00:10:24	00:10:24
12:24:46	12:28:22	00:03:36	0,07	0,42	ElcomPlus	00:02:00	00:02:00
12:30:22	12:33:07	00:02:45	0,02	1,49	ElcomPlus	00:50:35	00:01:07
13:23:42	13:25:12	00:01:30	0,14	6,33	ElcomPlus	00:12:24	-
13:37:36	13:44:36	00:07:00	0,42	7,79	ElcomPlus	00:07:48	-
13:52:24	13:56:24	00:04:00	0,03	0,06	ElcomPlus	-	00:01:00
Total for 24.08.2016		00:18:51	0,68			01:23:11	00:14:31
Total for period		00:18:51	0,68			01:23:11	00:14:31
Radio: 2							
05.08.2016							
11:37:26	11:49:16	00:11:50	0,21	1,66	ElcomPlus	00:12:42	00:03:25
12:01:58	12:35:58	00:34:00	0,74	2,11	ElcomPlus	-	-
Total for 05.08.2016		00:45:50	0,95			00:12:42	00:03:25
08.08.2016							
10:05:58	10:15:23	00:09:25	0,23	1,83	ElcomPlus	00:10:27	00:02:33
10:25:50	10:33:52	00:08:02	0,19	2,00	ElcomPlus	-	00:00:30
Total for 08.08.2016		00:17:27	0,42			00:10:27	00:03:03
Total for period		01:03:17	1,37			00:23:09	00:06:28
Radio: 3							
08.08.2016							
13:26:56	13:30:26	00:03:30	0,19	6,64	ElcomPlus	00:04:58	00:01:04

7.5 Online Radios

SmartPTT allows exporting online radios and [WAVE users](#) (registered and not registered) in no time by means of the **Online Radios** report.

To create the report, expand the **Reports** menu on the menu bar of the SmartPTT Dispatcher window, and click **Online Radios**. The following window appears:



All: Select this radio button to include all registered and not registered online radios and WAVE users in the report.

Radio ID range: Select this radio button to limit the radio and WAVE user IDs in the report.

Click **OK**. The report opens. The report can be exported to .pdf, .html, .mht, .rtf, .xls, .xlsx, .csv, .txt, .image or .xps formats.

The report contains three columns: **Radio ID**, **Channel Type** and **Name**. The **Channel Type** column can have three values: MOTOTRBO, Analog, Select 5.

Example

Online Radios (3)		
Radio ID	Channel Type	Name
3	MOTOTRBO	Radio 1
4	MOTOTRBO	Radio 2
5	MOTOTRBO	Radio 3

7.6 Monitoring Reports

Monitoring Reports allow creating the following reports:

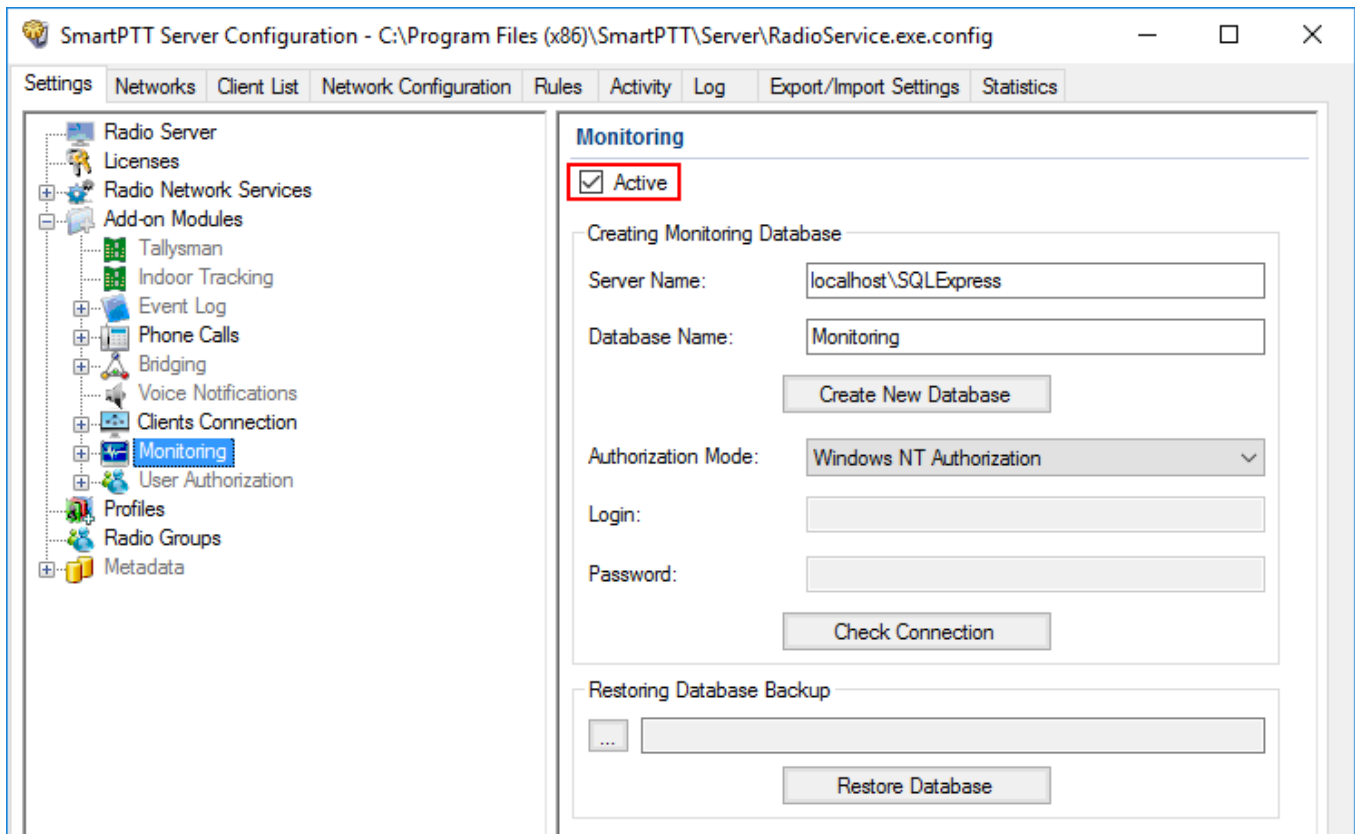
- [Monitoring Report](#)
- [Event Log Report](#)
- [Analytic Report](#)
- [System Usage Report](#)

They are based on the data collected during the monitoring and filtered by different criteria.

To create a report, on the menu bar, click **Reports**, point on **Monitoring** and click the needed type of report.

NOTE

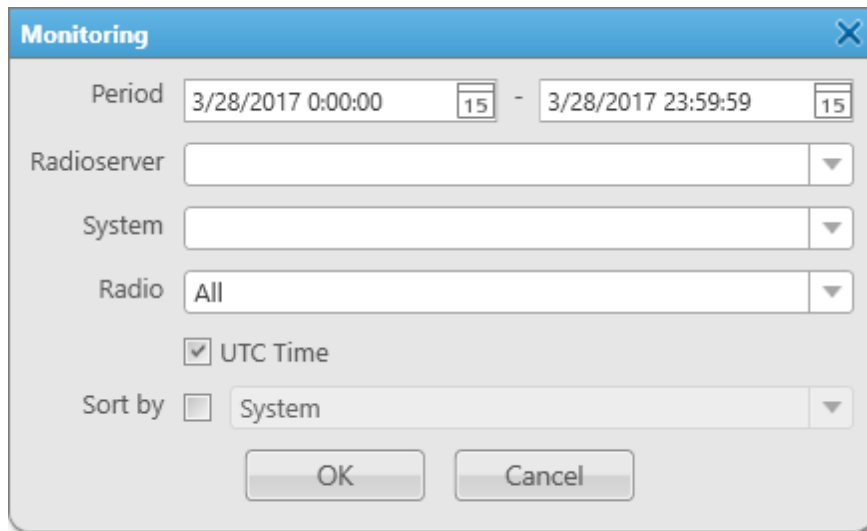
Before creating a report, make sure the radioserver is running and **Monitoring** is active in SmartPTT Radioserver Configurator.



7.6.1 Monitoring Report

Monitoring Report gives such information as repeater ID, ID's of the calling and receiving parties, duration of the event and its type, RSSI and many other.

To create the report, expand the **Reports** menu on the menu bar, and under **Monitoring** select **Report**. The **Monitoring** window appears.



Period: Defines the time frame of the report.

Radioserver: Defines the radioserver, whose database you want to use as a data source.

System: Defines the radio system for which you want to build a report. In the drop-down list you can find both existing and removed radio systems. Network IDs are used for outdated radio systems, and names – for existing ones.

Radio: Selects the radio or the [WAVE user](#) for which the report is to be generated. If you select *All*, the report will be generated for all registered radios and WAVE users.

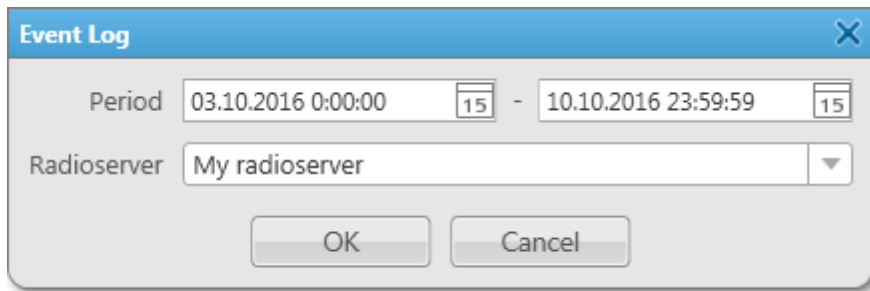
UTC Time: If **UTC Time** is selected, the report time and report start date and end date are shown in UTC (UTC+00:00). If **UTC Time** is not selected, the report time and report start date and end date are shown according to the time zone set on the computer of dispatcher (for example, UTC+05:00).

Sort By: You can select the column by which you want to sort the report data: network, repeater, slot, protocol, sender, receiver, duration, RSSI.

7.6.2 Event Log Report

Event Log Report shows information about available devices in the system (e.g., repeaters, routers, uninterruptible power supplies) and alarms registered on these devices.

To create the report, expand the **Reports** menu on the menu bar, and under **Monitoring** select **Event Log**. The **Event Log** window appears.



Period: Defines the time frame of the report.

Radioserver: Defines the radioserver whose database you want to use as a data source.

After clicking **OK**, the report opens automatically:

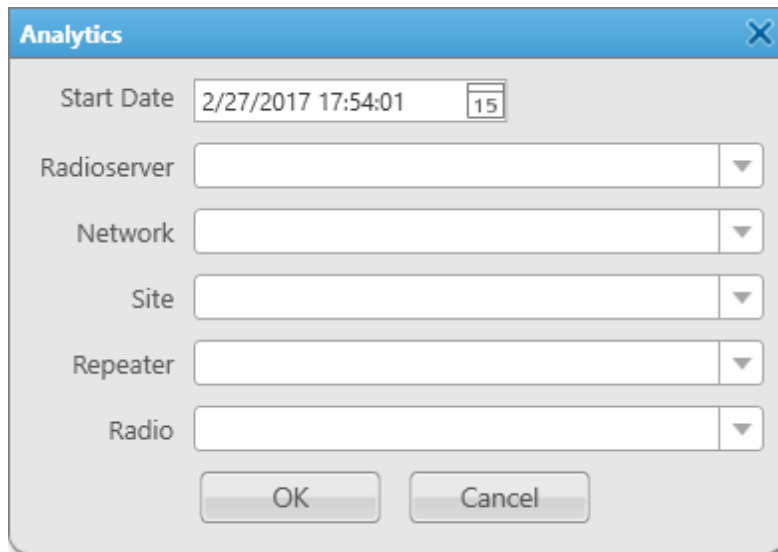
Example

Event Log									
Radioserver: All Radioservers									
from 01.11.2014 00:00:00 to 13.11.2014 00:00:00									
Radioserver	Network	Site	Event Time	Device Type	Repeater	Device Name	Device ID	Importance	Description
71			12.11.2014 15:31:05	Router		Cisco	192.168.37.72:161	High Alarm	No response from the device
71			12.11.2014 15:30:58	UPS		Eaton	192.168.37.73:161	High Alarm	No response from the device
71	IP Site Connect 1		12.11.2014 15:30:52	Repeater	141	Motorola	192.168.37.141:50101	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:30:47	Repeater	31220		192.168.37.128:50001	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:30:45	Repeater	71	SmartPTT	192.168.37.71:50000	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:30:29	Repeater	31220	SmartPTT	192.168.37.128:50001	Information	Repeater disconnected
71	IP Site Connect 1		12.11.2014 15:30:29	Repeater	188		192.168.37.137:50000	Information	Repeater disconnected
71	IP Site Connect 1		12.11.2014 15:30:27	Repeater	141	Motorola	192.168.37.141:50101	Information	Repeater disconnected
71			12.11.2014 15:29:56	Router		Cisco	192.168.37.72:161	High Alarm	No response from the device
71			12.11.2014 15:29:49	UPS		Eaton	192.168.37.73:161	High Alarm	No response from the device
71	IP Site Connect 1		12.11.2014 15:29:43	Repeater	141	Motorola	192.168.37.141:50101	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:29:38	Repeater	31220		192.168.37.128:50001	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:29:38	Repeater	188		192.168.37.137:50000	Information	Repeater connected
71	IP Site Connect 1		12.11.2014 15:29:36	Repeater	71	SmartPTT	192.168.37.71:50000	Information	Repeater connected

7.6.3 Analytic Report

Analytic Report is a graphical representation of the data received during a monthly monitoring process.

To build a report, expand the **Reports** menu on the menu bar, and under **Monitoring** select **Analytics**. The **Analytics** window appears.



The screenshot shows a dialog box titled "Analytics" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Start Date:** A text input field containing "2/27/2017 17:54:01" and a small calendar icon to its right.
- Radioserver:** A dropdown menu.
- Network:** A dropdown menu.
- Site:** A dropdown menu.
- Repeater:** A dropdown menu.
- Radio:** A dropdown menu.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Start Date: Specify the start date of the report. This is a monthly report, so the end date is calculated automatically.

Radioserver: Select the available radioserver whose database will be used as a data source.

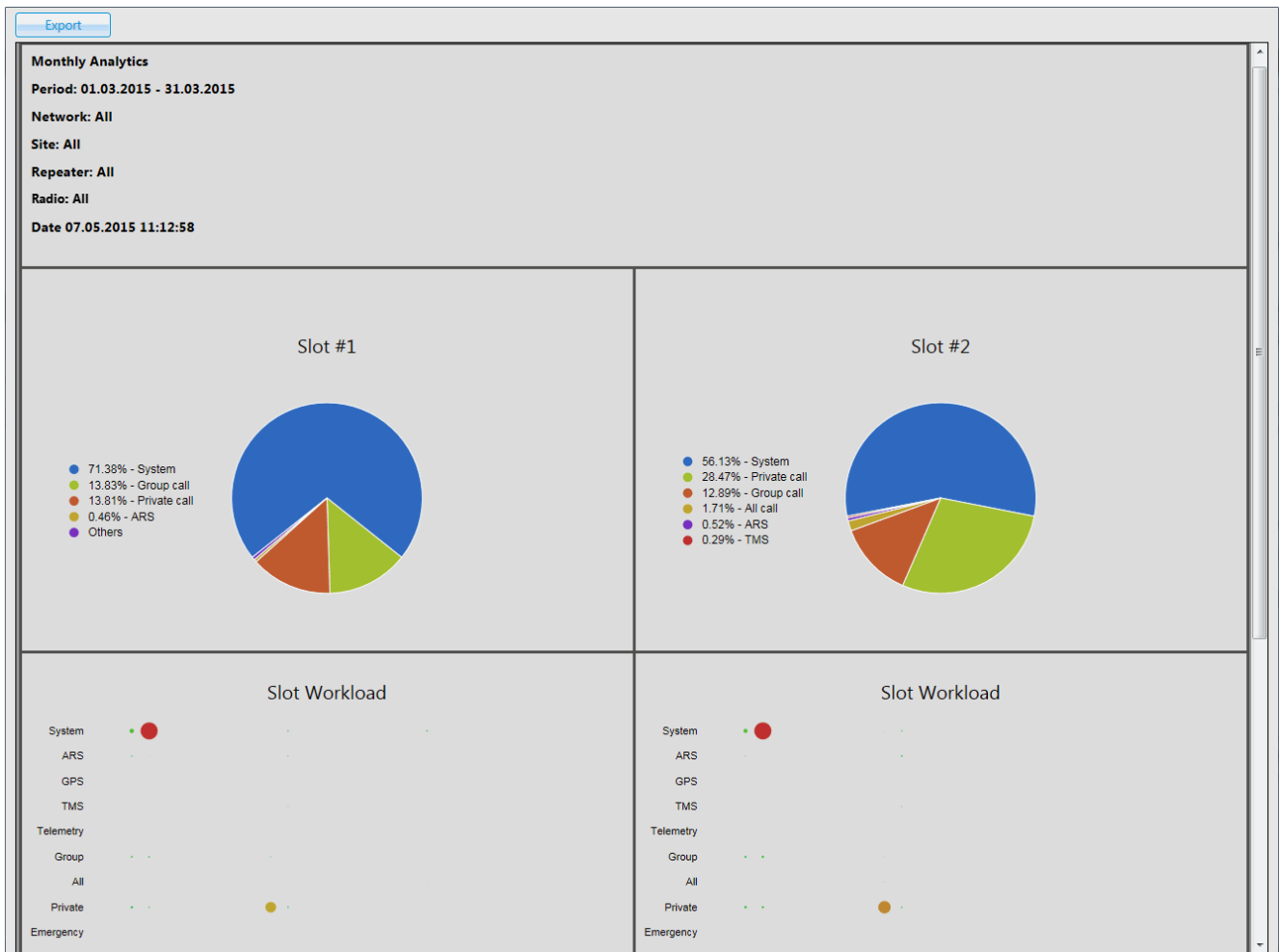
Network: Select the radio system for which you want to build a report. The drop-down list contains all radio systems which have been ever used. Network ID's are used for old networks, and names – for existing ones.

Site: Select a site. This is used for Linked Capacity Plus networks. You can also build a report for all existing sites, or select no sites at all.

Repeater: Select the particular repeater. You can also build a report for all repeaters.

Radio: Select the radio or the [WAVE user](#) for which the report is to be built. You can build a report on all radios and WAVE users from the drop-down list.

Example

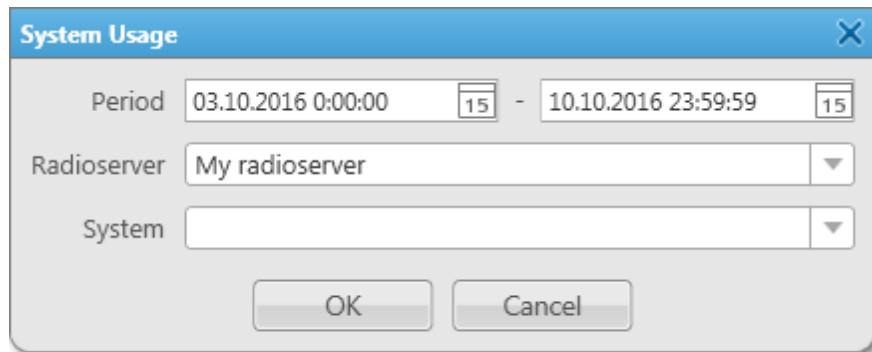


Export: Allows you to save the report in HTML format for further use.

7.6.4 System Usage Report

System Usage Report provides information on the system load, uptime, downtime, and other information.

To build the report, expand the **Reports** menu on the menu bar, and under **Monitoring** select **System Usage**. The **System Usage** window appears.



Period: Defines the time frame of the report.

Radioserver: Select the available radioserver whose database will be used as a data source.

System: Defines the radio system for which you want to build a report. In the drop-down list you can find both existing and removed radio systems. Network IDs are used for outdated radio systems, and names – for existing ones.

After setting the parameters, click **OK** and the report will open in a new window.

The following limitations are applied to repeaters that provide the backhaul repeater chain (BRC) functionality in the radio system:

- For link repeaters, no information presents in the report.
- For drop repeaters, no information on channel loading presents.

For details on repeater roles, see [Diagnostics](#).

NOTE

Calls on all drop repeaters of a backhaul chain are treated as the calls on a proxy repeater of the backhaul chain.

If a radio is not registered by a drop-repeater of a backhaul chain, the **Subscribers** table of the report will show that the radio is registered by the proxy repeater of the backhaul chain, or is registered on the site of the proxy repeater.

Example

Report: System Usage

Period: 10.11.2014 0:00:00 - 11.11.2014 0:00:00

System: IP Site Connect 1

Sites: 3

Site	Number of Channels	Number of Radios	Online, h:mm:ss	Offline, h:mm:ss
SmartPTT	2	0	0:10:44	9:39:43
Radioserver 77	2	3	0:23:52	9:26:35
Repeater Tomsk 1	2	0	0:10:50	9:39:37
System Total	6	3	0:23:52	9:26:35

Channels Loading

Site	Number of Channels	Duration, h:mm:ss,ms
SmartPTT	1	-
	2	-
	Total	0:00:00
Radioserver 77	1	0:01:07,54
	2	-
	Total	0:01:07,54
Repeater Tomsk 1	1	-
	2	-
	Total	0:00:00
System Total	1	0:01:07,54
	Total	0:01:07,54

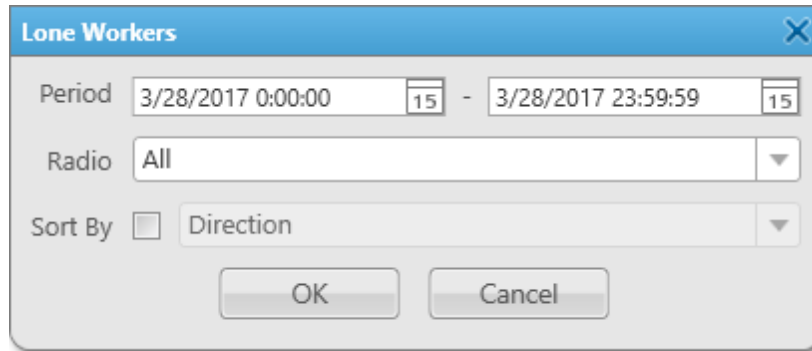
Subscribers: 3

#	Radio ID	Name	Sites
1	1	1	Radioserver 77
2	77	77	Radioserver 77
3	4000	Alex O.	Radioserver 77

7.7 Lone Workers

The **Lone Workers** report provides information about the radio events when a radio or a [WAVE user](#) is in the lone worker mode, for example, registration on the network, the incoming or outgoing calls and messages.

To create the report expand the **Reports** menu on the menu bar of the SmartPTT Dispatcher window and select **Lone Workers**. The **Lone Workers** window appears.



Period: Defines the time frame for the report data.

Radio: Defines the radio or the WAVE user for which the report is to be generated. The list of radios and WAVE users is taken from the connected database.

Sort By: Defines the sorting box for the report events. Sorting parameters: direction, event type, date and time, additional information, operator, control station, radio (includes WAVE users), group, status, duration, repeater IP address, receiver.

The report can be saved in .pdf, .html, .mht, .rtf, .xls, .xlsx, .csv, .txt, .image or .xps formats.

Example

Lone Workers

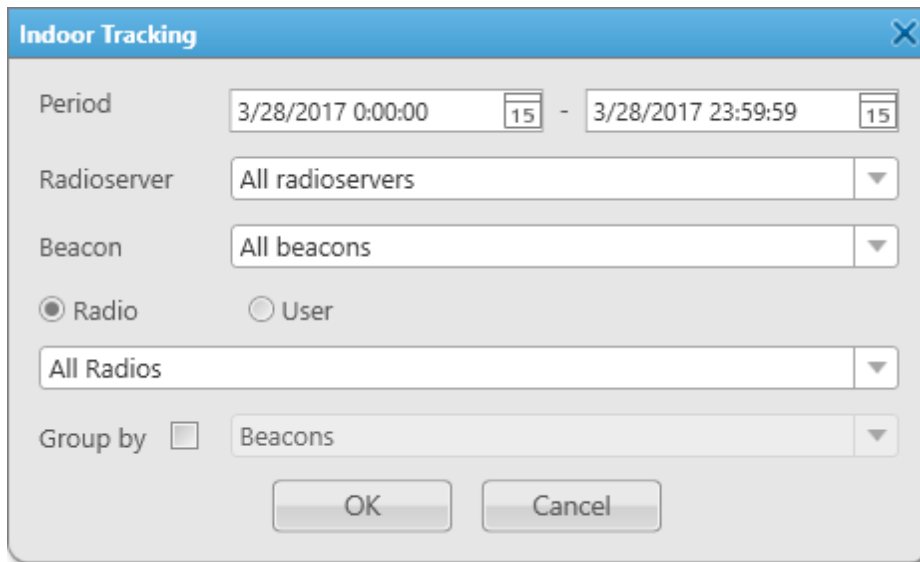
Period 3/28/2017 0:00:00 - 3/28/2017 23:59:59
Radio: All

Direction	Event Type	Date/Time	Additional Information	Operator	Radioserver	Channel	Radio	Talkgroup	Status	Duration	Repeater IP	Destination	Source
Outgoing	Message	3/28/2017 18:21:16	text message		SmartPTT Server	Slot 1	Radio 1		Message not delivered			Radio 1	1
Incoming	Call	3/28/2017 18:21:05			SmartPTT Server	Slot 1	Radio 2		Private Call	10		1	Radio 2
Incoming	Call	3/28/2017 18:21:01	Radio 1		SmartPTT Server	Slot 1	Radio 1	Group 1	Group Call	13		Group 1	Radio 1
Incoming	Call	3/28/2017 18:21:01	Radio 3		SmartPTT Server	Slot 1	Radio 3	Group 2	Group Call	13		Group 2	Radio 3
Incoming	Call	3/28/2017 18:20:50			SmartPTT Server	Slot 1	Radio 2		Private Call	15		1	Radio 2
Incoming	Call	3/28/2017 18:20:36			SmartPTT Server	Slot 1	Radio 2		Private Call	15		1	Radio 2
Incoming	Call	3/28/2017 18:20:36	Radio 3		SmartPTT Server	Slot 1	Radio 3	Group 2	Group Call	25		Group 2	Radio 3
Incoming	Call	3/28/2017 18:20:36	Radio 1		SmartPTT Server	Slot 1	Radio 1	Group 1	Group Call	26		Group 1	Radio 1
Incoming	Call	3/28/2017 18:20:23	Radio 2		SmartPTT Server	Slot 1	Radio 2	Group 2	Group Call	14		Group 2	Radio 2

7.8 Indoor Tracking

The **Indoor Tracking** report was designed to provide the dispatcher with consolidated information on radio movements inside buildings, based on beacon data.

To create the report expand the **Reports** menu, and select **Indoor Tracking**. The **Indoor Tracking** window appears.



Period: Defines the time frame for the report data.

Radioserver: Selects the available radioserver, whose database will be used as a data source.

Beacon: Selects the particular beacon or all beacons.

Radio: Defines the radio for which the report is to be generated. The list of radios is taken from the connected database.

User: Defines the radio user for which the report is to be generated.

Define the structure of the report by grouping it by beacons or radios.

Then click **OK** to build the report.

Example

Indoor Tracking

from 6/19/2014 12:00:00 AM to 6/19/2014 11:59:59 PM

Radio	Beacons	Radioserver	Date/Time	Message
12.0.0.155				
12.0.0.155	6499	Radioserver_Tomsk	6/19/2014 4:45:49 PM	Signal active
12.0.0.155	6501	Radioserver_Tomsk	6/19/2014 4:45:49 PM	Signal active
12.0.0.155	1594	Radioserver_Tomsk	6/19/2014 4:45:49 PM	Signal active
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:45:49 PM	Radio position
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:45:49 PM	Radio position
12.0.0.155	6499	Radioserver_Tomsk	6/19/2014 4:43:47 PM	Signal active
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:41:50 PM	Radio position
12.0.0.155	6501	Radioserver_Tomsk	6/19/2014 4:41:50 PM	Signal active
12.0.0.155	1594	Radioserver_Tomsk	6/19/2014 4:41:50 PM	Signal active
12.0.0.155	6499	Radioserver_Tomsk	6/19/2014 4:41:50 PM	Signal active
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:41:38 PM	Radio position
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:39:56 PM	Radio position
12.0.0.155	6499	Radioserver_Tomsk	6/19/2014 4:39:56 PM	Signal active
12.0.0.155	1594	Radioserver_Tomsk	6/19/2014 4:39:56 PM	Signal active
12.0.0.155	6499,1594,6501	Radioserver_Tomsk	6/19/2014 4:39:56 PM	Radio position
12.0.0.155	6501	Radioserver_Tomsk	6/19/2014 4:39:56 PM	Signal active
12.0.0.155	1594	Radioserver_Tomsk	6/19/2014 4:39:02 PM	Signal active
12.0.0.155	6501	Radioserver_Tomsk	6/19/2014 4:39:02 PM	Signal active
12.0.0.155	1594	Radioserver_Tomsk	6/19/2014 2:19:10 PM	Signal detected
12.0.0.155	6499	Radioserver_Tomsk	6/19/2014 2:18:57 PM	Signal active
12.0.0.155	6501	Radioserver_Tomsk	6/19/2014 2:18:57 PM	Signal active

NOTE

Under the high load conditions of a repeater, the report may contain corrupted beacon IDs.

To resolve the problem of corrupted beacon ID's, it is recommended to follow these steps:

- Increase the number of acknowledgments sent from the beacon to the radio. In order to do that, increase the values in the **Beacon Sign On count** and the **Beacon Sign Off count** boxes in the **K-Term CPS** settings.
- In the Indoor Tracking settings of SmartPTT Radioserver Configurator select the **Specify** list of allowed beacons check box and specify beacon IDs which data must be processed by SmartPTT Radioserver.

If the previous steps do not solve the problem, send your query to our [technical support service](#).

NOTE

N/A is displayed in the **Beacons** column of the report, if a radio leaves the coverage area of a beacon.

8 Conference Calls

The **Conference Call** is a type of call in which the dispatcher can have more than one subscriber of different types at a time. All participants of the conference call can hear and talk to each other.

SmartPTT Dispatcher allows the dispatcher to organize conference calls and to connect the following subscriber types:

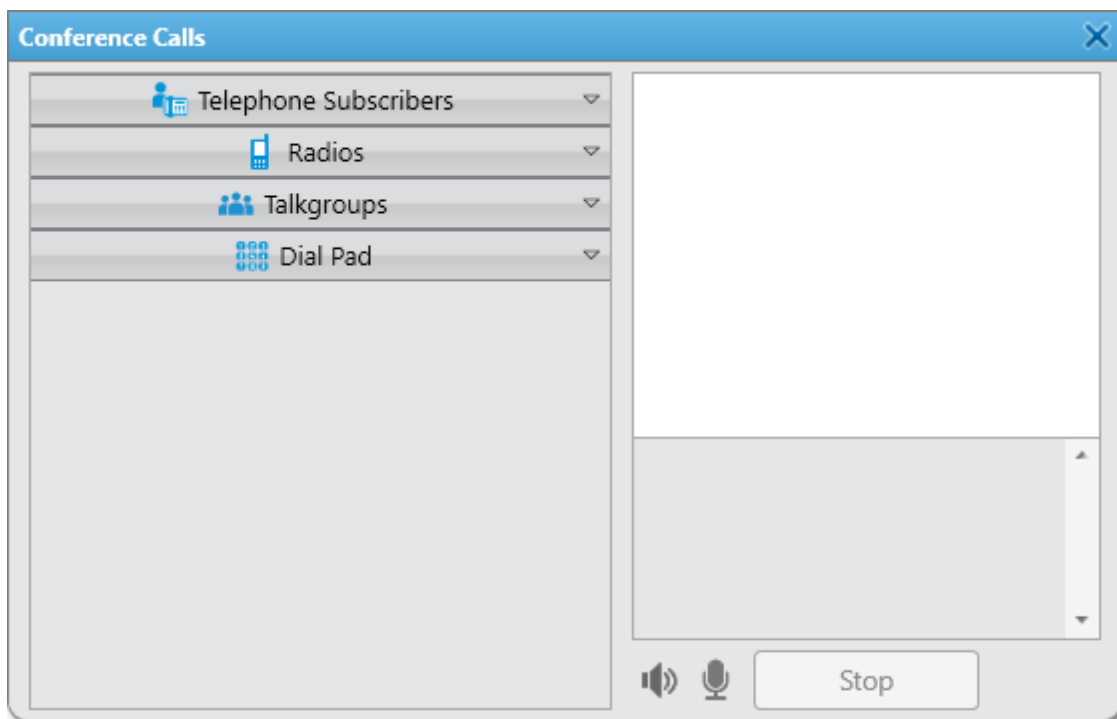
- Telephone subscribers
- Other dispatchers using SmartPTT Dispatcher
- Radios and [WAVE users](#)
- Talkgroups

NOTE

To be able to make conference calls, the dispatcher must have the permission **Make conference calls**.


To organize a conference call, click the **Conference Call** button  on the menu bar of SmartPTT Dispatcher.


The **Conference Calls** window appears.



If the **Show radio user name** check box is selected in the **General Settings** window, the user authorization service is activated, and users are added on SmartPTT Radioserver, in the radios list and event log the name of the user authorized on the radio is displayed next to the radio name in the parentheses. For details, see [General Settings](#).


To add a subscriber to the conference call, unfold the necessary section and double-click on the subscriber, or use drag-and-drop.

The button  turns off the sound of the conference call. The dispatcher's microphone is turned off automatically. So the operator does not hear the conference call participants, and the participants cannot hear the dispatcher.



The button  turns off the operator's microphone.


Stop: Click the button to end the current conference call. If the person should make a radio call right after the telephone call, it is necessary for him or her to wait for a special tone notifying about the end of the call. If the person presses the PTT button before this tone, an incorrect phone call will be initiated.

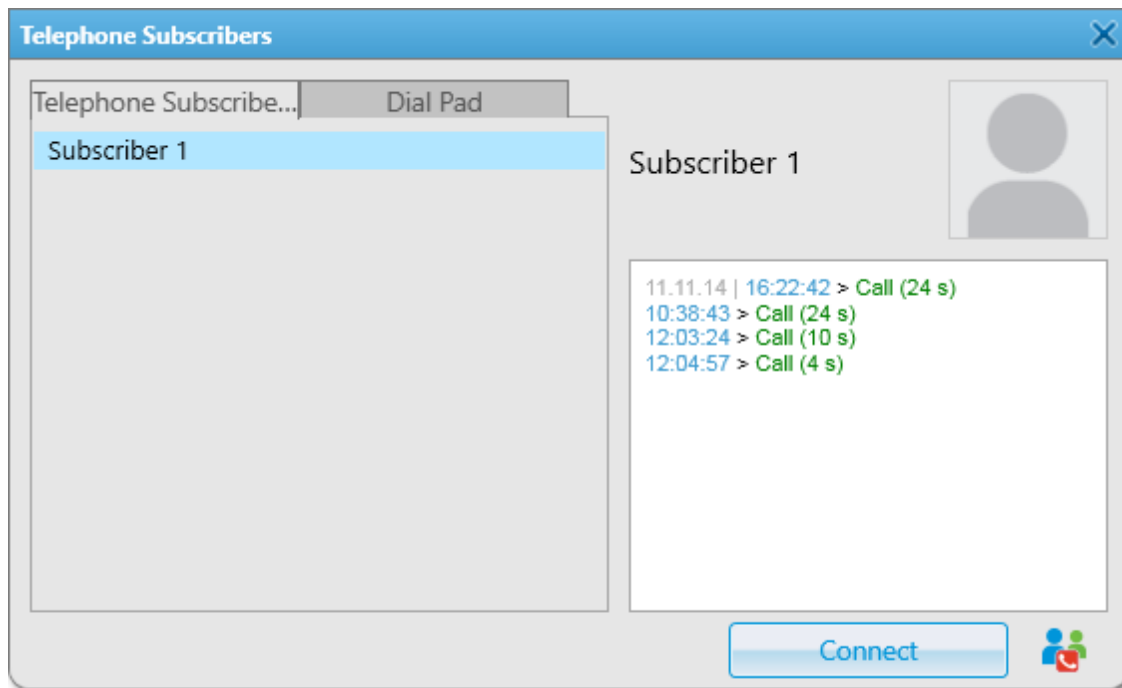
Starting from version 8.6 you can hold conference calls with radios and telephone subscribers without enabling Telephone Interconnect in SmartPTT Radioserver Configurator. For more information on how to do it, see help of SmartPTT Radioserver Configurator (**Telephone Calls**).

To finish the ongoing conference call with one of the participants, click the button  next to the participant.

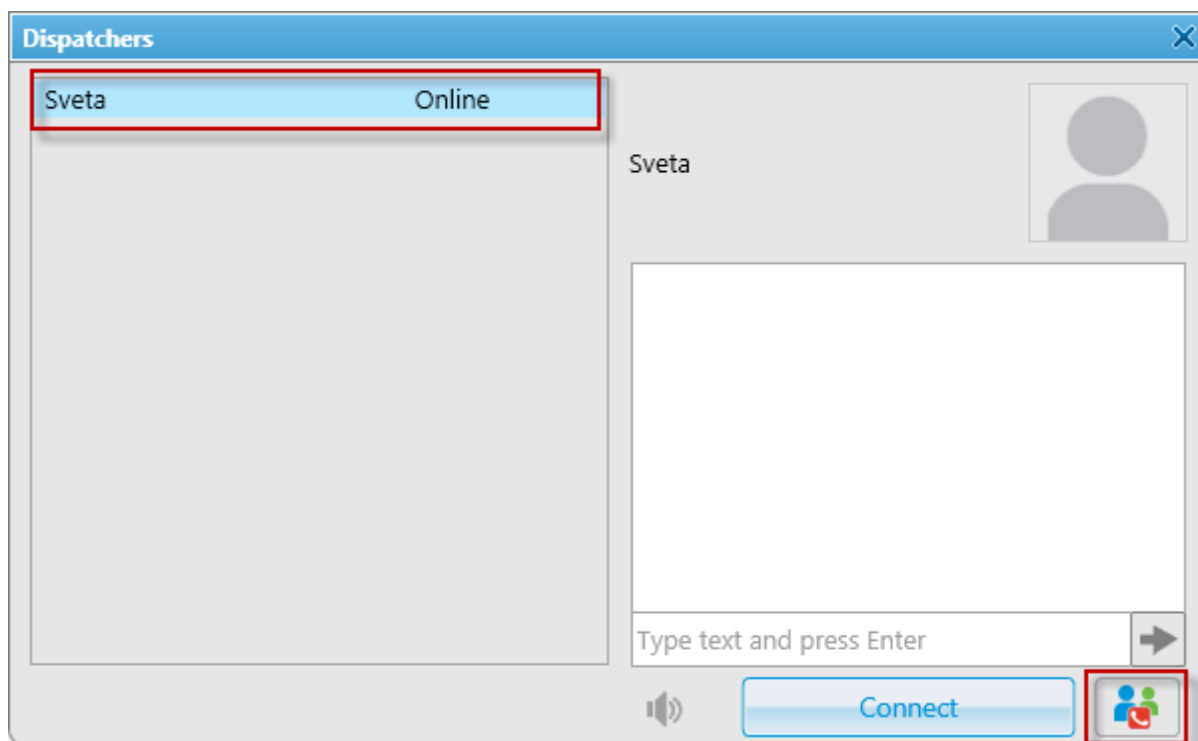
There is another way how to organize a conference call.

1. To invite an external dispatcher or a telephone subscriber, click the buttons  or  respectively.

2. In the open window select a dispatcher or a telephone subscriber, and click .



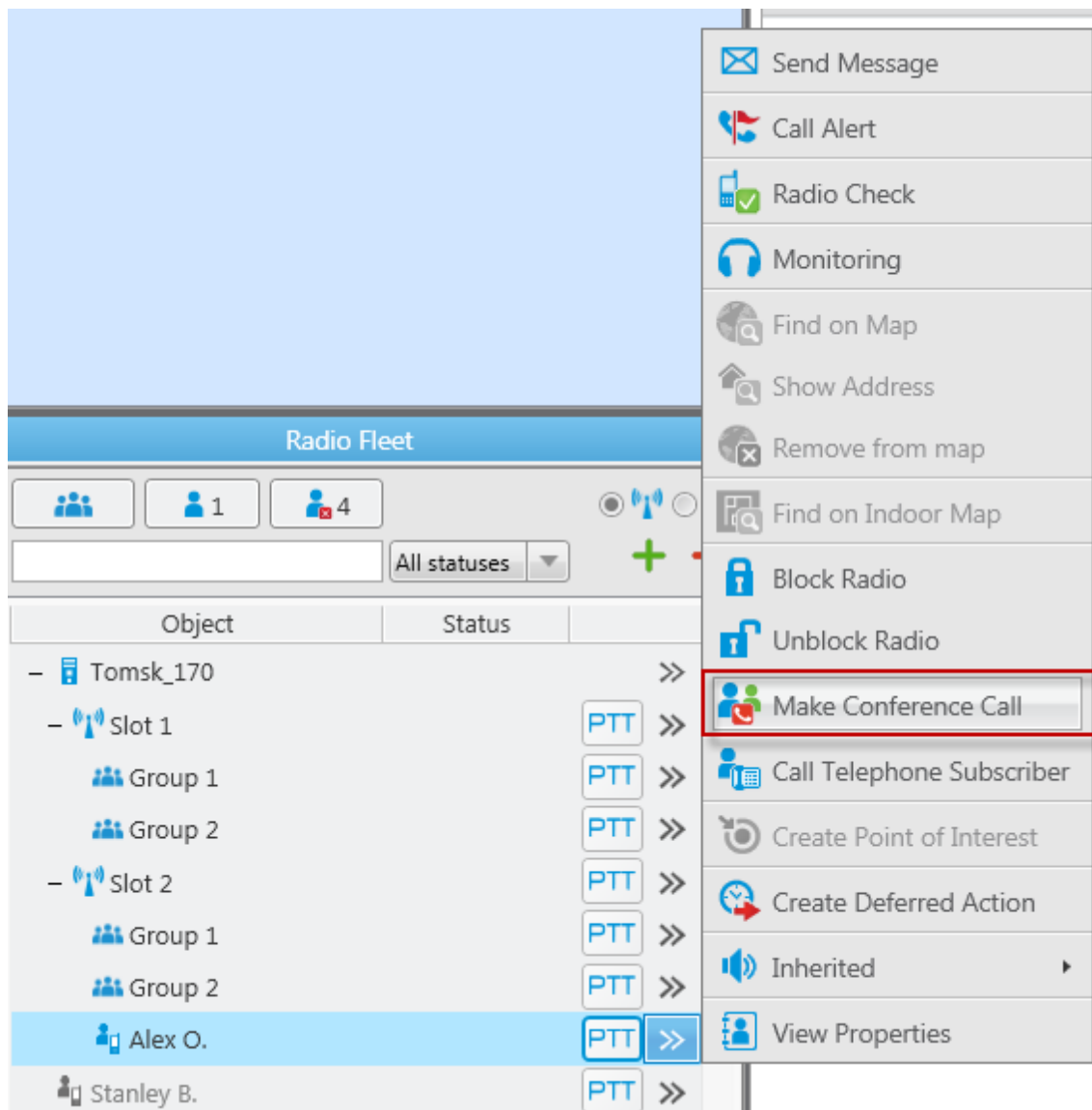
Dispatcher:



NOTE

Only dispatchers from the **Dispatcher List** with status **Active** can be invited into the conference call.

3. Use the Actions Menu to make a conference call. The **Conference Call** window appears and the call is initiated.



9 User Interface Layout

In SmartPTT Dispatcher user can save the current interface layout after configuring the working area. Dispatcher can add several interface layouts, and switch between them.

The **UI Layout Settings** provides the following functionality:

- Adding user interface layouts (for details, see [Applying UI Layout](#) and [Applying UI Layout](#))
- Locking user interface layout by Administrator (for details, see [Locking UI Layout](#))


When the interface is locked, the dispatcher cannot perform the following actions:

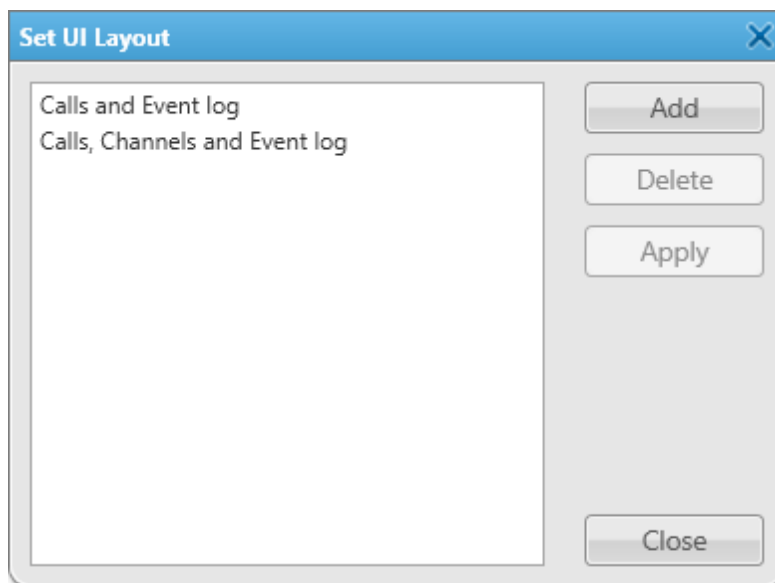
- Open and close panels
- Change panels location (for details, see [Changing Layout](#))
- Switch user interface layouts
- Resize open panels

9.1 Saving UI Layout

Follow the procedure below to save the current user interface layout.

Procedure:

1. On the menu bar, click **UI Layout Settings** () → **Set UI Layout**.
The **Set UI Layout** window appears.

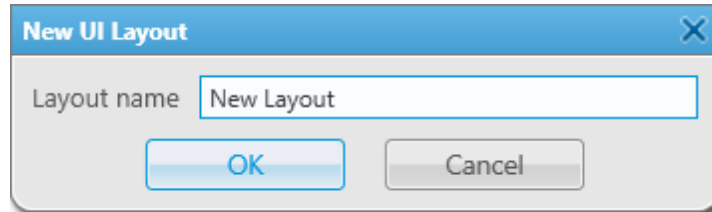


NOTE

In the list of layouts, *Calls and Event log* and *Calls, Channels and Event log* are default window configurations that cannot be deleted.

2. In the open **Set UI Layout** window, click **Add**.

The **New UI Layout** window appears.



3. In the **New UI Layout** window, in the **Layout name** box, type the name of the user interface layout.
4. Click **OK** to apply changes and close the window.
5. In the **Set UI Layout** window, click **Close** to close the window.


Postrequisites:

To remove the layout, **Set UI Layout** window, select the layout from the list, and click **Delete**.

9.2 Applying UI Layout

Follow the procedure below to open user interface layout.

Procedure:

1. On the menu bar, click **UI Layout Settings** () → **Set UI Layout**.
2. In the open **Set UI Layout** window, select the desired interface layout, and click **Apply**.
3. In the **Set UI Layout** window, click **Close** to close the window.

9.3 Locking UI Layout

Follow the procedure below to fix user interface layout.

NOTE

Only Administrator can lock the interface layout.

Procedure:

On the menu bar, click **UI Layout Settings** () → **Lock UI Layout**.

The check mark icon appears next to the **Lock UI Layout** menu.

NOTE

If the **Event Log** is open when the user interface layout is locked, all the features for the **Event Log** management are available to the dispatcher. If the **Event Log** is closed when the user interface layout is locked, all the **Event Log** features are unavailable.

Postrequisites:

To unlock interface layout, click **Lock UI Layout** one more time.

The check mark icon disappears.

10 Text Messages

The Text Messaging feature provides the ability to send and receive text messages in SmartPTT Dispatcher. Using this feature, you can also create templates for frequently sent messages.

In SmartPTT Dispatcher you can perform the following actions:

- Send messages to radios and talkgroups.
- Receive messages from radios.
- Send and receive messages from other dispatchers.

For details, see [Sending Messages to Dispatchers](#).

The Text Messaging feature is available only if the **Send text messages** check box is selected in the **Operators** settings.

For details, see [Operators](#).

NOTE

The Text Messaging feature is unavailable to WAVE users.

The character limit for a text message is 500 characters including spaces and punctuation marks.

Text messages to radios and talkgroups in SmartPTT Dispatcher can be sent in one of the following ways:

- From the **Send Message** window.
This window provides full functionality of the Text Messaging feature in SmartPTT Dispatcher. For details, see [Sending Messages from the Send Message Window](#) and [Managing Message Templates](#).
- From the Call Window of a radio or talkgroup.
The Call Window is normally used for sending quick messages. For details, see [Sending Messages from the Call Window](#).
- From the **TMS** element in the Custom Console.
The **TMS** element can be used for sending quick messages and message templates without the ability to edit them. For details, see [Sending Messages Using the TMS element](#).
- Automatically when triggered by a rule configured in the **Custom Rules** settings. For details, see [Custom Rules](#).

Only online radios can receive messages. You can track your messages in the **Status** column in Event Log and in the log box of the Call Window.

After sending or receiving a message, the information on it appears in the the log box of the Call Window and in the Event Log. SmartPTT Dispatcher provides the following statuses:

Status	Description
Message delivered	The message was successfully delivered to the target radio.
Message not delivered	The message was not delivered due to issues with the radio connection to the radio system
Message accepted	A message from a radio or another dispatcher was received.
Message sent	The message was successfully sent but no information on its delivery is available.
Message was not sent	The message was not sent due issues with the SmartPTT Dispatcher connection to the server.

SmartPTT Dispatcher does not provide information on which of the radios in the talkgroup received the message. To check the message delivery status for a specific radio, you can resend the message to the desired radio individually.

NOTE

The delivery status may be affected by the radio device settings. For information on your system configuration, contact your System Administrator.

When a message from a radio is received, a new entry with the message details appears in the Event Log. In the **Call Windows** settings you can also configure the Call Window to appear automatically. For details, see [Call Windows Settings](#).

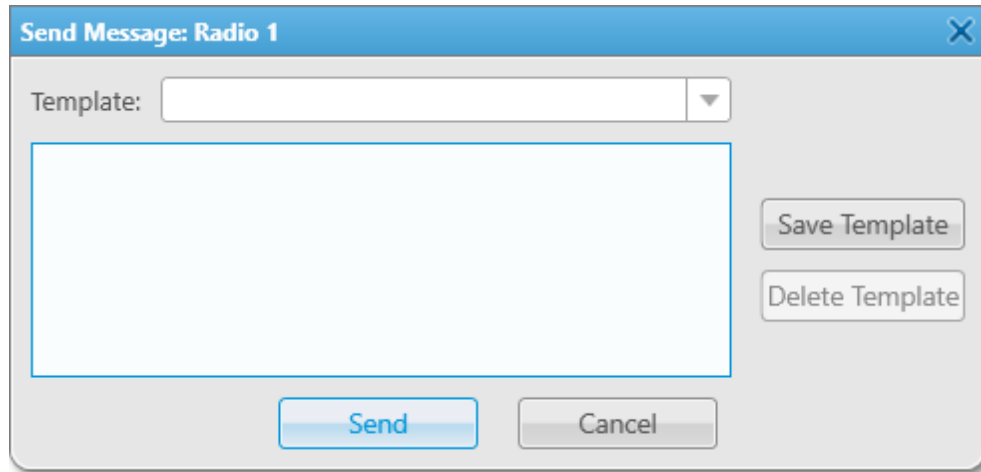
When a message from another dispatcher is received, the Dispatchers window appears. For details, see [Dispatchers](#).

An audio file can be set to play to inform you of a new incoming message. For details, see "Rules" in *Radioserver Configurator User Guide*.

10.1 Send Message Window

The **Send Message** window provides the full text messaging functionality in SmartPTT Dispatcher. In this window, you can perform the following actions:

- Send your own messages or preconfigured message templates. For details, see [Sending Messages from the Send Message Window](#).
- Create, edit, and delete message templates. For details, see [Managing Message Templates](#).



The **Send Message** window provides the following elements:

Template

Expands the list of existing message templates.

Save Template

Opens the **Message Template Name** window where you can set the name for the new template. It also saves the changes that you make to an existing template.

Delete Template

Deletes the template that is currently selected in the **Template** list.

Send

Sends the message from the text box to the selected radio or talkgroup.

Cancel

Closes the **Send Message** window.

10.2 Sending Messages from the Send Message Window

Follow the procedure below to send a text message from the **Send Message** window to a radio or a talkgroup.

Procedure:

1. Open the **Send Message** window in one of the following ways:

To open it from the Radio Fleet panel,	to the right of the desired radio, talkgroup, or category name, click the Actions (>>) button, and then click Send Message (✉).
To open it from the Radios panel or the Custom Console panel,	click the Actions (>>) button on the desired radio or talkgroup tile, and then click Send Message (✉).
To open it for a radio from the Maps panel,	on the map or in the Radios tab of the Radios panel, right-click the desired radio, and then click Send Message (✉).
To open it for a category from the Maps panel,	in the expandable Radios panel, in the Categories tab, right-click the desired category, and then click Send Message (✉).
To open it from the Call Window of a radio or a talkgroup,	in the Call Window, click Message (✉). For information on Call Windows, see Radio Fleet .

2. Depending on the message that you want to send, perform one of the following actions:

To type a new text message,

in the text box, type your message, and then click **Send**.

To use a message template,

perform the following actions:

1. From the **Template** list, select the name of the desired template.
The text of the message appears in the text box below.
 2. *Optional:* In the text box, edit the text of the message.
 3. Click **Send**.
-

The information on the sent message appears in the log box of the Call Window and in the Event Log.

NOTE

If you send the message to a radio group or a category in the **Radio Fleet** panel, the information on its delivery is displayed for each radio and talkgroup individually.

Postrequisites:

- To close the window without sending the message, click **Cancel**.
- For information on working with message templates, see [Managing Message Templates](#).

10.3 Sending Messages from the Call Window

Follow the procedure below to send a quick message from the Call Window of a radio or a talkgroup.


Prerequisites:


Ensure that the Call Window of the desired radio or talkgroup is open.

For information on ways to access the Call Window, see [Radio Fleet](#).

Procedure:

Send the message in one of the following ways:

To type a new message and send it from the Call Window,	at the bottom of the Call Window, in the text box, type your message, and then click the Send () button.
---	--

To type a new message or use a message template and send it from the Send Message window,	perform the following actions: <ol style="list-style-type: none">1. Click the Message () button to the left of the text box.2. In the Send Message window, type the message in the text box or use a message template, and then click Send. For information on sending messages from the Send Message window, see Sending Messages from the Send Message Window.
--	--

The information on the sent message appears in the log box of the Call Window and in the Event Log.

10.4 Managing Message Templates

Follow the procedure below to to configure message templates for frequently sent messages.

Procedure:

1. Open the **Send Message** window. For details, see [Send Message Window](#).

-
2. Depending on what you want to do with the template, perform one of the following actions:
-

To create a new template,

perform the following actions:

1. In the text box, type your message, and then click **Save Template**.
2. In the **Message Template Name** window, in the text box, type the template name.

NOTE

If you leave the box empty, the template gets the *New Template* name that you can change later.

To edit an existing template,

perform the following actions:

1. From the **Template** list select the name of the desired template.
 2. In the text box below, edit the template message.
 3. Click **Save Template**.
-

To delete an existing template,

perform the following actions:


1. From the **Template** list select the name of the desired template.
The text of the message appears in the text box below.
 2. Click **Delete Template**.
 3. In the **Delete Template** window, click **OK**.
-

10.5 Sending Messages to Dispatchers



Follow the procedure below to send a text message to another dispatcher.

Prerequisites:

Ensure the following conditions are met:

- The **Dispatchers** () button on the menu bar is available.
For information on the Operator access rights, see [Operators](#).
- The desired dispatcher is added to the Dispatchers list and is currently online.
For information on setting up the connection to other dispatchers, see [Dispatchers](#).

Procedure:

1. On the menu bar, click **Dispatchers** ().
2. In the **Dispatchers** window, from the list of dispatchers on the left, select the desired dispatcher.
3. In the text box on the right, type the message, and then click the **Send** () button.
The sent message appears in the chat box above the text box.

Postrequisites:

You can view the sent message details in the Event Log. For details, see [SmartPTT Dispatcher Event Log](#).

11 Voice Calls

In SmartPTT Dispatcher you can initiate and re-initiate a range of voice calls inside the radio system. These voice calls include the following types:

- Private voice calls
- Group voice calls
- All calls
- Multiselect calls
- Cross patch calls

For information on initiating cross patch calls, see [Initiating Cross Patch Calls](#).

For information on initiating other voice calls, see the corresponding procedures below.

11.1 Initiating Private Voice Calls

Follow the procedure below to initiate a private call.

Prerequisites:

- Obtain the current settings of the pointing devices and hotkeys from administrator.
- Ensure the desired radio is online.

Procedure:

1. Initiate a private call in one of the following ways:

To initiate the private call from the Radio Fleet panel,	<p>perform one of the following actions:</p> <ul style="list-style-type: none"> • Press and hold, or click the PTT button of the desired radio. • Select the radio, and then press and hold, or press the PTT button hotkey.
To initiate the private call from the radio Call Window,	<p>perform one of the following actions:</p> <ul style="list-style-type: none"> • Press and hold, or click the PTT button. • Press and hold, or press the PTT button hotkey.
To initiate the private call from the Radios panel,	<p>perform one of the following actions:</p> <ul style="list-style-type: none"> • Press and hold, or click the desired Radio Tile. • Select the desired Radio Tile, and then press and hold, or press the PTT button hotkey.

The PTT button or Radio Tile becomes light-orange, and three dots appear on it.

2. When the PTT button or Radio Tile becomes orange, speak to your microphone.
3. To end the transmission, release or click again the PTT button, hotkey, or Radio Tile. The PTT button or Radio Tile becomes blue, and a hangtime starts.
4. During the hangtime, perform one of the following actions:
 - To listen to the radio transmission, wait until the PTT button or Radio Tile becomes green, and audio is heard from the speakers or headsets.

- To transmit again, repeat steps 1–3.
- To end the call, wait until the blue color disappears, and the hangtime is over.

11.2 Initiating Private Calls in Capacity Max

Follow the procedure below to initiate a private call in Capacity Max radio system.

Prerequisites:

- Obtain the information on the call type settings (FOACSU or OACSU) in Capacity Max from administrator.
- Obtain the current settings of the pointing devices and hotkeys from administrator.
- Ensure the desired radio is online.

Procedure:

1. Initiate a private call in one of the following ways:

To initiate the private call from the Radio Fleet panel,	perform one of the following actions:
	<ul style="list-style-type: none"> • Press and hold, or click the PTT button of the desired radio. • Select the radio, and then press and hold, or press the PTT button hotkey.
To initiate the private call from the radio Call Window,	perform one of the following actions:
	<ul style="list-style-type: none"> • Press and hold, or click the PTT button. • Press and hold, or press the PTT button hotkey.
To initiate the private call from the Radios panel,	perform one of the following actions:
	<ul style="list-style-type: none"> • Press and hold, or click the desired Radio Tile. • Select the desired Radio Tile, and then press and hold, or press the PTT button hotkey.

The PTT button or Radio Tile becomes light-orange, and three dots appear on it.

2. Depending on the call type settings, perform one of the following actions:

If OACSU type is used,

perform the following actions:

1. When the PTT button or Radio Tile becomes orange, speak to your microphone.
2. To end the transmission, release or click again the PTT button, hotkey, or Radio Tile. The PTT button or Radio Tile becomes blue, and a hangtime starts.

If FOACSU type is used,

perform the following actions:

1. When the PTT button or Radio Tile becomes green, listen to the radio transmission. The PTT button or Radio Tile becomes blue, when the radio finishes the transmission.
2. Initiate the transmission again.
3. When the PTT button or Radio Tile becomes orange, speak to your microphone.
4. To end the transmission, release or click again the PTT button, hotkey, or Radio Tile. The PTT button or Radio Tile becomes blue, and a hangtime starts.

-
3. During the hangtime, perform one of the following actions:

- To listen to the radio transmission, wait until the PTT button or Radio Tile becomes green, and audio is heard from the speakers or headsets.
- To transmit again, repeat steps 1–2.
- To end the call, wait until the blue color disappears, and the hangtime is over.

11.3 Initiating Group Voice Calls

Follow the procedure below to initiate a group call.

Prerequisites:

- Obtain the current settings of the pointing devices and hotkeys from administrator
- Determine the group call type you want to initiate: standard or broadcast.
For information on group call types, see [Radio Fleet](#).

Procedure:

1. Initiate a group call in one of the following ways:

To initiate the group call from the Radio Fleet panel,	<p>perform one of the following actions:</p> <ul style="list-style-type: none"> • Press and hold, or click the PTT button of the desired talkgroup. • Select the talkgroup, and then press and hold, or press the PTT button hotkey.
To initiate the group call from the Call Window of the talkgroup,	<p>perform one of the following actions:</p> <ul style="list-style-type: none"> • Press and hold, or click the PTT button. • Press and hold, or press the PTT button hotkey.
To initiate the group call from the Channels panel,	<p>perform the following actions:</p> <ol style="list-style-type: none"> 1. From the list of the desired Channel Tile, select the group. 2. Initiate the call: <ul style="list-style-type: none"> • Press and hold, or click the desired Channel Tile. • Press and hold, or press the PTT button hotkey.

The PTT button or Channel Tile becomes light-orange, and three dots appear on it.

2. When the PTT button or Channel Tile becomes orange, speak to your microphone.
3. To end the transmission, release or click again the PTT button, hotkey, or Channel Tile. The PTT button or Channel Tile becomes blue, and a hangtime starts.
4. During the hangtime, perform one of the following actions:
 - To listen to the call participant transmission, wait until the PTT button or Channel Tile becomes green, and audio is heard from the speakers or headsets.
 - To transmit again, repeat steps 1–3.
 - To end the call, wait until the blue color disappears, and the hangtime is over.

11.4 Initiating All Calls



Follow the procedure below to initiate an All Call.

Prerequisites:

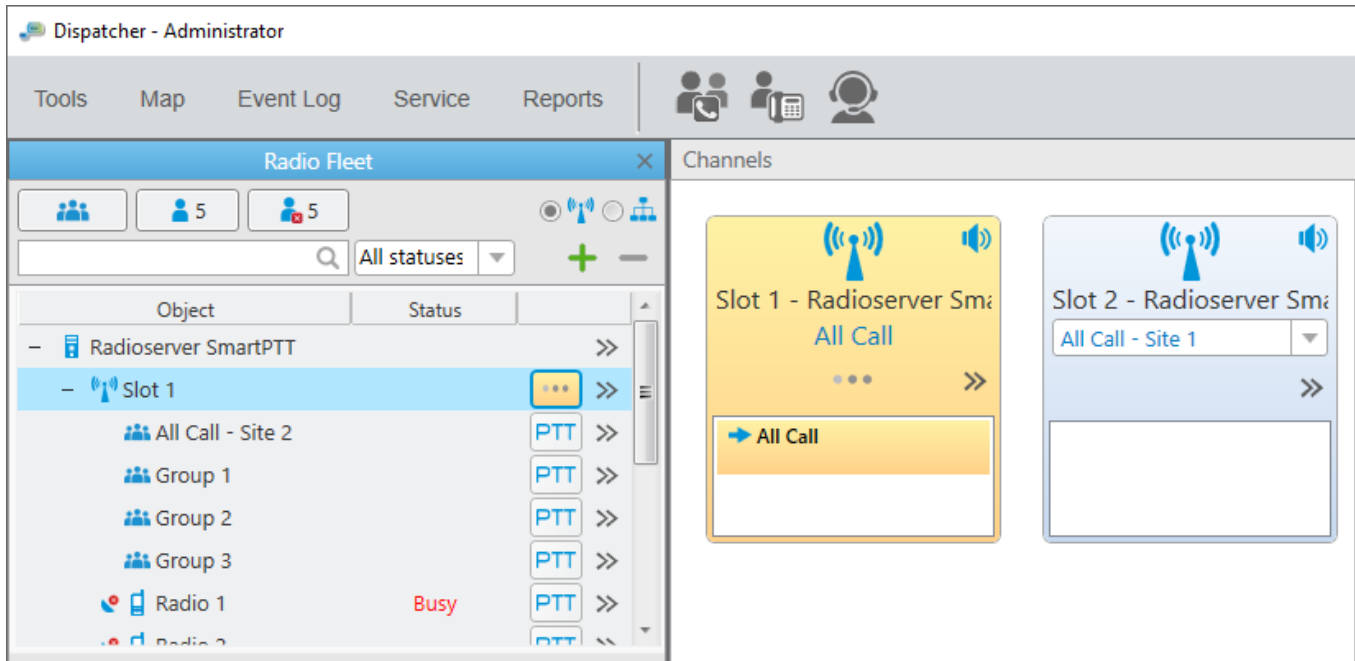
Obtain the current settings of the pointing devices and hotkeys from administrator.

Procedure:

1. Initiate an All Call in one of the following ways:

To initiate the All Call from the Radio Fleet panel,	perform one of the following actions: <ul style="list-style-type: none">• Press and hold, or click the PTT button of Site All Call or of the desired channel ().• Select the channel () or Site All Call, and then press and hold, or press the PTT button hotkey.
To initiate the All Call from the Channels panel,	perform the following actions: <ol style="list-style-type: none">1. From the list of the desired Channel Tile, select the desired All Call.2. Initiate the call:<ul style="list-style-type: none">• Press and hold, or click the desired Channel Tile.• Press and hold, or press the PTT button hotkey.
To initiate the All Call from the All Call window,	perform one of the following actions: <ul style="list-style-type: none">• Press and hold, or click the PTT button.• Press and hold, or press the PTT button hotkey.

The PTT button or Channel Tile becomes light-orange, and three dots appear on it.



2. When the PTT button or Channel Tile becomes orange, speak to your microphone.
3. To end the transmission, release or click again the PTT button, hotkey, or Channel Tile. The PTT button or Channel Tile becomes blue, and a hangtime starts.
4. During the hangtime, perform one of the following actions:
 - To listen to the call participant transmission, wait until the PTT button or Channel Tile becomes green, and audio is heard from the speakers or headsets.
 - To transmit again, repeat steps 1–3.
 - To end the call, wait until the blue color disappears, and the hangtime is over.

11.5 Initiating Multiselect Calls

Follow the procedure below to initiate a multiselect call to several radios.

Prerequisites:

- Obtain the current settings of the pointing devices and hotkeys from administrator.
- Ensure the desired radios are online.

Procedure:

1. If the **Radios** panel is closed, on the menu bar, click **Tools** → **Radios**.

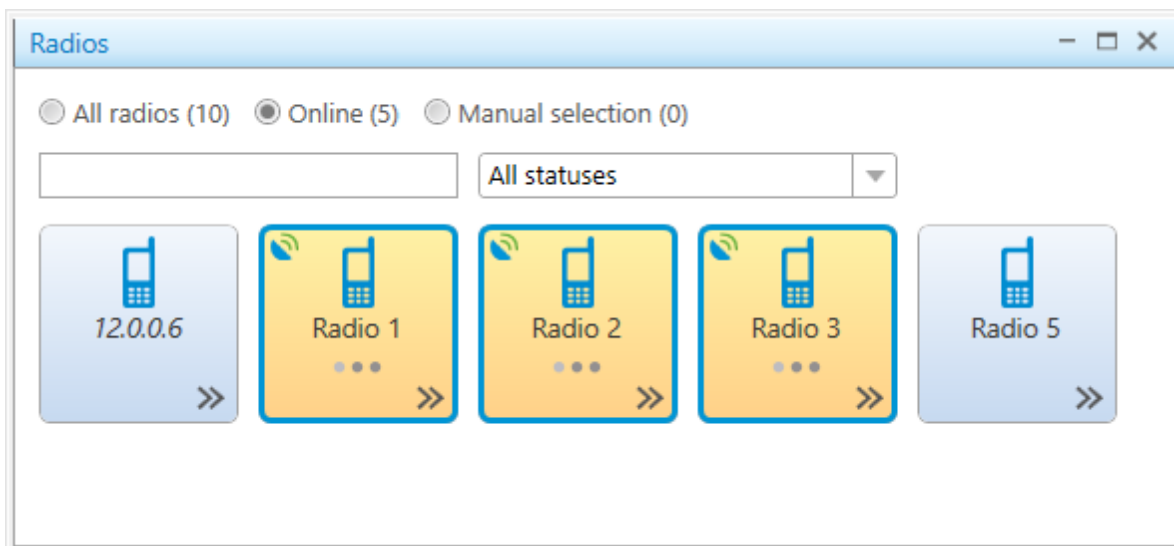
2. *Optional:* In the **Radios** panel, in the upper part, select the desired view.
If **Manual selection** is clicked and no radios are in the panel, drag the desired radios from the **Radio Fleet** panel to the **Radios** panel.
3. Select the desired Radio Tiles in one of the following ways:
 - Press and hold Ctrl, and then click the desired radios.
 - Press and hold Shift, and then click the desired radios or range of radios.

The blue frames appear on the Radio Tiles.

NOTE

The same actions are performed to deselect the Radio Tiles.

4. Press and hold, or press the PTT button hotkey.
The Radios Tiles become light-orange, and three dots appear on them.



5. When the Radio Tiles become orange, speak to your microphone.
6. To end the transmission, release or press the PTT hotkey.
The Radio Tiles become blue, and a hangtime starts.

NOTE

If the selected radios are from different radio system, the hangtime duration can also be different.

7. During the hangtime, perform one of the following actions:
 - To listen to the radio transmission, wait until the PTT button or Radio Tile becomes green, and audio is heard from the speakers or headsets.
 - To transmit again, repeat steps 4–6.
 - To end the call, wait until the blue color disappears, and the hangtime is over.

11.6 Re-initiating Voice Calls

Follow the procedure below to re-initiate a voice call.

NOTE

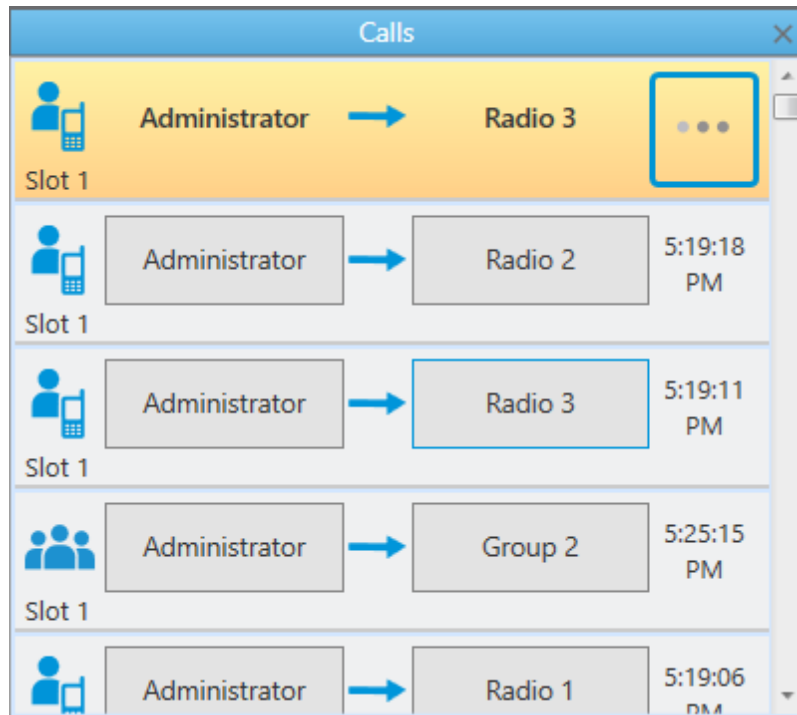
You can re-initiate a private call, a group call, an All Call, or a call initiated between radio and telephone subscriber.

Procedure:

1. If the **Calls** panel is closed, on the menu bar, click **Tools** → **Calls**.

2. Depending on the pointing devices and PTT button hotkey settings, re-initiate a call:
 - Select the Call Initiator or Call Recipient name, and then press, or press and hold the hotkey.
 - Click the Call Initiator or Call Recipient name.

A new call entry appears at the top of the **Calls** panel. The call entry becomes light-orange, and the button with three dots appears on it.



3. When the call entry becomes orange, and the PTT button appears, speak to your microphone.
4. To end the transmission, release or press the PTT hotkey, click the call participant name or the PTT button.
The call entry becomes blue, and a hangtime starts.
5. During the hangtime, perform one of the following actions:
 - To listen to the call participant transmission, wait until the call entry becomes green, and audio is heard from the speakers or headsets.

- To transmit again, repeat steps 2–4.
- To end the call, wait until the blue color disappears, and the hangtime is over.

NOTE

In Capacity Max, in the **Calls** panel, you can end the call at any time by clicking the Cross (✕) icon or right-clicking the corresponding call entry or PTT button.

12 Bridging Service

In SmartPTT you can use bridging service to interconnect subscribers of multiple networks. The bridging service is implemented by SmartPTT Radioserver, and you should activate the service in SmartPTT Radioserver Configurator.

By using the bridging service in SmartPTT, you can perform the following actions:

- Connect various radio networks
- Route voice calls from selected radios, talkgroups, and radio groups
- Route private calls dynamically

The bridging service is supported between digital and analog channels in the following networks:

- IP Site Connect, Extended Range Direct Mode, Capacity Plus, and Linked Capacity Plus over NAI
- Connect Plus

NOTE

The current version of SmartPTT Dispatcher supports only talkgroup calls to and from Connect Plus networks.

12.1 Bridging Configuration Window

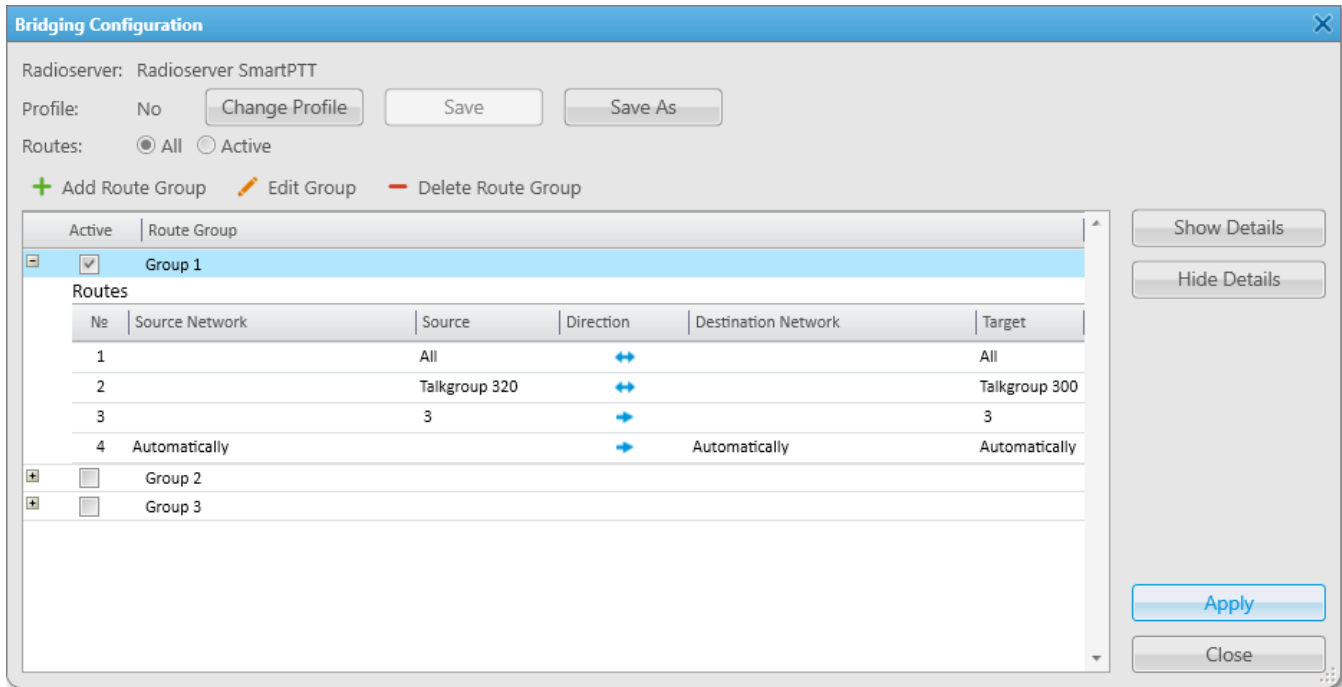
The main idea of bridging configuration in SmartPTT Dispatcher is using of profiles and route groups. Profiles contain information on the bridging rules, which are specified in routes and route groups.

In the **Bridging Configuration** window you can create [routes](#) and [route groups](#), and add them to [profiles](#). Bridging settings can be configured individually for each SmartPTT Radioserver.

NOTE

The **Bridging Configuration** window is available to Administrators, or to Operators with the rights to manage bridging settings. For more information on operator rights, see [Operators](#).

You can open the window by clicking the Action button (>>) next to SmartPTT Radioserver in the [Radio Fleet](#) panel, and selecting **Configure Call Bridging Table**.



The **Bridging Configuration** window provides the following elements:

Radioserver

Name of the current radioserver.

Profile

Name of the current profile. If no profile is applied, the **No** text is displayed. For information on profiles, see [Bridging Profiles Window](#).

All / Active

Displays all or only active route groups in the Route Groups table.

Change Profile

Opens the **Bridging Profiles** window where you can manage profiles. For information on profiles management, see [Adding Profiles](#).

Save

Saves changes of the configuration to the current profile.

Save As

Opens the **Enter Profile Name** window. Saves the current configuration as a new profile.

Add Route Group

Opens the **Add Route Group** window for adding a new route group.

Edit Group

Opens the **Add Route Group** window for editing the selected group.

Delete Route Group

Removes the selected route group from all profiles.

Show Details / Hide Details

Show or hide detailed information on all groups respectively.



Apply

Activates the current profile settings. After activating the profile, the asterisk character (*) appears next to the profile name.

Route Groups table

Contains a list of available routes organized in groups.

The table provides the following elements:

- Expand () or Collapse () controls next to the group name show or hide the group detailed information.

NOTE

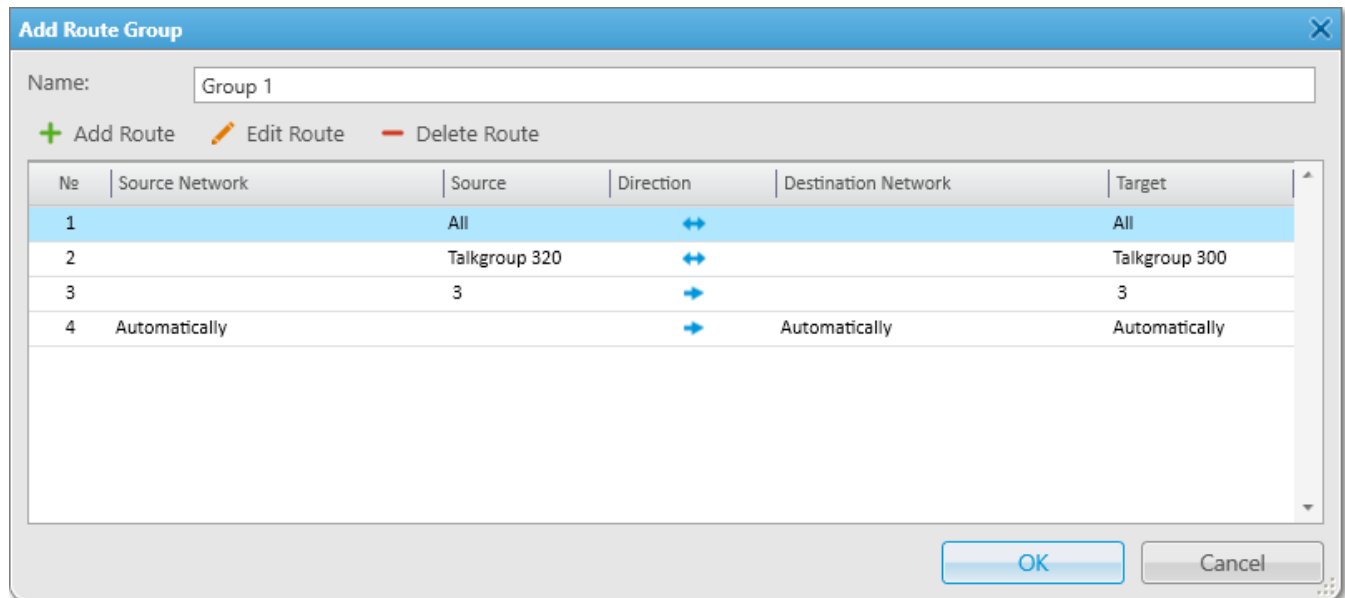
When the group is expanded, it contains the routes added in the [Add Route Group Window](#) window.

- The **Active** column contains the check box to activate or deactivate the desired groups.
- The **Route Group** column contains the route group name.

12.1.1 Add Route Group Window

A route group unites several routes into one group. Route groups provide a neat look to profiles. Route groups can be activated and deactivated for using routes inside these groups.

In the **Add Route Group** window you can [create a new route group](#), or edit the existing group.



The **Add Route Group** window provides the following elements:

Name

Name of a route group.

Add Route

Opens the **Route** window for adding a new route.

Edit Route

The button is available when at least one route is added. Opens the **Route** window of the existing route for editing.

Delete Route

The button is available when at least one route is added. Removes the route from the group.

Routes Table

Contains the added routes. For details, see [Route Window](#).

12.1.2 Route Window

Route is a basic unit of bridging process, and is an integral part of a route group. Routes cannot be used separately from route groups.

In the **Route** window you can create a new route, or edit the existing.

The screenshot shows the 'Route' window with the following configuration:

- Route Number:** 7
- Source Control Station:** Control Station 1
- Route Type:** All
- Destination Control Station:** Control Station 2
- Source:** (Empty text box)
- Direction:** ↔
- Target:** (Empty text box)
- Process Routed Calls:** (Two unchecked checkboxes)

The **Route** window provides the following elements:

Route Number

Contains a unique route number. The box appears at creating a new route.

Source Control Station

Provides the list of available source channels for the route. In the Routes Group table it calls as **Source Network**.

Route Type

Provides the list of route types to configure:

- *All* type for routing all voice calls from the source network to the destination network.
- *Talkgroup* type for routing non-private calls (group calls and All Calls).
- *Radio* type for routing individual calls between subscribers.
- *Dynamic* type for routing radio private calls inside radio groups created in SmartPTT Radioserver Configurator.

Destination Control Station

Provides the list of available destination channels for the route. In the Routes Group tables it calls as **Destination Network**.

Source

Contains a source ID for the route (radio ID, talkgroup ID, or all IDs for All Calls).

Direction

Provides the list of directions for the route.

If one-way direction is selected, only source network can route calls. If two-way direction is selected, both source and destination networks can route calls.

Target

Contains the target ID of the route (radio ID, talkgroup ID, or all IDs for All Calls).

Process Routed Calls

When selected, it provides routing of incoming calls of the channel by another route.

For example, you can add all these routes without the **Process Routed Calls** check box selected:

- IPSC 01 slot 01 ↔ IPSC 02 slot 01
- IPSC 01 slot 01 ↔ IPSC 03 slot 01
- IPSC 01 slot 01 ↔ IPSC 04 slot 01
- IPSC 02 slot 01 ↔ IPSC 03 slot 01
- IPSC 02 slot 01 ↔ IPSC 04 slot 01
- IPSC 03 slot 01 ↔ IPSC 04 slot 01

Or, you can select the check box, and add only three routes:

- IPSC 01 slot 01 ↔ IPSC 02 slot 01
- IPSC 02 slot 01 ↔ IPSC 03 slot 01
- IPSC 03 slot 01 ↔ IPSC 04 slot 01

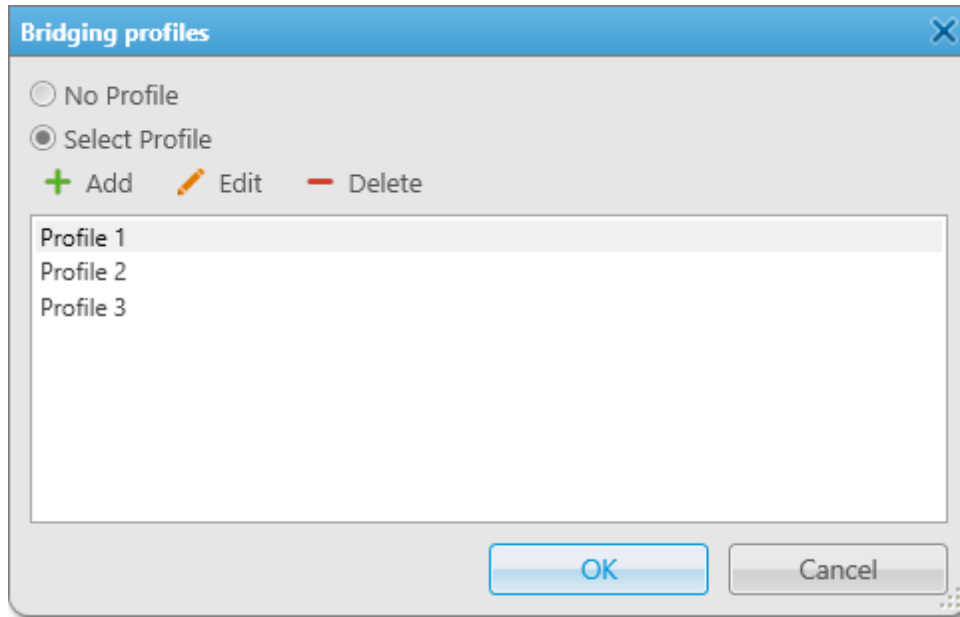
WARNING

Do not use round routes. They can cycle all routes and lead to unstable system operation (for example, IPSC 01 slot 01 ↔ IPSC 04 slot 01).

12.1.3 Bridging Profiles Window

You can use profiles for quick switching between predefined activated route groups. Profiles can be created for general purposes, for carrying out engineering work, for emergency situations, etc.

In the **Bridging Profiles** window you can [manage profiles](#) (add, rename, delete, and switch between them). The window appears by clicking **Change Profile** in the **Bridging Configuration** window.



The **Bridging Profiles** window provides the following elements:

No Profile

When selected, the created groups have no reference to a specific profile. The profile list and buttons for profile edition become unavailable.

Select Profile

When selected, the profile list is available for editing, and route groups can be assigned to the selected profile.

Add

Opens the **Enter Profile Name** window for adding a new profile.

Edit

Opens the **Enter Profile Name** window for renaming the existing profile.

Delete

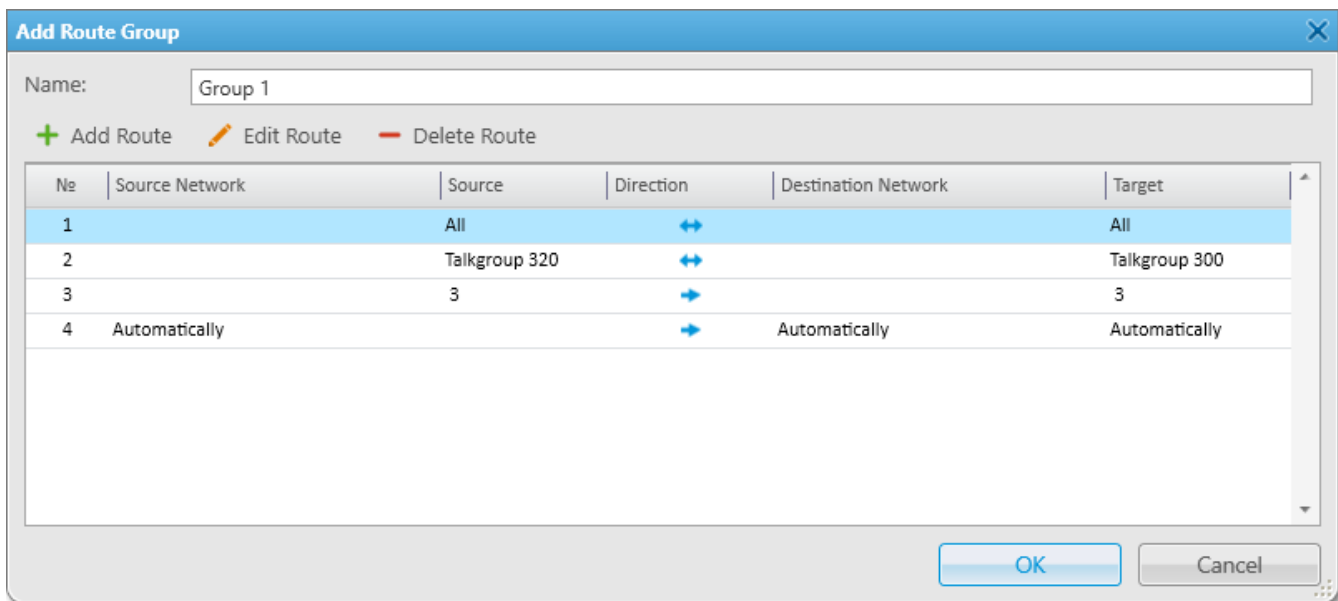
Removes the selected profile.

12.2 Adding Route Groups

Follow the procedure below to add a route group.

Procedure:

1. In the **Bridging Configuration** window, click **Add Route Group**.
The **Add Route Group** window appears.



2. In the **Name** box, type the group name.
3. Add the desired routes to the group depending on the call types:
 - To route any type of voice calls, see [Configuring All Routes](#).
 - To route group calls and All Calls, see [Configuring Non-Private Routes](#).
 - To route individual calls only, see [Configuring Private Routes](#).
 - To route private voice calls initiated and received by radios included in the radio group, see [Configuring Dynamic Routes](#).
4. Click **OK** to apply changes and close the window.

Postrequisites:

- To edit the route group, in the **Bridging Configuration** window, select the desired group, and then click **Edit Group**.
- To delete the route group, in the **Bridging Configuration** window, select the desired group, and then click **Delete Group**.

12.2.1 Configuring All Routes

Follow the procedure below to route all voice calls from the source network to the destination network.

Prerequisites:

Ensure that the desired networks are configured in SmartPTT Radioserver Configurator.

Procedure:

1. In the **Bridging Configuration** window, click **Add Route Group**.
The **Add Route Group** window appears.
2. In the **Add Route Group** window, click **Add Route**.
The **Route** window appears.
3. In the **Route** window, in the **Route Number** box, type a unique route number.
4. From the **Route Type** list, select **All**.
5. From the **Source Control Station** list, select the desired source channel.
6. From the **Destination Control Station** list, select the desired destination channel.
7. From the **Direction** list, select one-way or two-way direction.
8. *Optional:* Select the **Process Routed Calls** check box to route incoming calls by another route.
9. Click **OK** to apply changes and close the window.

Postrequisites:

- To edit the route, in the **Add Route Group** window, select the desired route, and then click **Edit Route**.
- To delete the route, in the **Add Route Group** window, select the desired route, and then click

Delete Route.

12.2.2 Configuring Private Routes

Follow the procedure below to route individual radio calls.

Important

Private calls cannot be routed in networks with control stations.

Prerequisites:

- Ensure that the desired networks are configured in SmartPTT Radioserver Configurator.
- Obtain the desired radio ID from the source network.

Procedure:

1. In the **Bridging Configuration** window, click **Add Route Group**.
The **Add Route Group** window appears.
2. In the **Add Route Group** window, click **Add Route**.
The **Route** window appears.
3. In the **Route** window, in the **Route Number** box, type a unique route number.
4. From the **Route Type** list, select **Radio**.
5. From the **Source Control Station** list, select the desired source channel.
6. From the **Destination Control Station** list, select the desired destination channel.
7. In the **Source** box, type the radio ID from the source network.

NOTE

The **Target** box is unavailable when you configure individual radio calls.

8. From the **Direction** list, select one-way or two-way direction.
9. *Optional:* Select the **Process Routed Calls** check box to route incoming calls by another route.
10. Click **OK** to apply changes and close the window.

Postrequisites:

- To edit the route, in the **Add Route Group** window, select the desired route, and then click **Edit Route**.
- To delete the route, in the **Add Route Group** window, select the desired route, and then click **Delete Route**.

12.2.3 Configuring Non-Private Routes

Follow the procedure below to route group calls or All Calls.

Prerequisites:

- Ensure that the desired networks are configured in SmartPTT Radioserver Configurator.
- Obtain the desired source and destination talkgroup IDs.

Procedure:

1. In the **Bridging Configuration** window, click **Add Route Group**.
The **Add Route Group** window appears.
2. In the **Add Route Group** window, click **Add Route**.
The **Route** window appears.
3. In the **Route** window, in the **Route Number** box, type a unique route number.
4. From the **Route Type** list, select **Talkgroup**.
5. From the **Source Control Station** list, select the desired source channel.
6. From the **Destination Control Station** list, select the desired destination channel.
7. Depending on the call type, in the **Source** box, type the source ID:
 - To route a group call, type the source talkgroup ID.
 - To route All Call, type *0*.
8. Repeat [step 7](#) for the destination ID in the **Target** box.
9. From the **Direction** list, select one-way or two-way direction.

10. *Optional:* Select the **Process Routed Calls** check box to route incoming calls by another route.
11. Click **OK** to apply changes and close the window.

Postrequisites:

- To edit the route, in the **Add Route Group** window, select the desired route, and then click **Edit Route**.
- To delete the route, in the **Add Route Group** window, select the desired route, and then click **Delete Route**.

12.2.4 Configuring Dynamic Routes

Follow the procedure below to route private voice calls initiated and received by radios included in the radio group.

Important

Private calls cannot be routed in networks with control stations.

Prerequisites:

Ensure the radio group is added in SmartPTT Radioserver Configurator.

For details, see "Radio Groups" in *SmartPTT Radioserver Configurator Guide*.

NOTE

Do not confuse radio groups (created in SmartPTT Radioserver Configurator) and talkgroups (radio system entities which are set in radio codeplugs).

Procedure:

1. In the **Bridging Configuration** window, click **Add Route Group**.
The **Add Route Group** window appears.
2. In the **Add Route Group** window, click **Add Route**.
The **Route** window appears.
3. In the **Route** window, in the **Route Number** box, type a unique route number.
4. From the **Route Type** list, select **Dynamic**.
5. In the **Subscriber Group** box, select the desired radio group.

6. From the **Direction** list, select any direction, because connection between subscribers occurs within the subscriber group.
7. Click **OK** to apply changes and close the window.

Postrequisites:

- To edit the route, in the **Add Route Group** window, select the desired route, and then click **Edit Route**.
- To delete the route, in the **Add Route Group** window, select the desired route, and then click **Delete Route**.

12.3 Configuring Profiles

12.3.1 Adding Profiles

Follow the procedure below to save the current configuration as a new profile.

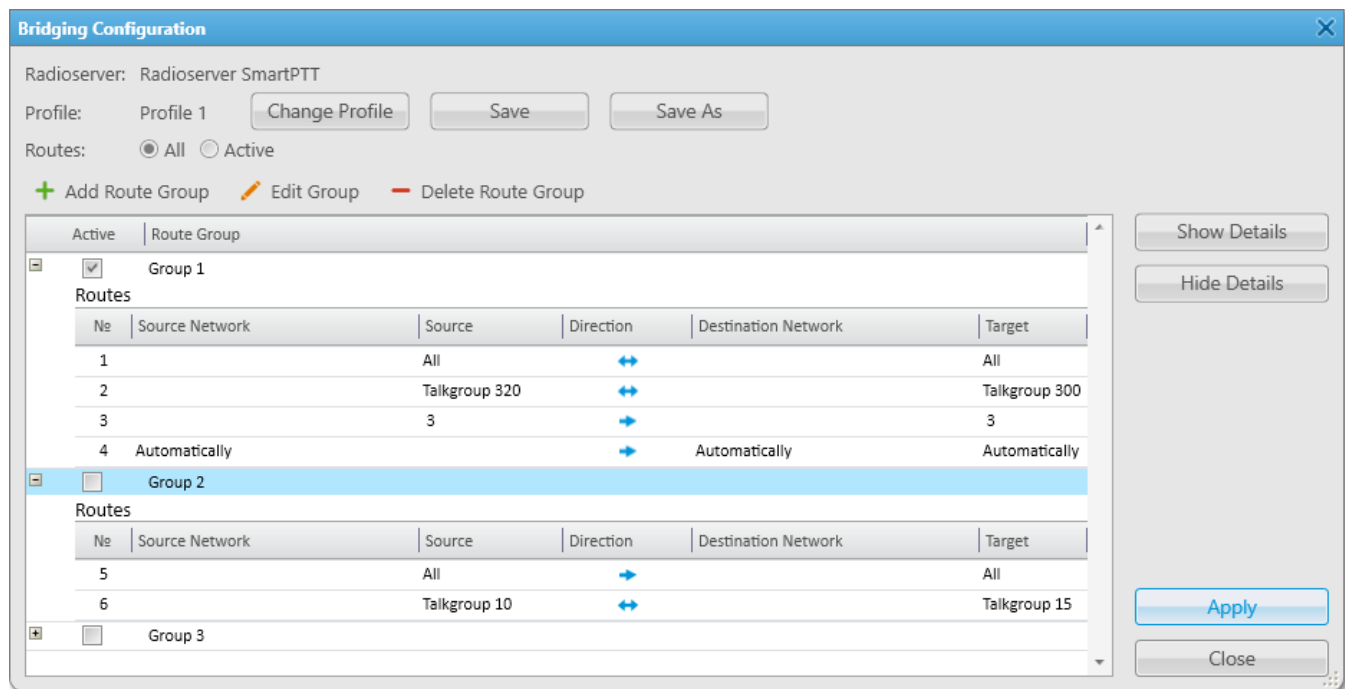
Prerequisites:

Ensure you added the desired route groups.

For details, see [Adding Route Groups](#).

Procedure:

1. In the **Bridging Configuration** window, in the Route Groups table, select the **Active** check boxes next to the desired route groups.
2. *Optional:* On the right of **Routes**, click **All** or **Active** to display all or only active route groups.



3. Save the configuration as a new profile:
 - a. In the **Bridging Configuration** window, click **Save As**.
The **Enter Profile Name** window appears.

- b. In the **Profile Name** box, type the desired profile name.
 - c. Click **OK** to apply changes and close the window.
The saved profile configuration opens.
4. To activate the profile settings, click **Apply**.
The asterisk character (*) appears next to the profile name.

12.3.2 Managing Profiles

Follow the procedure below to switch, rename, or delete the profile.

Procedure:

1. In the **Bridging Configuration** window, click **Change Profile**.
The **Bridging Profiles** window appears.
2. Click **No Profile** or **Select Profile** for managing groups by using profiles.

3. If **Select Profile** is selected, in the **Bridging Profiles** window, perform one of the following actions:

To switch between profiles,

perform the following actions:

1. Select the desired profile from the list.
2. Click **OK**.
The selected profile configuration opens.

To rename the profile,

perform the following actions:

1. Select the desired profile from the list, and click **Edit**.
2. In the open **Enter Profile Name** window, type a new name for the profile.
3. Click **OK** to apply changes and close the window.

To delete the profile,

perform the following actions:

1. Select the desired profile from the list, and click **Delete**.
2. In the open confirmation window, click **OK**.

-
4. In the **Bridging Profiles** window, click **OK** to apply changes and close the window.

13 Help

The **Help** menu provides the following elements:

Help

Contains information on the system objects and functionality. You can also open the SmartPTT Help file any time by pressing F1.

About

Contains information on the application version, license, and the third-party software used in development process.

Check for Updates

Opens the **Dispatcher Application Update** window to check any available updates for SmartPTT Dispatcher.

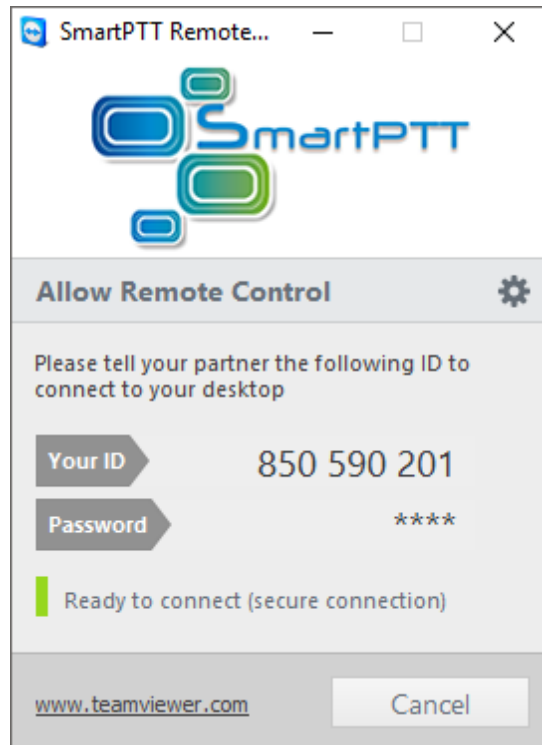
For information on configuring downloading updates, see [General Settings](#).

14 Remote Assistance


SmartPTT contains Remote Assistance program which provides the remote access to your computer for SmartPTT technical support engineer. Using this program he can resolve technical issues on your computer.

To use Remote Assistance program, follow these steps:

1. Run *Remote Assistance*.
2. Contact technical support engineer and pass your ID and password to it.



3. When the connection is established, you will see session window on the screen.
4. *Optional:* To communicate with the engineer, use the chat function.

To stop the session, click **Close** ().