



Version 9.3

# SmartPTT PLUS

## Dispatcher User Guide

May 2018



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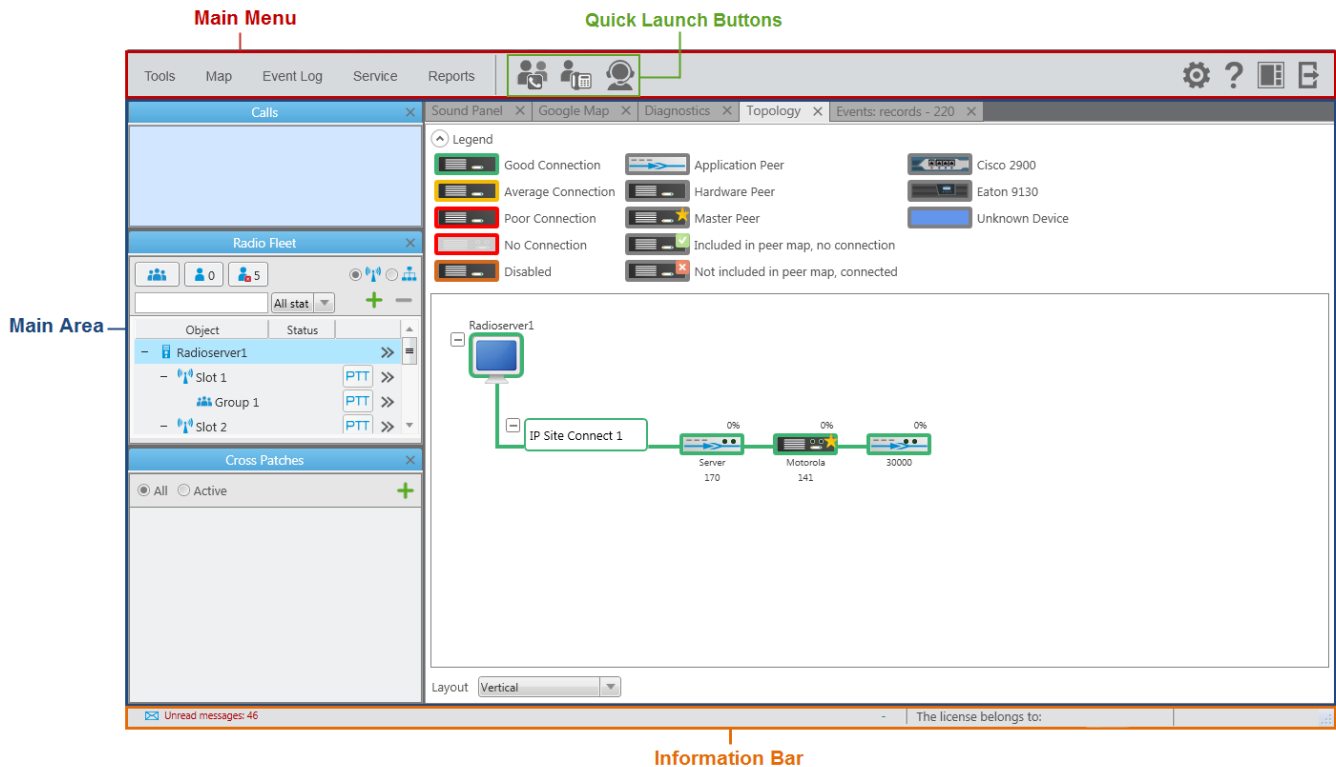
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# 1 SmartPTT Dispatcher Interface



SmartPTT Dispatcher interface can be divided into the following sections:

- **Main Menu** which also contains Quick Launch Buttons
- **Main Area**
- **Information Bar**

## Main Menu

The **Main 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 more information about this function, 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 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 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 more information, 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.

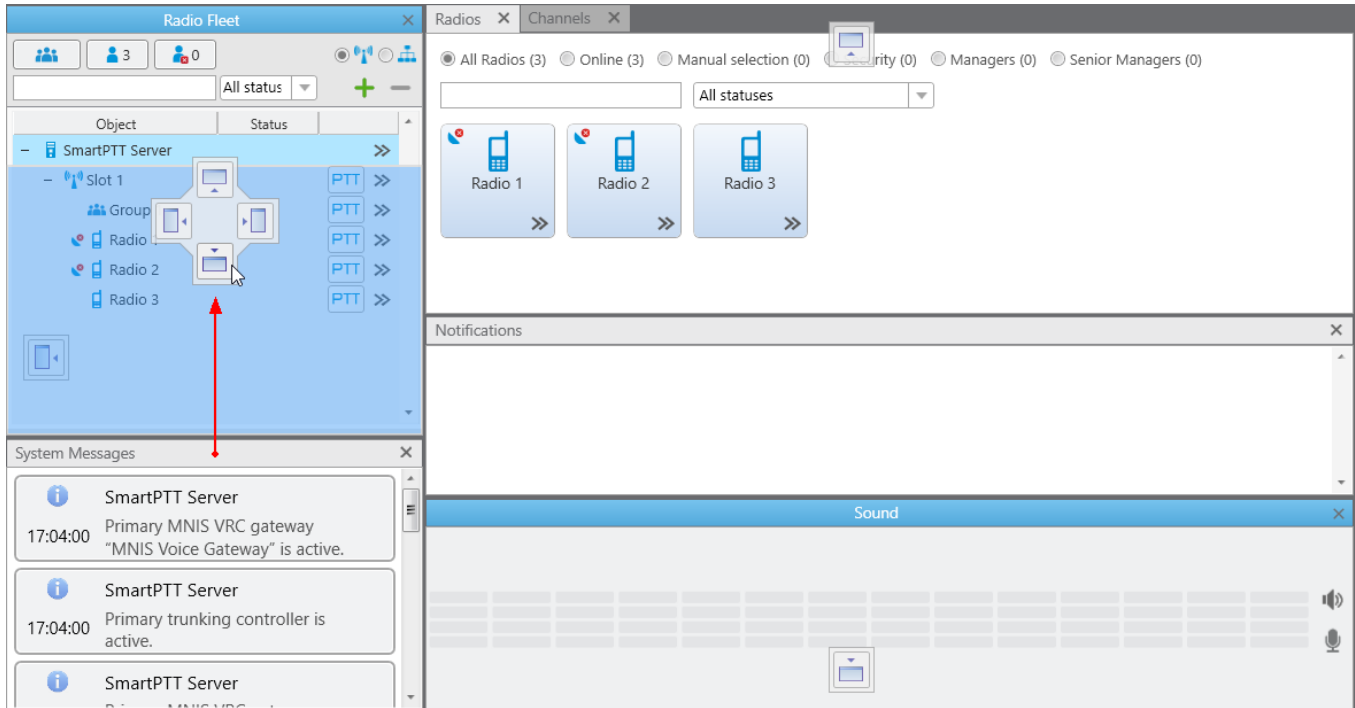
## Information Bar



The **Information Bar** was 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.

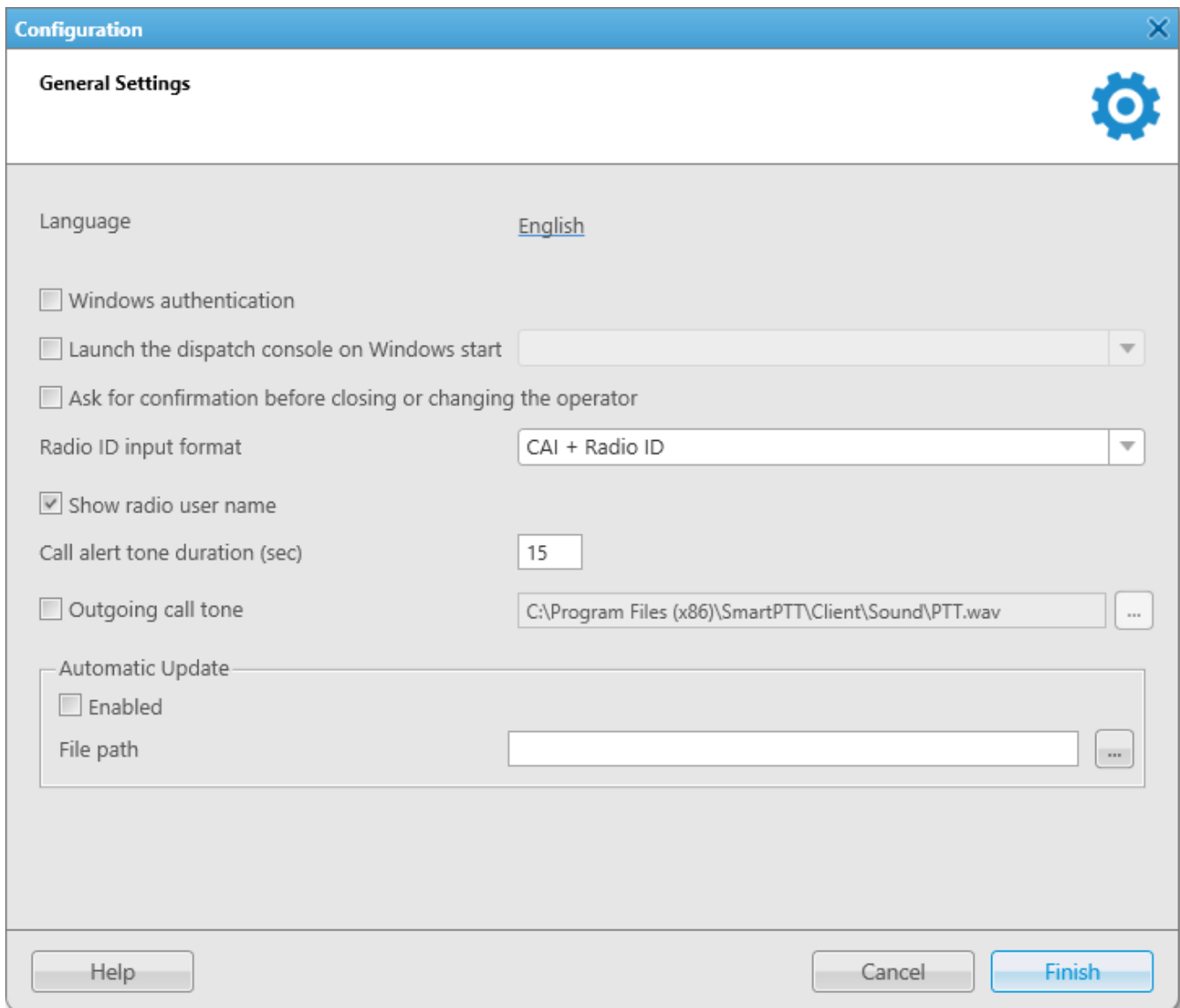
- In [Dispatchers](#) you can add other dispatchers and configure parameters of your own dispatcher console.
- In [Rules and Alerts](#) you can set rules based on general events.
- In [Positioning Rules](#) you can set rules based on GPS and Indoor data.
- In [Licenses](#) you can install licenses.
- 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 set the settings, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **Interface** → **General Settings**. The following 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** field 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

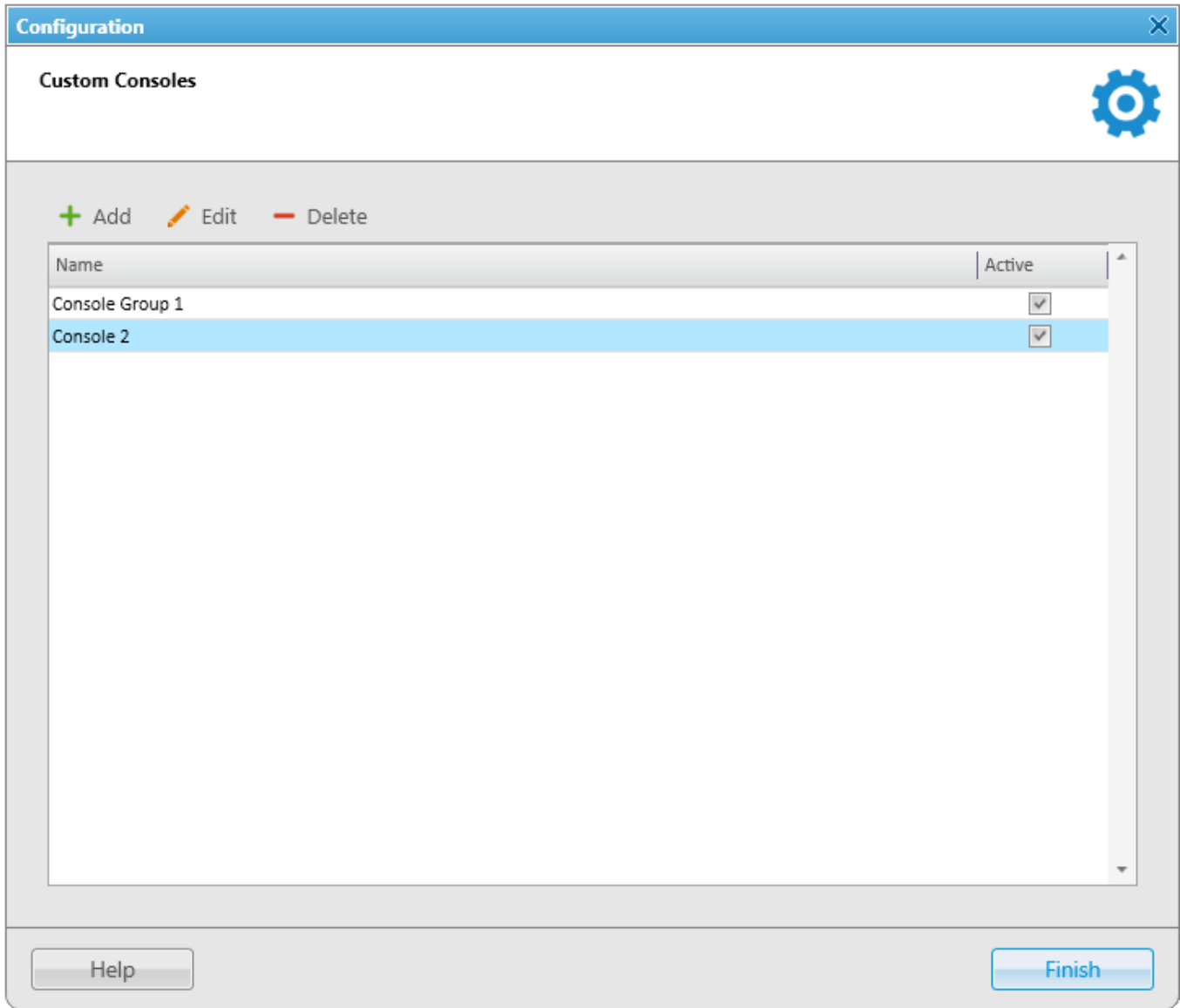
**Custom Console** is a tool that provides the dispatcher with custom workplace. Custom consoles are visual panels containing various elements, e.g. radios, [WAVE users](#), external dispatchers, talkgroups, in short, everything the dispatcher need for daily work.

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

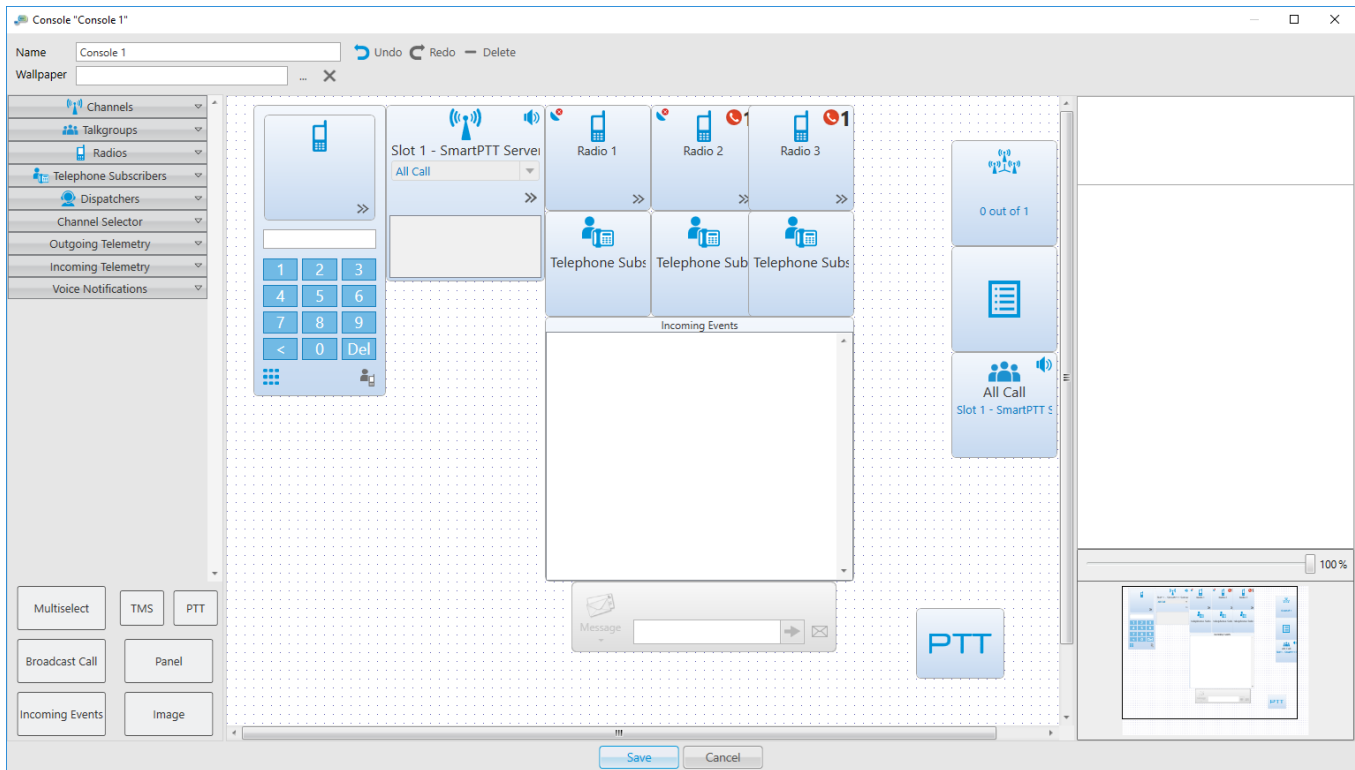
**NOTE**

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 on the corresponding elements of custom console the name of the user authorized on the radio is displayed next to the radio name in brackets.

To create and set up a custom console, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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.

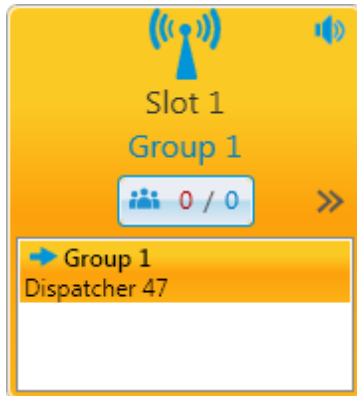
**Wallpaper:** Allows you to select an image for the background of the console. The supported formats are BMP, JPG, PNG.

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.

To open the [Actions list](#) which can be applied to an element, click .

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.



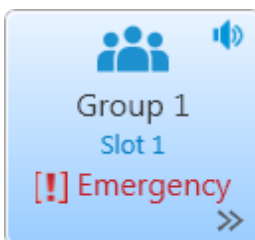
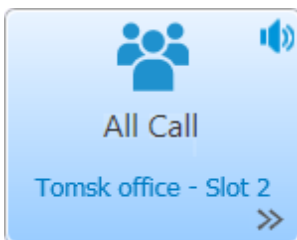
**Missed (Dispatcher):** Filters only private calls not answered by the dispatcher.

**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.

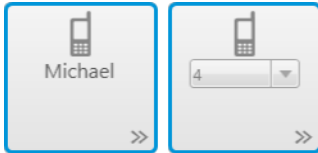
To open the [Actions list](#) which can be applied to an element, click >>.

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.

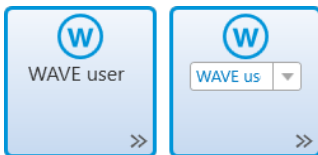
You can mute the group call by clicking on the **Mute** icon. The element also shows the state of the current call.

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.

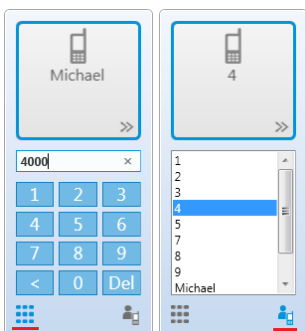
- The **Radio** element for an optional radio or WAVE user – is used to call the radio or the WAVE user that can be selected using dial pad or list of radios and WAVE users on the element.

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 field 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.

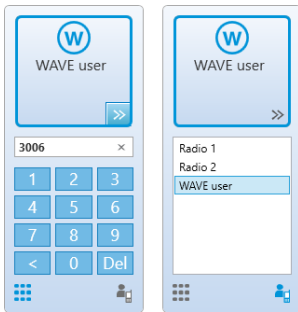
The **Radio** element shows the radio or the WAVE user name or its **Radio ID**, if name is not specified.

-  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 List** of a radio or a WAVE user which can be applied to an element, click .

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.

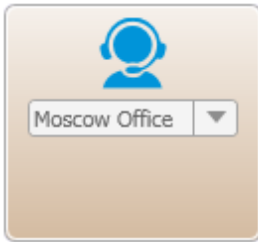
You can assign the element to different telephone subscribers from the drop-down list. To enable this option, select the **Allow Changes** check box in the **Properties** section.

#### 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.

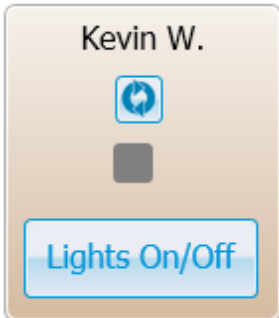
### NOTE

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).

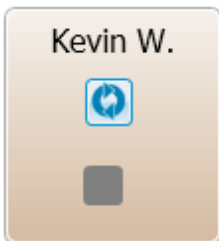
To configure this functionality in SmartPTT Dispatcher, add the **Channel Selector** element into the console designer work space. One element can be assigned to one channel. To allow switching between channels, you should add the required number of elements.

## 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.

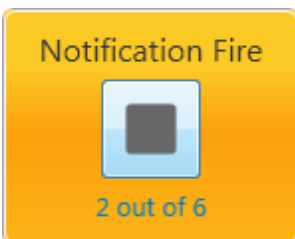
## Voice Notification



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.

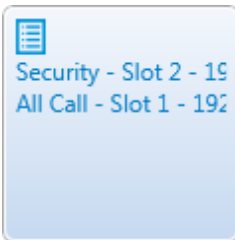
### NOTE

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.

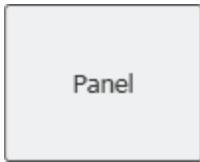
To edit the **Multiselect** list, click the **Edit list** button  in the opened custom console.

## Broadcast Call



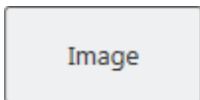
The **Broadcast Call** element is used for making group calls or an All Call within all the channels of the dispatch console simultaneously. Select the required talkgroup or All Call ID in the **Talkgroup ID** field of the **Properties** section. When such a call is initiated, SmartPTT Dispatcher tries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

## Panel



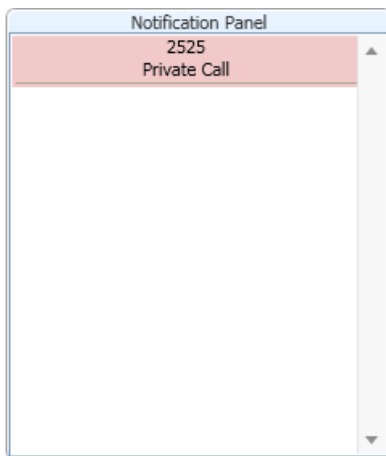
The **Panel** element is used for uniting several elements. The panel can have its own color, size and placement. All inside elements of one panel are moved together with the panel.

## Image



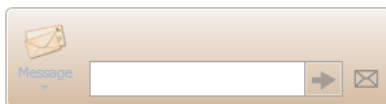
The **Image** element is used for adding logos and other images to the custom console. You can select the image file under the **Properties** section on the right. The supported formats are .bmp, .jpg, .png.

## 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




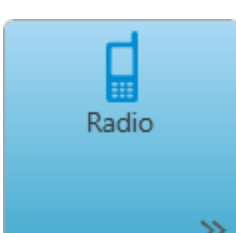
The **TMS** element is used for sending short text messages to all radios or talkgroups situated in one panel with the **TMS** element. To do this, just enter the text of the message or select a template and send it. If the **TMS** element is placed outside a panel, it will send private messages. To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

**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><b>Grey:</b> A radio or a WAVE user is offline or outside the network coverage</p>
	<p><b>Light-blue:</b> 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><b>Light-orange:</b> An outgoing call attempts or a radio or a WAVE user is in queue</p>
	<p><b>Orange:</b> All outgoing radio or WAVE user calls</p>


Element	Description
 <p>A green square icon with a white radio handset symbol in the center. Below the symbol is the word "Radio" in white. In the bottom right corner, there are two white right-pointing chevrons (»).</p>	<p><b>Green:</b> All incoming radio or WAVE user calls or a radio or a WAVE user 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>A blue square icon with a white radio handset symbol in the center. Below the symbol is the word "Radio" in white. In the bottom right corner, there are two white right-pointing chevrons (»).</p>	<p><b>Blue:</b> 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.

## 2.1.3 Call Windows Settings

To configure the parameters of **Call Window**, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings (⚙)** menu and select **Interface** → **Call Windows**. The configuration window opens 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 field, 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**).

**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.

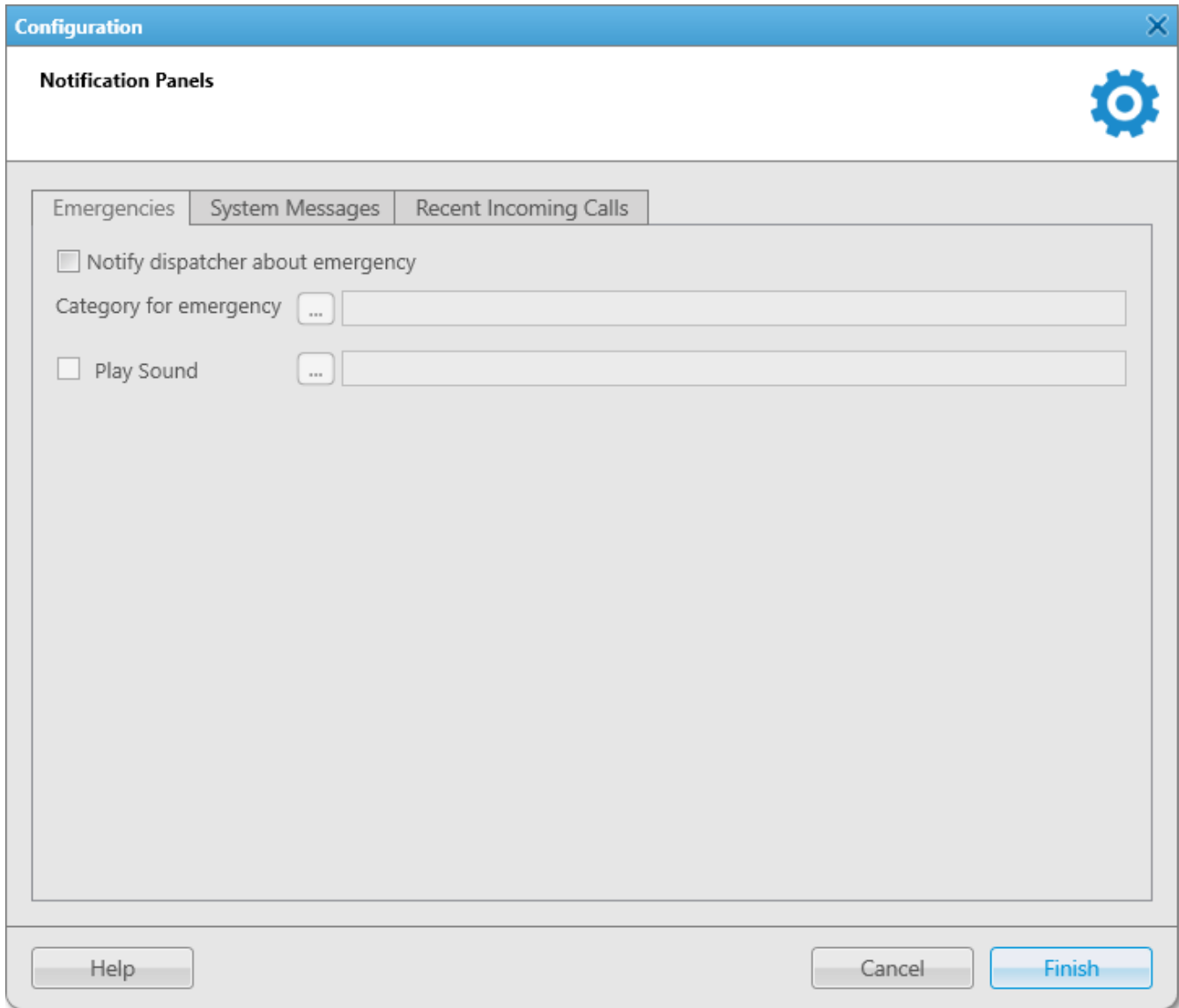
## 2.1.4 Notification Panels

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

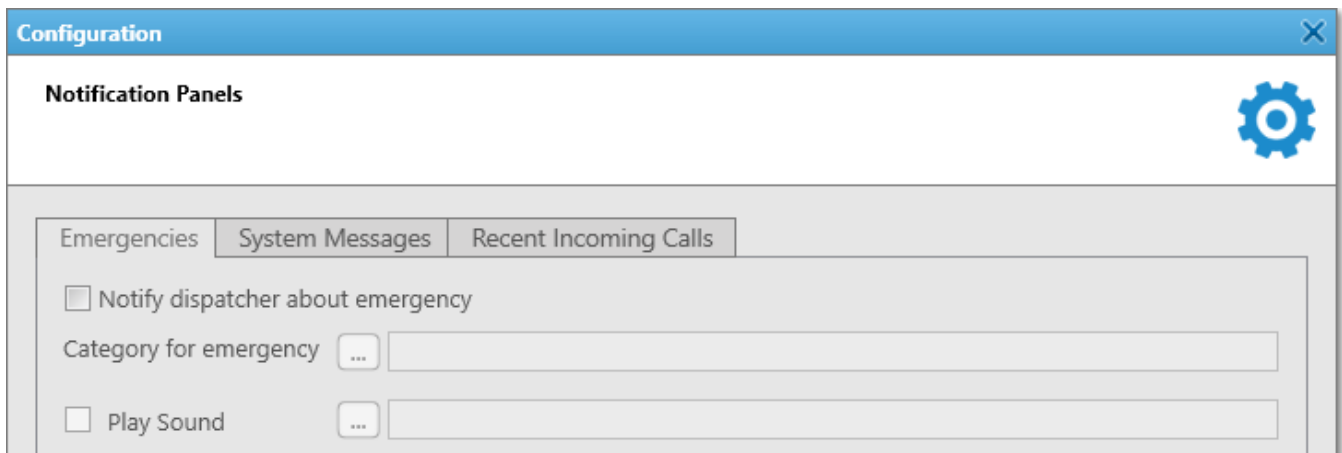
- Settings for the [Emergencies](#) panel
- [System message](#) settings
- [Recent Incoming Calls](#) settings



To open the **Notification Panels** window, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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](#)).

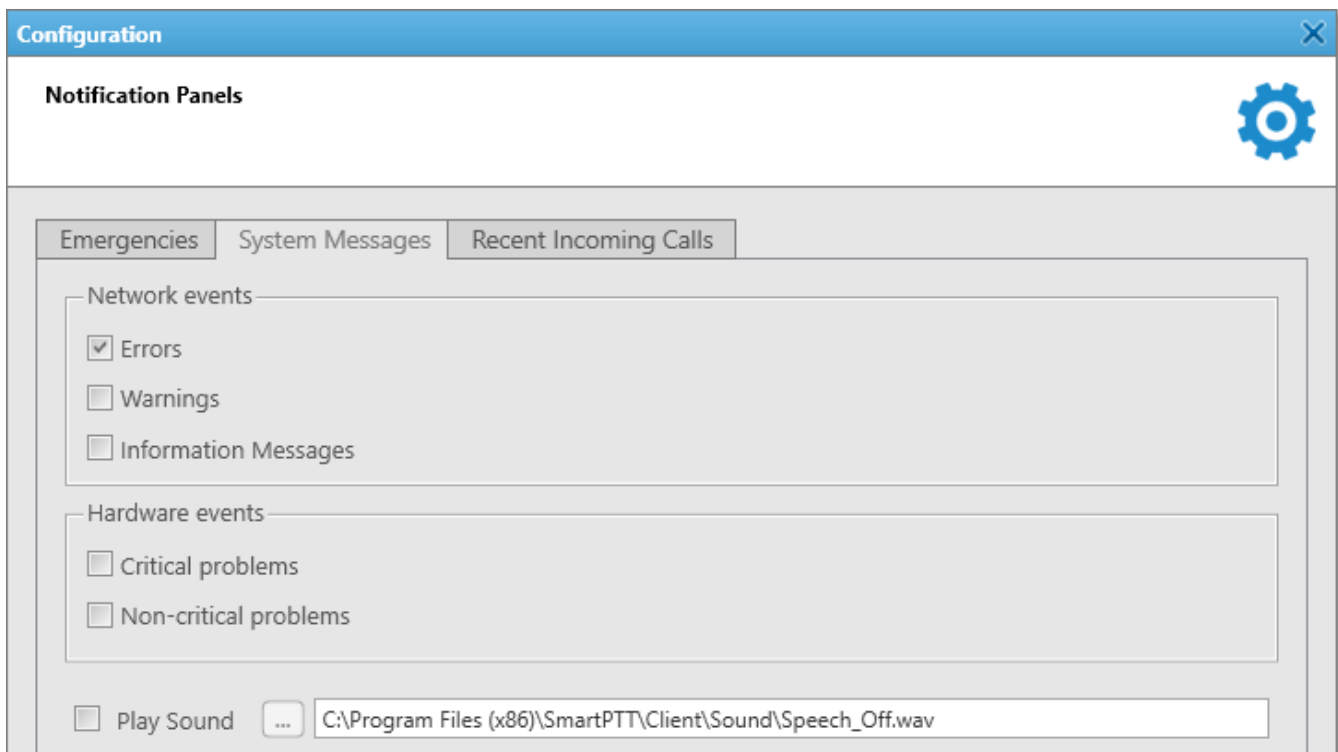
**Play Sound File:** Click **Browse**  to select the audio file, which should be played at the emergency situation.

### NOTE

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

## System Messages

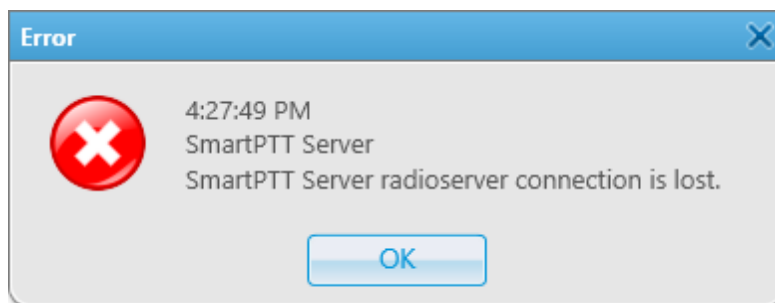
You can configure the opening of the [System messages](#) panel where all system messages appear.



### 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.

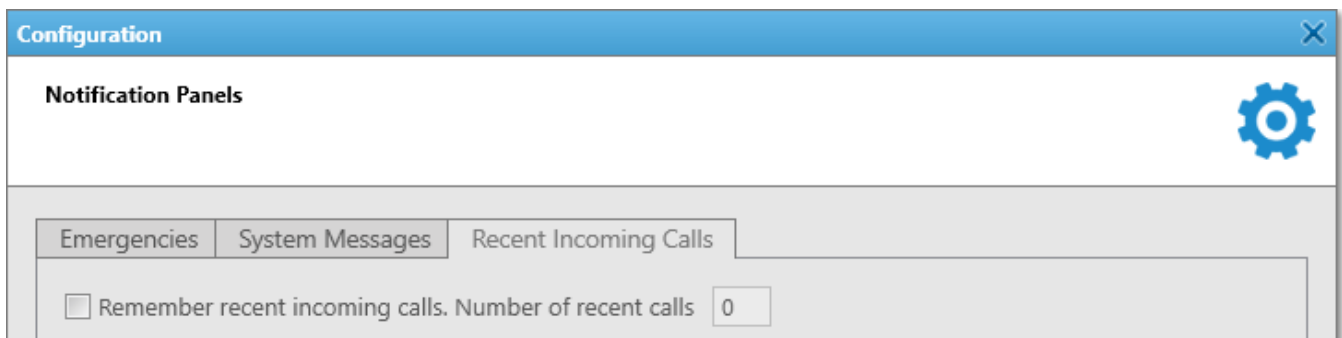
If you do not select some of the check boxes in the **Network or Hardware events** area, system messages appear in the **System messages** panel in any case. But if the panel is closed, it does not open automatically with the appeared corresponding message.

### 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](#).

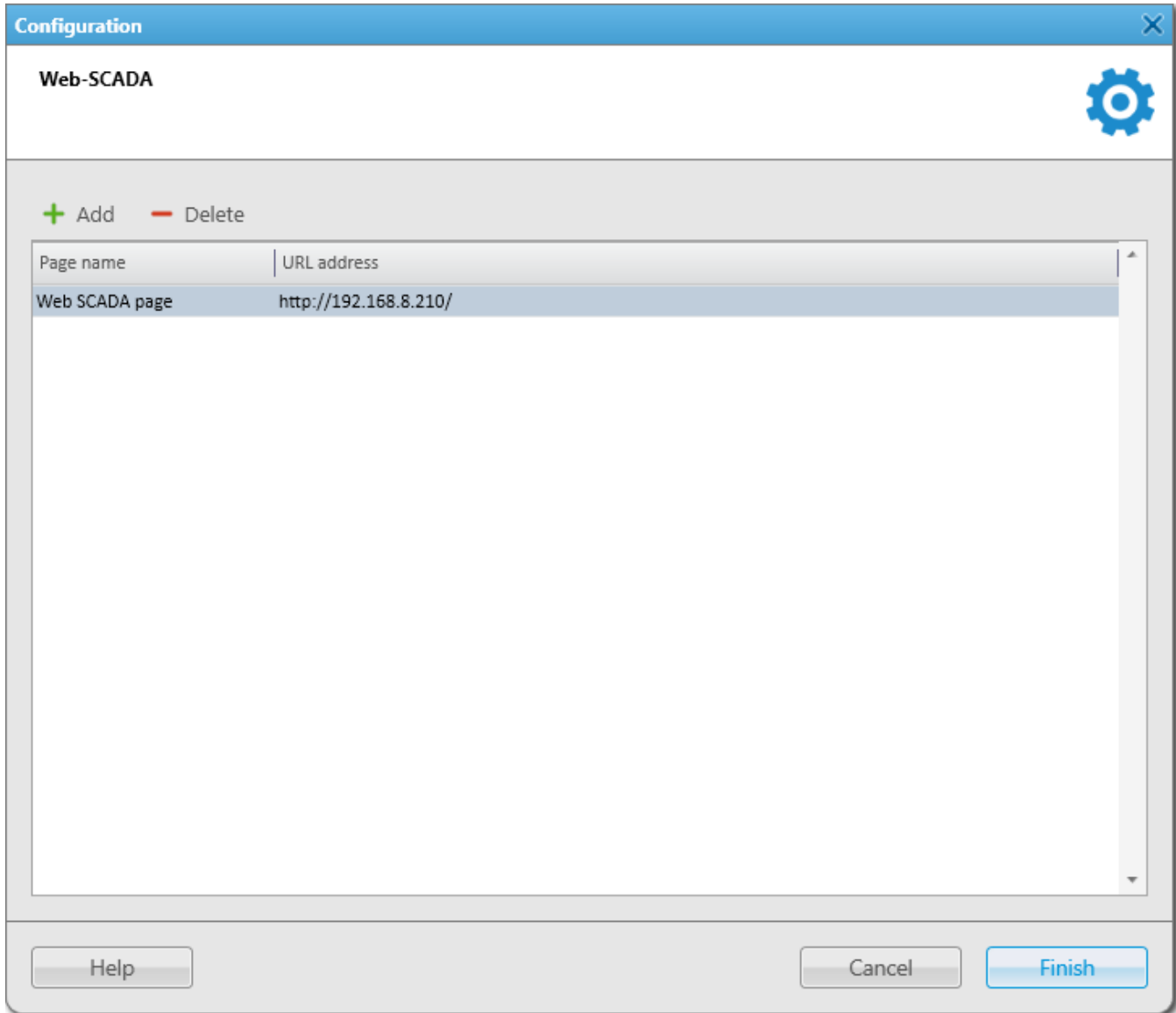
The screenshot displays the 'Dispatcher - Administrator' window with the 'Web SCADA page 1' active. The interface is divided into several sections:

- Radio Fleet:** A sidebar on the left showing a tree view of the radio server structure, including 'SmartPTT Radio Server', 'Slot 1', 'Group 1', and three individual radio units.
- Monitoring Panel:** The main area shows a schematic of an 'Electrical substation' with 'High voltage lines 10kV'. It features two input monitoring sections:
  - Input #1:** Includes a 'Select Input #1' button, a voltage gauge showing '0.00 V', and gauges for 'Active power' (0.00 MW) and 'Reactive power' (0.00 MVAR).
  - Input #2:** Includes a 'Select Input #2' button, a voltage gauge showing '0.00 V', and gauges for 'Active power' (0.00 MW) and 'Reactive power' (0.00 MVAR).
- Security Alarm System:** Located at the bottom right, it includes a 'Guard On' indicator, an 'ARM' button, and an 'Alarm' indicator.
- Status Bar:** A green bar at the bottom displays system statistics: '© Elcomplus | WebSockets status: Open | TX: 0 | RX: 0 | Sporadic: 0 | Commands: 0'.

## 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 from the **Interface** menu by clicking **Settings** (⚙).



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 opens.
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 Control Devices

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

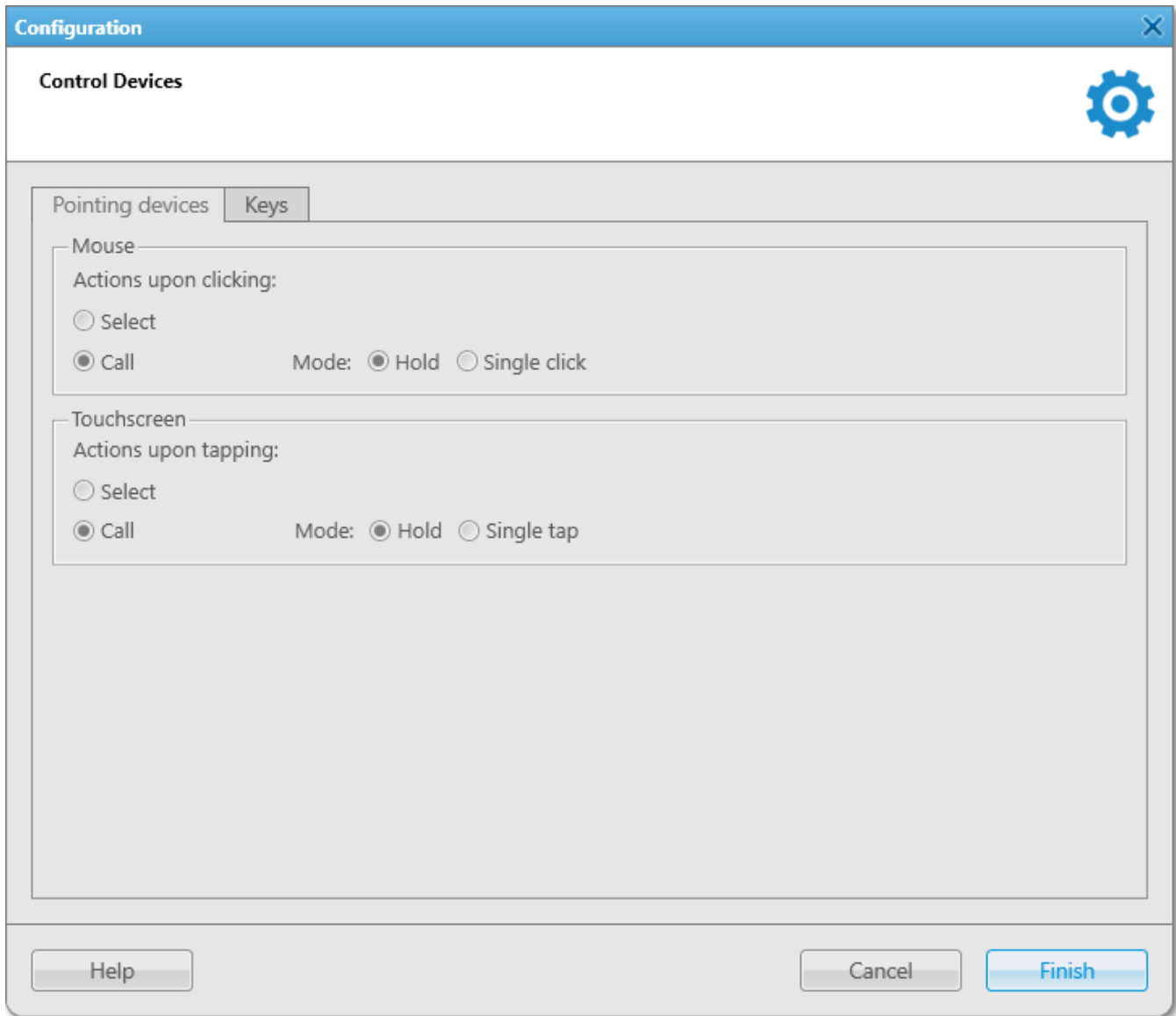
- Configure actions on clicking or tapping the PTT button or Call Tiles using a mouse or a touchscreen.
- Assign the desired keys or buttons to the desired system objects and actions as hotkeys

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

- **Pointing devices** tab

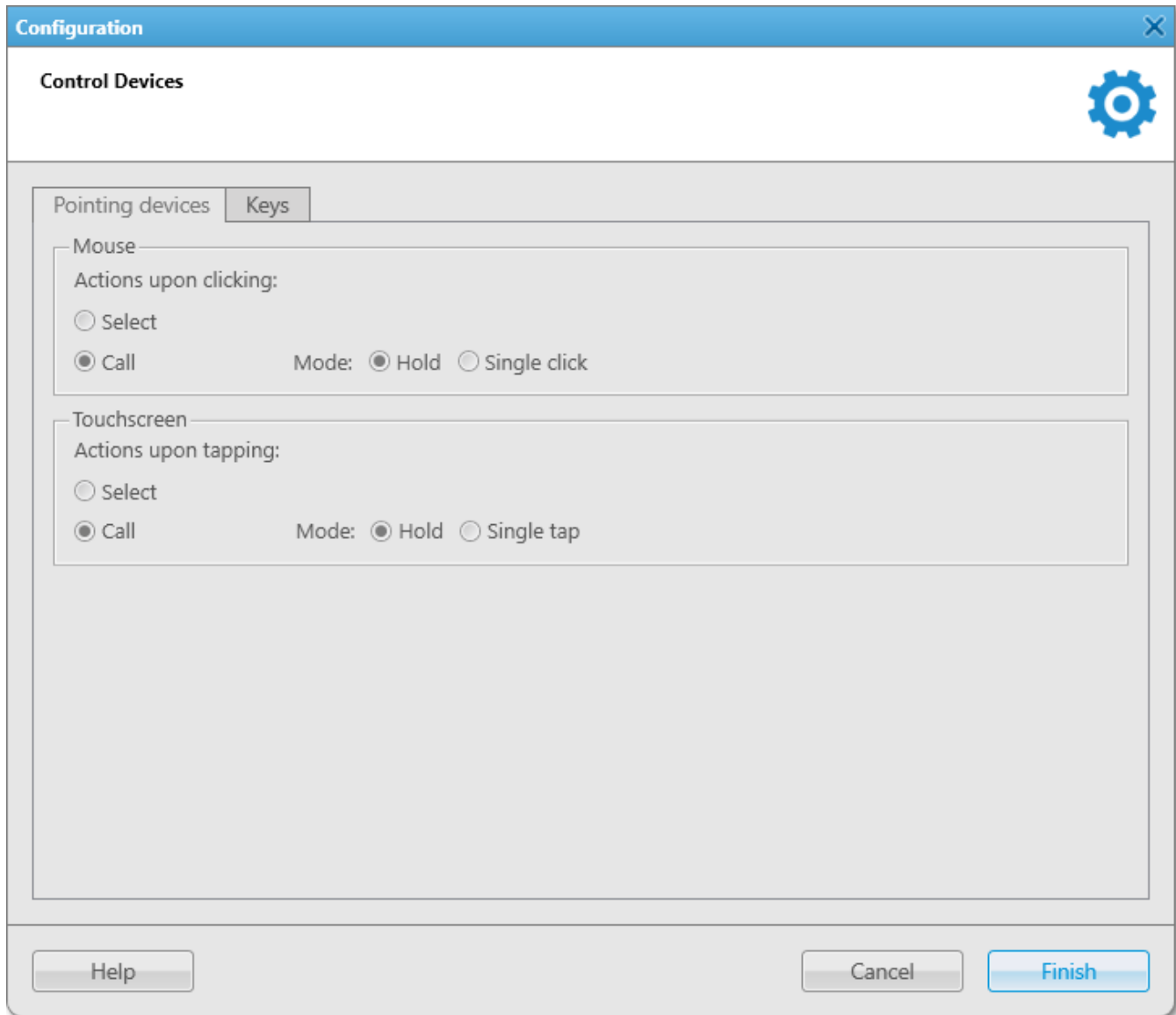


- **Keys** tab



## 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 button**

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

**NOTE**

Selected call element has a blue frame.

**Call button**

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

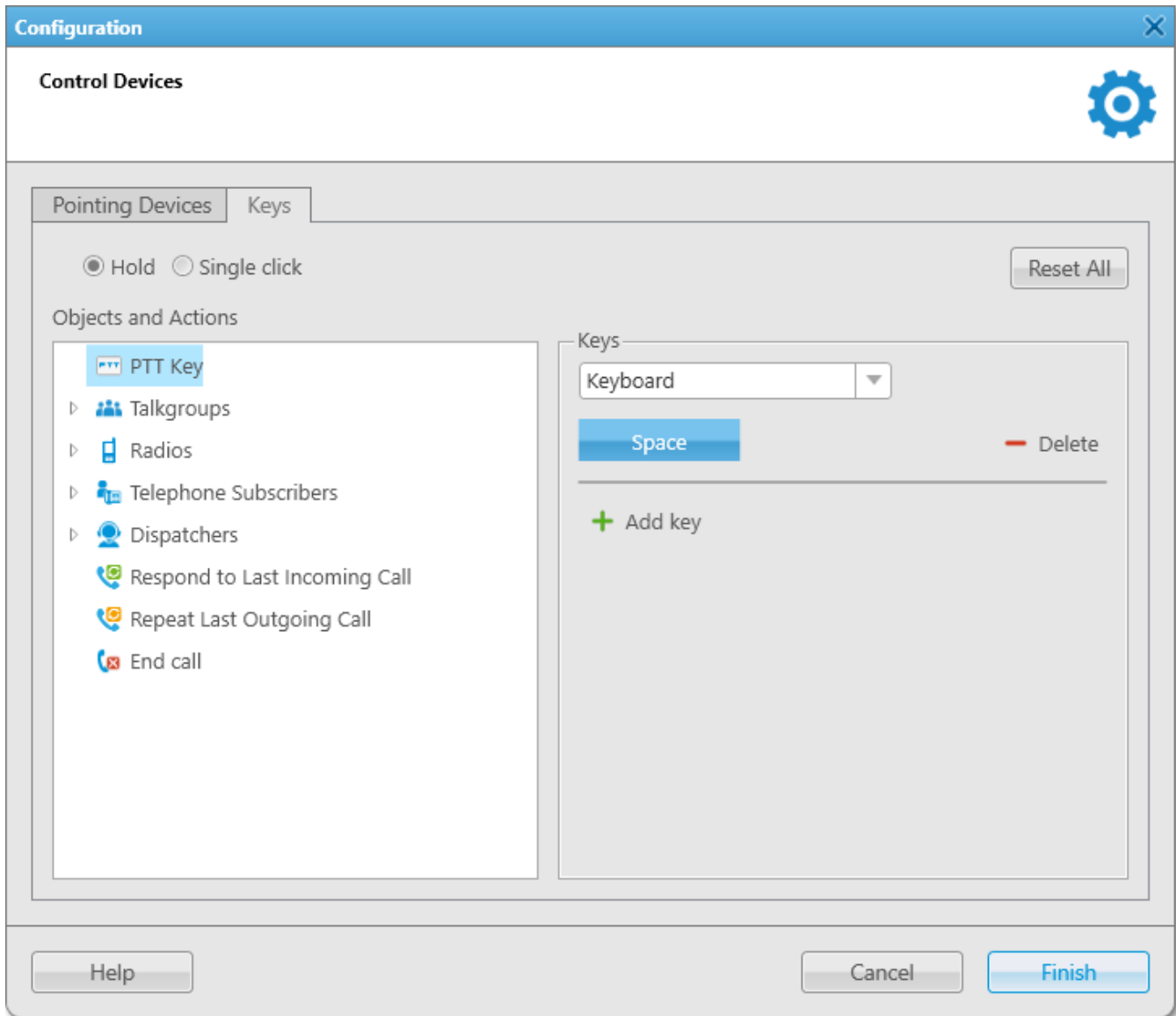
The button also provides you access to the controls that affect a call initiating:

**Hold button** if the button is selected, the call element should be pressed/tapped and held to initiate and continue a call.

**Single click/tap button** If selected, the call element should be clicked/tapped to initiate and continue a call.

## Keys Tab

In the **Keys** tab, you can add hotkey entries and assign hotkeys to system objects and actions. The hotkeys can be used to initiate calls and perform actions.



You can add any amount of hotkey entries on which hotkeys are assigned, but for each entry a unique hotkey should be used.

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

- **Escape**, **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 button**

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

#### **Single click button**

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

#### **Reset All button**

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

#### **Objects and Actions box**

Displays all objects and actions for which you can add the hotkey entries 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 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 entry. By default it is the only element of all objects and actions except PTT key.

**Hotkey entry**

An entry that provides controls for configuring a hotkey. Appears after pressing the **Add key** button. Provides you the following controls:

- **Delete** button that deletes the hotkey.
- Input Devices list from which you can select the desired input device.
- **Assign Hotkey** button that you can use for assigning hotkeys.

The Input Devices list provides several types of input devices which you can select for assigning 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.

### 2.2.1.1 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. Open the **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.

### 2.2.1.2 Managing Hotkeys

#### 2.2.1.2.1 Adding Hotkey Entries

Follow the procedure below to add a hotkey entry to the desired object or action.

**Procedure:**

1. Open the **Settings ( ⚙ )** → **Equipment** → **Control Devices** window.
2. Open the **Keys** tab.
3. In the **Object and Actions** area, select the desired object or action:
  - To add a hotkey entry for the PTT button, click the **PTT key** option.
  - To add a hotkey entry for an action, click the desired action.
  - To add a hotkey entry for initiating a call to a talkgroup, follow these steps:
    - a. Expand the **Talkgroups** → **<radio server name>** → **<channel name>** node.
    - b. Click the desired talkgroup.
  - To add a hotkey entry for a channel, follow these steps:

- a. Expand the **Talkgroups** → <radio server name> node.
  - b. Click the desired channel.
- To add a entry for initiating a call to a radio, a telephone subscriber, or a dispatcher, follow these steps:
    - a. Expand the <object type> node.
    - b. Click the desired object.

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

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

### Postrequisites:

To assign a hotkey, see [Assigning Hotkeys](#).

## 2.2.1.2.2 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. Open the **Settings (⚙)** → **Equipment** → **Control Devices** window.
2. Open the tab.
3. Select the mode for hotkeys (hold or single click).
4. In the **Objects and Actions** select the desired object or action.
5. From the Input Devices list of the hotkey elements, select the desired input device:



- To use a keyboard, select the **Keyboard** item.



- To use external device connected using USB port, follow these steps:
    - a. Select the **Input Device (HID)** item.  
List of available USB devices appears next to the Input Devices list.
    - b. From the appeared list, select the desired USB device.
  - To use external device connected using COM port, follow these steps:
    - a. Select the **External Device COM Port** item.  
List of available COM devices appears next to the Input Devices list.
    - b. From the appeared list, select the desired COM device.  
The selected COM device is used as a hotkey.
6. *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.



7. *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.

### Postrequisites:

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

### 2.2.1.2.3 Editing and Deleting Hotkey Entries

Follow the procedure below to delete a hotkey entry.

#### Procedure:

1. Open the **Settings (⚙)** → **Equipment** → **Control Devices** window.
2. Open the **Keys** tab.

3. Perform the desired action:
  - To change input device, see step 5 of the [Assigning Hotkeys](#) procedure.
  - To reassign hotkeys, see steps 6-7 of the [Assigning Hotkeys](#) procedure.
  - To delete a hotkey entry, follow these steps:
    - a. In the **Keys** area, find the desired hotkey entry.
    - b. On the hotkey entry, click **Delete**.  
The hotkey entry disappears from the **Keys** area.
  - To delete all created hotkey entries, click **Reset All**.  
All added hotkey entries 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.

**Postrequisites:**

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

## 2.2.2 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.

**Configuration** [X]

**Sound Settings**  
Audio devices and VoIP settings [Gear Icon]

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

**Audio Input**

Device: Microphone (High Definition Audio Device) 1 [v]

Input Line: Master Volume [v]

Noise Reduction: Disabled [v]

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

**Audio Output**

Main device: Speakers (High Definition Audio Device) 1 [v] [Check]

**VoIP Parameters**

Codec: BroadVoice [v]

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

VoIP Port: 18501 [v]

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

[Help] [Cancel] [Finish]

The window is available by clicking **Settings** ( ⚙ ) → **Equipment** → **Sound**, and it 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](#).

## 2.2.2.1 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 with the 'Sound Settings' tab selected. The window title is 'Configuration' and it has a close button (X) in the top right corner. Below the title bar, the text 'Sound Settings' and 'Audio devices and VoIP settings' is displayed, along with a gear icon. The main content area is divided into three tabs: 'General Settings' (selected), 'Audio Output Devices', and 'Other Settings'. The 'General Settings' tab contains the following elements:

- Audio Input:**
  - Device: Microphone (High Definition Audio Device) 1
  - Input Line: Master Volume
  - Noise Reduction: Disabled
  - Audio Input Test: Record, Play, Save buttons
- Audio Output:**
  - Main device: Speakers (High Definition Audio Device) 1
  - Check button
- VoIP Parameters:**
  - Codec: BroadVoice
  - Codec Format: 8000 Hz, 60 ms, 16 (24) kbps
  - VoIP Port: 18501
- TIPRO phone module: switching audio input and audio output when answer a call

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

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

**Device list**

Audio input device to which the microphone is connected. It is recommended to select a specific audio input device 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**

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.

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

**Codec**

Audio stream compression method.

**Codec format**

Audio stream sampling frequency.

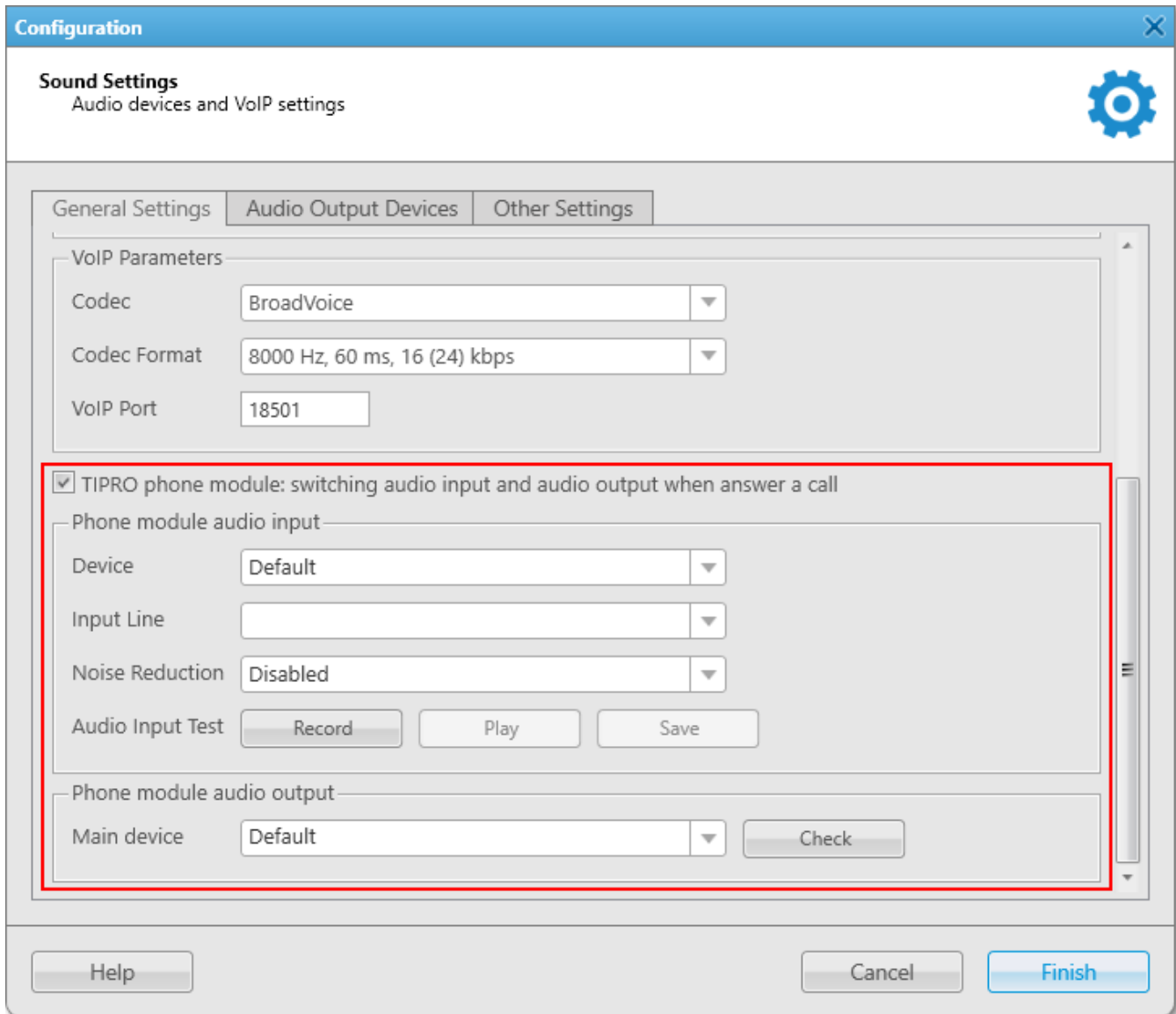
**VoIP port**

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 device and audio output/input device 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.



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

### Device list

Audio input device 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 provides the following elements:

**Main device**

Audio device to which headsets or speakers are connected.

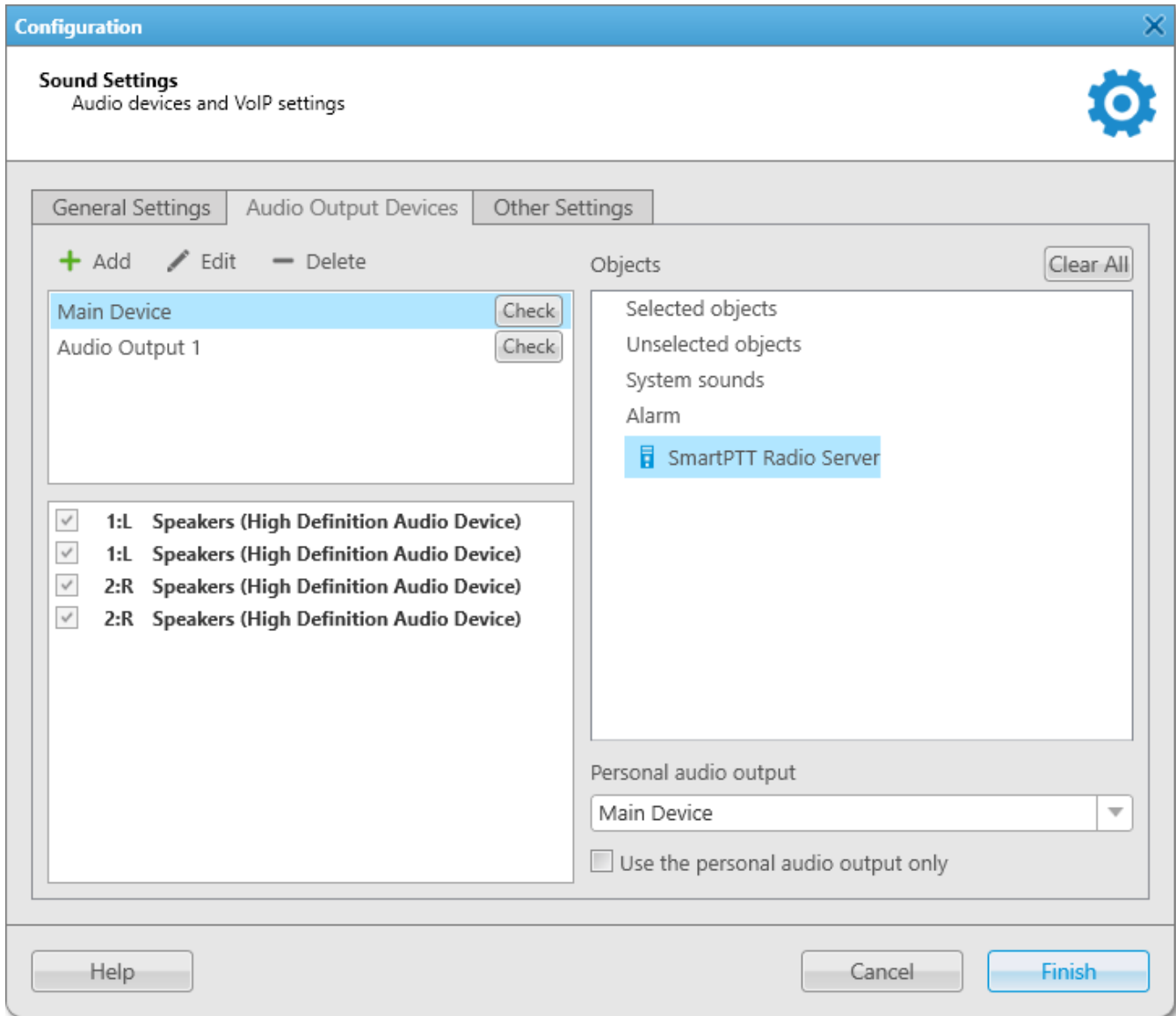
**Check**

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



## 2.2.2.2 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 box

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

## System sounds

All system sounds such as:

- 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 server Event Log
- Sound of system messages
- FOACSU call notification
- Sound of a Call Alert

The volume of the system sounds is adjusted in the [Sound](#) panel.

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 details on changing volume of emergency calls sound, see [Slot Properties](#).

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

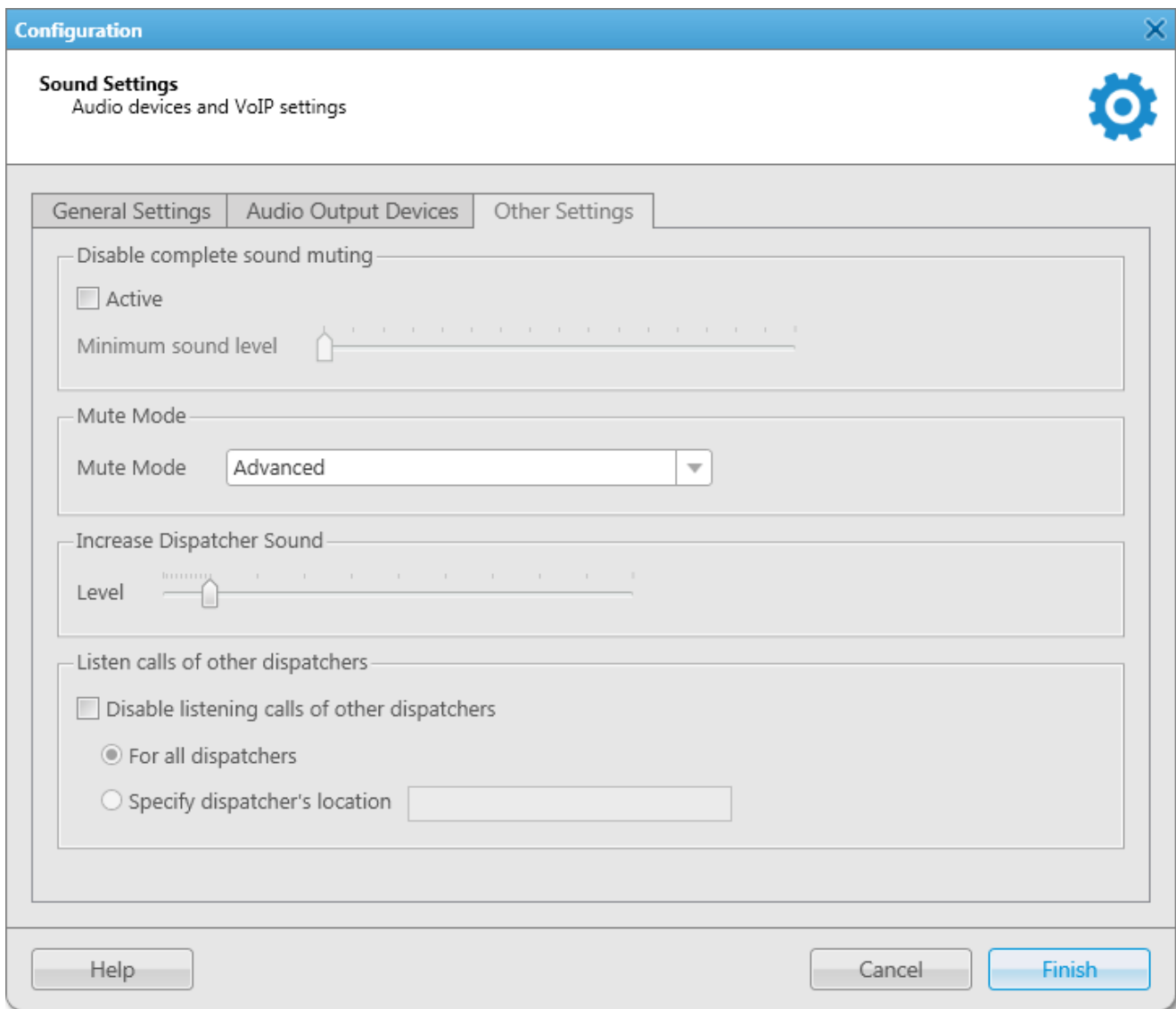
Unavailable for main objects such as selected/unselected objects, system sounds, and alarm.

## 2.2.2.3 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 all calls are muted.
- In the **Advanced** mode incoming private calls, and incoming/outgoing dispatcher calls are not muted.

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.

## 2.2.2.4 Configuring Sound Settings

### 2.2.2.4.1 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. Open the **Settings**→**Equipment**→**Sound** window.
2. 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.

**Postrequisites:**

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

## 2.2.2.4.2 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. Open the **Settings**→**Equipment**→**Sound** window.
2. 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.

**Postrequisites:**

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

### 2.2.2.4.3 Configuring Muting Options

Follow the procedure below to configure muting options.

**Procedure:**

1. Open the **Settings**→**Equipment**→**Sound** window.
2. Open the **Other Settings** tab.
3. In the **Other Settings** tab, configure the mute settings:
  - To disable complete sound muting, follow these steps:
    - a. In the **Disable complete sound muting** area, click **Active**.  
The **Minimum sound level** slider becomes available.
    - b. 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, from the **Mute mode** list, select the desired mode.

**Postrequisites:**

- To configure acoustic cross muting of dispatchers, see [Configuring Dispatcher Sound Options](#).
- To save changes and close the window, click **Finish**.

#### 2.2.2.4.4 Configuring Dispatcher Sound Options

Follow the procedure below to configure dispatcher sound options.

**Procedure:**

1. Open the **Settings**→**Equipment**→**Sound** window.
2. 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.

**Postrequisites:**

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

#### 2.2.2.4.5 Activating Dispatcher Cross Muting

Follow the procedure below to activate the dispatcher cross muting.

**Procedure:**

1. Open the **Settings**→**Equipment**→**Sound** window.
2. Open the 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:
    - a. Click **Specify dispatcher's location**.  
The box on the left becomes available.

- b. In the box on the left, type the dispatcher name, or the room number.
- c. 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.

**Postrequisites:**

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

## 2.2.2.5 Configuring Multichannel Sound

### 2.2.2.5.1 Configuring Audio Output Device

Follow the procedure below to configure virtual audio output device.

**Prerequisites:**

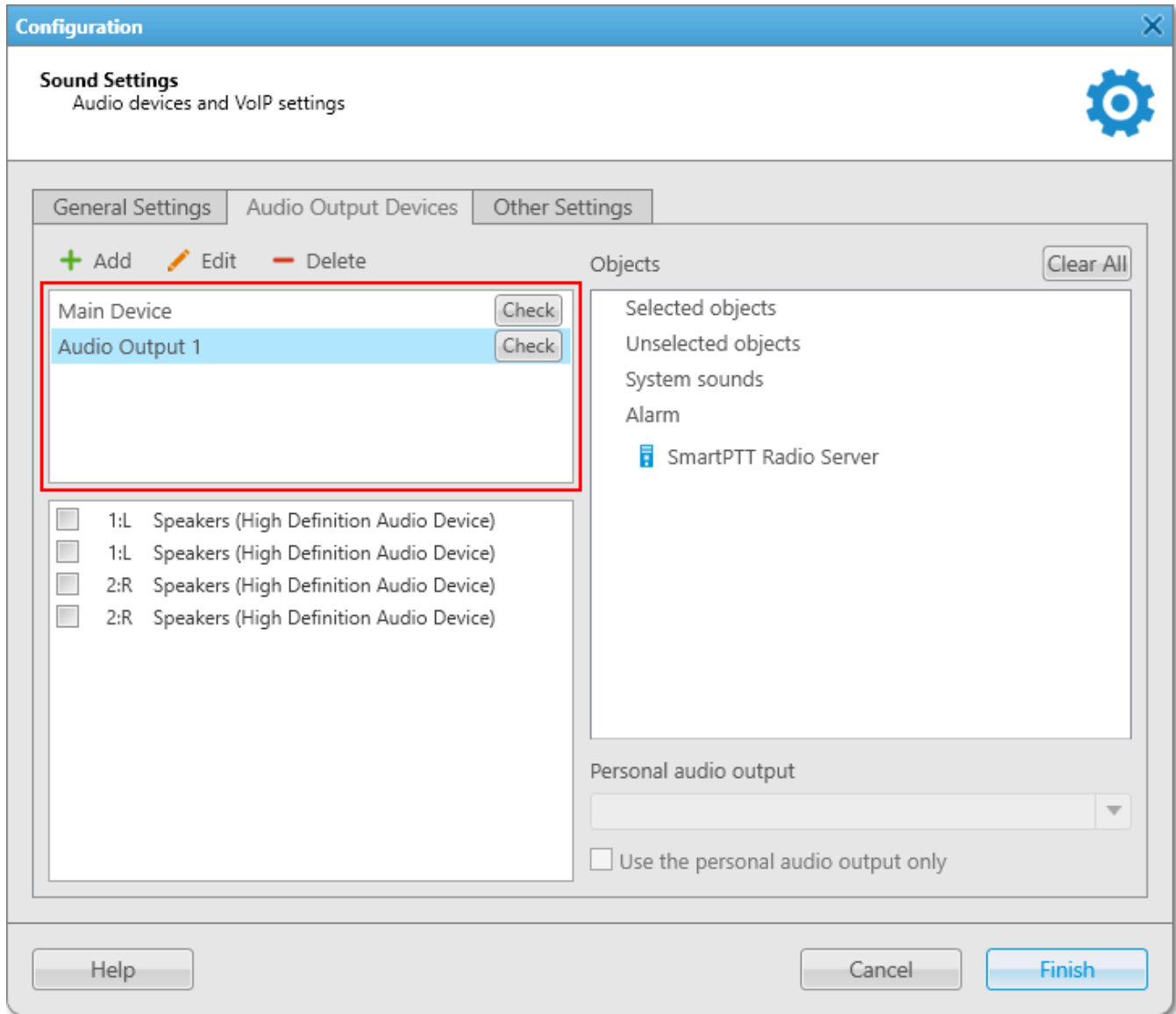
Ensure that audio input/output devices of SmartPTT Dispatcher are configured.

**Procedure:**

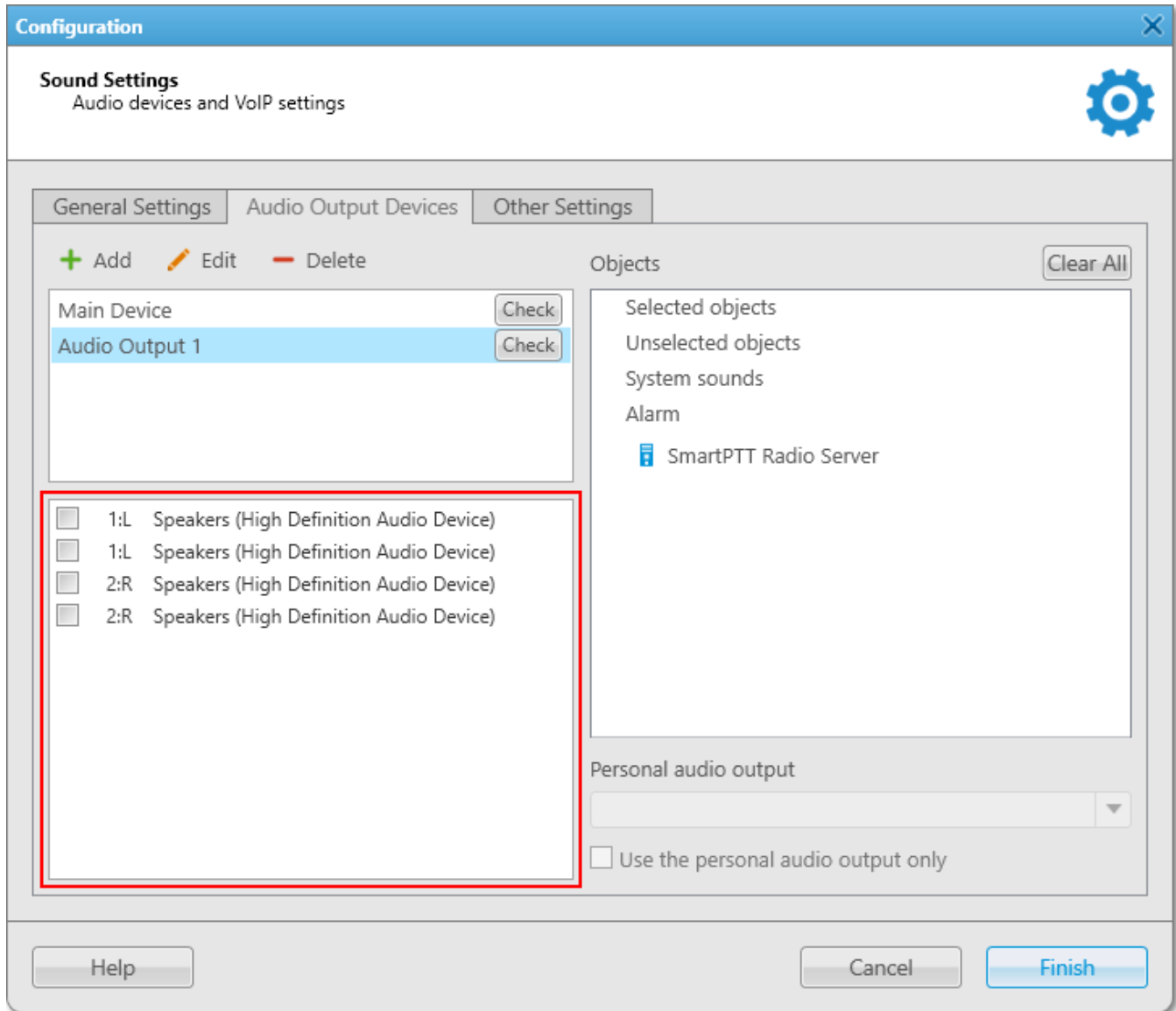
1. Open the **Settings**→**Equipment**→**Sound** window.
2. Open the **Audio Output Devices** tab.

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.

**Postrequisites:**

- To assign the added device to the system objects, see [Assigning Audio Output Devices to System Objects](#).
- To save changes and close the window, click **Finish**.

### 2.2.2.5.2 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. Open the **Settings**→**Equipment**→**Sound** window.
2. 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](#).

**Postrequisites:**

- To reset all system objects to default state, click **Clear All**.
- To save changes and close the window, click **Finish**.

## 2.2.3 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.

### NOTE

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](#).

## 2.3 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.

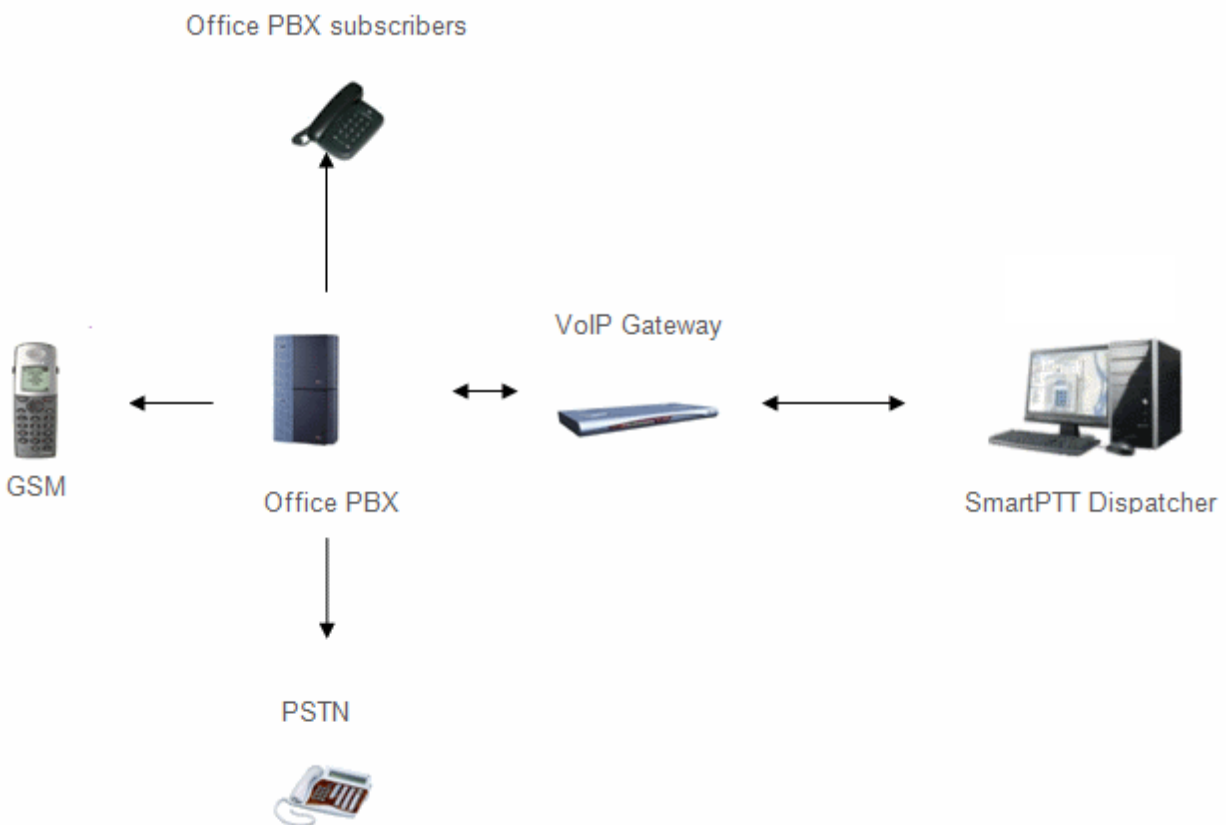
2. The office PBX subscriber calls the dispatcher and voice is transmitted in full-duplex mode.
3. SmartPTT Dispatcher connects telephone and radios.

**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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings (⚙)** menu and select **Telephone Interconnect** → **Telephone Interconnect**.

The screenshot shows the 'Telephone Interconnect' configuration window. The window title is 'Configuration' and the subtitle is 'Telephone Interconnect Telephone interconnect settings'. There is a gear icon in the top right corner. The window is divided into four tabs: 'General Settings', 'Codec Settings', 'SIP Trunk Authentication', and 'SIP Accounts'. The 'General Settings' tab is active. It contains two main sections: 'Dispatcher Settings' and 'VoIP Gateway Default Settings'. In the 'Dispatcher Settings' section, there are fields for 'Allow Calls to Telephone Subscribers' (checked), 'Transport' (UDF), 'SIP Port' (5060), 'Phone Number' (1), 'Interface' (Automatically), 'RTP Ports' (18700 - 18748), and 'Displayed Subscriber Name'. In the 'VoIP Gateway Default Settings' section, there are fields for 'Dial Prefix for Outgoing Calls' (12), 'Dial Prefix for Incoming Calls', 'Default VoIP Gateway Address' (80.200.114.16), and 'SIP Port' (5060). Below these sections are two checked checkboxes: 'Play Sound Alert for Incoming Call' and 'Play Sound Alert for Outgoing Call', followed by a 'Sound Level' slider. At the bottom of the window are three buttons: 'Help', 'Cancel', and 'Finish'.

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** field in SmartPTT Dispatcher must differ from the port range set in the **RTP ports** field 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 opens).

**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 field 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:** Allows you to configure the sound level in the dispatch console coming from the telephone subscriber.

### **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

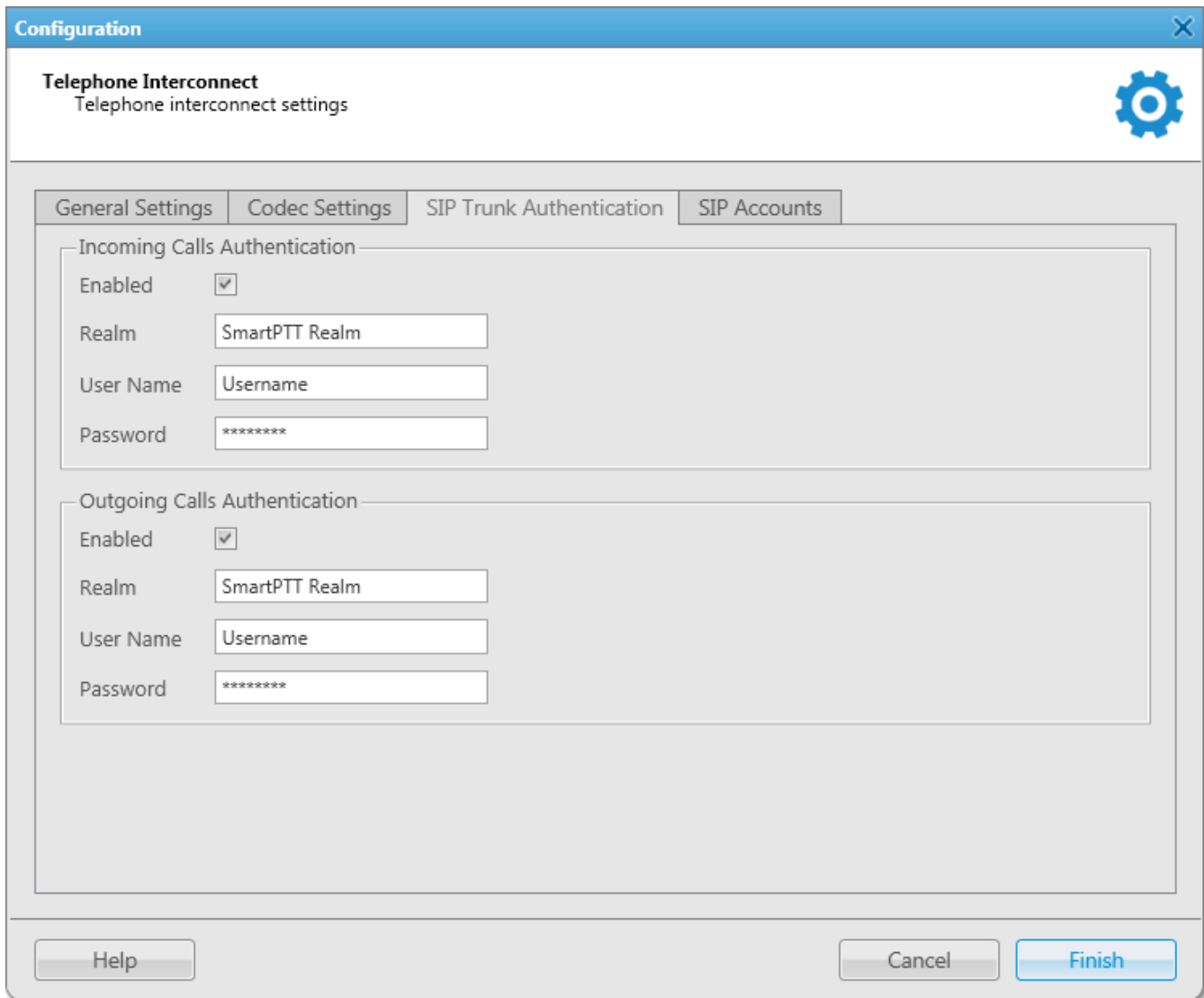
on the VoIP gateway must generate the correct destination address *sip:1@192.168.0.105:5060* (the **Displayed Telephone Number** value must be set as the SmartPTT Dispatcher identifier) and the sender's correct address *sip:1140@192.168.0.243:5060* (a dial prefix for incoming addresses is not set so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

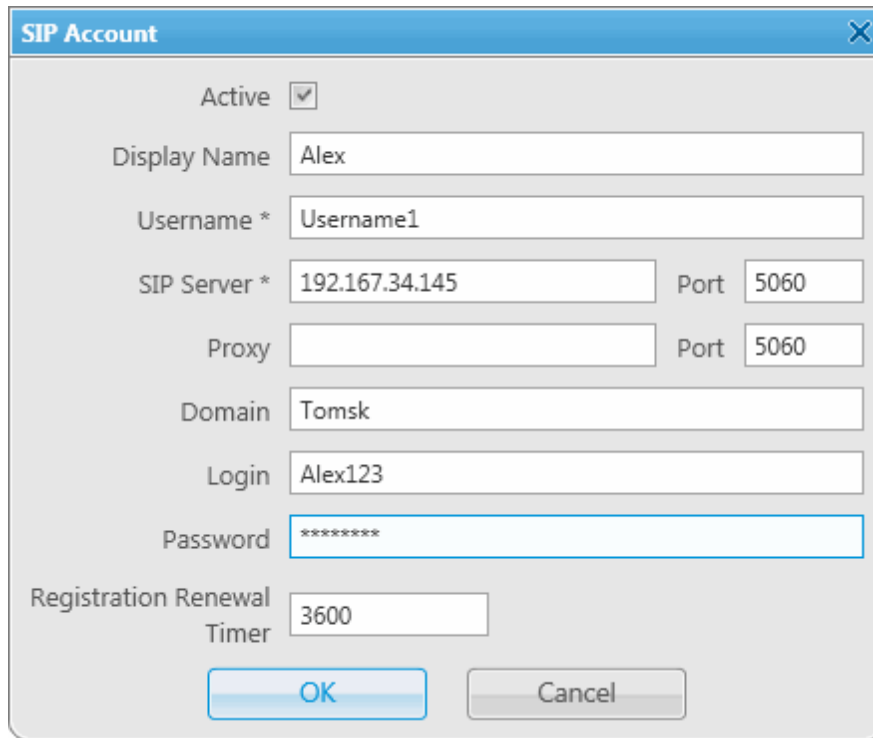
SIP server stores current IP addresses relevant to the SIP accounts of *Client 1* and *Client 2*.

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** field 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 image 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 box containing "Alex".
- Username \*:** A text box containing "Username1".
- SIP Server \*:** A text box containing "192.167.34.145".
- Port:** A text box containing "5060".
- Proxy:** An empty text box.
- Port:** A text box containing "5060".
- Domain:** A text box containing "Tomsk".
- Login:** A text box containing "Alex123".
- Password:** A text box containing "\*\*\*\*\*".
- Registration Renewal Timer:** A text box containing "3600".
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**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 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** field. 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** field (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

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

- 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

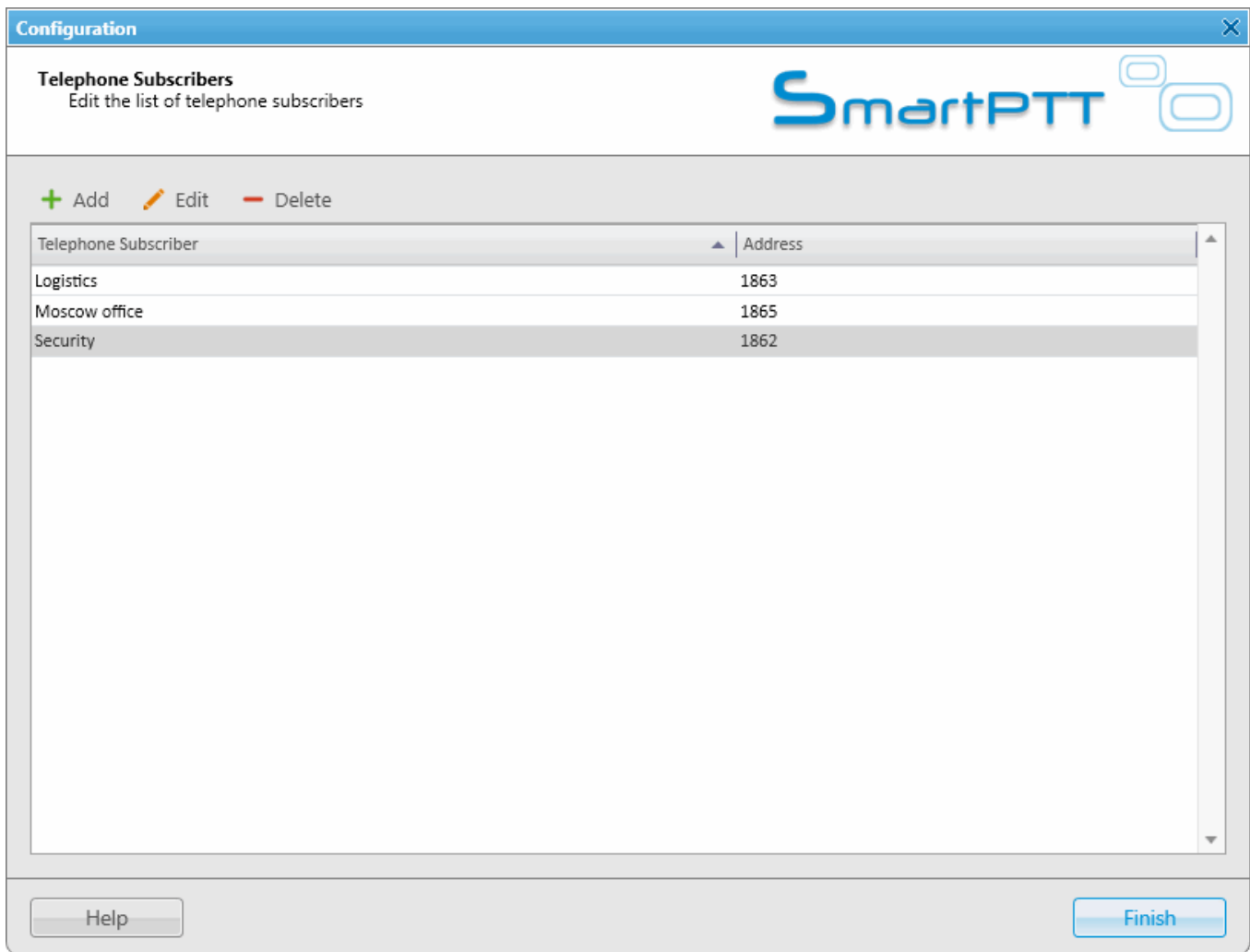
Enable SIP Account    107@192.168.0.140:5070

OK Cancel

- 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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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 fields 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.

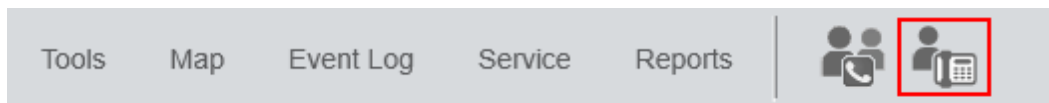
Click **OK** to save the changes.

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.

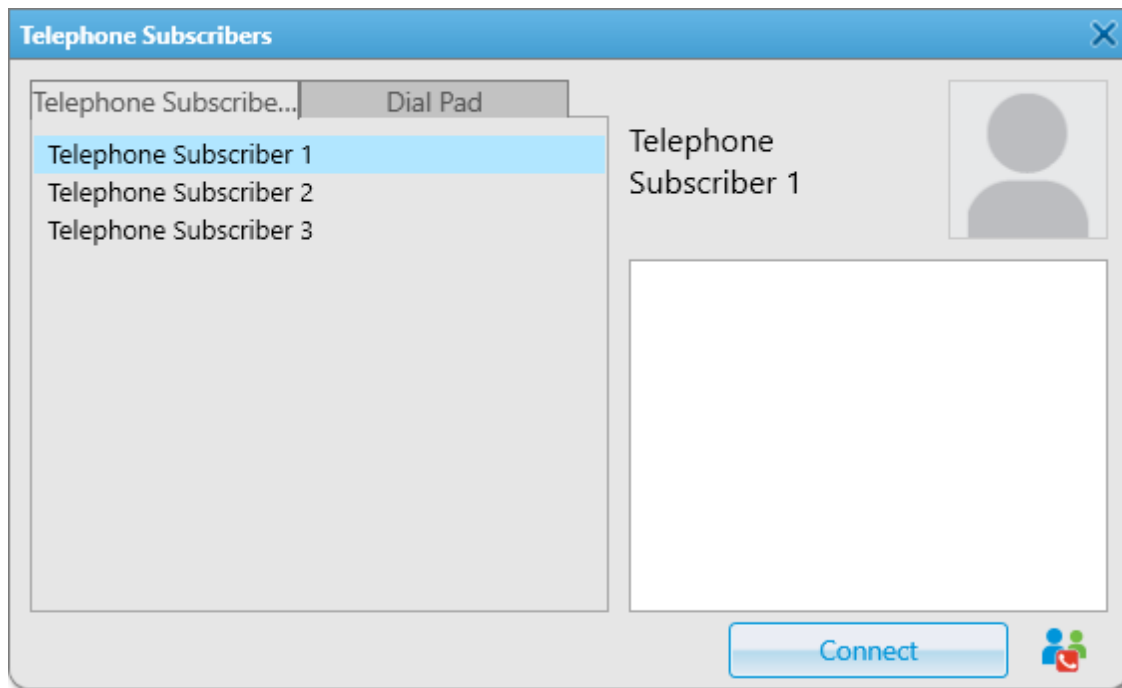
To edit or delete the telephone subscriber from the list, click the corresponding button.

## 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:



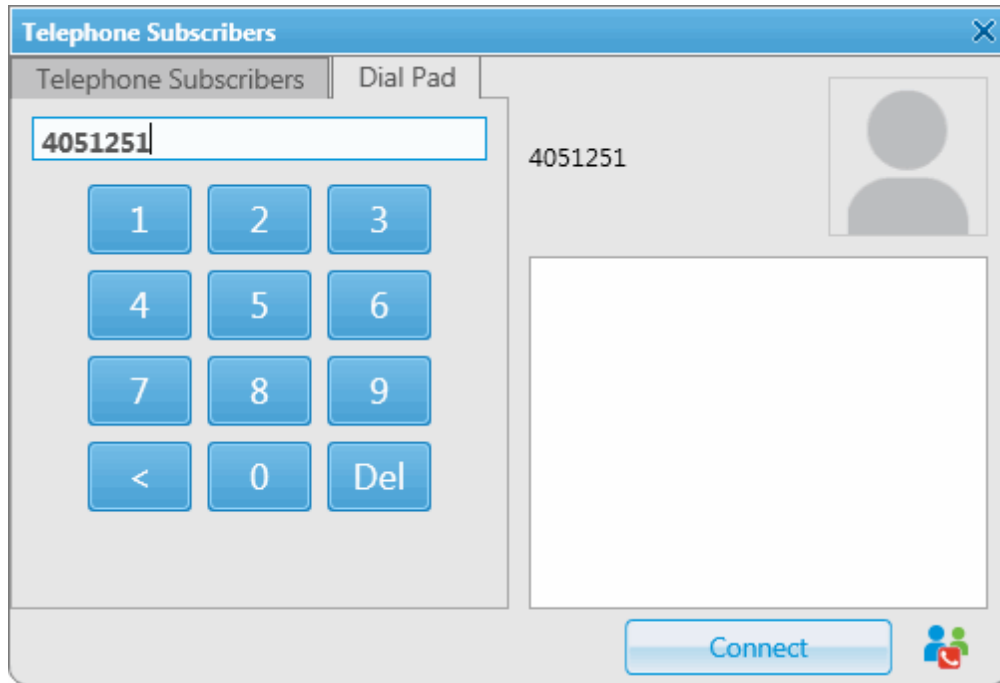
To call the telephone subscriber, select it from the list and click **Connect**. In the **Telephone subscribers** tab you can see not only added telephone subscribers, but also unregistered telephone subscribers (their numbers are in *italics*), and three latest calls (at the top of the list).



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

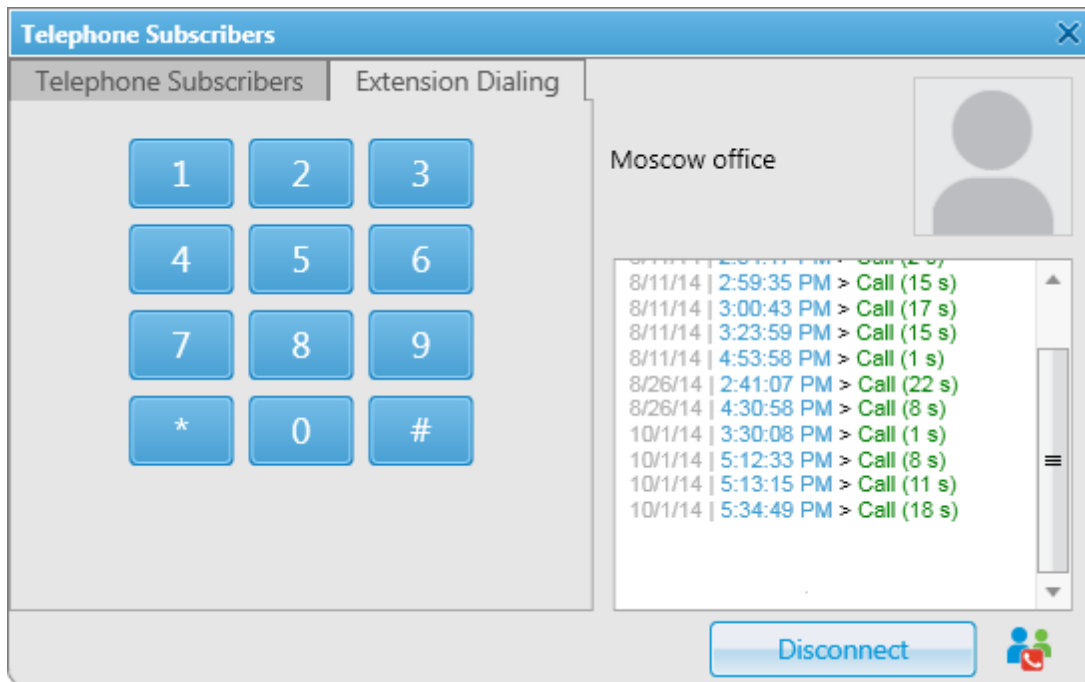


To make a call to a telephone subscriber which is not on the list, go to the **Dial Pad** tab. You can dial the telephone number or enter it in the input field above the dial pad.



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

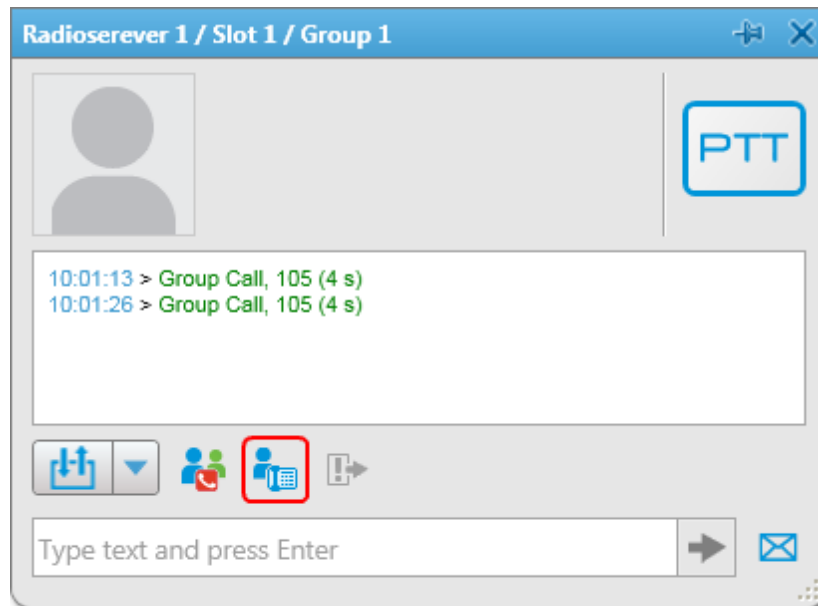
1. Dial the phone number after which you will need to add the extension. Then, you will see a new tab **Extension Dialing**.



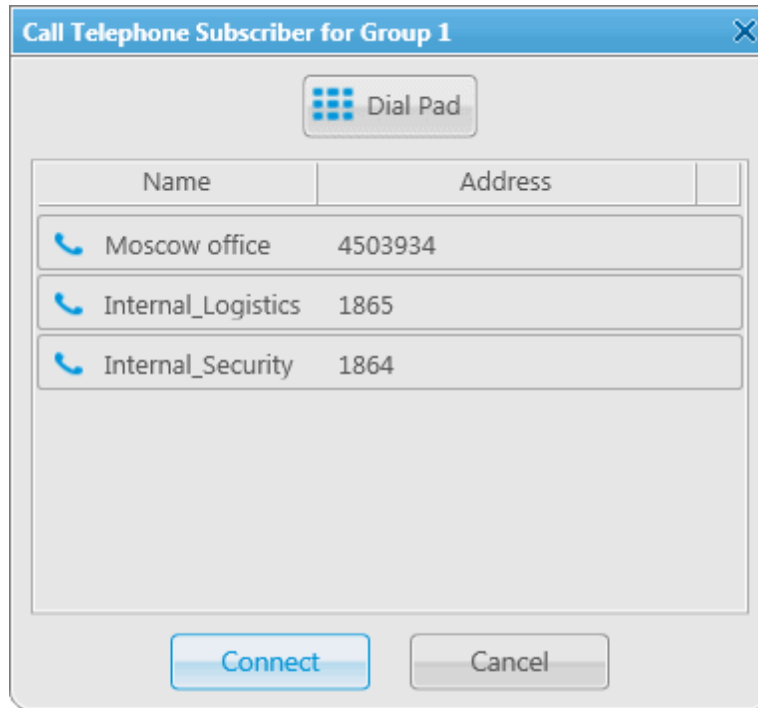
2. In this tab, dial \* to turn on DTMF mode (not obligatory, depends on the telephone parameters).
3. Dial the extension number and then #.

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.

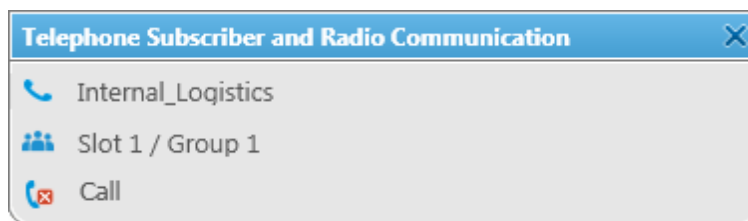


You can also use **Action List**, where you can select **Call Telephone Subscriber**. The following window appears:



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:

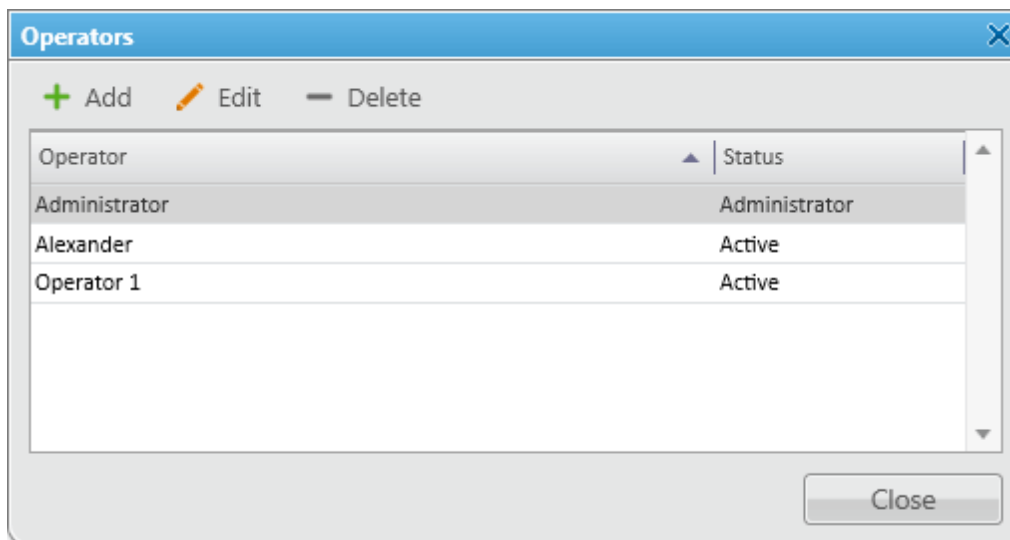
-  Stops the call. If the person should make a radio call right after the telephone call, it is necessary for him or her to wait for a special tone notifying about the end of the call. If the person presses the PTT button on the radio before this tone, an incorrect phone call will be initiated.
-  Initiates 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** in the **Main Menu** bar. The **Operators** window will be displayed.







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

**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
<b>Edit radio lists</b>	allows/denies adding, changing properties and deleting radios in the <a href="#">Radio Fleet</a> window and in the <a href="#">Radios</a> panel
<b>Manage unregistered radios</b>	shows/hides radios which were not added in the <a href="#">Radio Fleet</a> window or in the <a href="#">Radios</a> panel

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

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


**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.

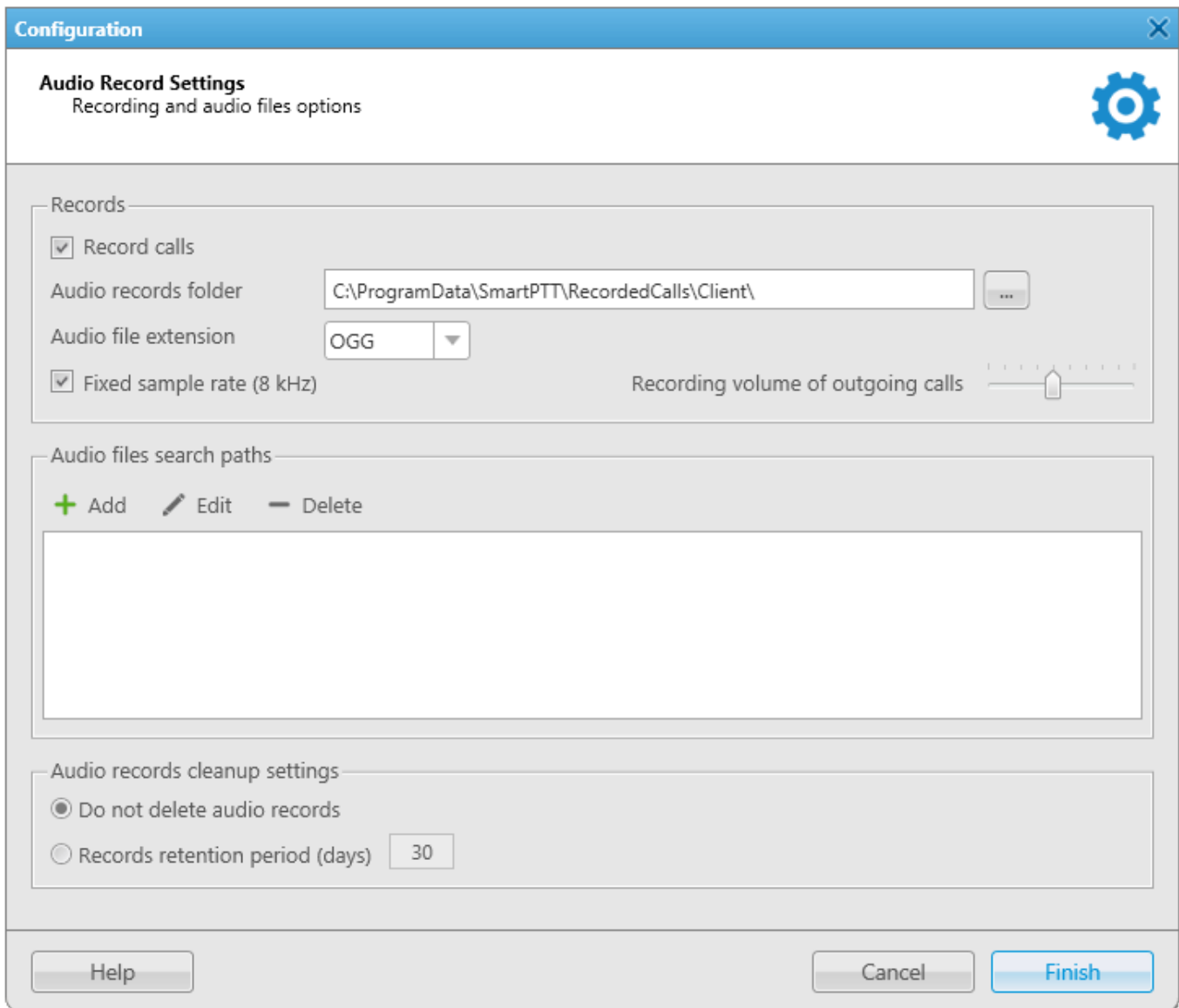
To switch operators, click  in the **Main Menu** and after the dispatch console has restarted, select a new operator.



## 2.5 Information Storage

### 2.5.1 Records

To set audio record settings, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings** (⚙️) menu and select **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 field.

**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.

In order to set up automatic backup parameters, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **Information Storage** → **Database Auto Backup**.

The screenshot shows a 'Configuration' dialog box titled 'Database Auto Backup Settings' with the subtitle 'Auto Backup Parameter Settings'. It features a gear icon in the top right corner. The dialog is divided into several sections:

- Allow Database Auto Backup:** A checked checkbox.
- Backup Folder:** A text input field with a browse button (three dots) to its left.
- Backup Settings:** A section containing three radio buttons: 'Daily' (selected), 'Weekly', and 'Monthly'. To the right of the 'Daily' radio button is an 'Interval (days)' spinner box set to '1'. Below these is a 'Time:' spinner box set to '9:00'.
- Backup Period:** A section with 'Start Date:' and 'End Date:' labels. The 'Start Date' is set to '3.4.18' with a calendar icon. The 'End Date' has two options: '4.4.18' with a calendar icon (unselected) and 'No End Date' (selected).

At the bottom of the dialog are three buttons: 'Help', 'Cancel', and '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 ( ⚙ )** → **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**).

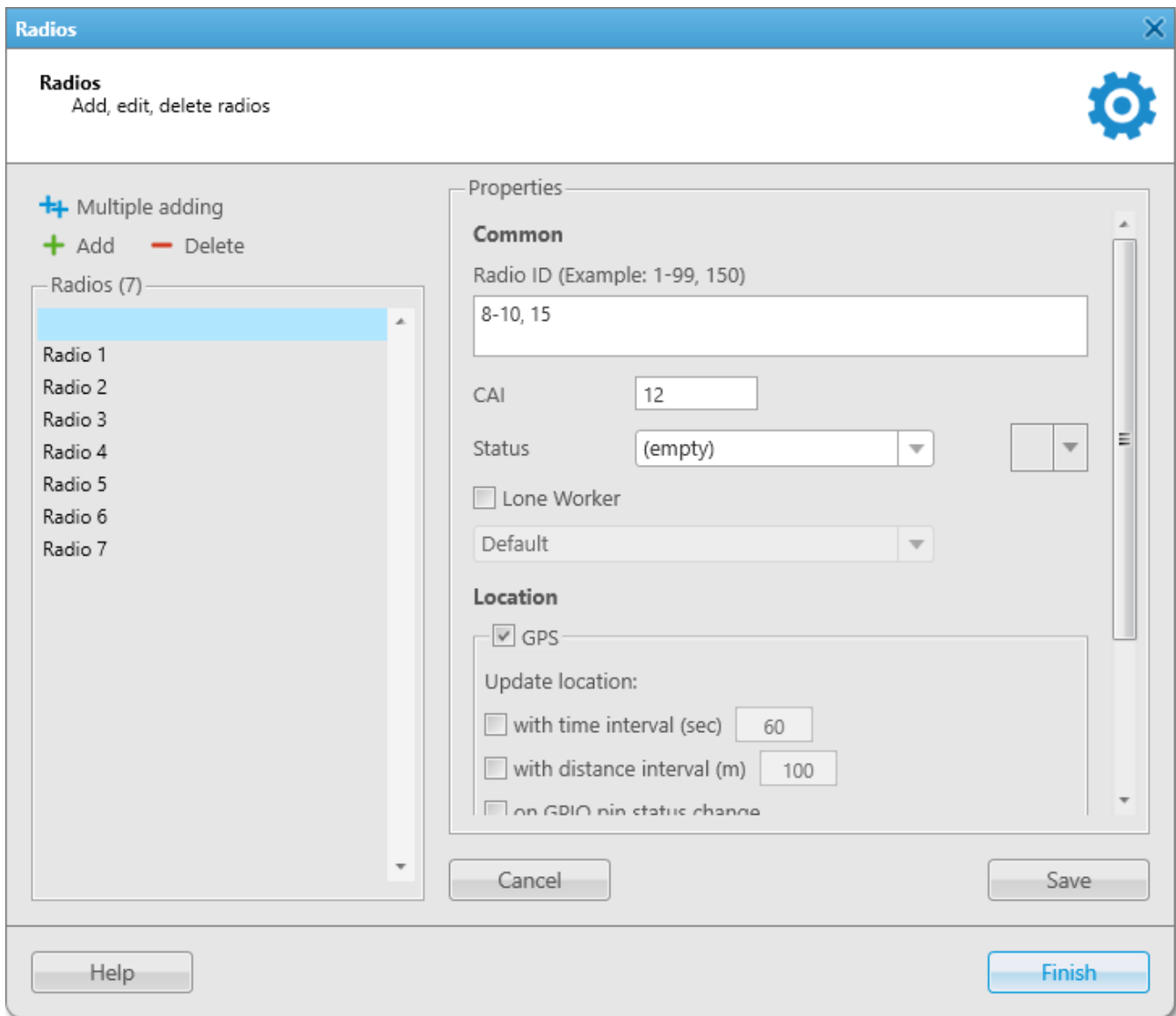
**NOTE**

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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

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** field 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:

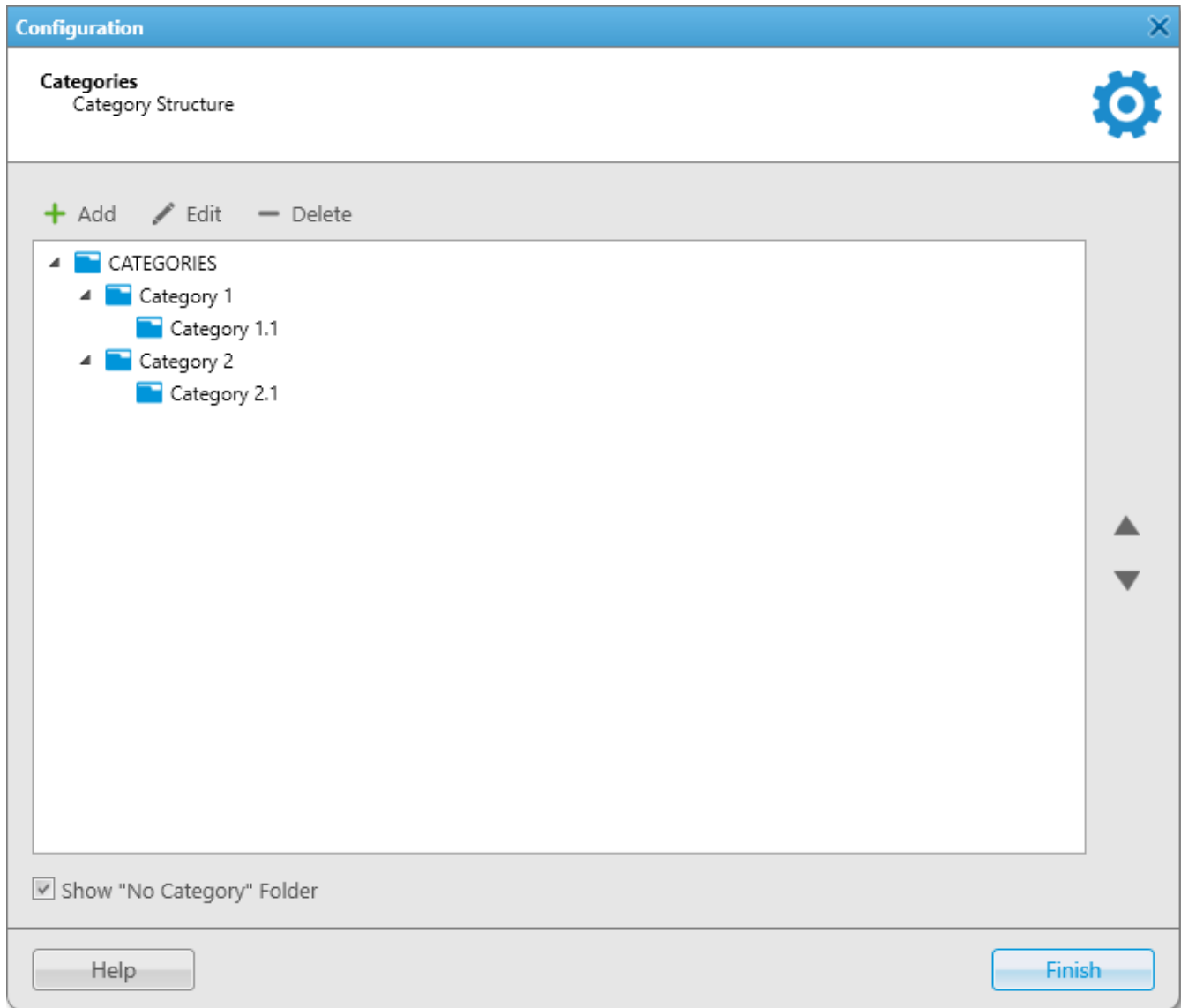
- Radios
- WAVE-users
- Talkgroups

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

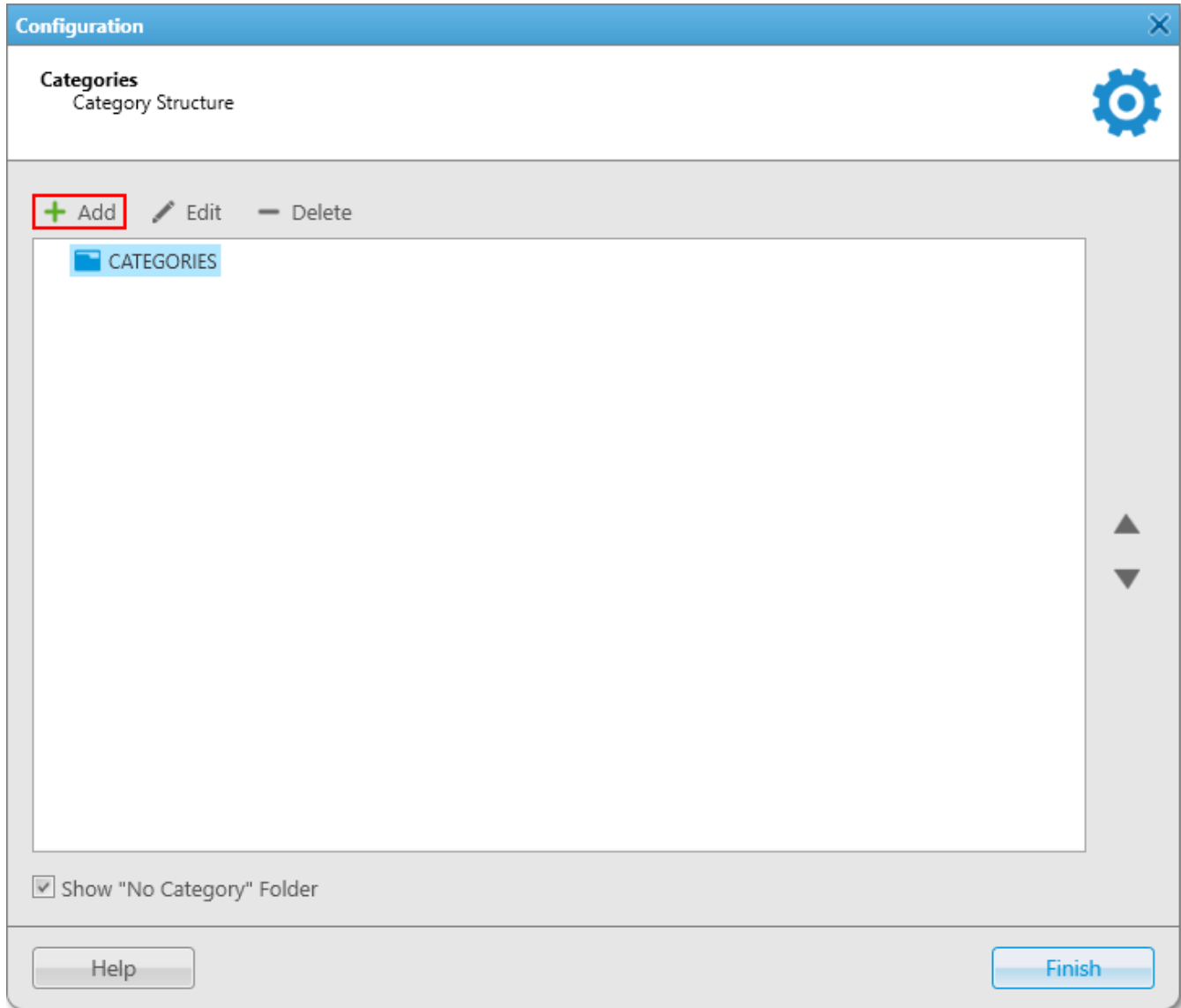
If no category is added you can only add the new one and also permit or prohibit the **No Category** folder displaying in the **Radio Fleet** panel.



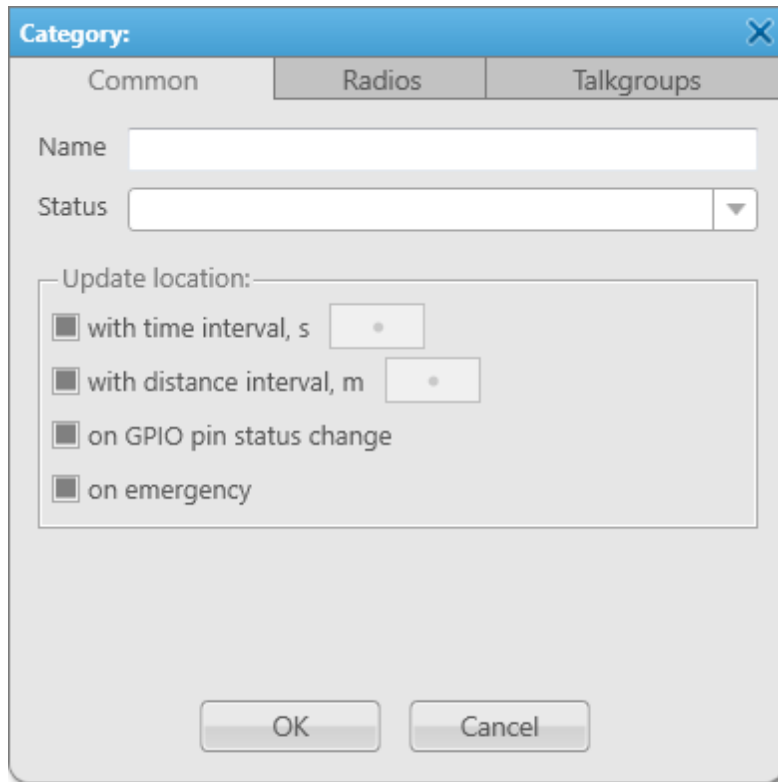
## 2.6.2.1 Adding Category

To add a new category, follow these steps:

1. In the **Configuration** 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 also empty. 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** field, 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.

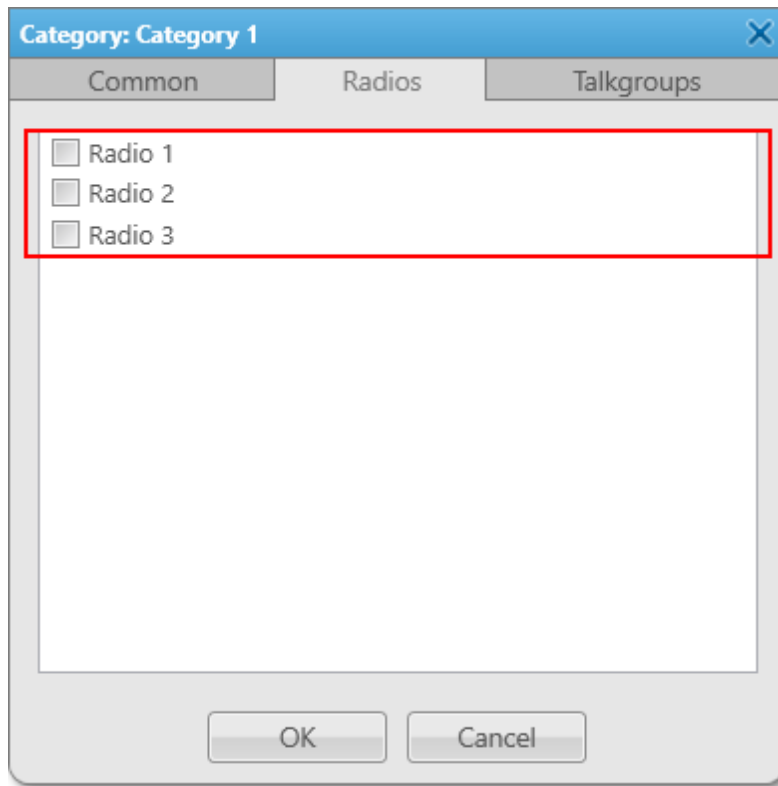
**NOTE**

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**

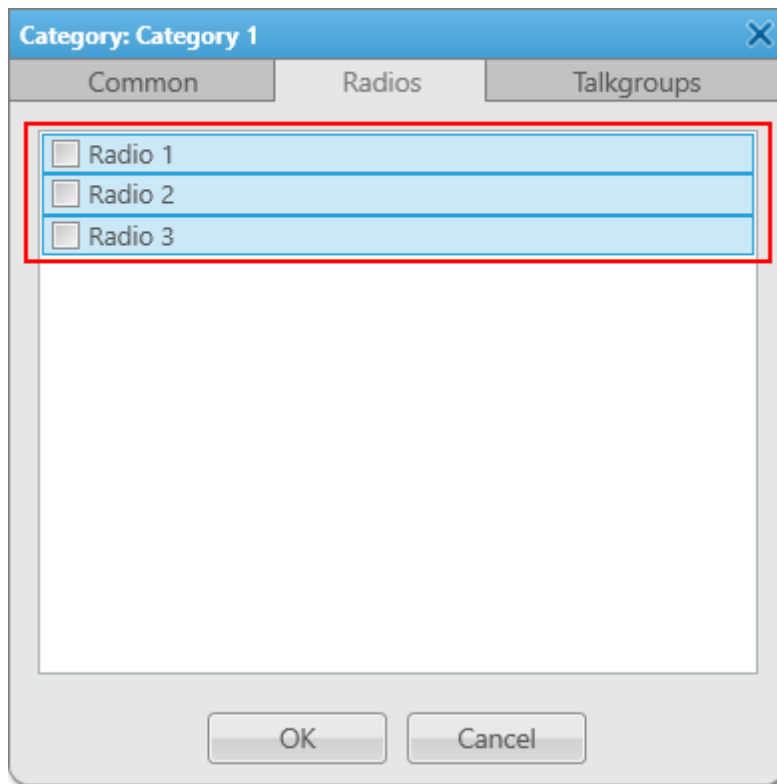


#### Radios multiple adding

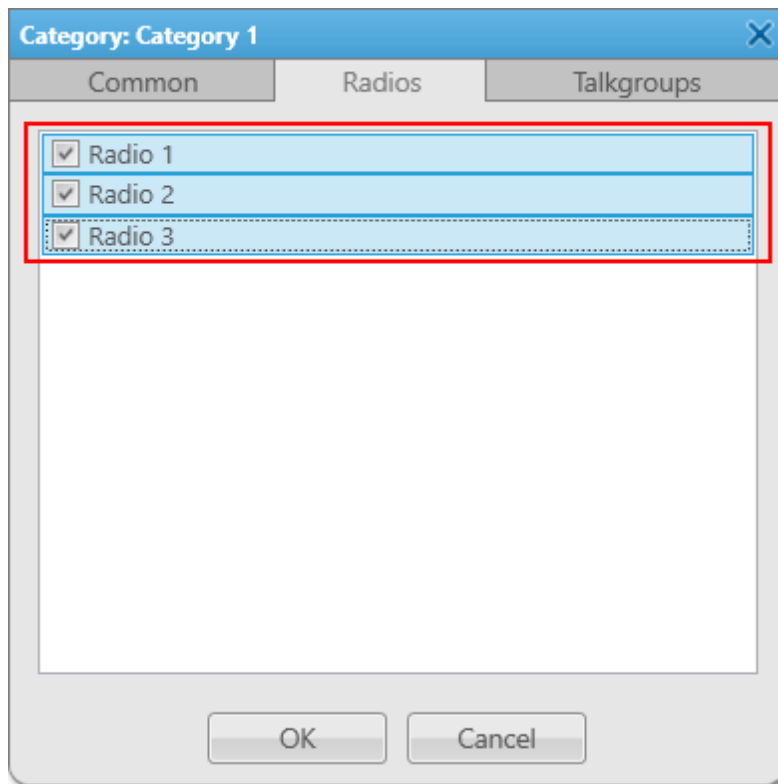
To add to the category all or several radios simultaneously, follow these steps:

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.

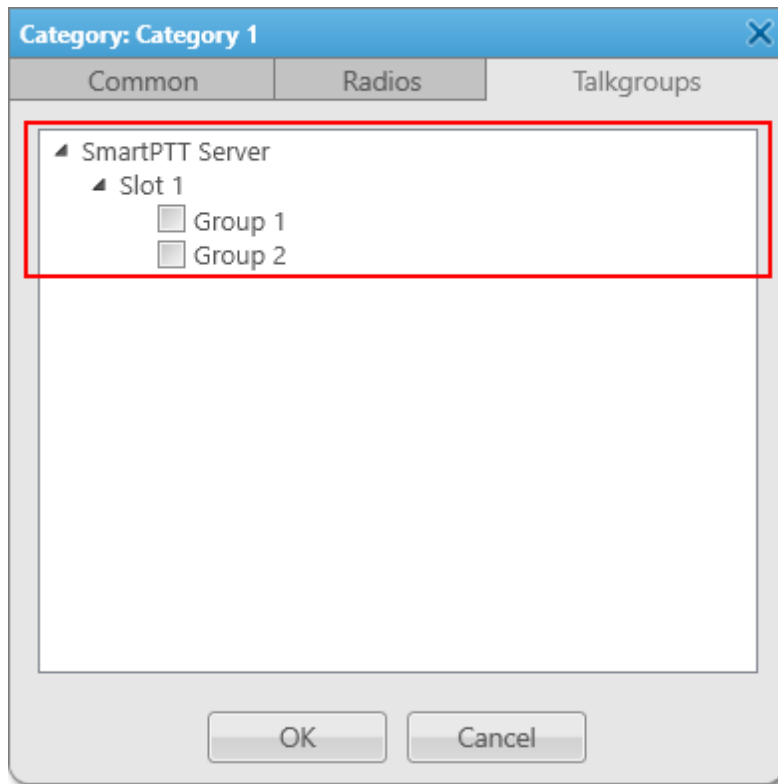
### 2.6.2.1.2 Adding Talkgroups to Category

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.

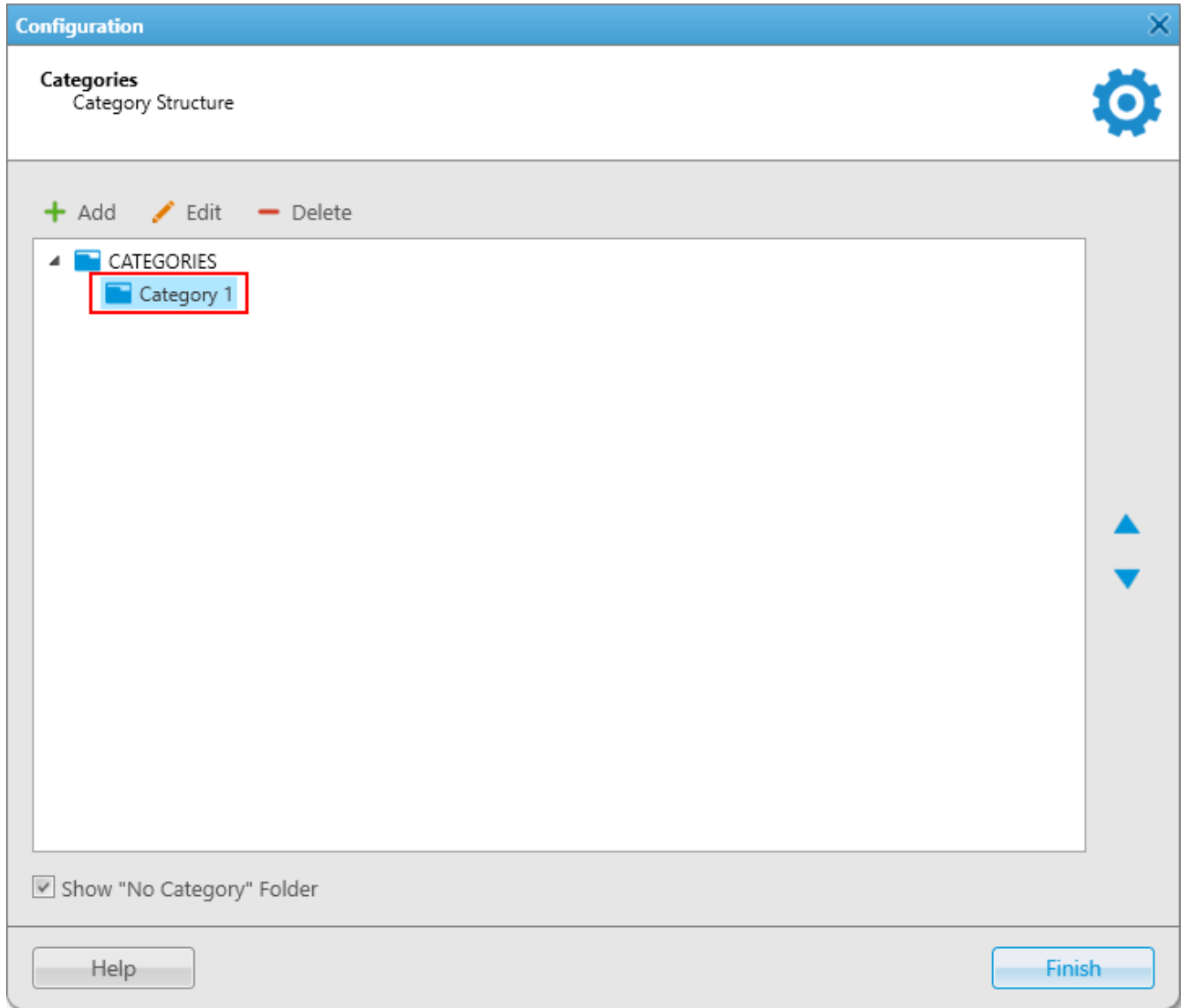


2. Click **OK** to apply changes and close the window.

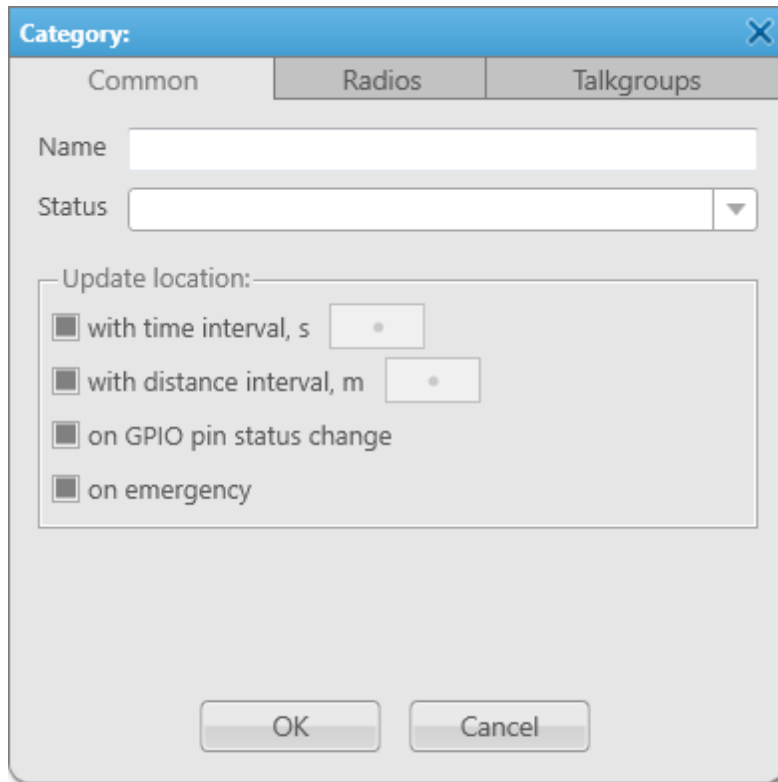
## 2.6.2.2 Editing Category

To edit a category, follow these steps:

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



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



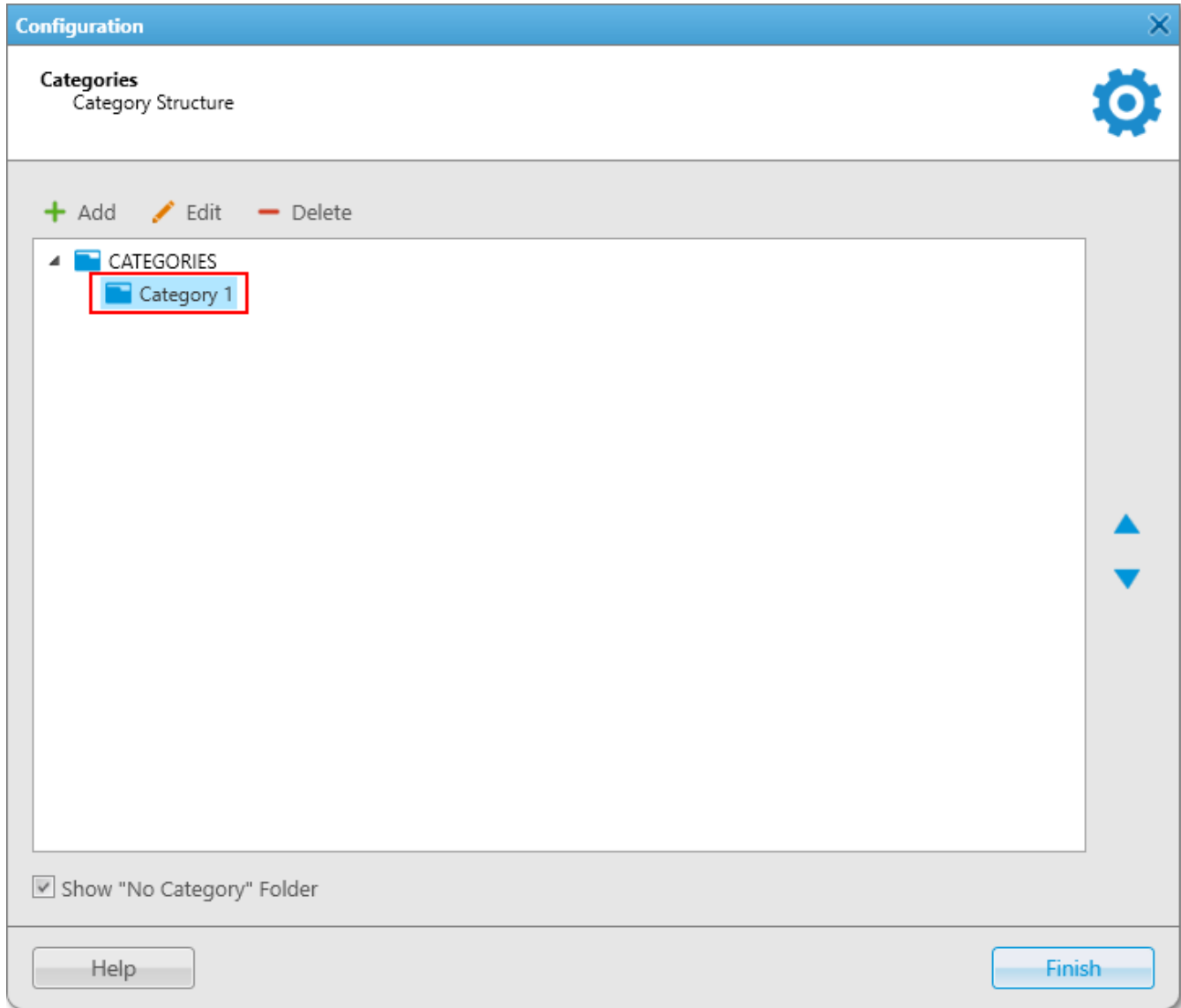
- Change the category name
  - Change the category status
  - Under **Update location**, change the GPS-monitoring settings which applied to every object in the category.
- parameter is set for all objects in the category.
  - parameter is not set for all objects in the category.
  - parameter is set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



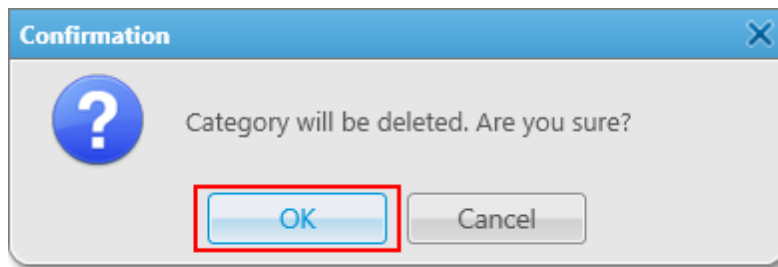
## 2.6.2.3 Deleting Category

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**.

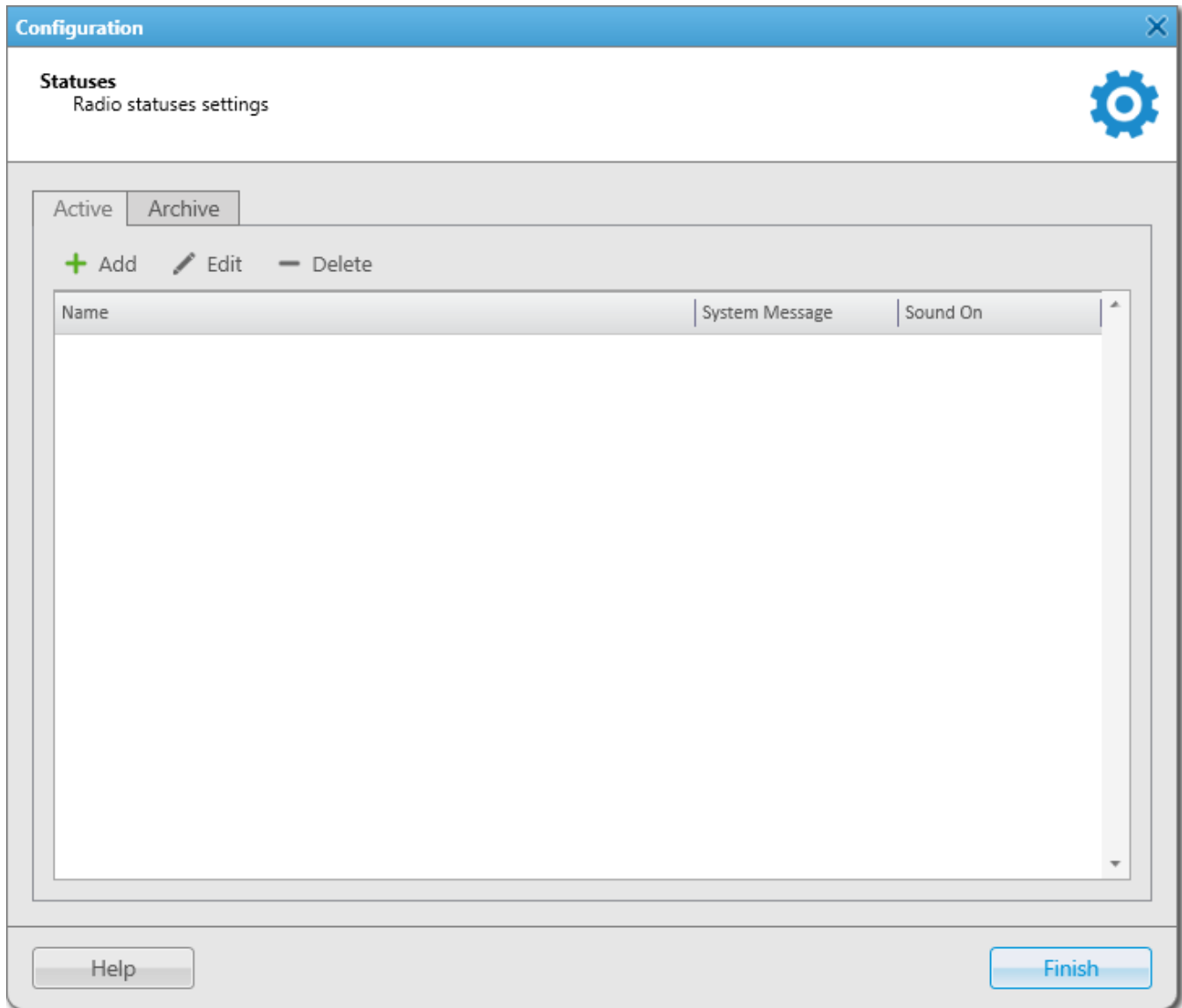


## 2.6.3 Statuses

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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **Radios** → **Statuses**. The **Configuration** window appears:



## Statuses Window Tabs

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

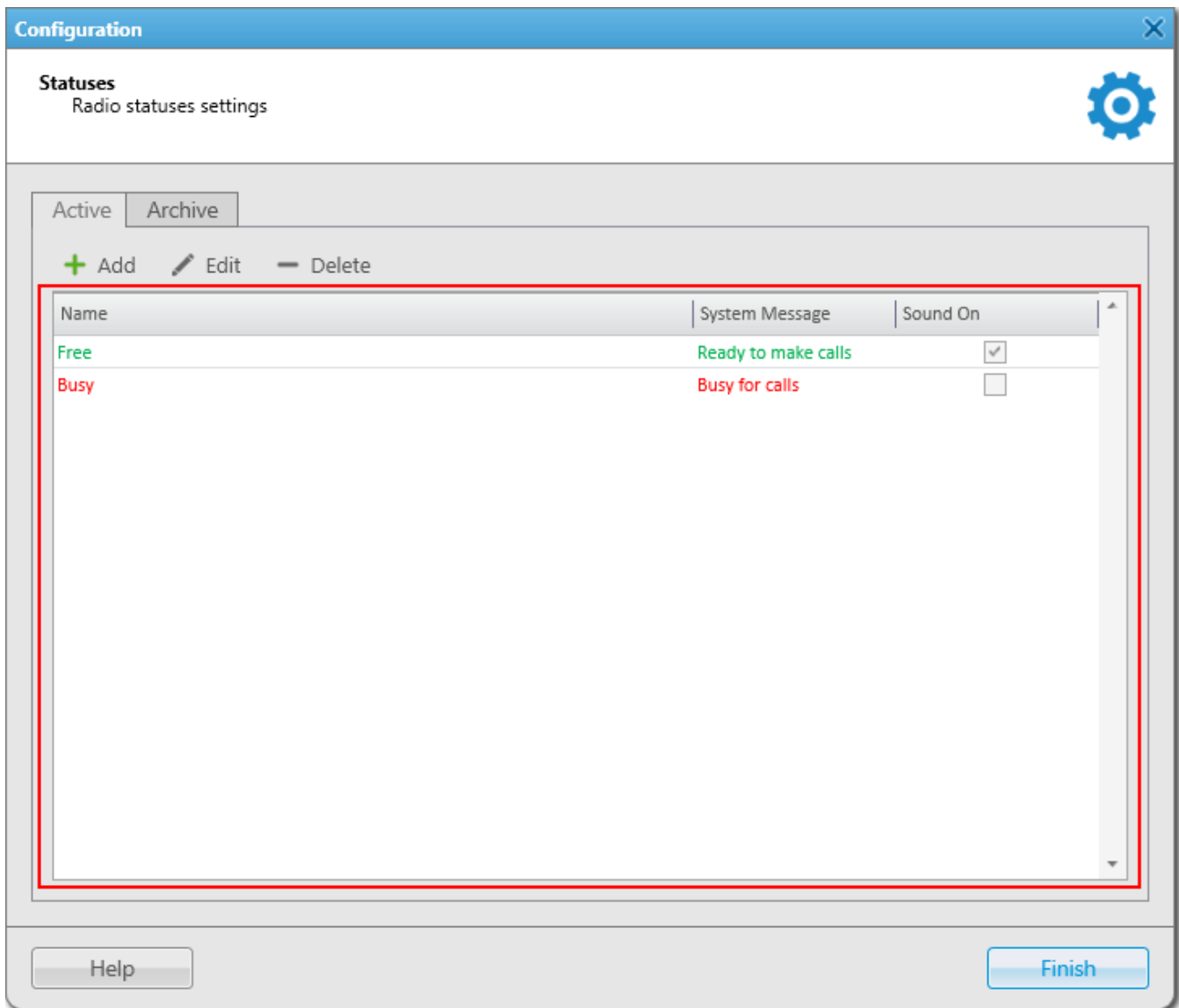
**Archive:** Displays archived statuses. On this tab you can [restore](#) archived statuses.

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 screenshot shows a 'Configuration' window titled 'Statuses' with the subtitle 'Radio statuses settings'. It features a gear icon in the top right corner. Below the title bar, there are two tabs: 'Active' (selected) and 'Archive'. Under the 'Active' tab, there are three buttons: '+ Add', 'Edit' (with a pencil icon), and '- Delete'. A table is displayed below these buttons, with columns for 'Name', 'System Message', and 'Sound On'. The table contains two rows: 'Free' with 'Ready to make calls' and 'Sound On' checked, and 'Busy' with 'Busy for calls' and 'Sound On' unchecked. A red box highlights the table area. At the bottom of the window, there are 'Help' and 'Finish' buttons.

Name	System Message	Sound On
Free	Ready to make calls	<input checked="" type="checkbox"/>
Busy	Busy for calls	<input type="checkbox"/>

The table consists of the following columns:

**Name:** Displays status name.

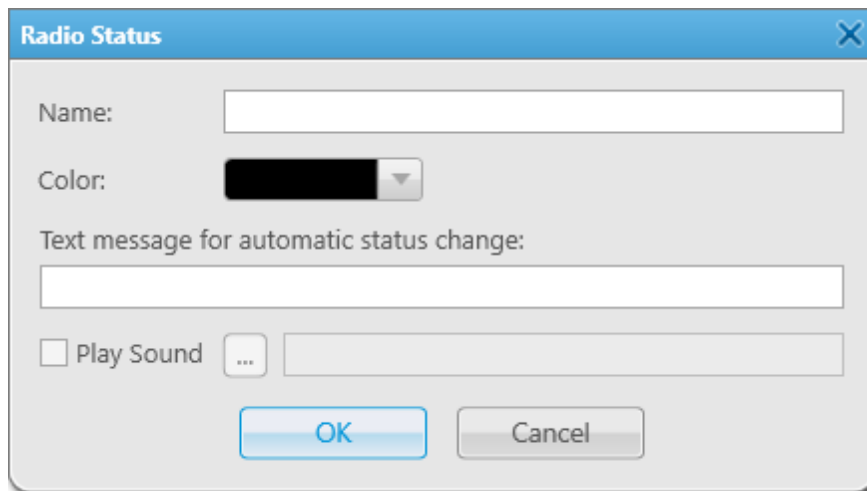
**System Message:** Displays [text message for automatic status change](#) which is set at status adding.

**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** field, 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** field, 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

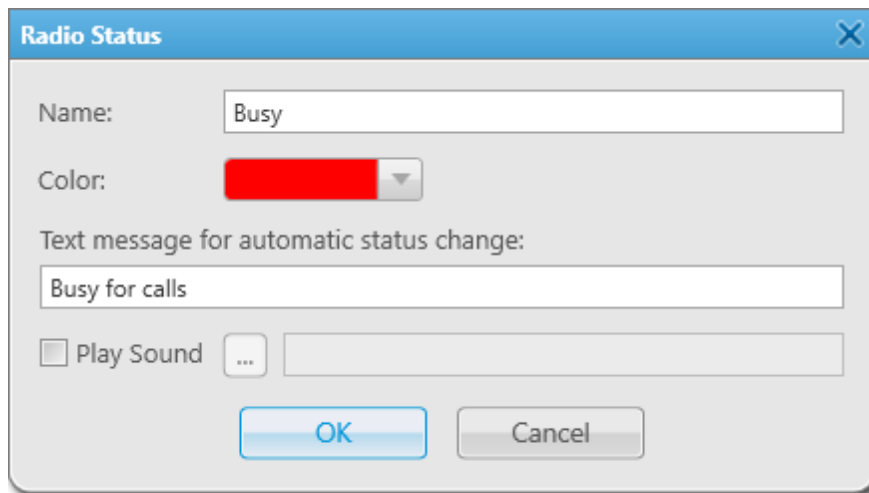
Text messages cannot be the same for different statuses. If the entered text message is already specified for another status, the corresponding warning window appears.

- 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:

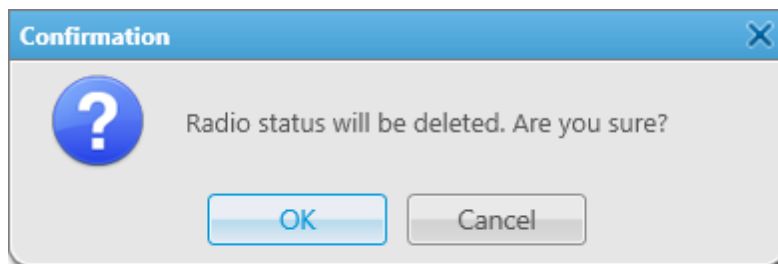
1. On the **Active** tab, select the desired status in the table of active statuses and click **Edit**.
2. In the open **Radio Status** window, change the desired parameters and click **OK**.



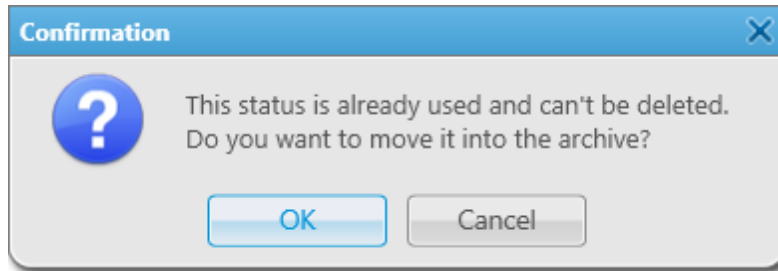
### 2.6.3.3 Deleting Statuses

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:

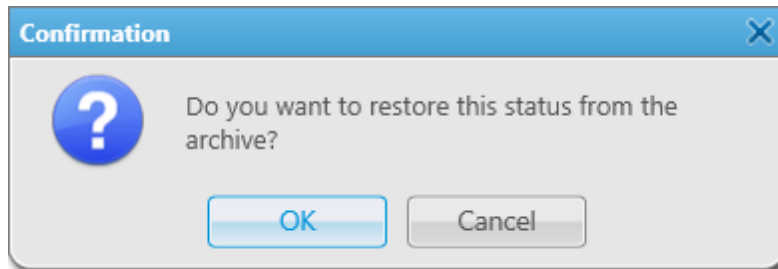


You can [restore](#) archived statuses later. Restored statuses become active.

### 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**:

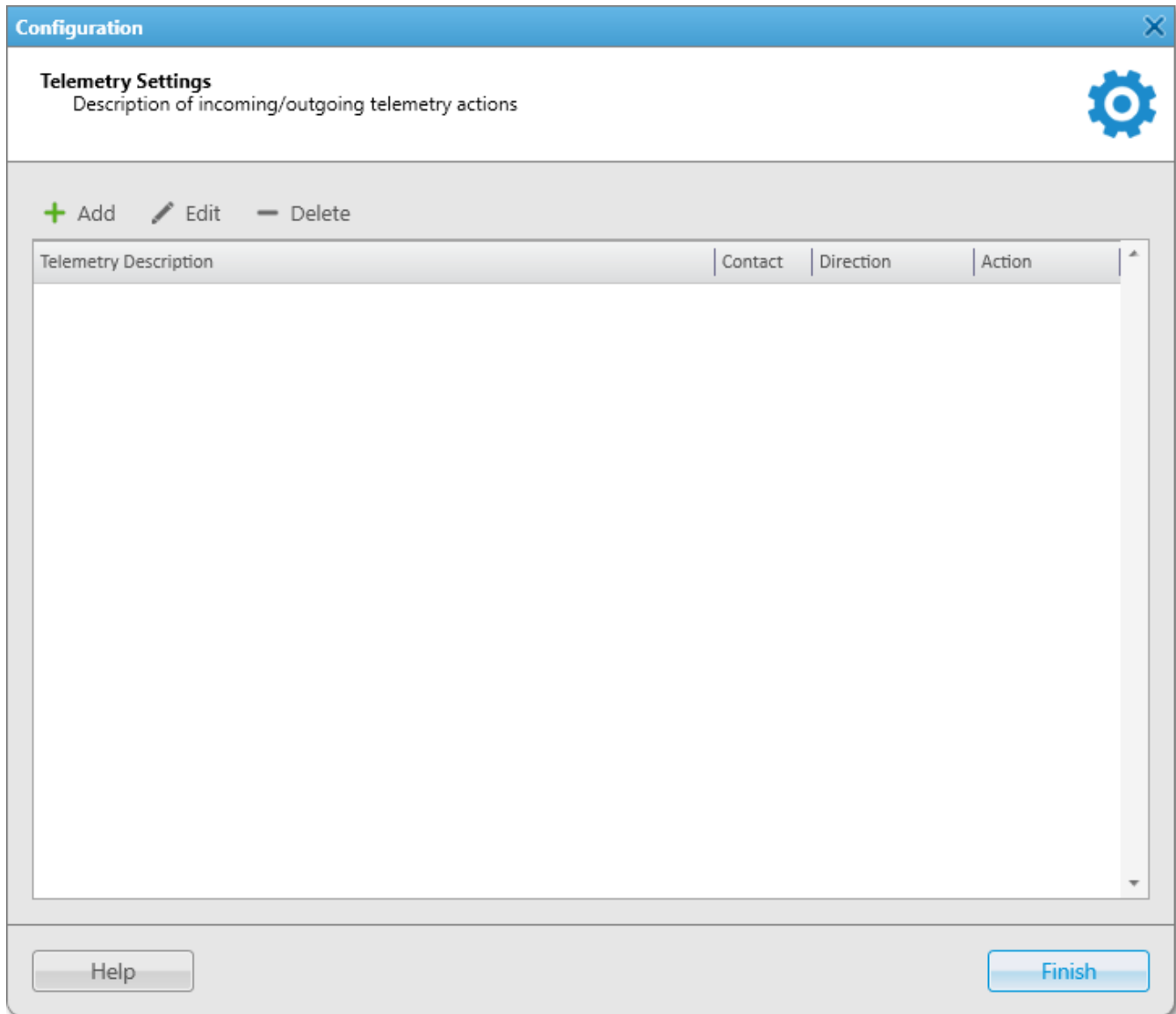


The restored status appear in the active statuses table of the **Active** tab.

## 2.6.4 Telemetry

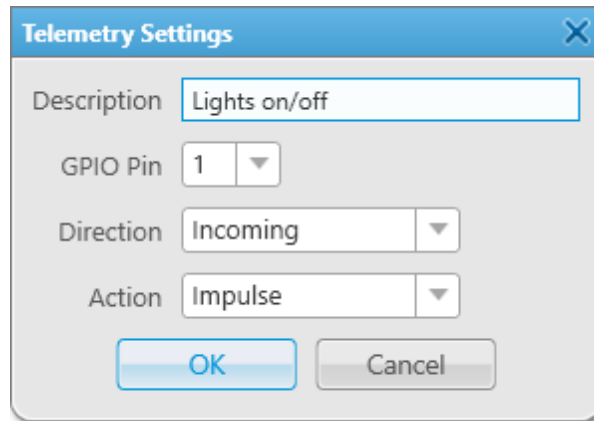
To set up actions based on incoming/outgoing telemetry commands, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **Radios** → **Telemetry**. The **Telemetry Settings** window appears.

Prosto\_Parol6





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**.

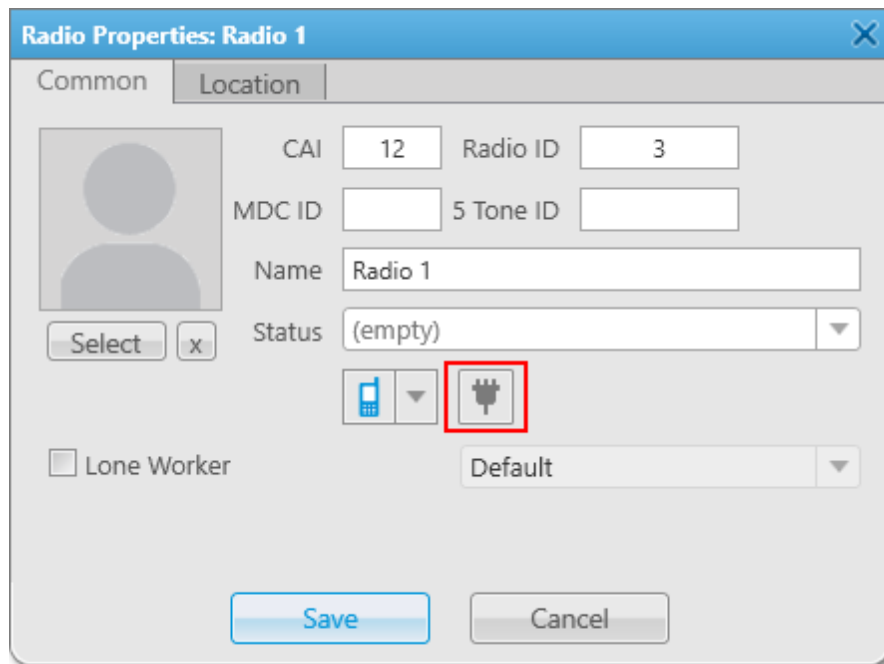
To delete the settings, select the entry in the list of settings and click **Delete**.

## How to Assign Telemetry to Radio

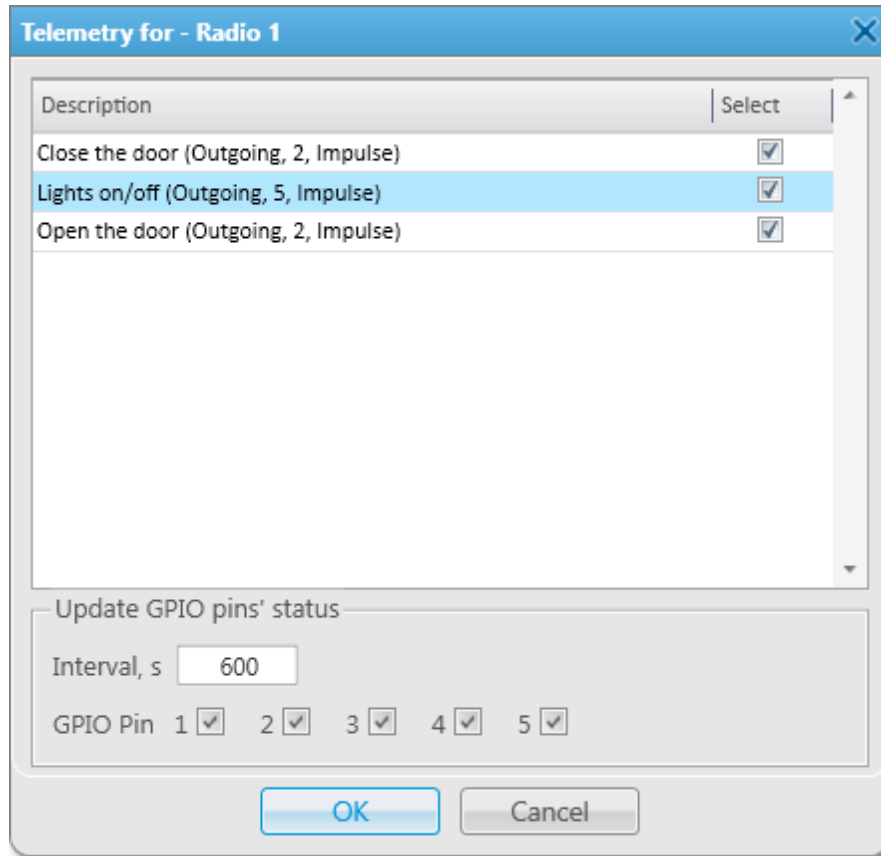
You can select telemetry settings in the radio **Properties** window.

### 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.

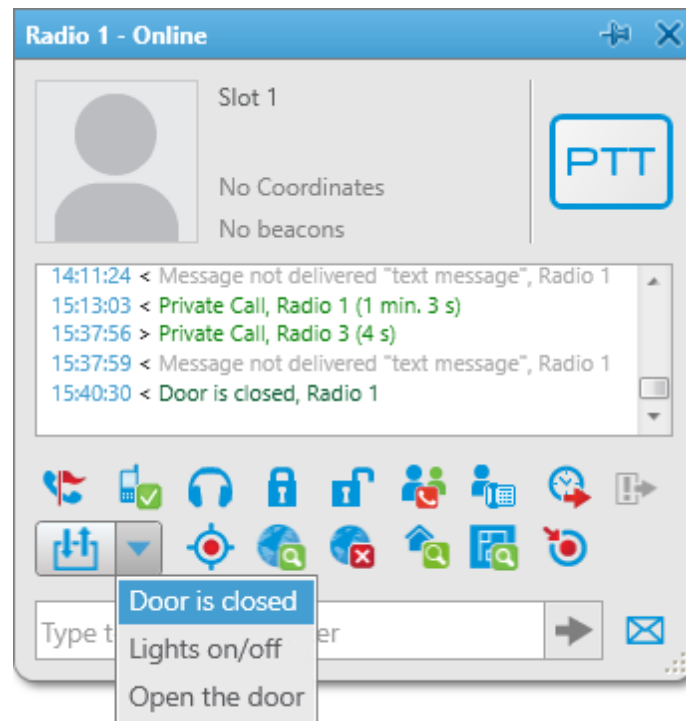



Select the required command to make it available in the **Call Window** of the radio and in the custom consoles. Also, it allows you to set automatic status updates of the GPIO pins. To receive status updates of the GPIO pins automatically, select the required GPIO pins in the **Update GPIO pins' status**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

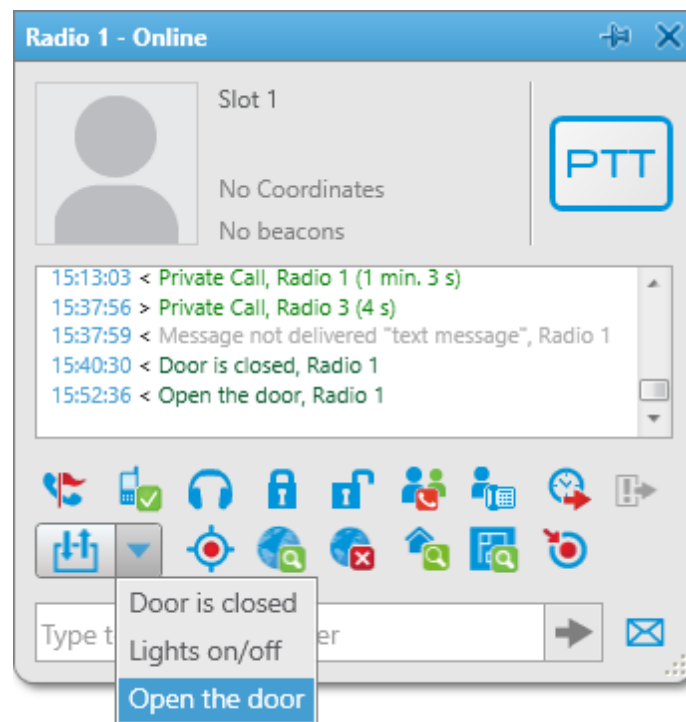
**NOTE**

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

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

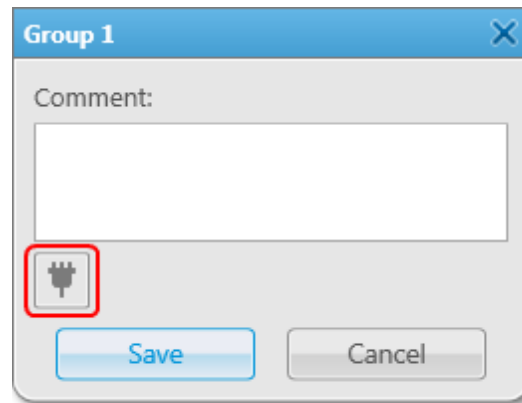


To receive the current telemetry status, click . The updated status will be displayed in **Call Window** of the radio.

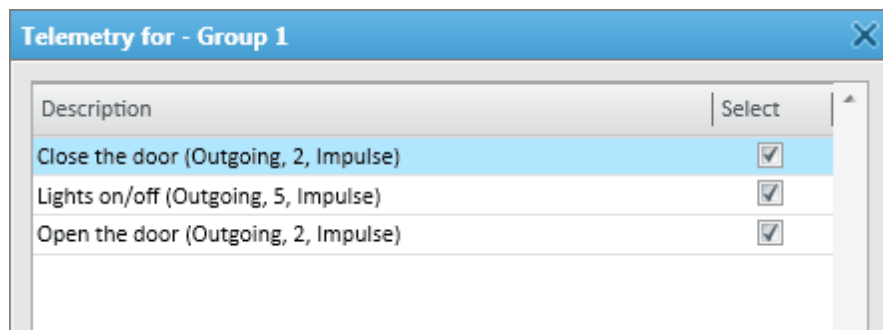


## How to Assign Telemetry to Talkgroup

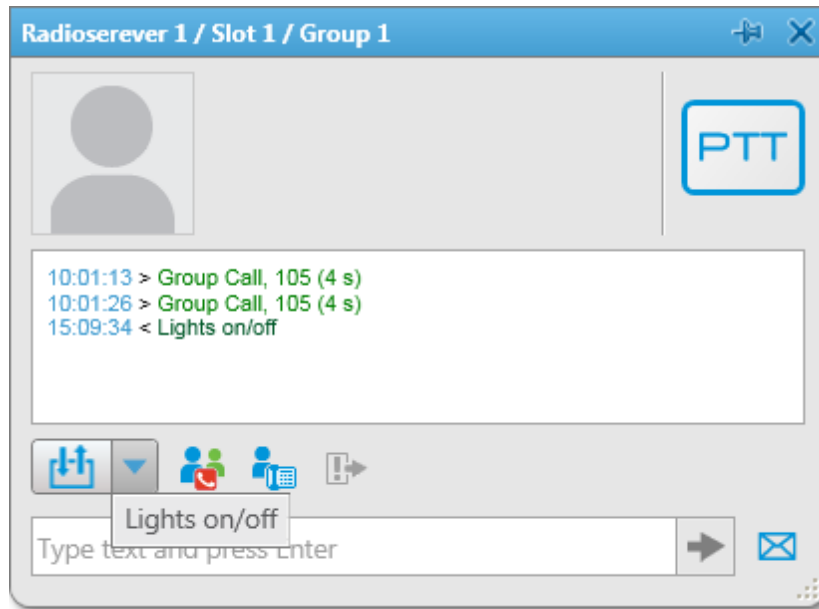
You can select telemetry settings in the **Properties** window of the talkgroup.



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



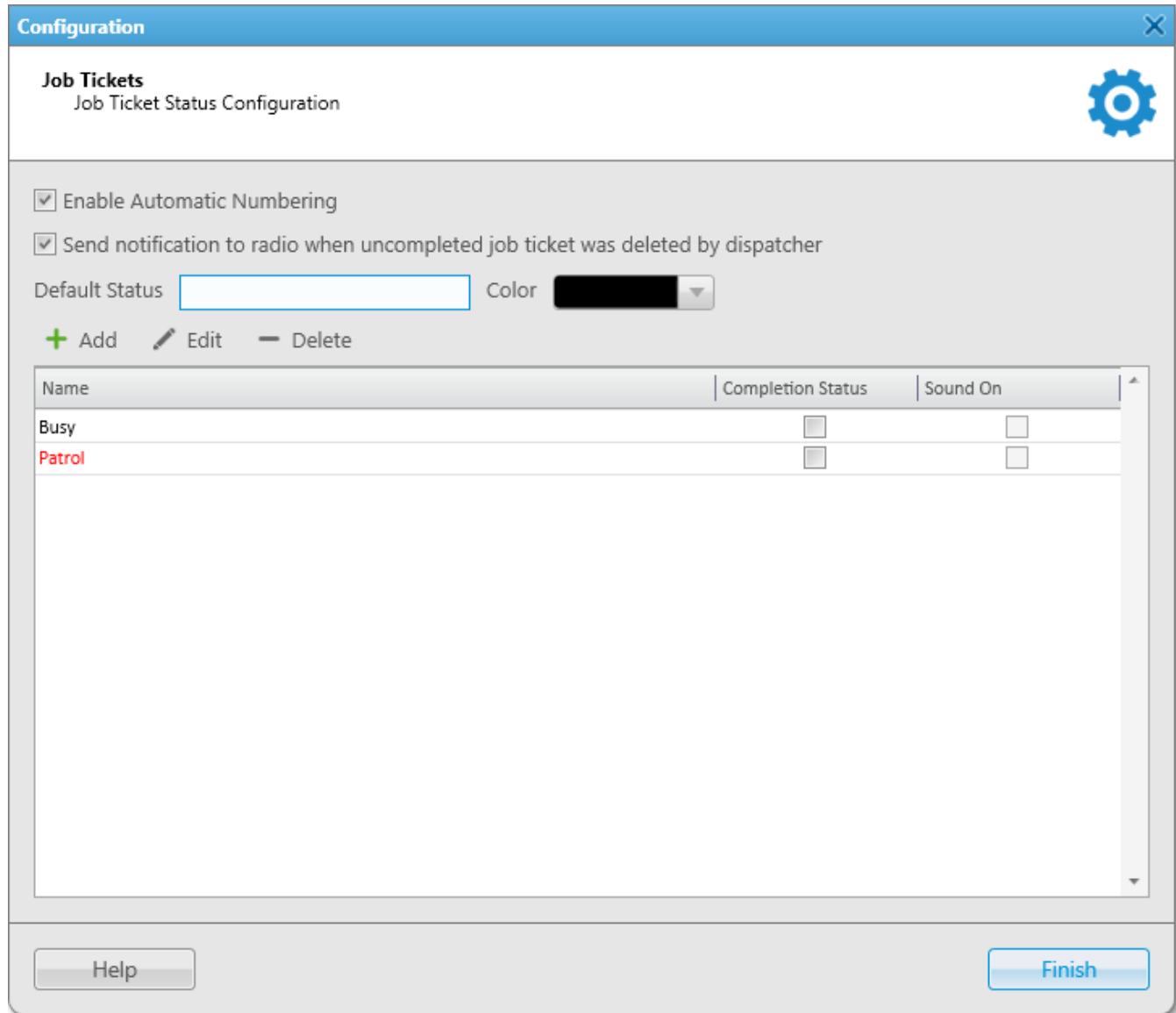
Then you can run the telemetry command from the talkgroup **Call Window**.



## 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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings (⚙)** menu and select **Radios** → **Job Ticket Statuses**. The following window appears:



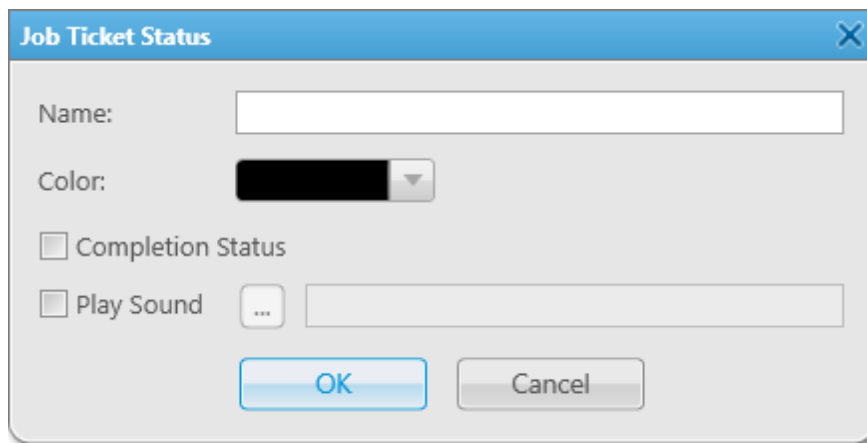
**Enable Automatic Numbering:** When this option is enabled, a unique number is assigned to each new job ticket. It is necessary to distinguish job tickets with same names.

**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** field select the color for the default status.

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



The screenshot shows a dialog box titled "Job Ticket Status". It has a blue title bar with a close button (X) on the right. The dialog contains the following elements:

- Name:** A text input field.
- Color:** A color picker showing a black color.
- Completion Status:** A checkbox that is currently unchecked.
- Play Sound:** A checkbox that is currently unchecked, followed by a small button with three dots and a text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**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

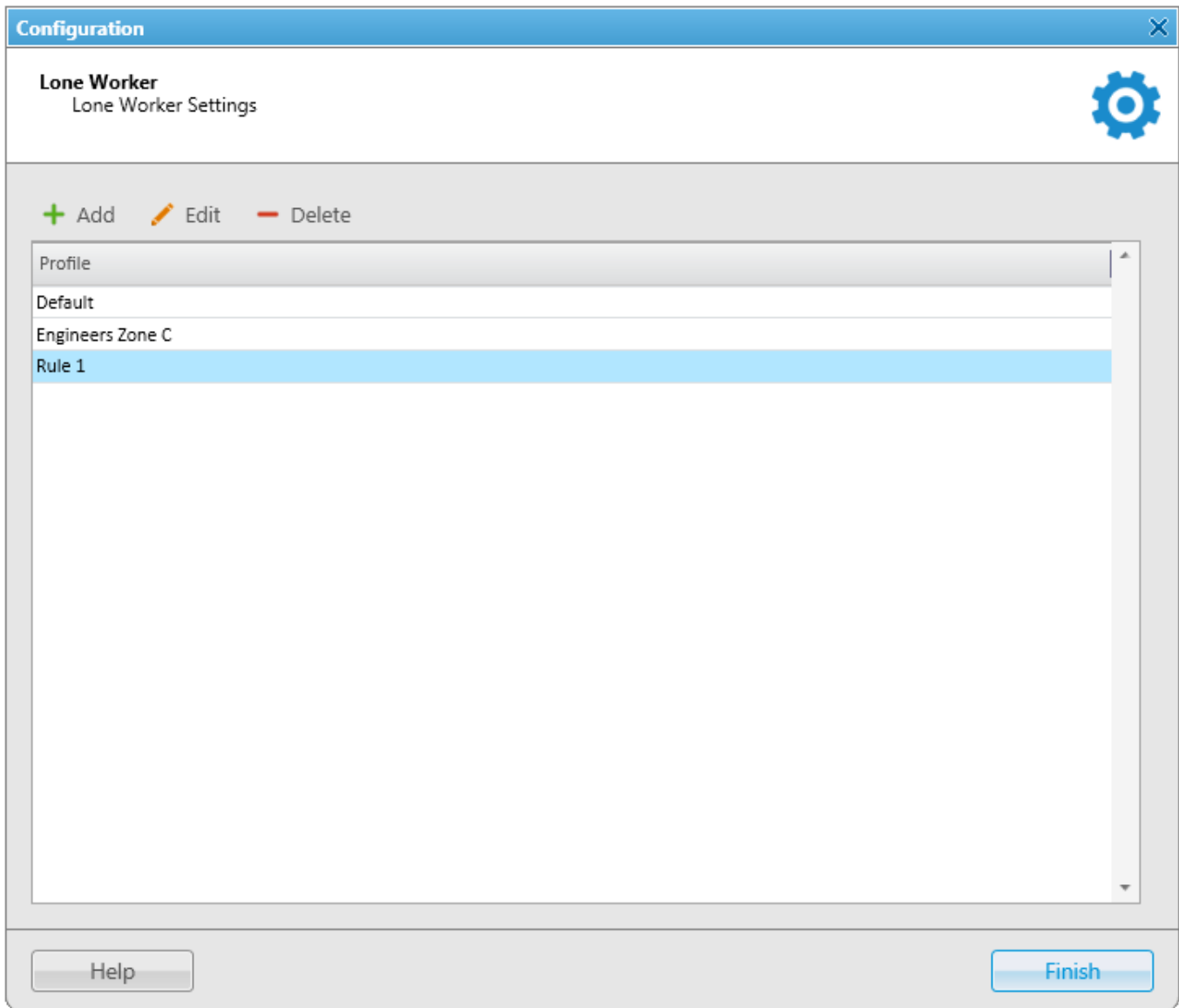
SmartPTT Dispatcher supports the Lone Worker mode for radios and [WAVE users](#).

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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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 fields and sections:

**Name:** Name of the profile. It is an obligatory field.

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

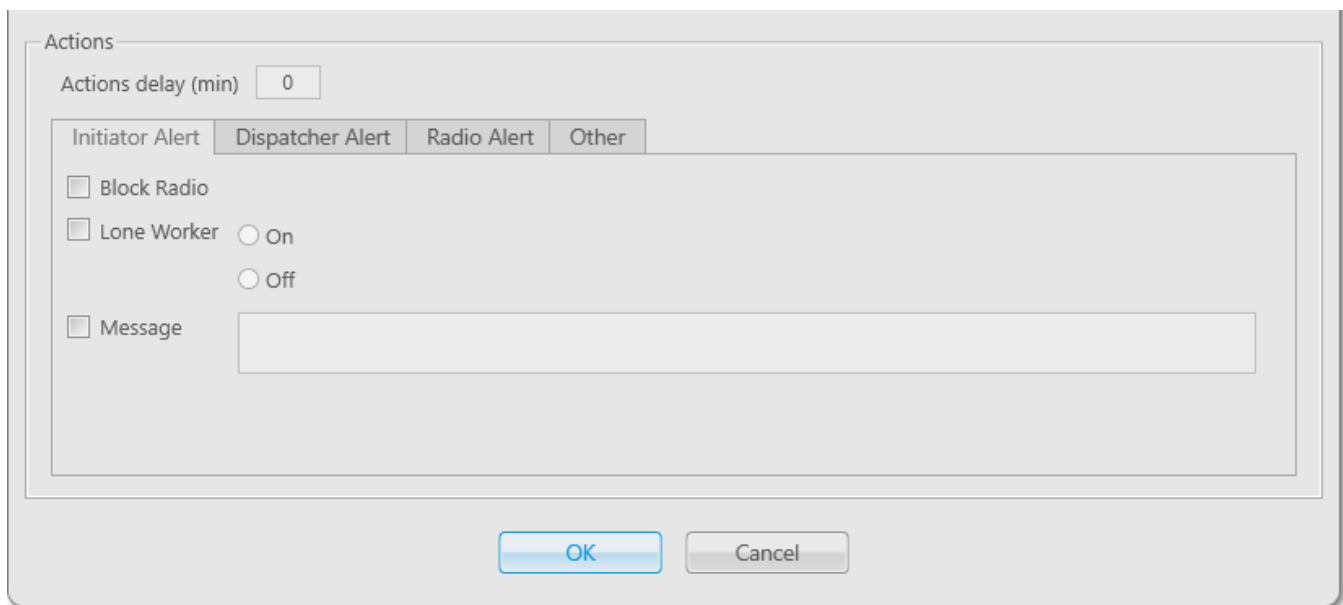
- Alerts addressed to the radio
- Other

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)" containing 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: "Block Radio" with a checkbox, "Lone Worker" with a checkbox and two radio buttons labeled "On" and "Off", and "Message" with a checkbox and 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.

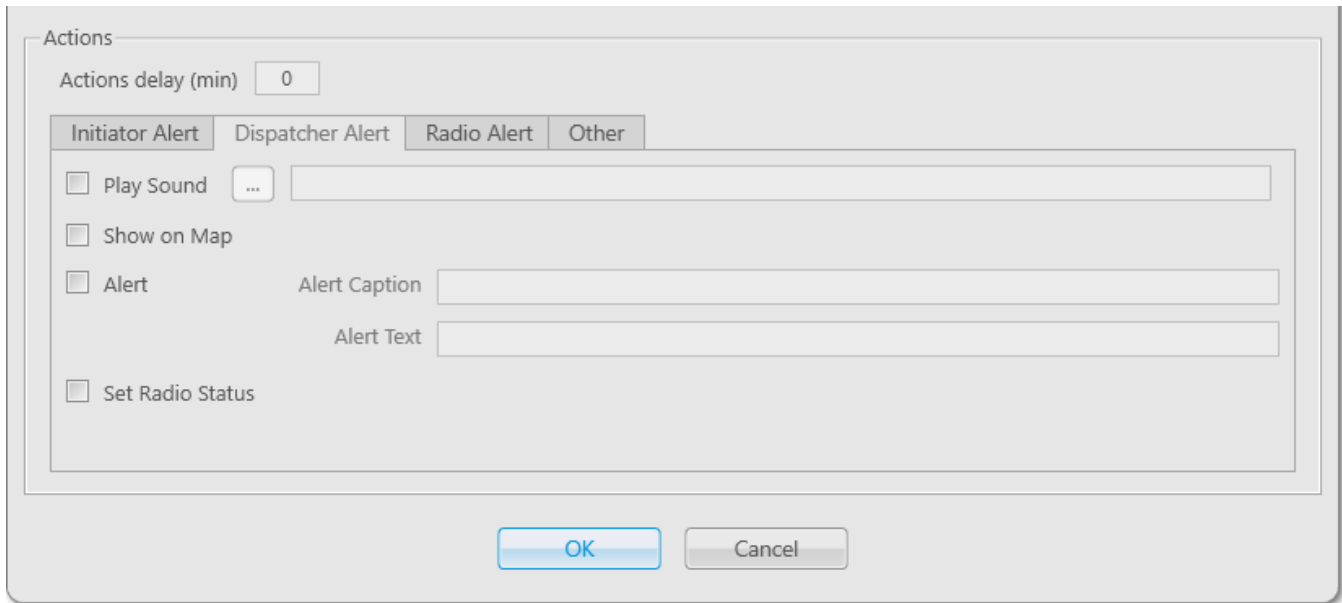
**Message:** A text message is sent to the initiator that triggered the rule.

**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 a 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.

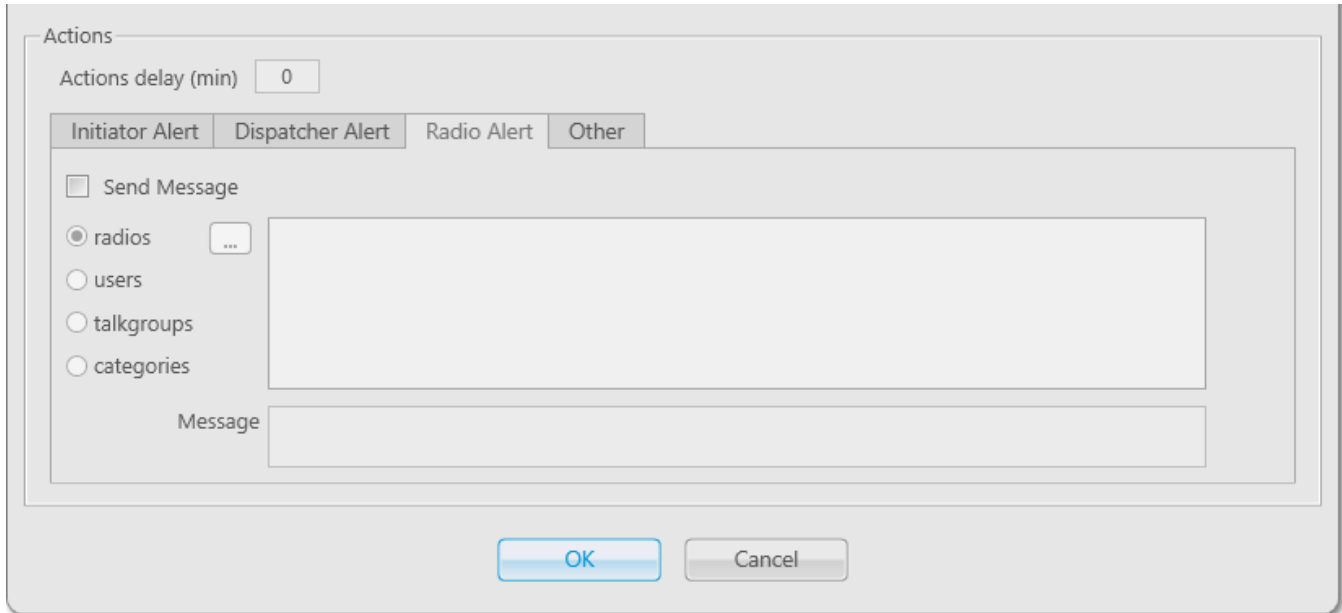
**Show on Map:** The radio or the [WAVE user](#) specified in the rule is shown on the map (with an icon).

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

**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:

`http://192.168.36.136/Loneworker?Param1=@Radioid&Param2=@Status`

Diagram illustrating the components of the HTTP request URL:

- Host Name:** 192.168.36.136
- Path:** /Loneworker
- Parameter 1:** Param1
- Value 1:** @Radioid
- Parameter 2:** Param2
- Value 2:** @Status

### 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 fields 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.

Radio Properties: Radio 3

Common Location

CAI 12 Radio ID 9

MDC ID 5 Tone ID

Name Radio

Status (empty)

Lone Worker

Default

Default

Driver

Save Cancel

Radio Properties: WAVE user

Common

CAI 12 Radio ID 3006

MDC ID 5 Tone ID

Name WAVE user

Status (empty)

Lone Worker

W

Default

Default

Driver

Save Cancel

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

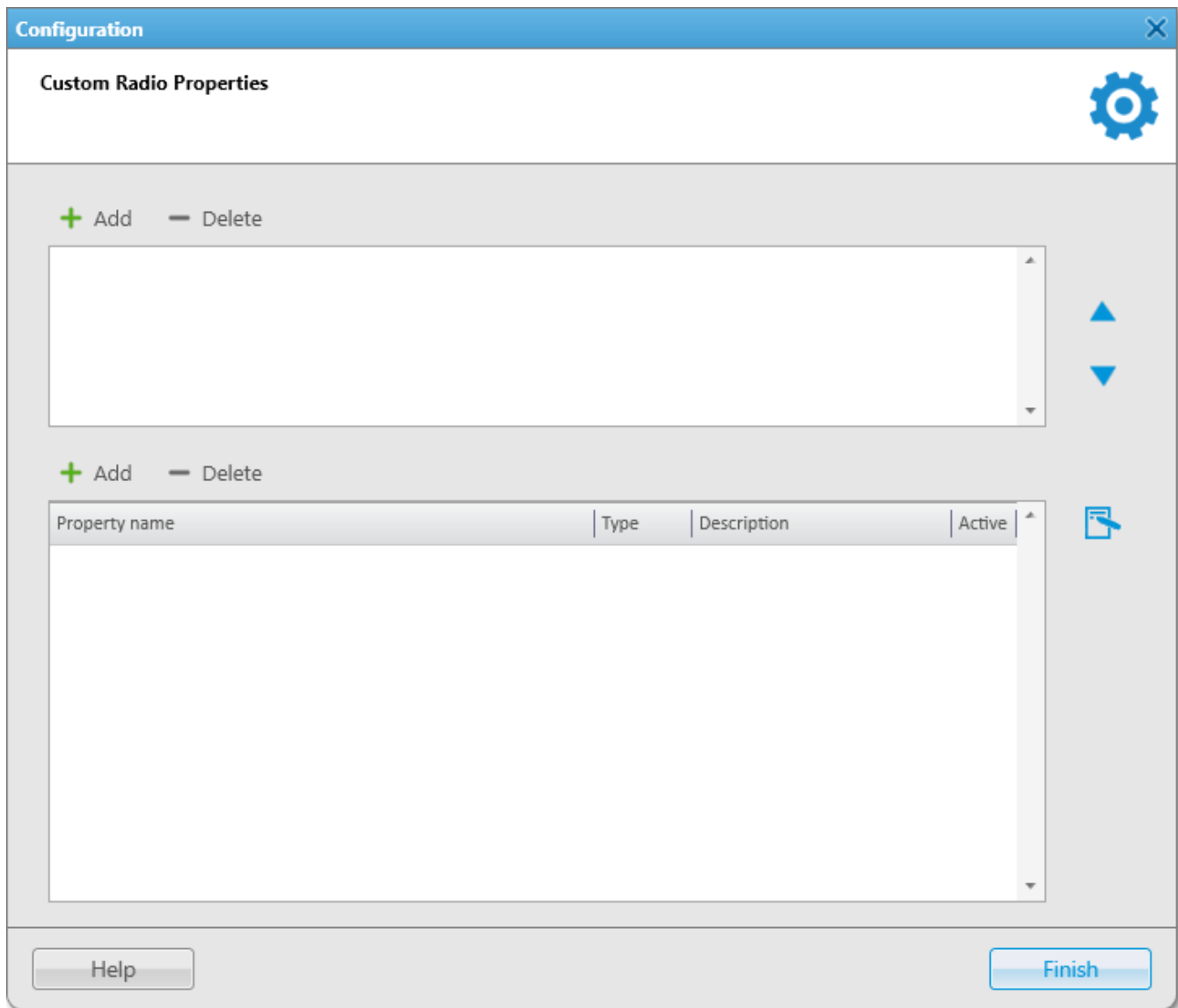
## 2.6.7 Custom Radio Properties

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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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.

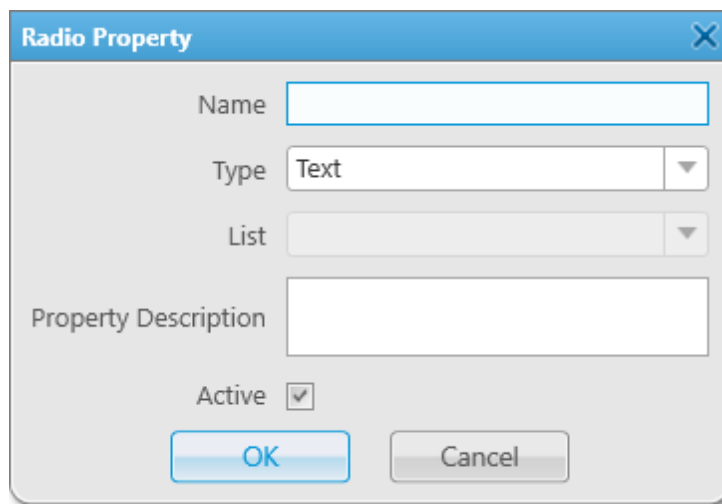
**Type:** Property type (Text, Numeric, Data or List).

**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:

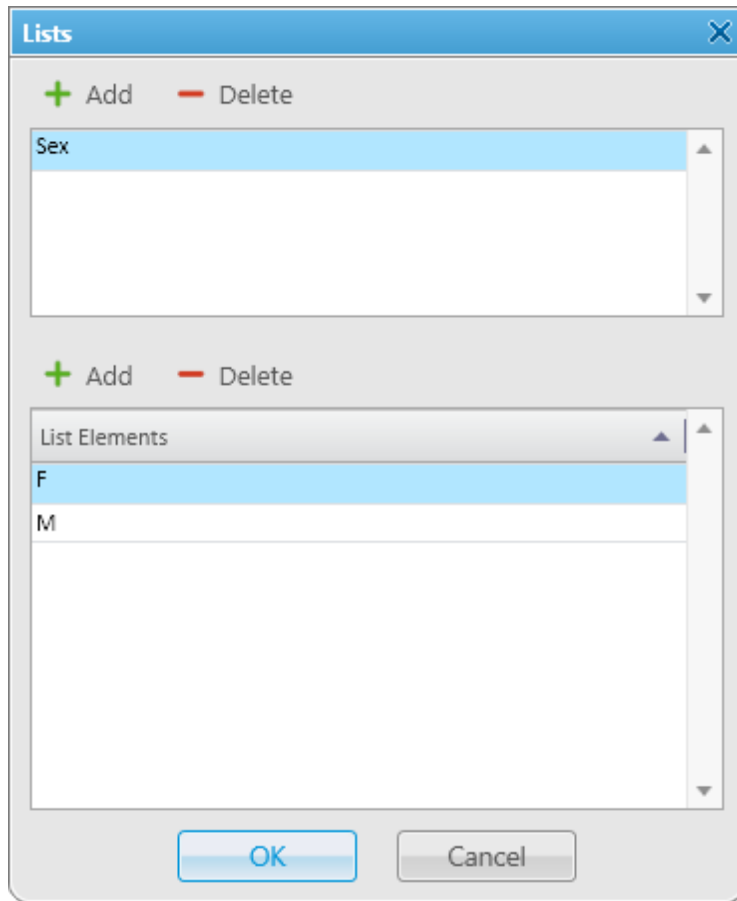
- Name:** A text input field.
- Type:** A dropdown menu currently showing "Text".
- List:** A dropdown menu that is currently empty.
- Property Description:** A larger text input field.
- Active:** A checked checkbox.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

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

**NOTE**

If you want to select **List** in the **Type** field, 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" currently selected. 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="▼"/>

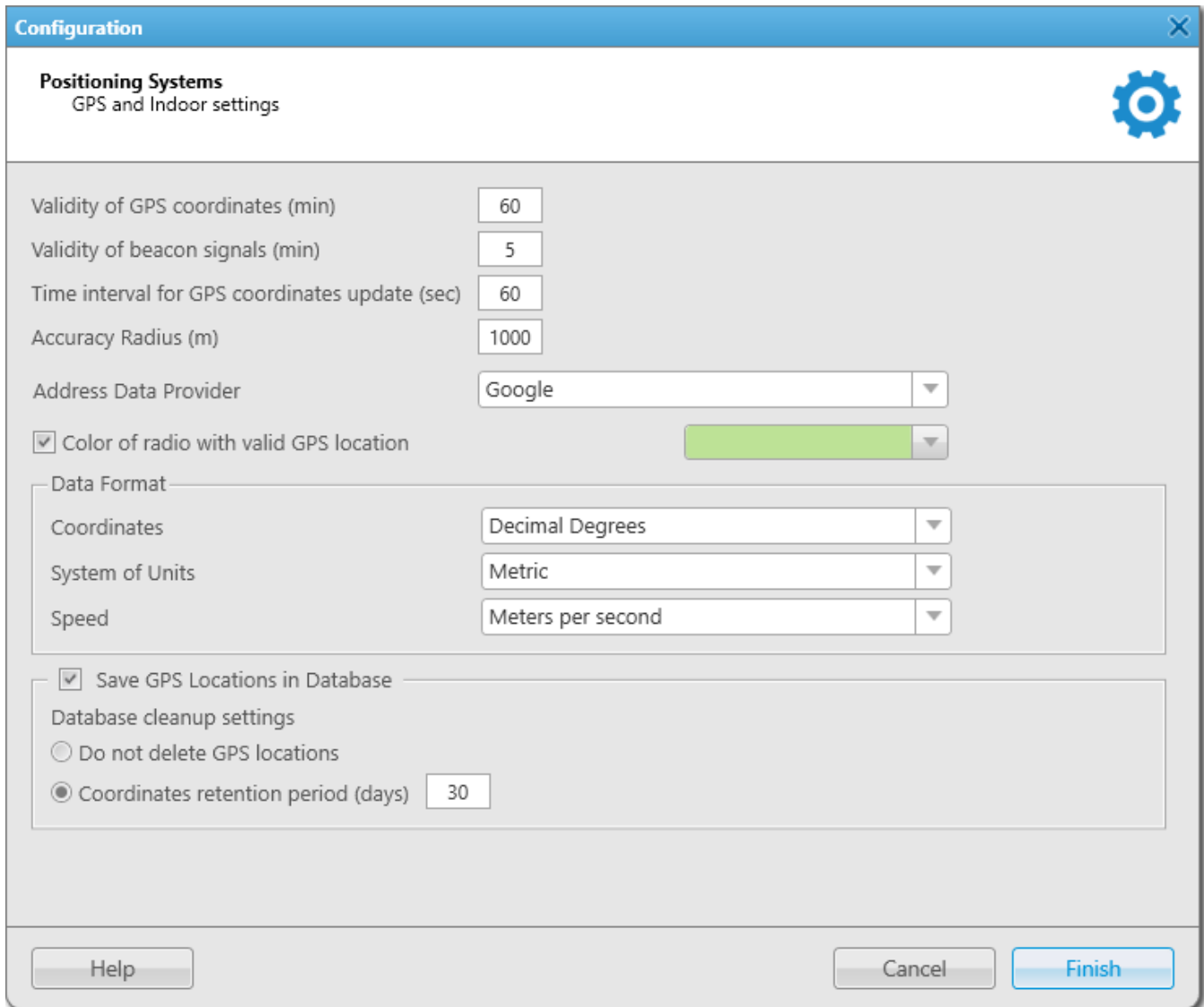
  

Last Employer	
Last Employer	n/a


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

## 2.7 Positioning Systems

To define GPS or Indoor settings, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings**  menu and select **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 field, 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 in the **Main Menu**, 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 in the **Main Menu** even if the permission **Connect with external dispatchers** is selected.

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

**Configuration**

**Dispatchers**  
Dispatcher List participating in Intercommunication

SmartPTT

Dispatcher Settings

VoIP Port  Session Port

Play Sound Alert for Incoming Call

Play Sound Alert for Outgoing Call

+ Add Edit - Delete

Name	IP-address	VoIP Port	Session Port
Dispatcher_137	192.168.37.137	18501	18501
Dispatcher_170	192.168.36.170	18501	18501
Dispatcher_71	192.168.37.71	18501	18501

Help Finish

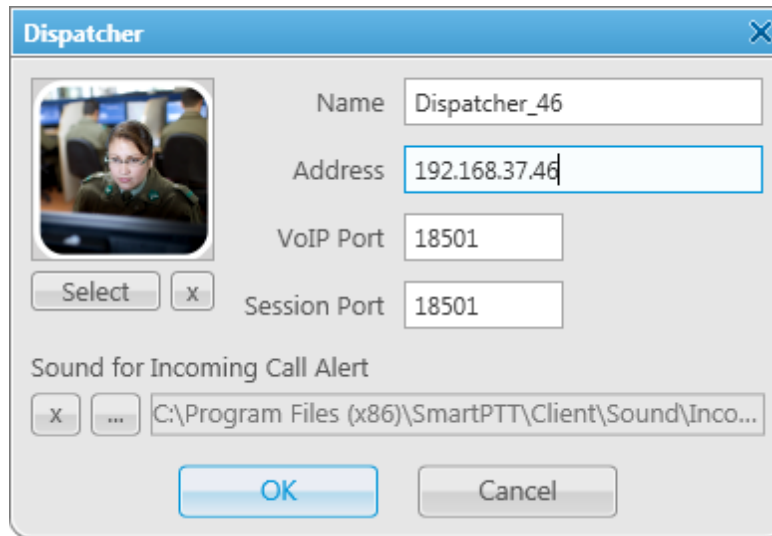
**VoIP Port:** UDP port of this dispatcher's PC for voice transmission. The default value is *18501*.

**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, there 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.

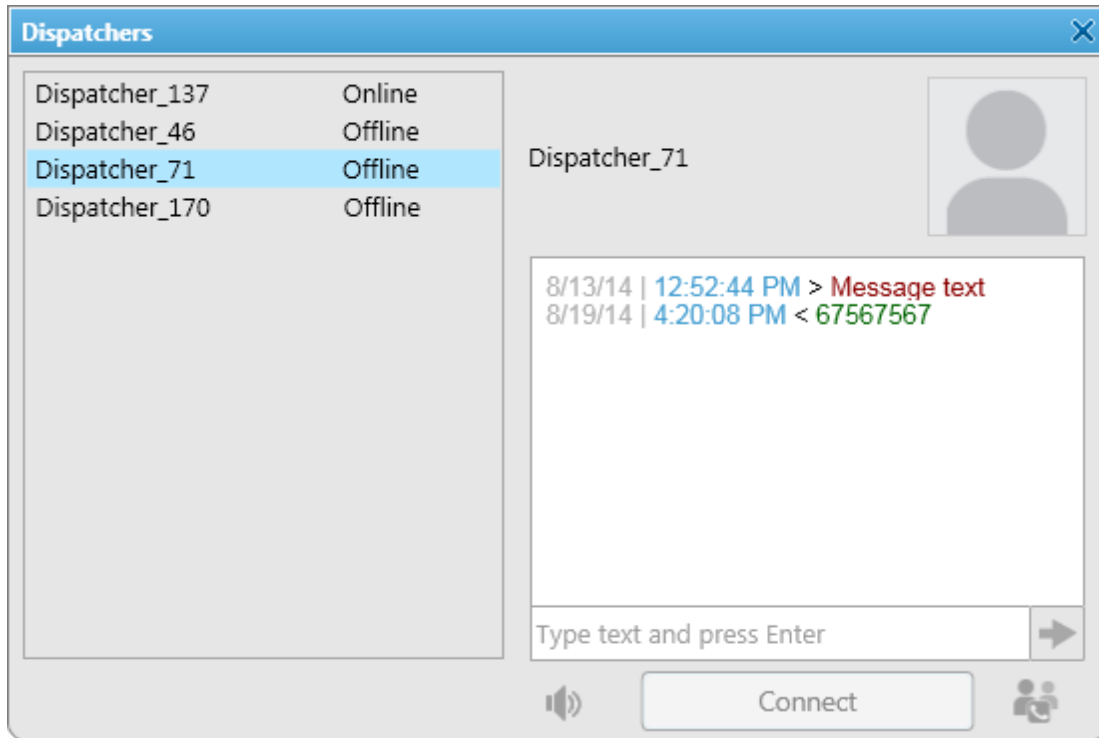
**Sound for Incoming Call Alert:** The path to the sound file which will play in the dispatch console when this dispatcher calls.

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:

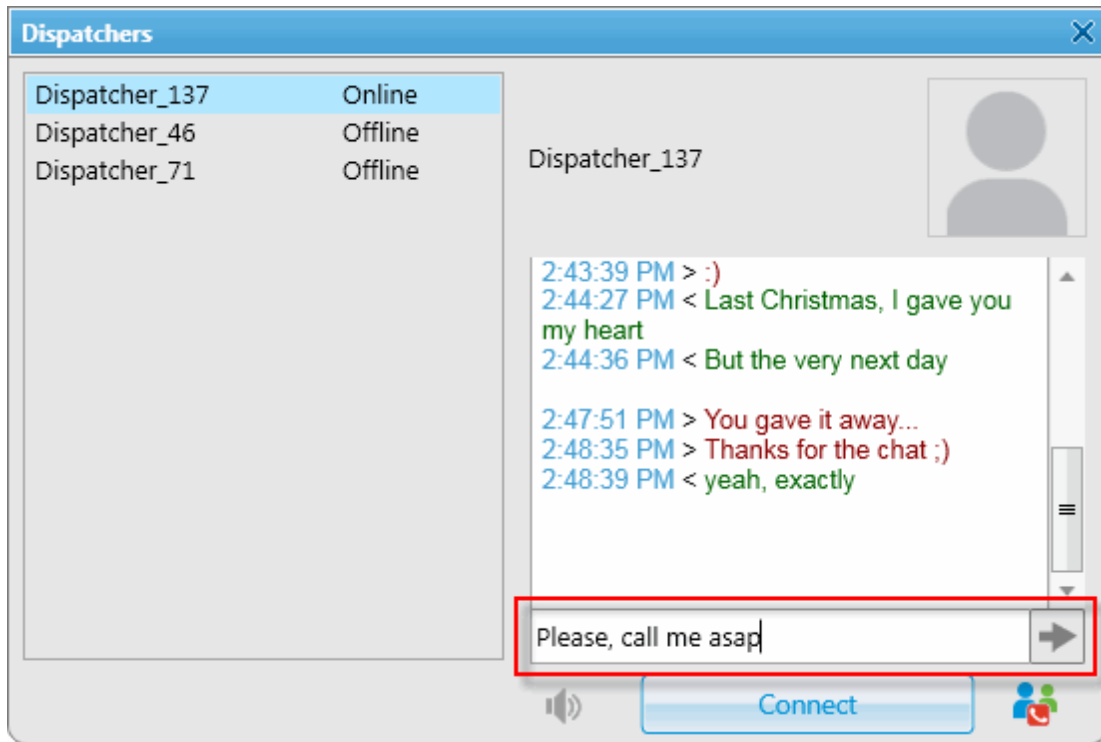
- *Offline*: The dispatcher is not available for communication. This means that the dispatcher has not launched SmartPTT Dispatcher, or does not have the permission (**Connect with external dispatchers**)
- *Online*: The dispatcher is available for communication
- *Ringing*: Calling to the dispatcher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

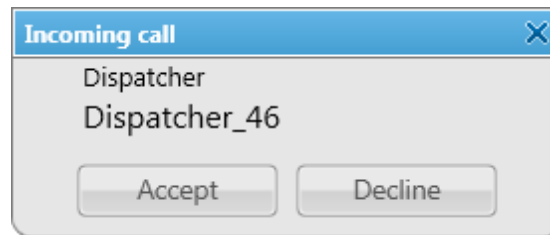
To add online dispatchers to a conference call, click .

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

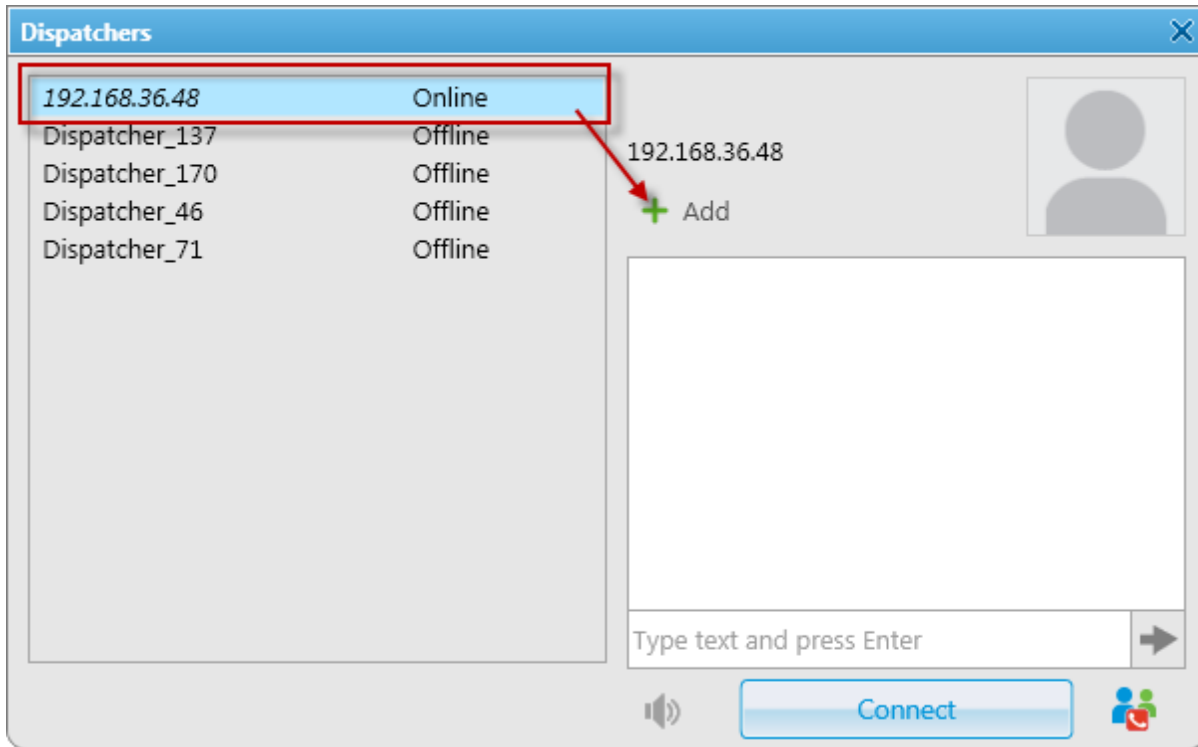
To send a message to the selected dispatcher, enter the text of the message and click .



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.

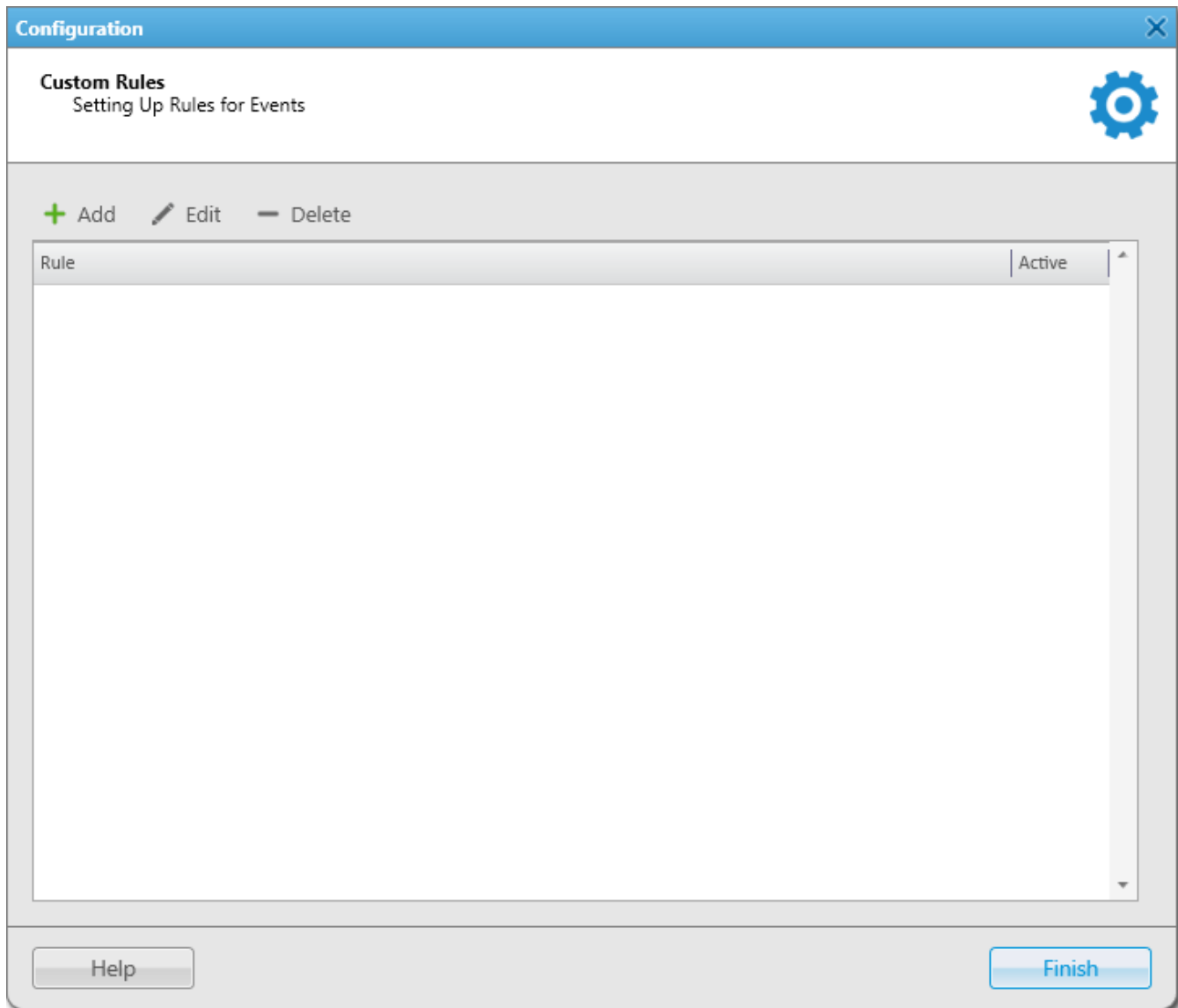


## 2.9 Rules

### 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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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
<b>Direction</b>	No, Equal to	Incoming, Outgoing

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

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

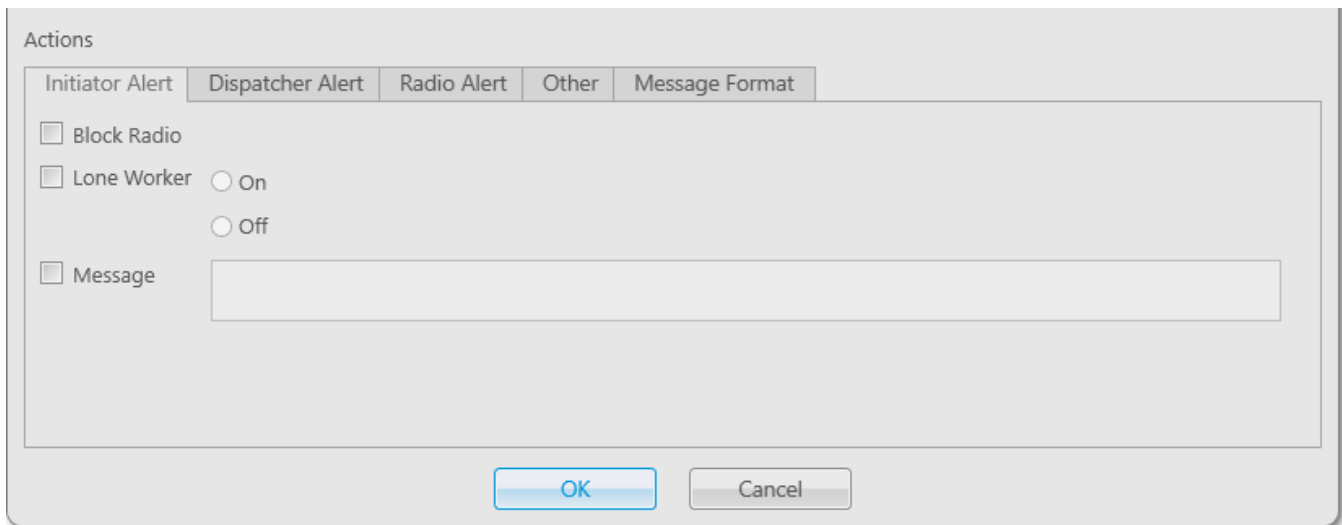
The **Message Format** tab allows you to set the format of the alert messages.

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.

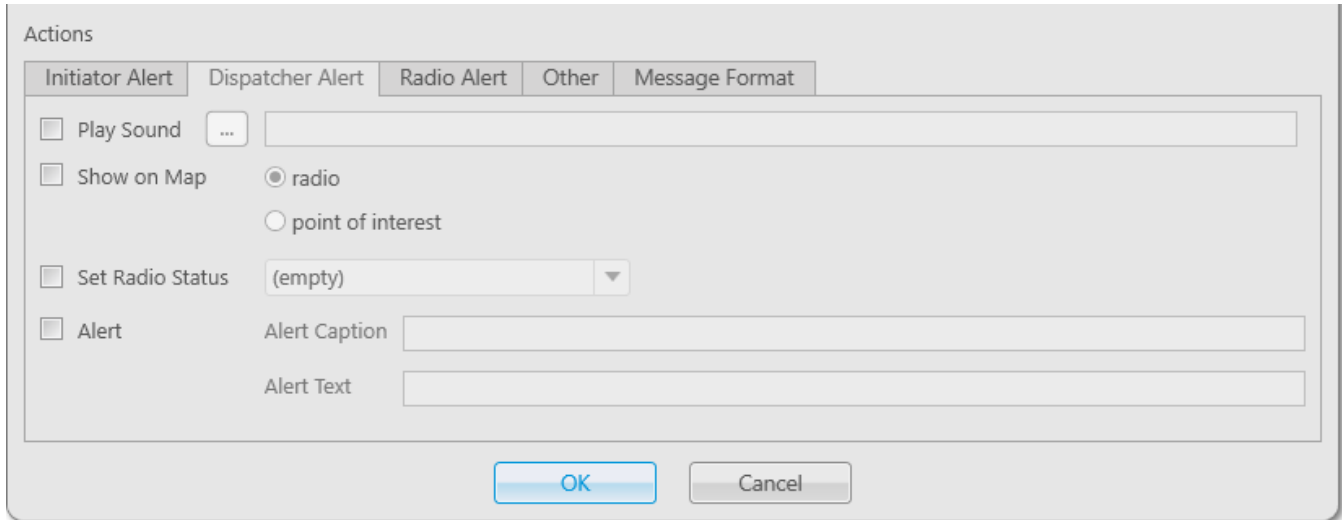
**Message:** A text message is sent to the initiator of triggering of the rule. You can specify message format settings in the [Message Format](#) tab.

### NOTE

This action is unavailable to WAVE users.

## Dispatcher Alert

Open the **Dispatcher Alert** tab.



The screenshot shows a dialog box titled "Actions" with four tabs: "Initiator Alert", "Dispatcher Alert", "Radio Alert", and "Message Format". The "Dispatcher Alert" tab is selected. The dialog contains the following fields and controls:

- Play Sound: A checkbox followed by a file selection button (three dots) and an empty text input field.
- Show on Map: A checkbox followed by two radio buttons: "radio" (selected) and "point of interest".
- Set Radio Status: A checkbox followed by a dropdown menu showing "(empty)".
- Alert: A checkbox followed by two text input fields: "Alert Caption" and "Alert Text".

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

**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** field and the description in the **Alert Text** field.

**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 positioned to the right of these options. Below the input field is a 'Message' label and another text input field. 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](#).

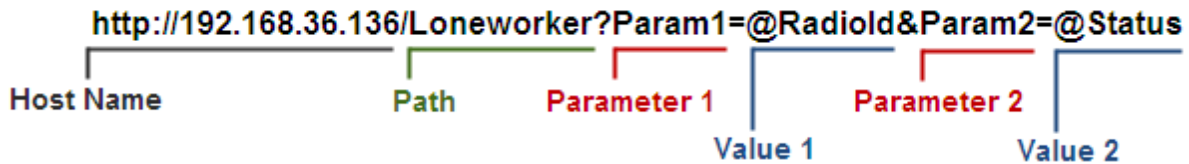
## Other

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. To its right, there is a 'Radioserver' dropdown menu, a 'Message' label, and a text input field. Further down, the 'SMS' checkbox is checked. To its right, there is another 'Radioserver' dropdown menu, a 'Message' label, and a 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 fields 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 fields 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.



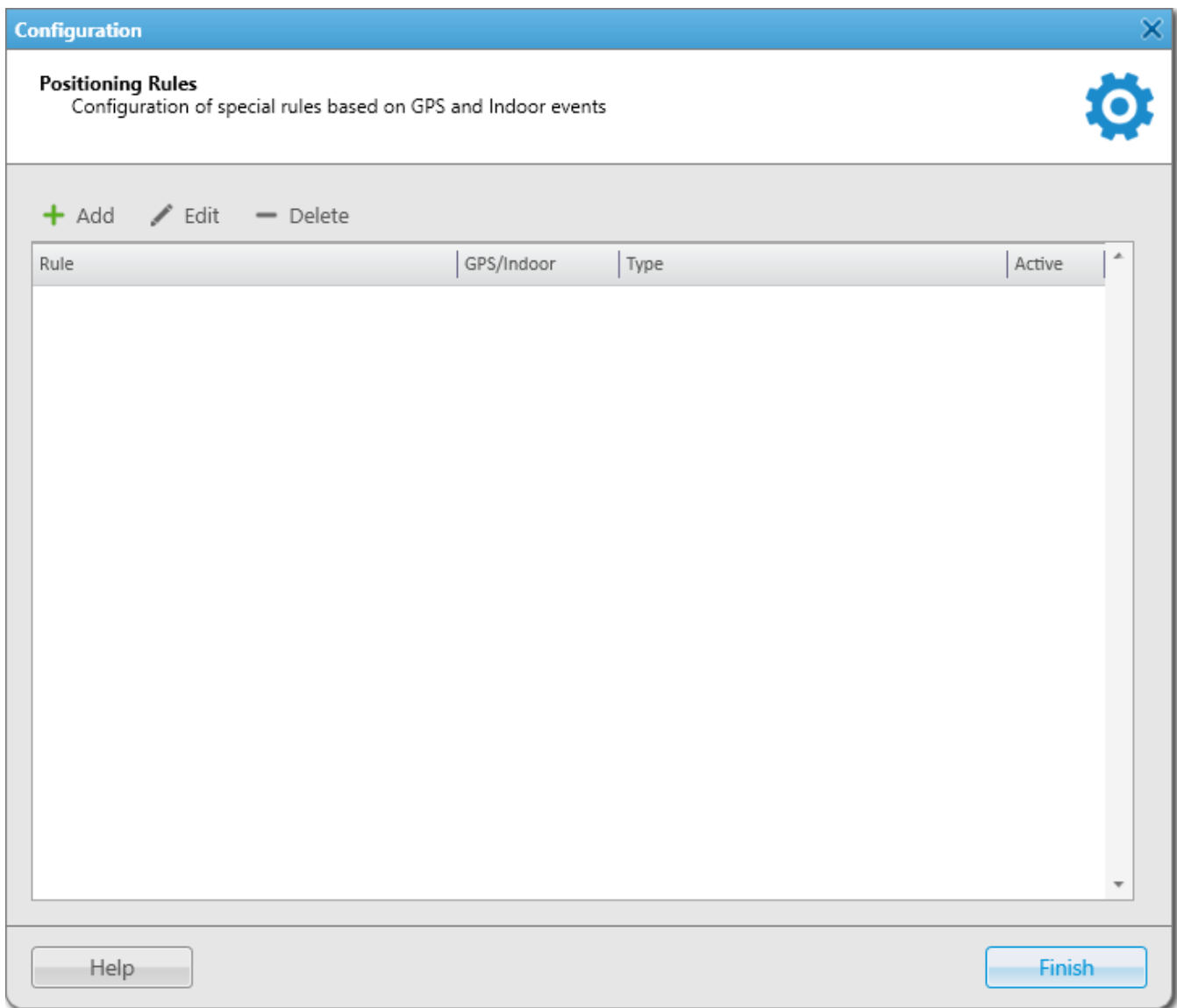
**Radio ID:** If selected, the radio ID, which has triggered the rule, will be added to the text message.

**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, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **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
<b>All Radios</b> <b>Select Radios / Select Users / Select Categories</b>	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.
<b>Time period with no motion detected</b>	Time interval during which a radio or a WAVE user can stay at one place (min)
<b>Time period before receiving location data</b>	Period of time after which a radio or WAVE user coordinates are received again (min)
<b>Time period with no location data received</b>	Period of time during which there are no radio or WAVE user coordinates (min)
<b>Geofences and Routes</b>	Select geofences or routes to follow in the rule.

Attribute	Value
<b>Speeding</b>	<p>If speeding is registered, the rule is executed.</p> <p><b>NOTE</b> 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>
<b>Number of radios in geofences/on routes</b>	The number of radios and WAVE users in selected geofences or on selected routes.
<b>Select Area (Geofences/ Routes)</b>	Select geofences or routes to follow in the rule.
<b>Notify constantly</b>	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.
<b>Notify about new location</b>	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:

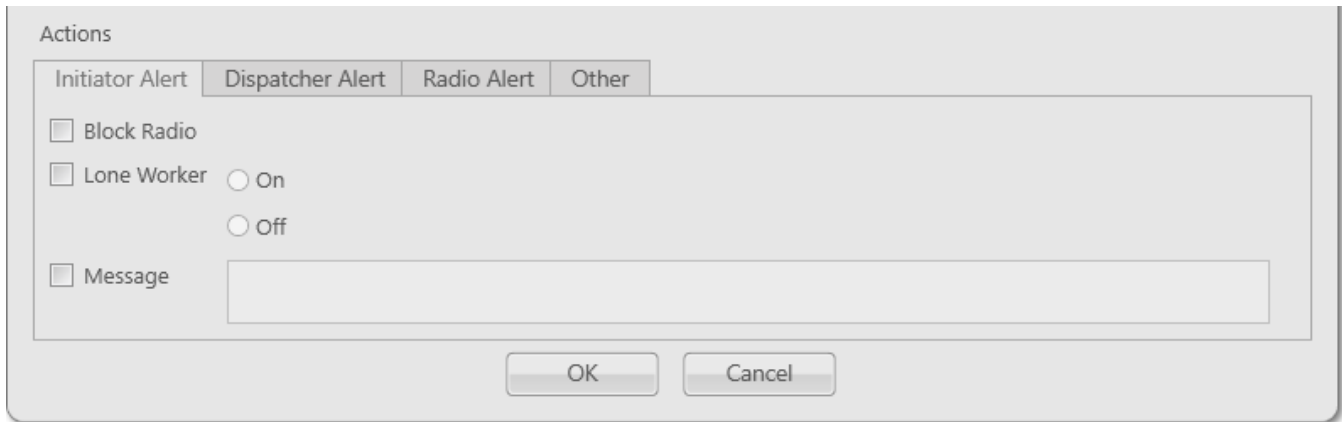
- Actions addressed to the initiator
- Alerts addressed to the dispatcher
- Alerts addressed to the radios
- Other actions

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". Below the "Message" checkbox is 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, each with a checkbox and a corresponding input field:

- Play Sound: Includes a file selection button (three dots) and a text input field.
- Show on Map: A simple checkbox.
- Alert: Includes an "Alert Caption" label and a text input field.
- Alert Text: Includes an "Alert Text" label and a text input field.
- Set Radio Status: A simple checkbox.

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

**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** field and the description in the **Alert Text** field.

### 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 that is a 'Message' label followed by 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:
 

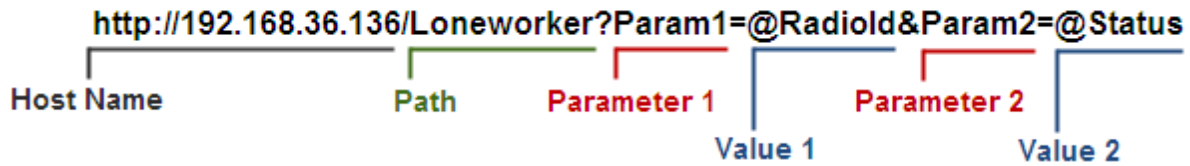
- HTTP Request:** A checkbox followed by a single text input field.
- E-mail:** A checkbox followed by a 'Radioserver' dropdown menu, a 'Message' label, and a text input field.
- SMS:** A checkbox followed by a 'Radioserver' dropdown menu, a 'Message' label, and a text input field.

 Below these sections is a 'Phone Numbers' label followed by 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 fields 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 fields 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**

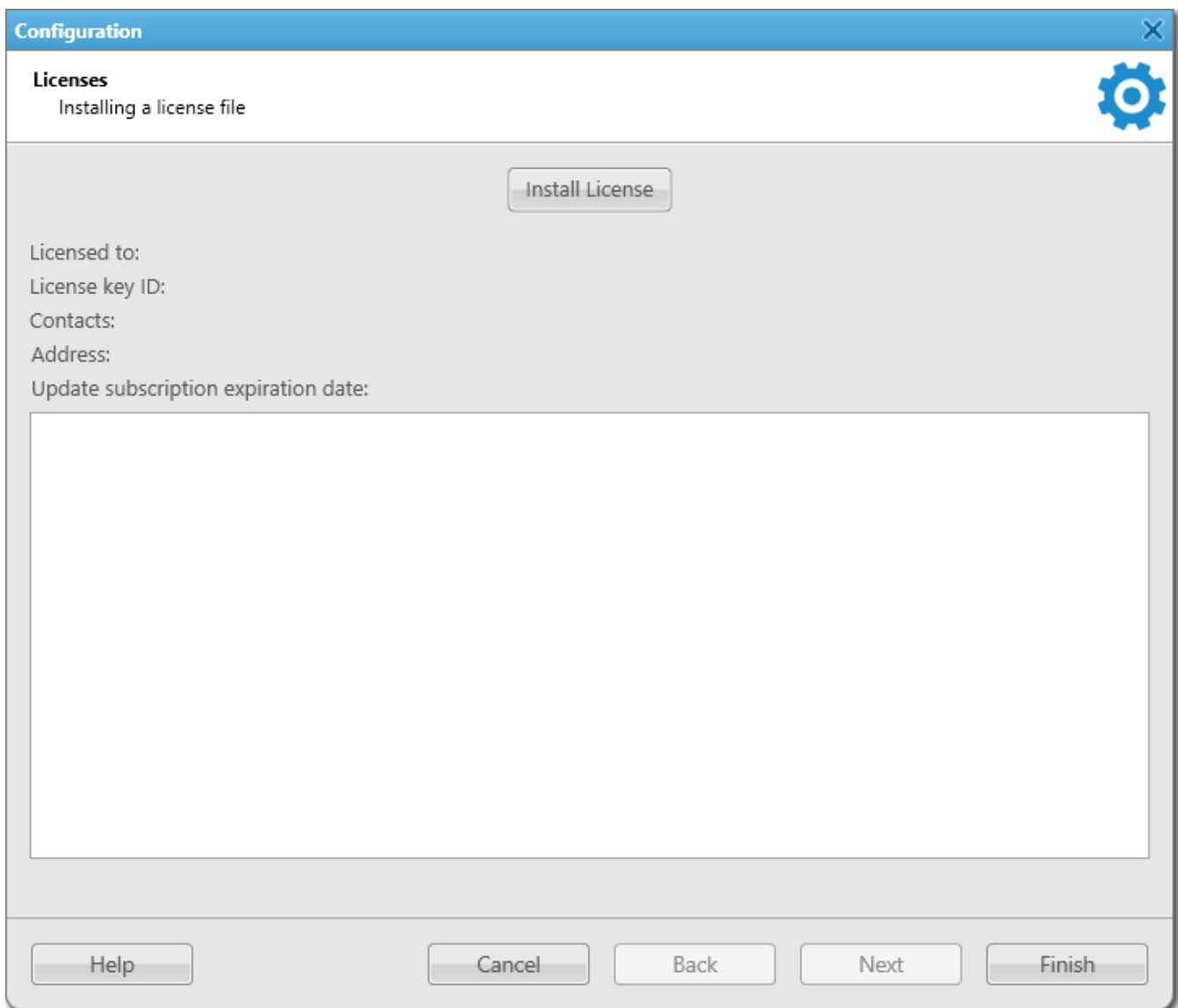
See information about SmartPTT Radioserver configuration for sending and receiving e-mails and SMS messages in SmartPTT Radioserver Configurator Help under **Telephone Interconnect** and **SMS Gateway**.

## 2.10 Licenses

To use SmartPTT Dispatcher a license is needed. There are licenses for basic features which allow you to run the application and licenses for additional features, like telephone connection support, bridging, SNMP service, etc.

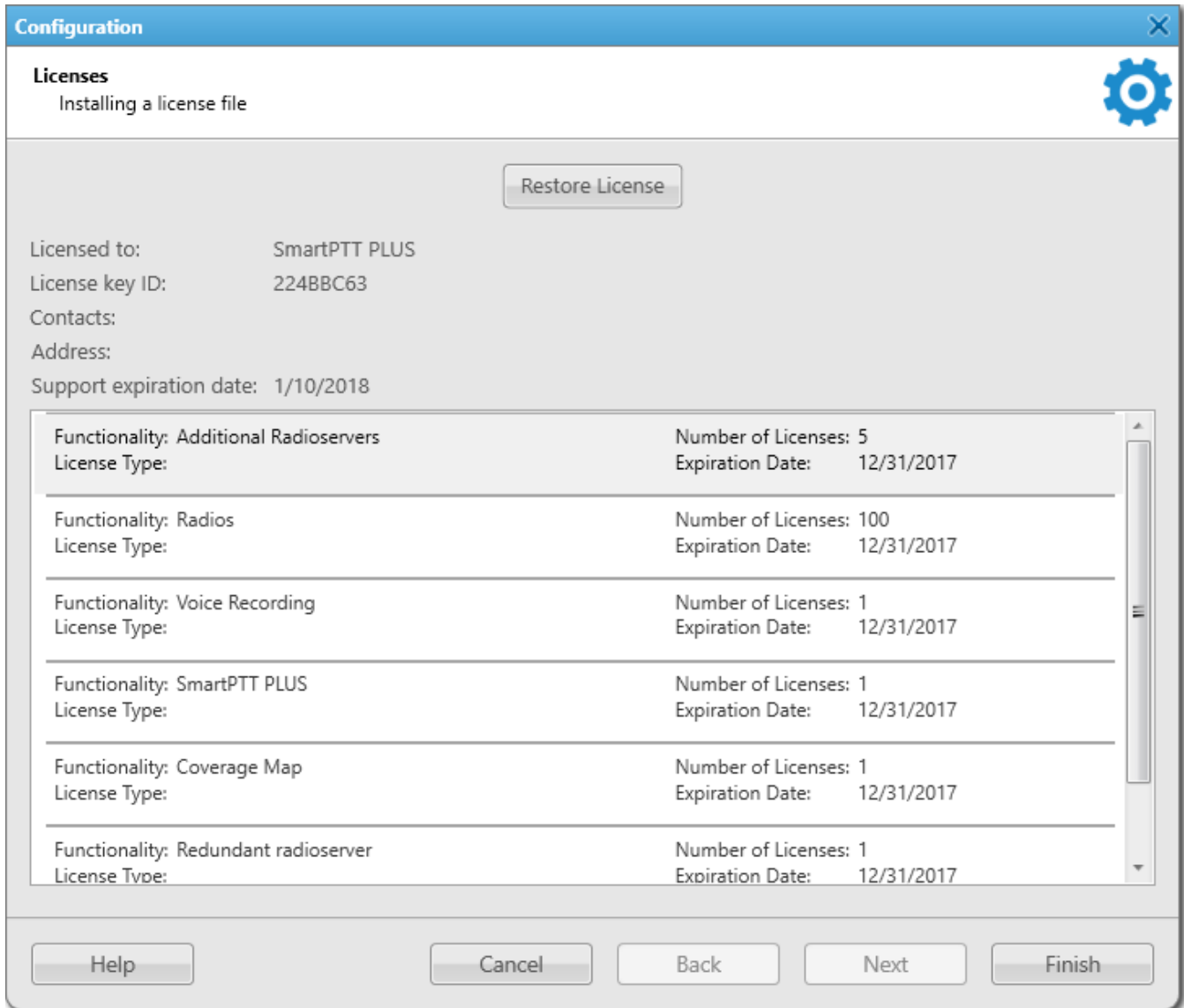
To install the license, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings**  menu and select **Licenses**.

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, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Database**. The following window appears:

**Configuration**

**Database**  
Settings for connection to MS SQL Server database

Database server

Database server name: localhost\\SQLExpress  
For database server installed locally at SmartPTT Dispatcher PC enter name in the following way:  
Name of Computer\\SQLExpress (e.g., MYCOMP\\SQLExpress).

Authorization mode: Windows NT Authorization

Account name:

Password:

Connect

Database

Connection to the database server is established.

Create database Restore database

Current database: SmartPTT

Help Cancel Back Next Finish

Before creating a new database, connect to the database server. For this, fill in the **Database server name** field, 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](#).

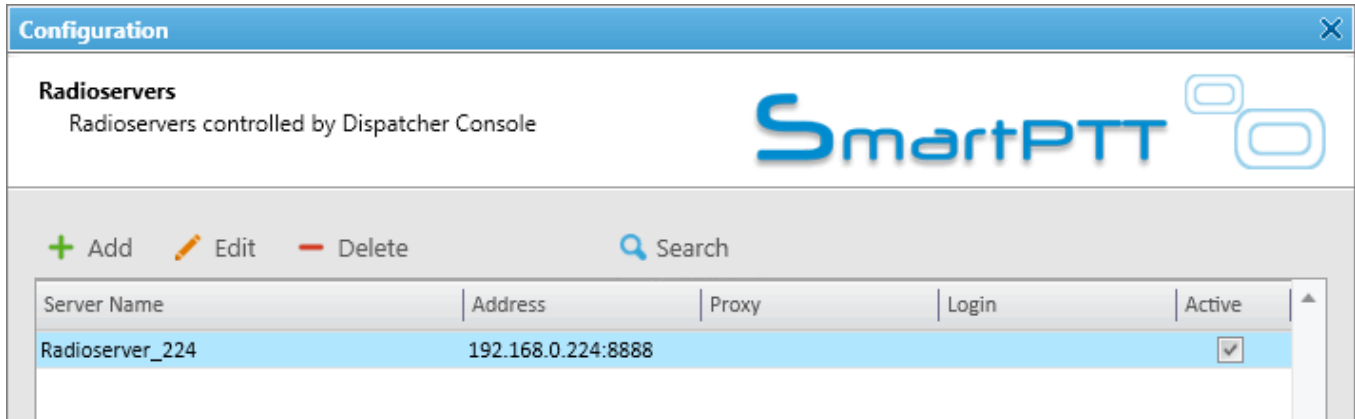
**NOTE**

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

To connect the existing radioserver to the dispatcher console, in the **Main Menu** bar of the SmartPTT Dispatcher window, expand the **Settings ( ⚙ )** menu and select **Radioservers**. The configuration window for setting up and configuring radioservers opens up.



By default, the list of radioservers is empty. Click **Add** to open the window for adding radioservers.

**Server Settings**

General | **IPMI**

Active

Name Radioserver\_224

Address : Port 192.168.0.224 Port 8888

Proxy : Port Proxy Port

Login

Password

Operator	Profile Name
Administrator	

OK Cancel

**Name:** Radioserver name displayed in the list of radioservers.

**Address, Port:** Radioserver IP address and port number to connect with the dispatcher (the default radioserver port number is 8888). Make sure that the **Address** and **Port** you enter match the **Address** and **Port** specified in SmartPTT Radioserver Configurator.

### Example

In this example we use port 8888.

**Radio Server**

Name Radioserver

Interface 192.168.0.224 Port 8888

Authentication No



**Proxy:port:** Is a proxy server IP address and port number of the connection.

Fields **Login** and **Password** must be filled if authentication is enabled on the radioserver side. To enable authentication on the radioserver side, run SmartPTT Radioserver Configurator, click **Radioserver**, select *Windows* in the **Authentication** field. Currently, you can select only Windows authentication. If Windows authentication is selected, you can't connect the dispatcher console and the radioserver without indicating valid credentials in the **Login** and **Password** fields. If the radioserver computer makes part of a domain, indicate the domain login and password, if not – indicate local login and password.

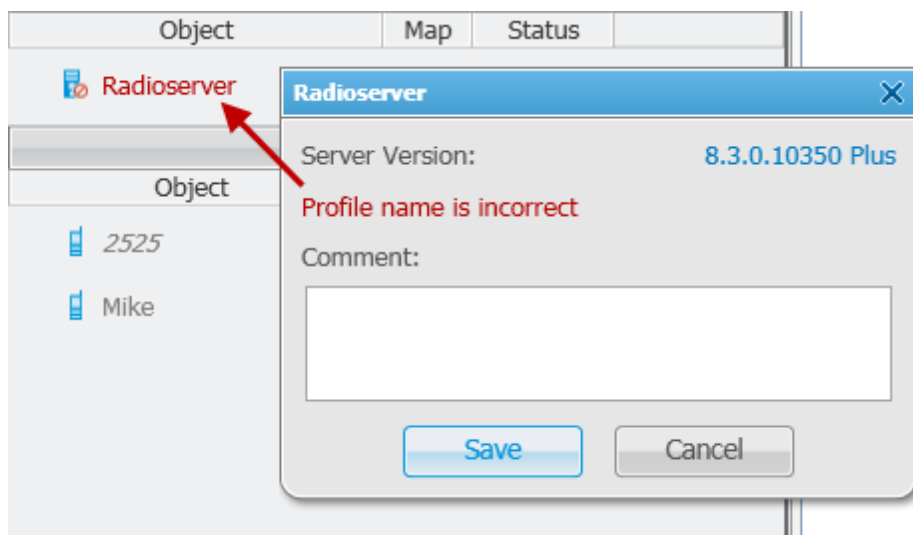
#### NOTE

If *No* is selected in the **Authentication** field, make sure that the fields **Login** and **Password** in the dispatcher console are empty. Otherwise, the dispatcher console and the radioserver can't connect.

**Active:** If selected, the radioserver is available for connections. You should also remember that you do not have to remove the radioserver from the list to disable it. It is enough to clear the check box.

**Operator:** List of all active operators created in SmartPTT Dispatcher.

**Profile Name:** Enter profile name defined for the dispatcher in SmartPTT Radioserver Configurator. If **Profile Name** is not specified, the dispatcher has access to all radios, talkgroups and services provided by the radioserver. If the profile name is incorrect, the radioserver will be marked red.



**NOTE**

Profile management is described in the SmartPTT Radioserver Configurator help file.

After all the fields are completed, click **OK**. The new radioserver appears in the list of radioservers.

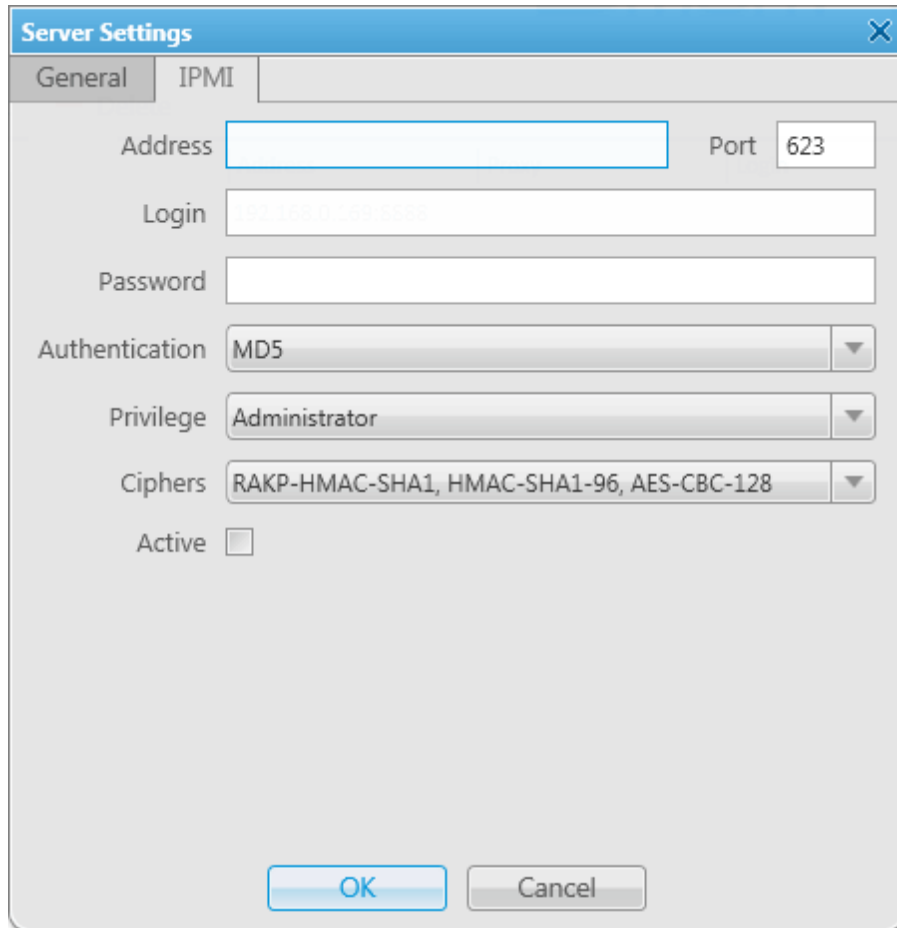
To edit the radioserver settings, select it in the list of radioservers and click **Edit**. To delete the radioserver, select it in the list of radioservers and click **Delete**. To find all the running radioservers in the network, click **Search**.

**IPMI Settings**

Intelligent Platform Management Interface (IPMI) is a standardized computer system interface used for out-of-band management of computer systems and monitoring of their operation.

SmartPTT system uses IPMI for managing and monitoring remote radioservers. With the help of IMPI you can not only learn about the hardware characteristics of the radioserver machine, but also turn it on/off remotely.

To set up IPMI open the **Server Settings** window of the selected radioserver and then open the **IPMI** tab.



The screenshot shows a dialog box titled "Server Settings" with a close button (X) in the top right corner. The dialog has two tabs: "General" and "IPMI", with "IPMI" selected. The IPMI tab 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 containing the value "root@localhost".
- 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 are two buttons: "OK" and "Cancel".

**Address, Port:** IP address and port number of the radioserver PC that are used to establish IPMI connection.

**Login** and **Password** are obligatory fields. They must match the login and password set in IPMI configuration settings on the radioserver PC.

**Authentication:** Authentication types. Use *MD5* as default authentication type.

**Privilege:** Depending on the privilege used, the dispatcher has different permissions. Use *Administrator* as default. For more information about the privileges, check the official IPMI documentation.

**Ciphers:** The list of ciphers to be used. Select the default cipher, that is *RAKP-HMAC-SHA1, HMAC-SHA1-96, AES-CBC-128*.

---

**Active:** Select the check box to activate IPMI functionality for the radioserver.

**NOTE**

For more information about managing the radioserver with the help of IPMI, see [Monitoring](#).

## 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.

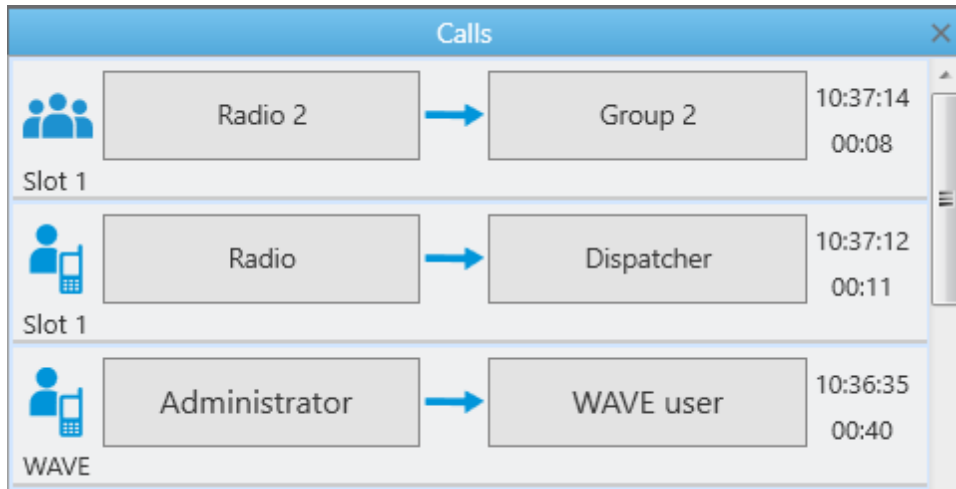
### 3.1 Calls

The **Calls** panel displays the ongoing call activity and call history in the radio network.

#### NOTE

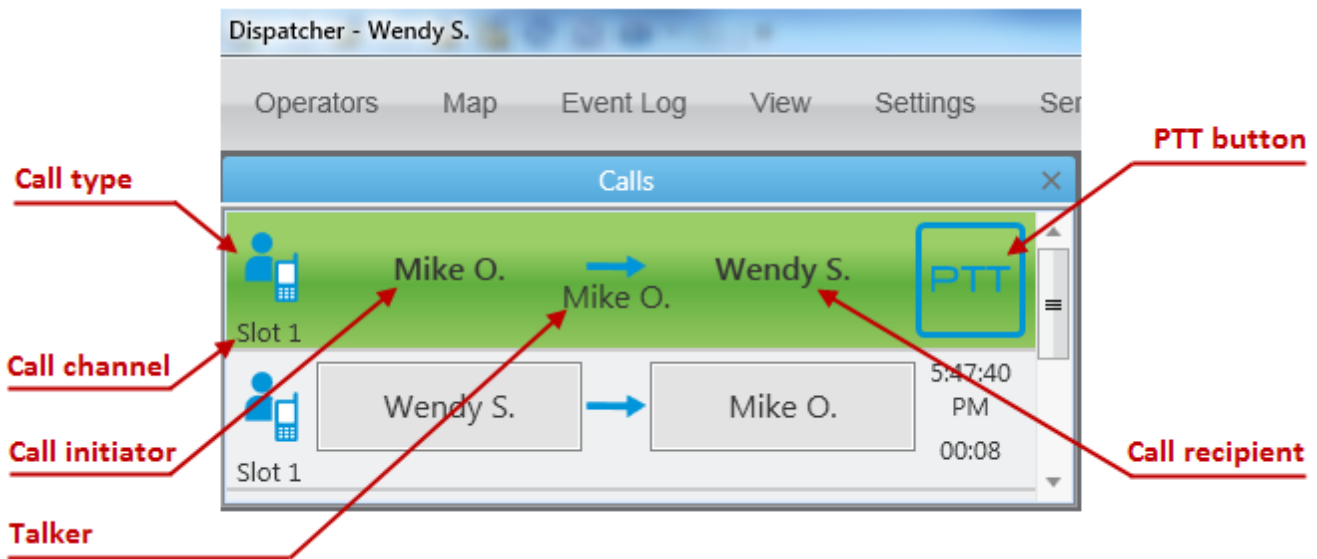
If in the **General Settings** window the [Show radio user name](#) check box is selected, and on SmartPTT Radioserver the user authorization service is activated and users are added, then the name of the user authorized on the radio is displayed next to the radio name in brackets.

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 in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Calls**.

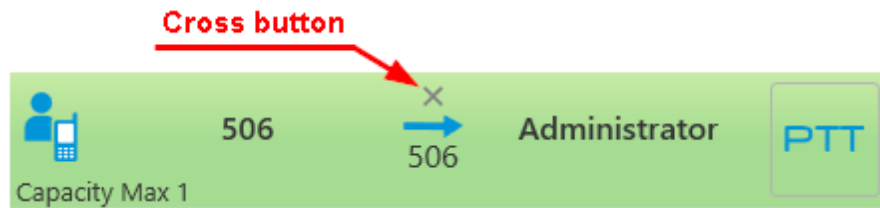


If the **Calls** panel is empty, select a radio or a [WAVE user](#) in the **Radio Fleet** panel and click the **PTT** button to make a call. The corresponding call record will appear on the **Calls** panel and the call will be initiated.







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:

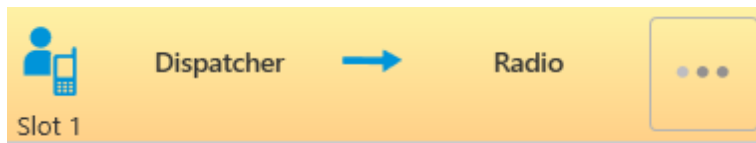
-  Private call
-  Telephone call
-  Group call
-  Group telephone call
-  Emergency call
-  Remote monitoring

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:

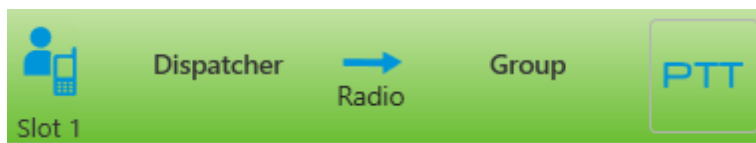
- **Light-orange:** An outgoing call attempt, or a call is in the queue (in conventional systems):



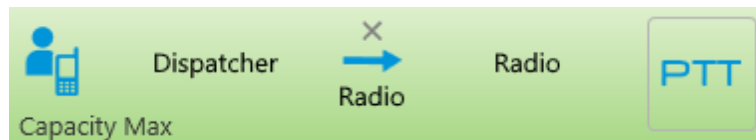
- **Orange:** All outgoing radio calls:



- **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:



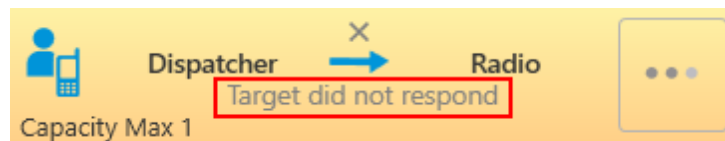


- NAI IP Site Connect:

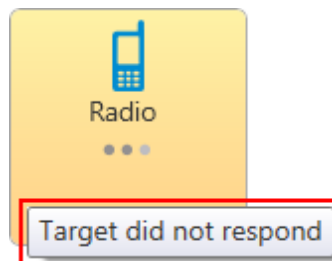


When an outgoing call is queued in Capacity Max radio system, the console displays the cause of a holding in the following areas:

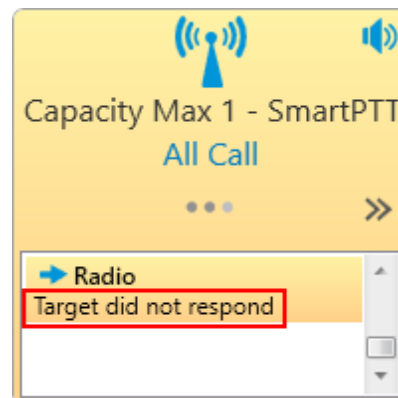
- On the **Calls** panel on the call record:



- 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:



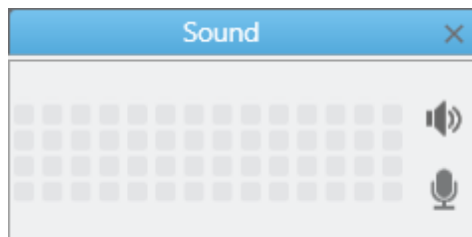
- In the **Additional Information** column of the Event Log:


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"/>

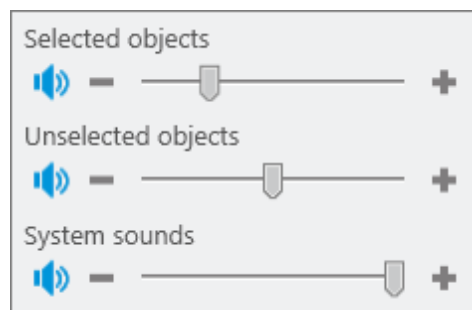
## 3.2 Sound

The **Sound** panel allows you to monitor and adjust the signal volume.

To open **Sound** panel, expand the **Tools** menu in the **Main 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

**Cross Patches** allow you to connect talkgroups from different frequency bands or from different network types very quickly. A call made to a cross patch will be heard by all participants of the cross patch.

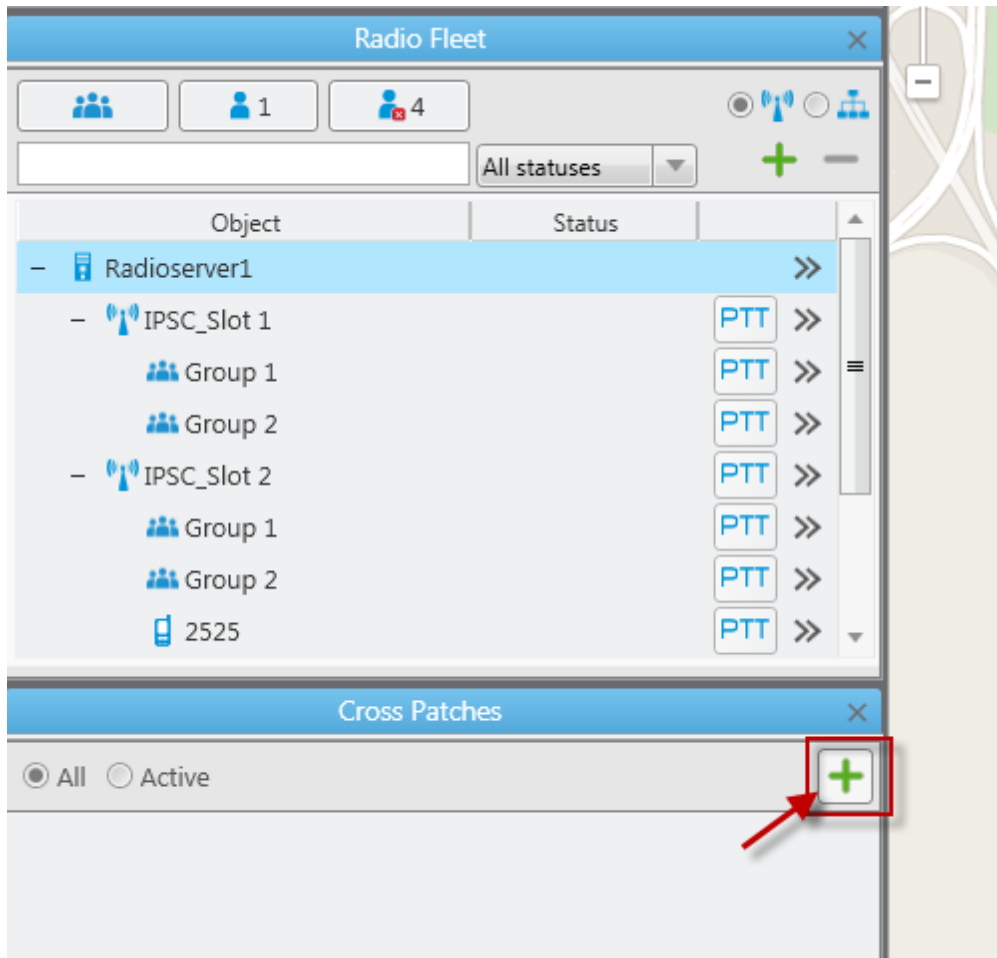
A call made to a talkgroup included in the cross patch will be heard by all participants of the cross patch. It is also true for a call made by a dispatcher or a telephone subscriber.

A cross patch is created in the dispatch console and controlled by the dispatcher. When the dispatch console gets closed, all the cross patches created in this dispatch console will be saved.

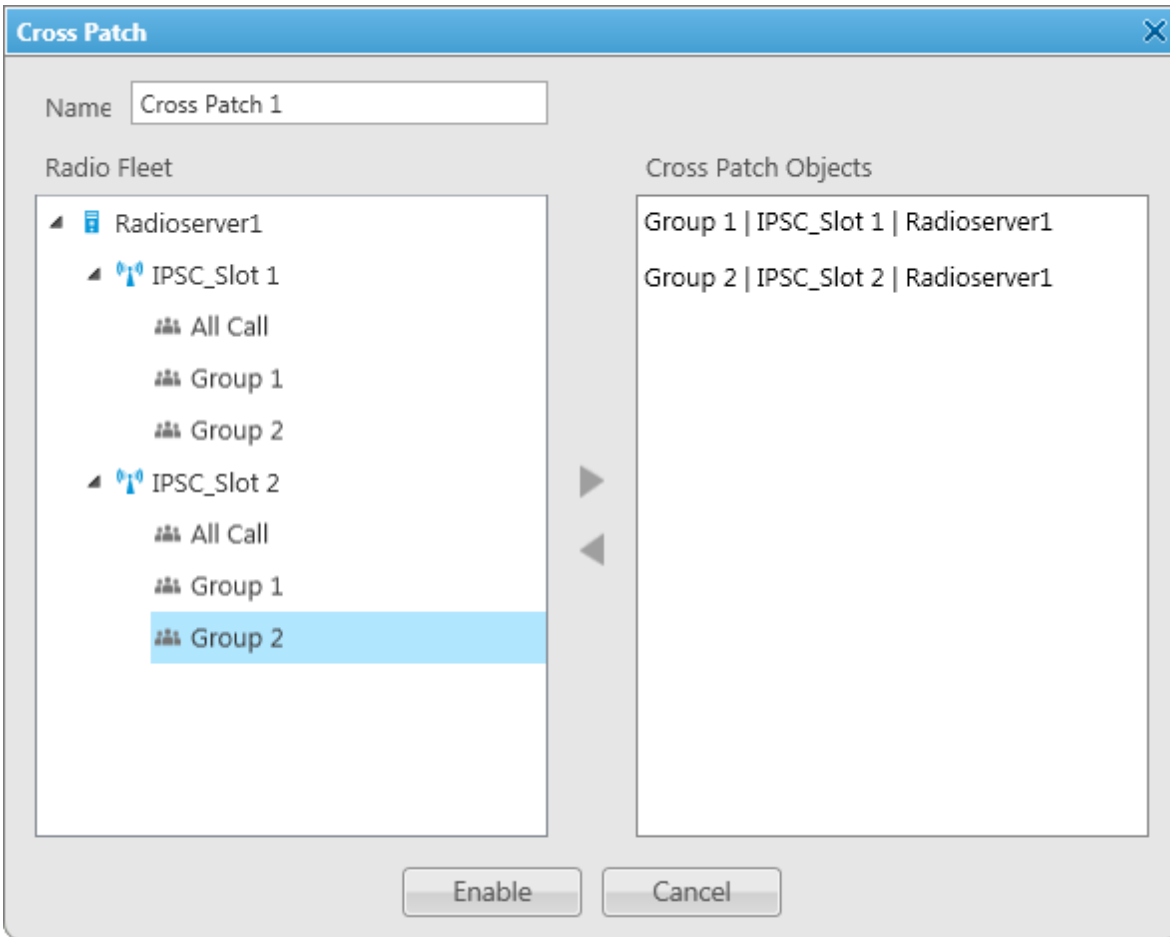
To create a cross patch, follow these steps:

1. Open the **Cross Patches** panel from the **Tools** menu (if it's not open).

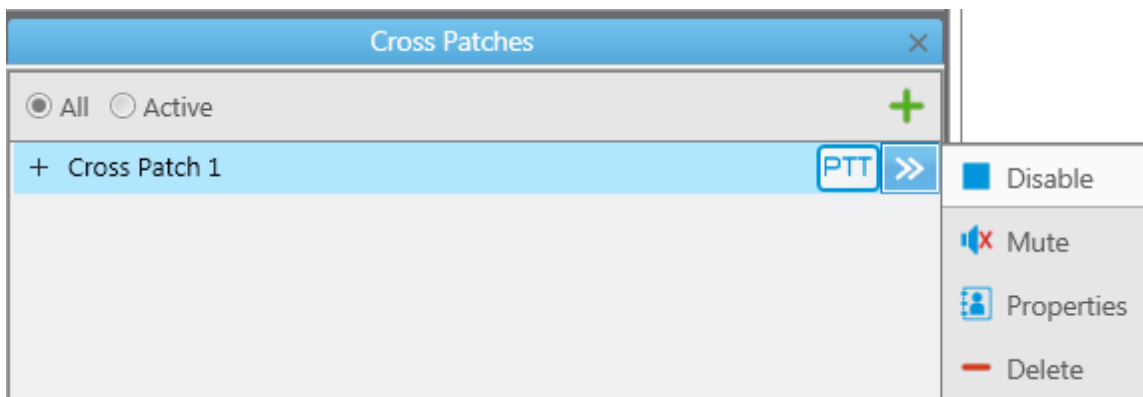
2. Add a cross patch. To do this, in the **Cross Patch** panel click the **Add Cross Patch** button:



3. In the new **Cross Patch** window select objects of the future cross patch. To add the selected object to the cross patch or to remove it from the cross patch, click the corresponding arrows or double-click the mouse button. Then click **Enable**.



The new cross patch will appear in the **Cross Patches** panel.



In the **Cross Patches** panel you can do the following:

- Filter the list of cross patches to see active cross patches or all cross patches (the Active and All options)
- Make a call to all the parties of the cross patch by clicking on the PTT button
- Perform actions from the Action List of the cross patch: enable or disable the cross patch, edit its properties, mute or unmute it, and delete it from the list

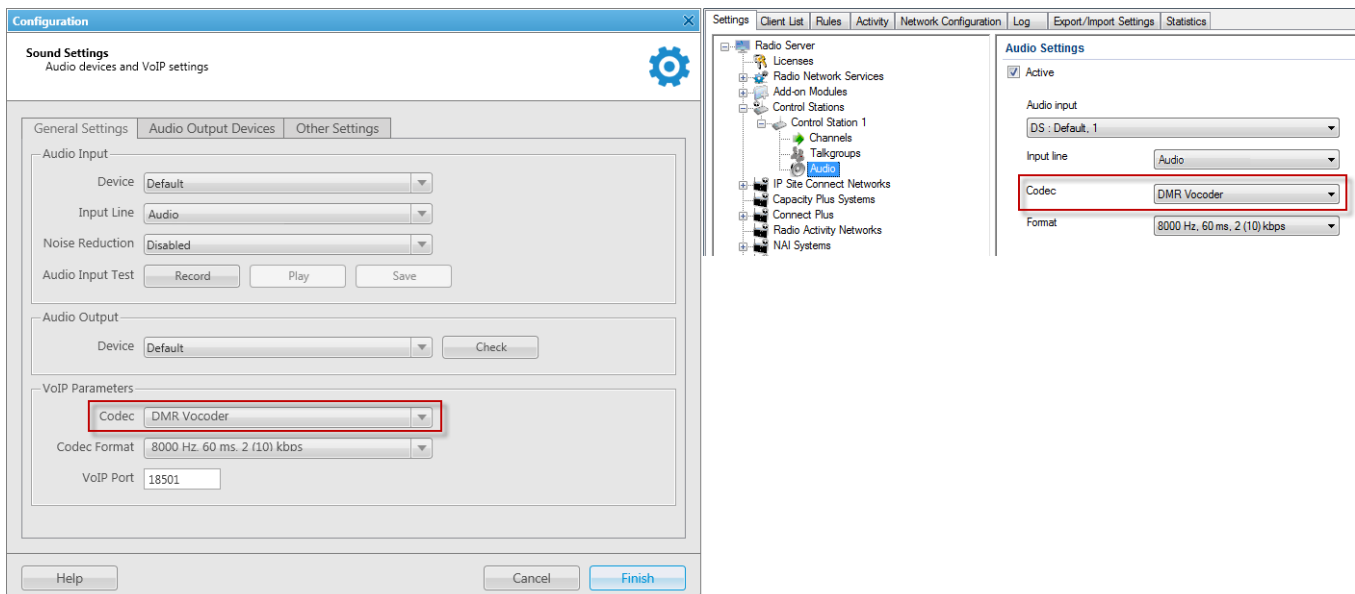
To open the **Action List**, click **>>**.

**Enable/Disable:** Turns on/off the cross patch.

**Mute/Unmute:** Turns on/off the sound for all parties of the cross patch. If the cross patch is muted, the dispatcher won't hear any party, but all the cross patch participants will hear the dispatcher. If the cross patch is unmuted, but one of the participant talkgroups is muted, the dispatcher will hear all the others, but not this talkgroup.

#### 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 (**Settings (⚙)** → **Sound**) and in the audio settings of the control station (SmartPTT Radioserver Configurator → **Control stations** → **Audio**).




## 3.4 Radio Fleet

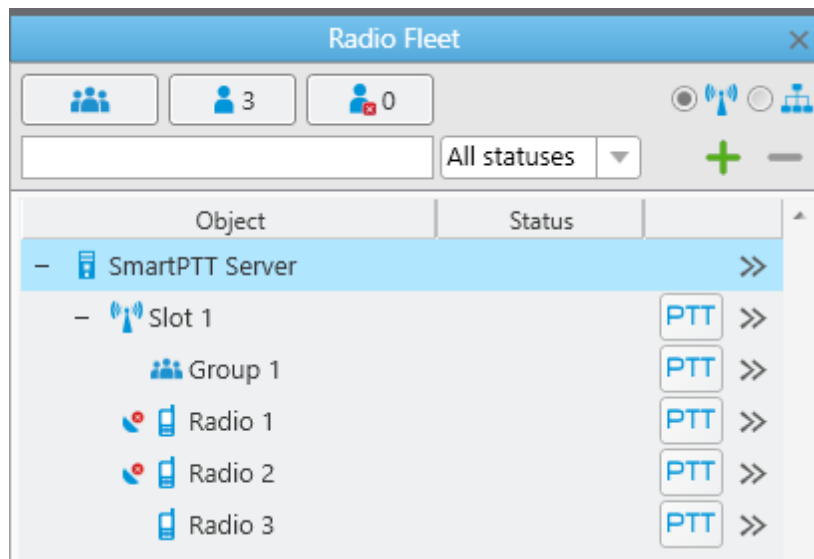
The **Radio Fleet** panel displays the following objects:

- 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 in the **Main 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** field shows the name of the object. The **Status** field displays the current status of a radio or a WAVE user. The PTT button initiates a call.

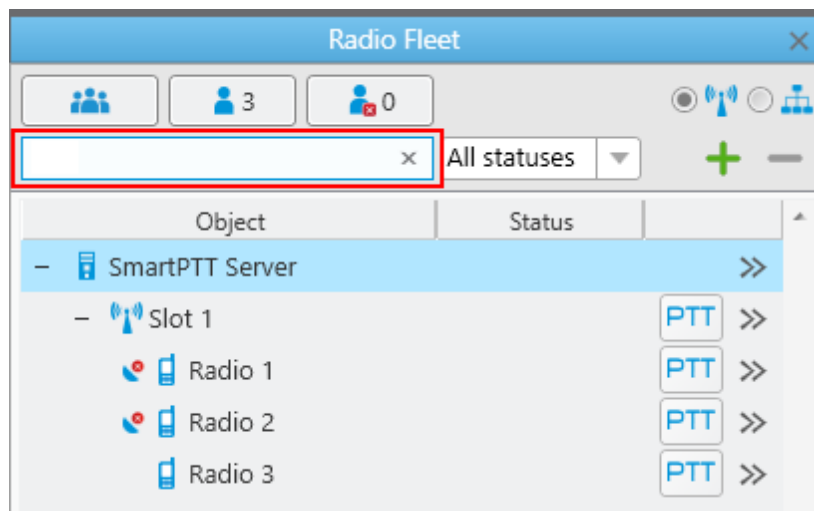
**NOTE**

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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

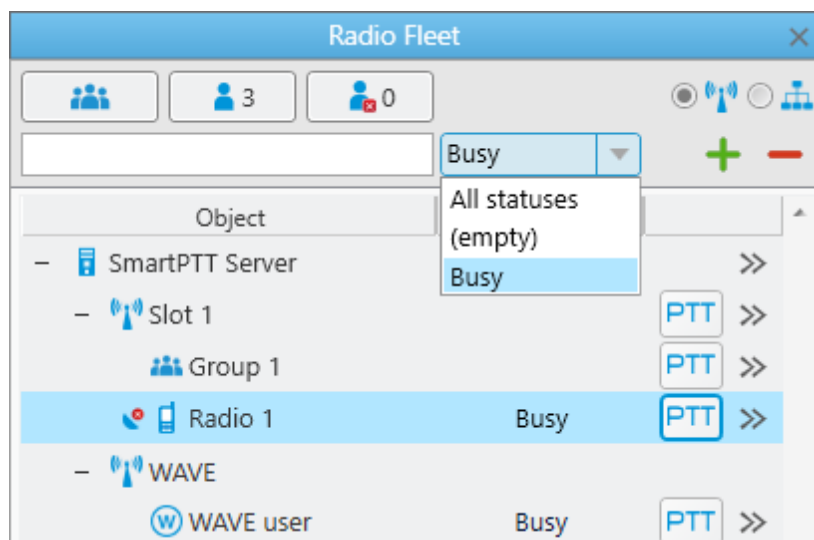
Using    buttons the dispatcher can show or hide talkgroups, radios or WAVE users depending on their presence in the network (online/offline).

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.







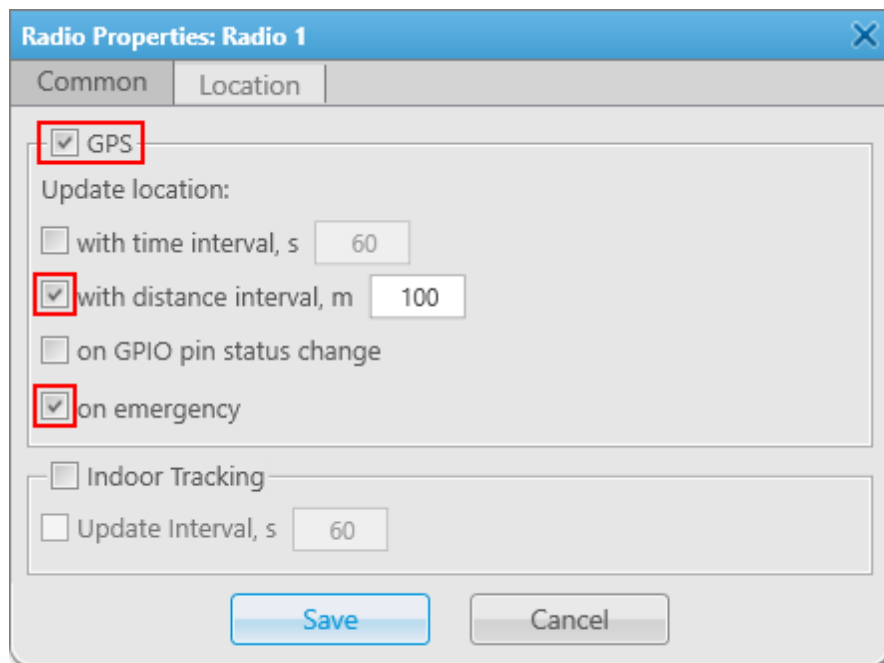
Using the Add radio (  ) and Delete radio (  ) buttons allows the dispatcher to add a new radio or delete the existing one.

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.

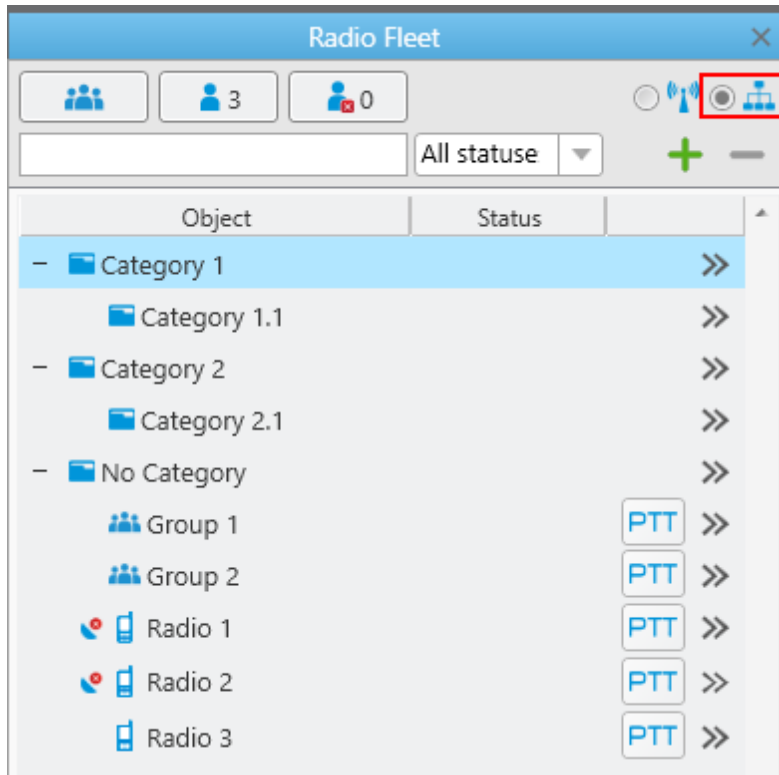


#### NOTE

The location settings are unavailable to WAVE users.

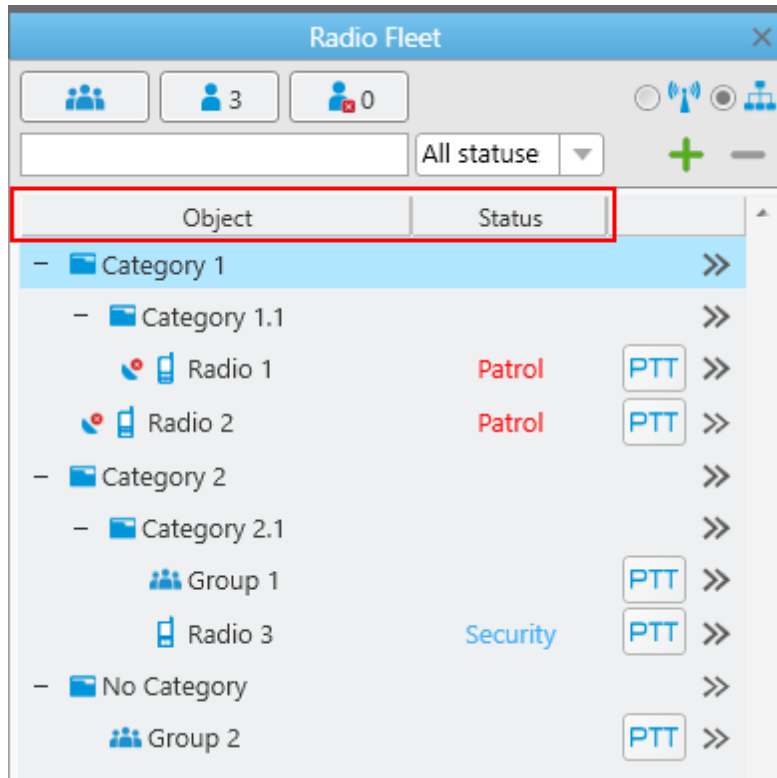
### Filter by category

You can also filter radios and WAVE users by categories. To do that, click **Filter by category** .



**NOTE**

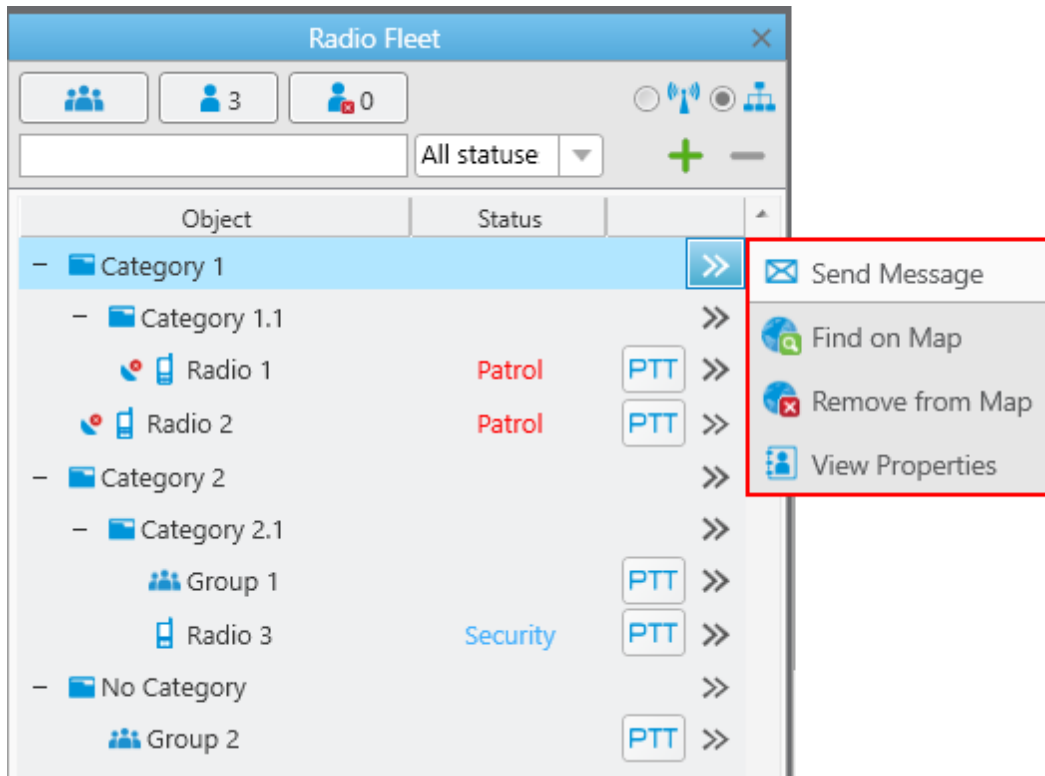
If in the **Radio Fleet** panel no categories exist, add them in the [Categories](#) menu if needed.



**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 » 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](#).

## Action List

The » button opens the **Action List** including a list of actions which can be applied to a radio, a [WAVE user](#), a radioserver, a control station or a talkgroup.

### The Action List of Radioserver



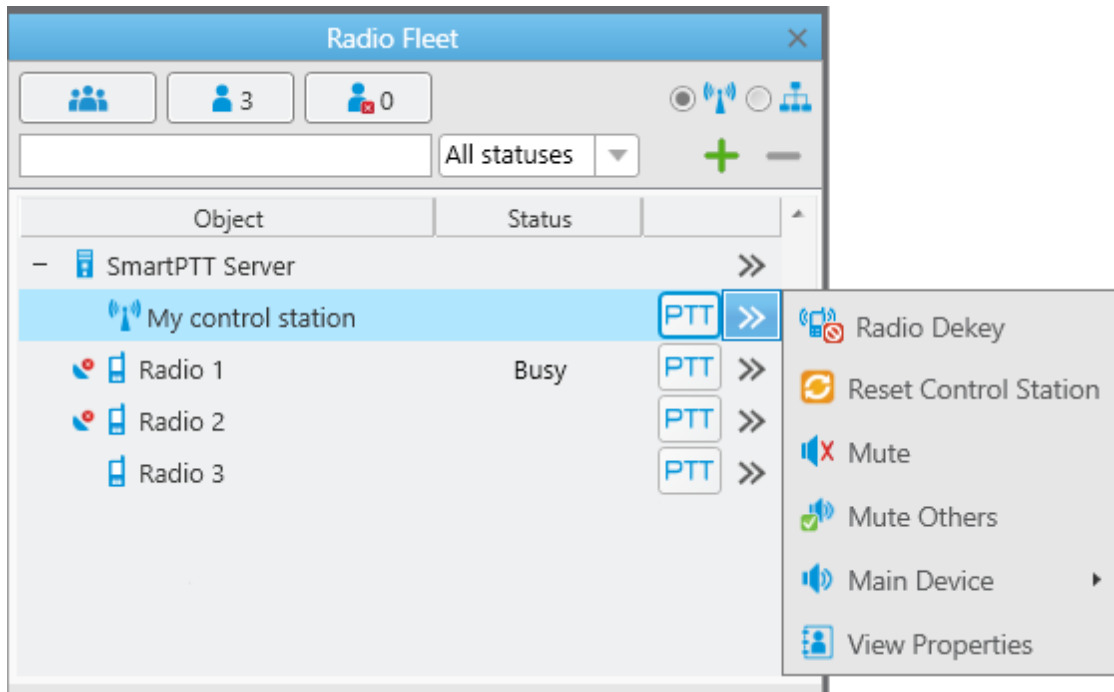
**Show Radioserver Event Log:** Displays the radioserver event log for the specified period of time. For more information on the event log, see [Radioserver Event Log](#).

**Configure Call Bridging Table:** Redirects to the routing configuration window.

**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 Action List 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.

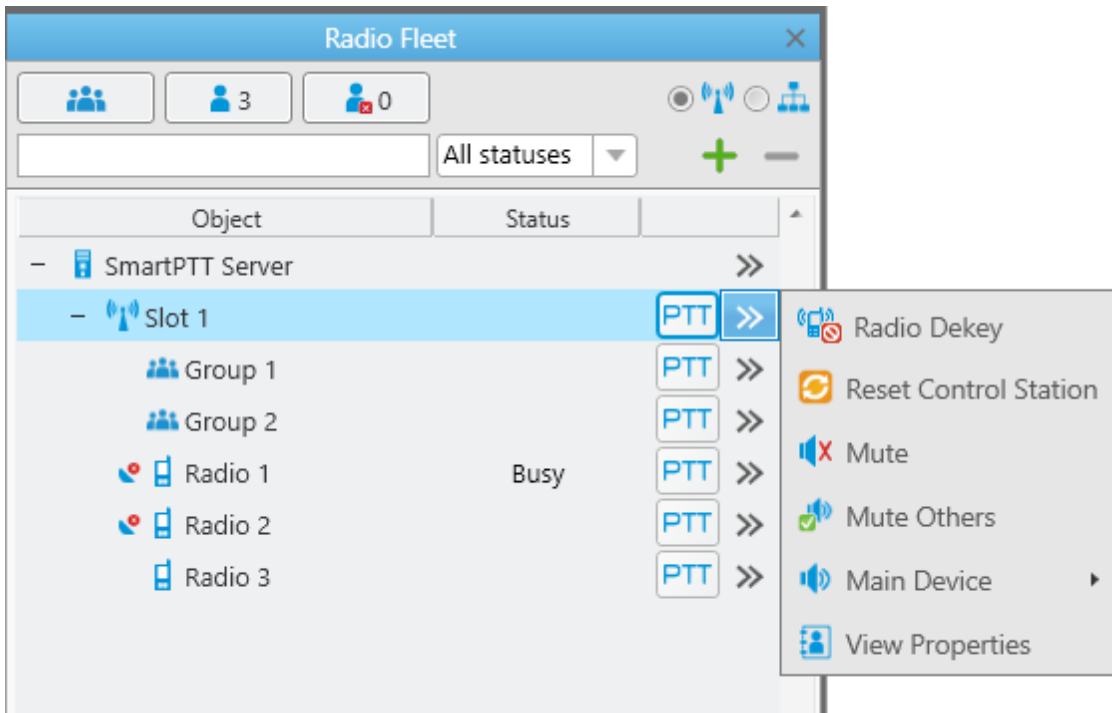
**Mute/Unmute:** Turns off/on the control station mute mode.

**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 Action List 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.

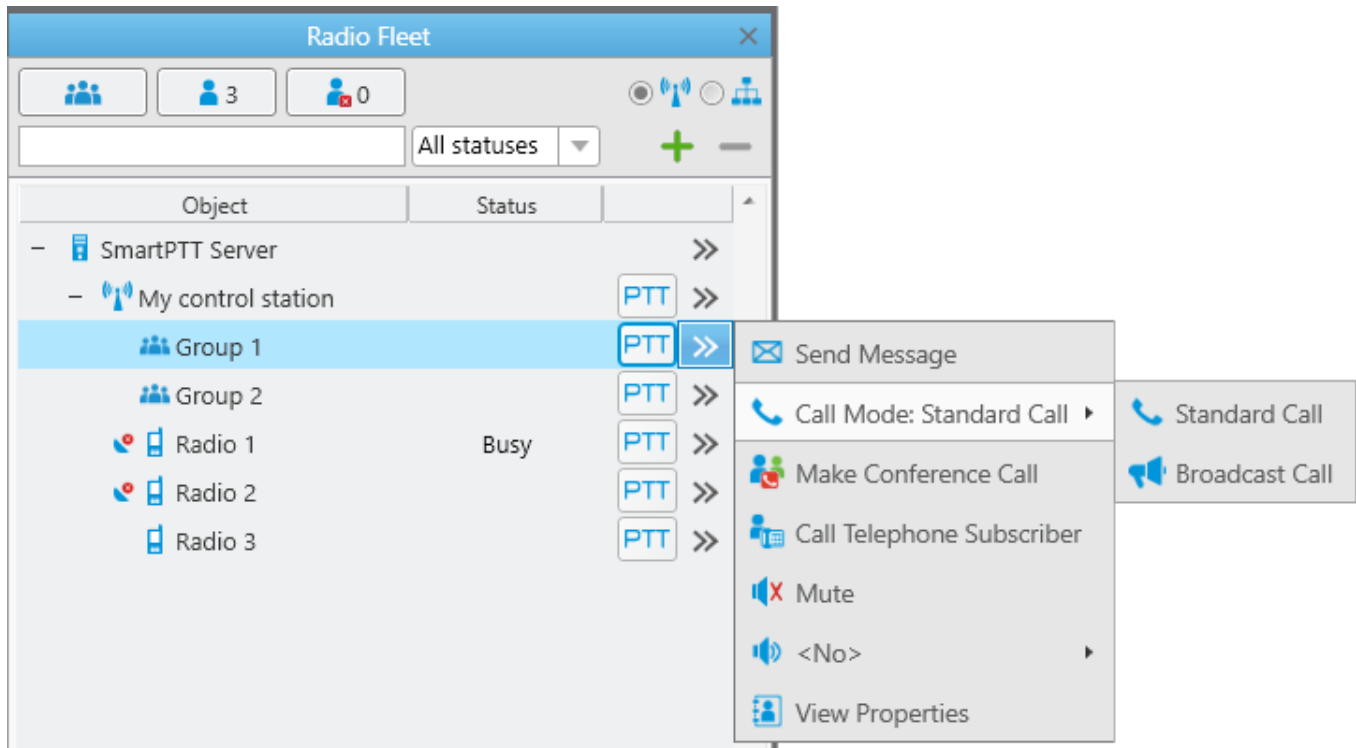
**Mute/Unmute:** Turns off/on the control station mute mode.

**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 Action List 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.

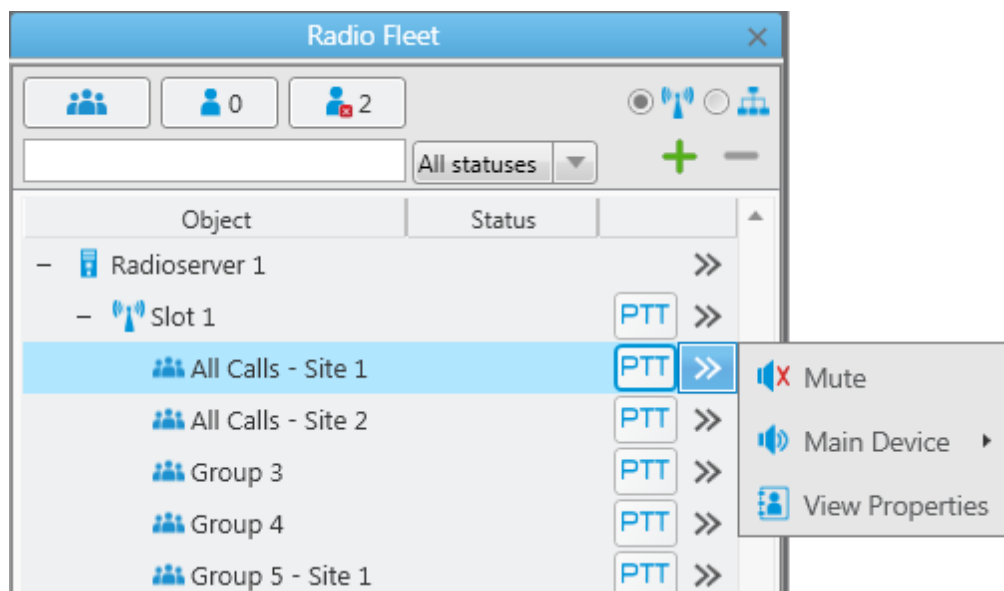


**Main Device:** Shows what audio output device is currently used for the talkgroup. The list contains all output devices, set in [Audio Output Devices](#). You can select another option from the list.

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 Action List of All Call Limited to Site

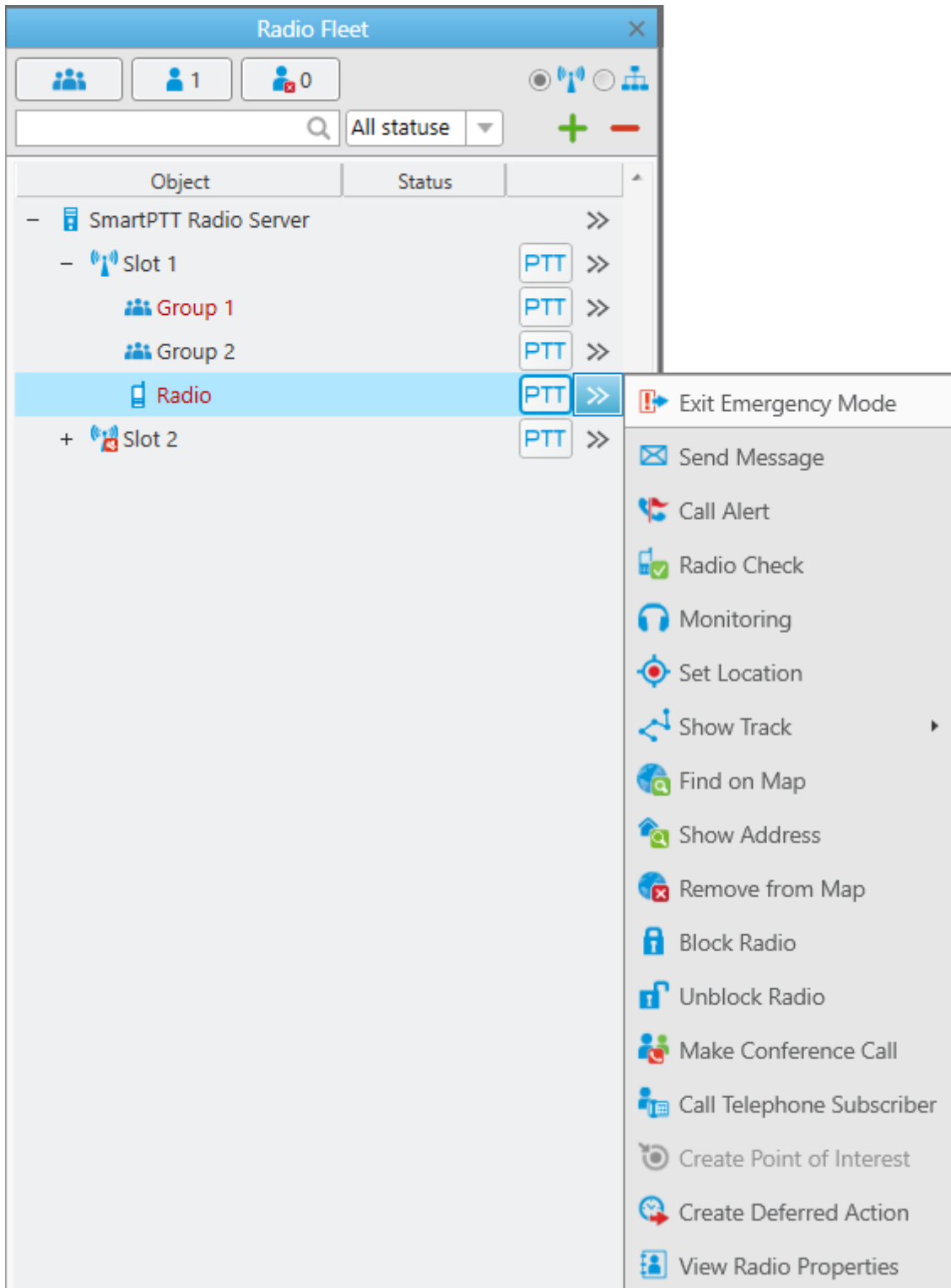


**Mute/Unmute:** Turns on/off mute mode for the All Call. This can be useful if you don't want to hear the All Call initiated by another dispatcher.

**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** field. 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 opens.

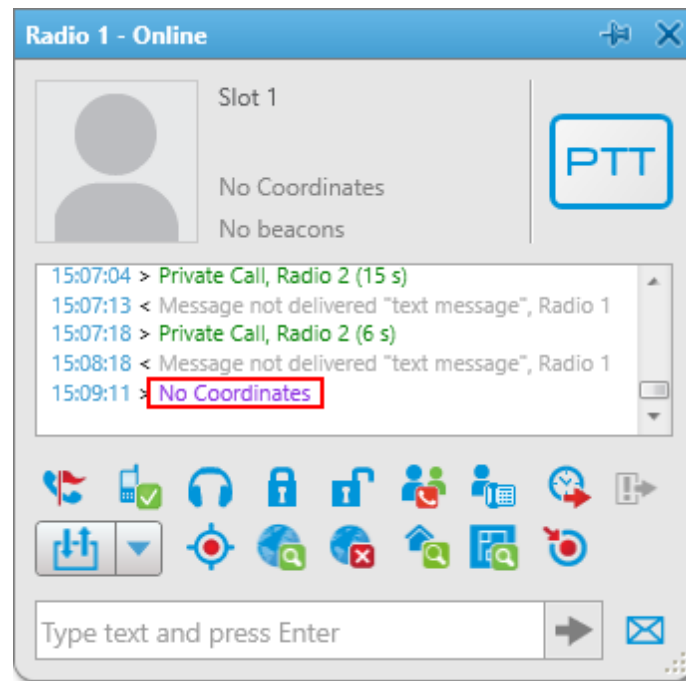
**Show Track:** Shows the radio track on a map for a period of time (for the last hour, for today, or another time period).

If you select the option with no open maps in the dispatcher, the **Select Map** window opens.

**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 opens.

**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.

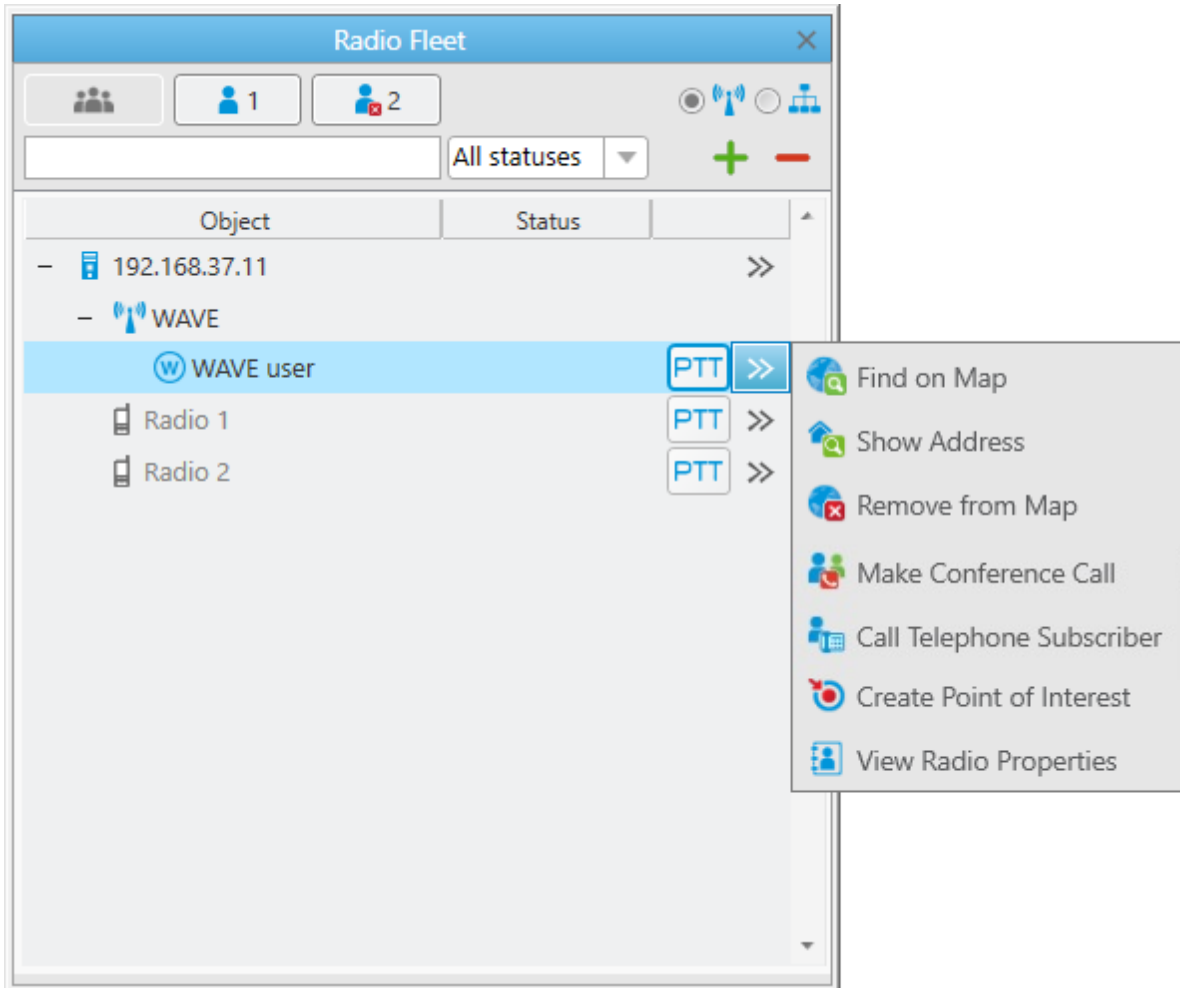
**Call Telephone Subscriber:** Opens the window with the list of registered telephone subscribers.

**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.

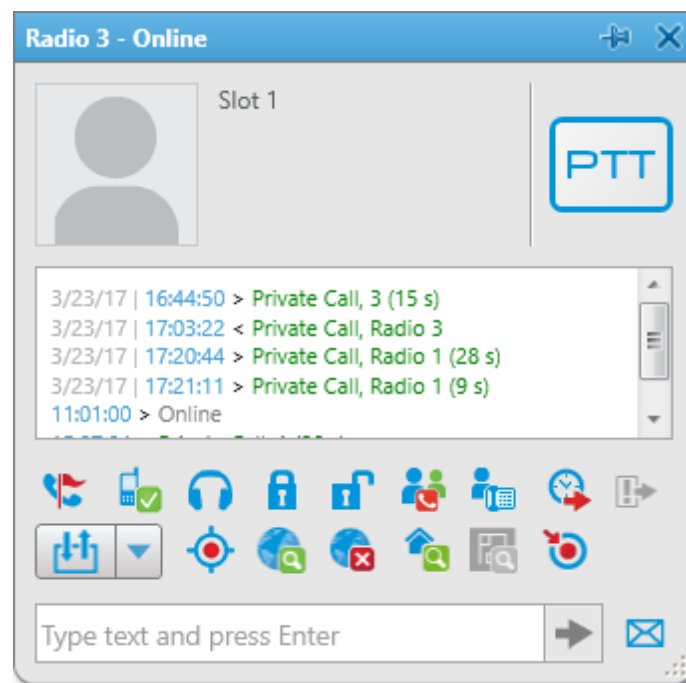
**Call Telephone Subscriber:** Opens the window with the list of registered telephone subscribers.

**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.

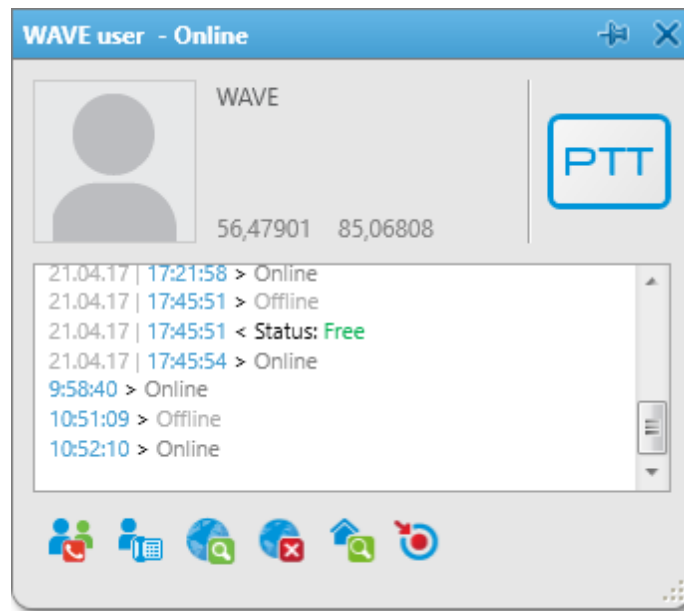
## Call Window

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.**

**Making a call**

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.

To call a radio or a WAVE user in any system, except Capacity Max, follow these steps:

1. Select the radio or WAVE user from the **Online Radios** list.
2. Click **PTT** next to its name or press the specified keyboard hot key. The PTT button changes its color to light yellow, and then to yellow. The person will hear your voice.
3. Click **PTT** again to give the person an opportunity to respond. The color of the PTT button changes to blue.
4. When the person starts to respond, the color of the PTT button changes to green.

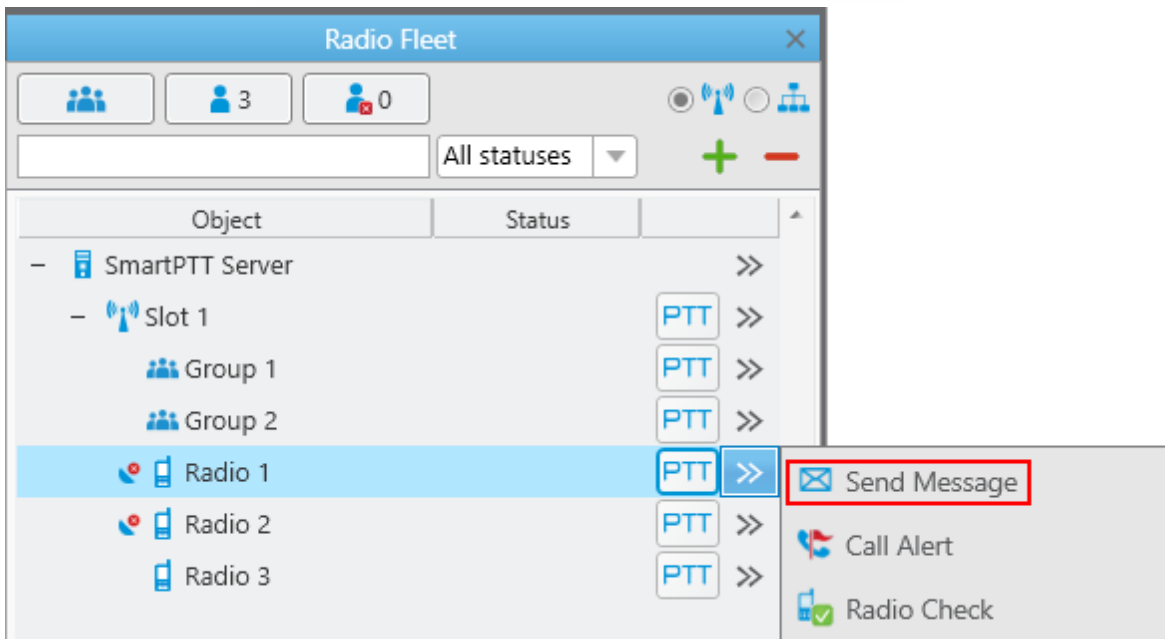
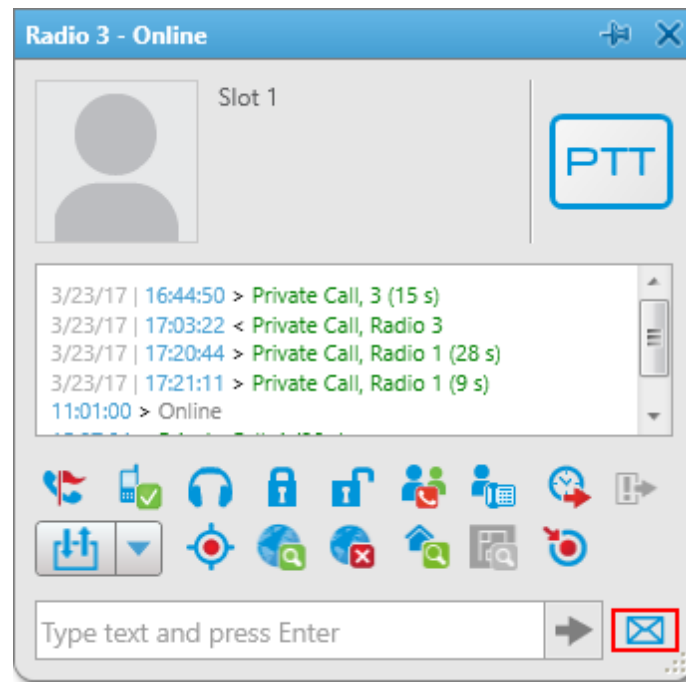
To call a radio or a WAVE user in the Capacity Max radio system, follow these steps:

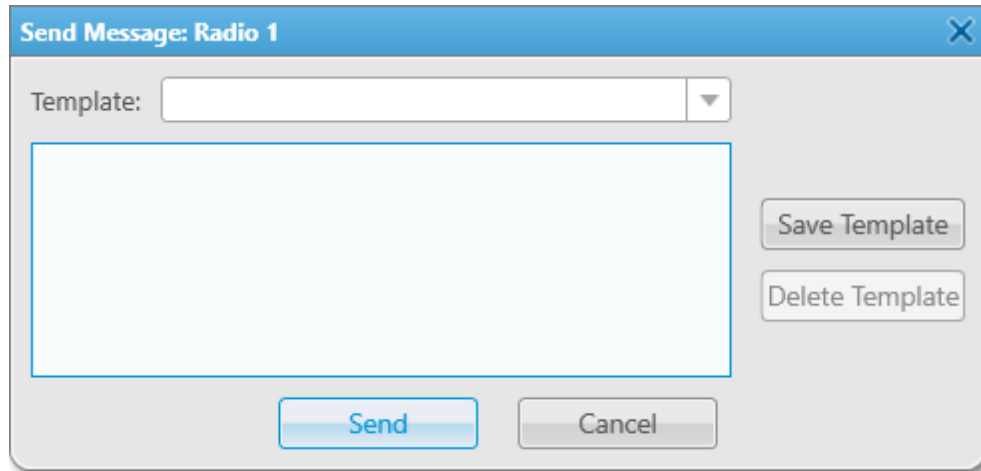
1. Select a radio or a WAVE user from the **Online Radios** list.
2. Click **PTT** next to its name or press the specified keyboard hot key. The PTT button changes its color to light yellow. The person will not hear your voice and will see two options on the display: Accept or Reject.
3. When the person presses **PTT** on his radio and accepts the call, the color of the PTT button on your console changes to green and you hear the person.
4. When the person finishes to talk and releases **PTT** on his device, the PTT button on your console changes to blue (hang time). During the hang time you can either continue or end the call.
5. To continue the call, click **PTT** again. The PTT button changes to yellow. The person will hear your voice.
6. To end the call, click the **Cross** button in the **Calls** panel or right-click the corresponding call record or **PTT** in the radio or the WAVE user **Call** window.



## Sending messages

To send a message on a radio, click  in the **Call window** of the radio or click **Send Message** in the **Action List**.





**Save Template:** Saves the typed message as a template.

**Delete Template:** Deletes a template selected in the list of templates.

**Send:** Sends the typed message on the radio.

**Cancel:** The **Text Message** window closes and the message is not sent.

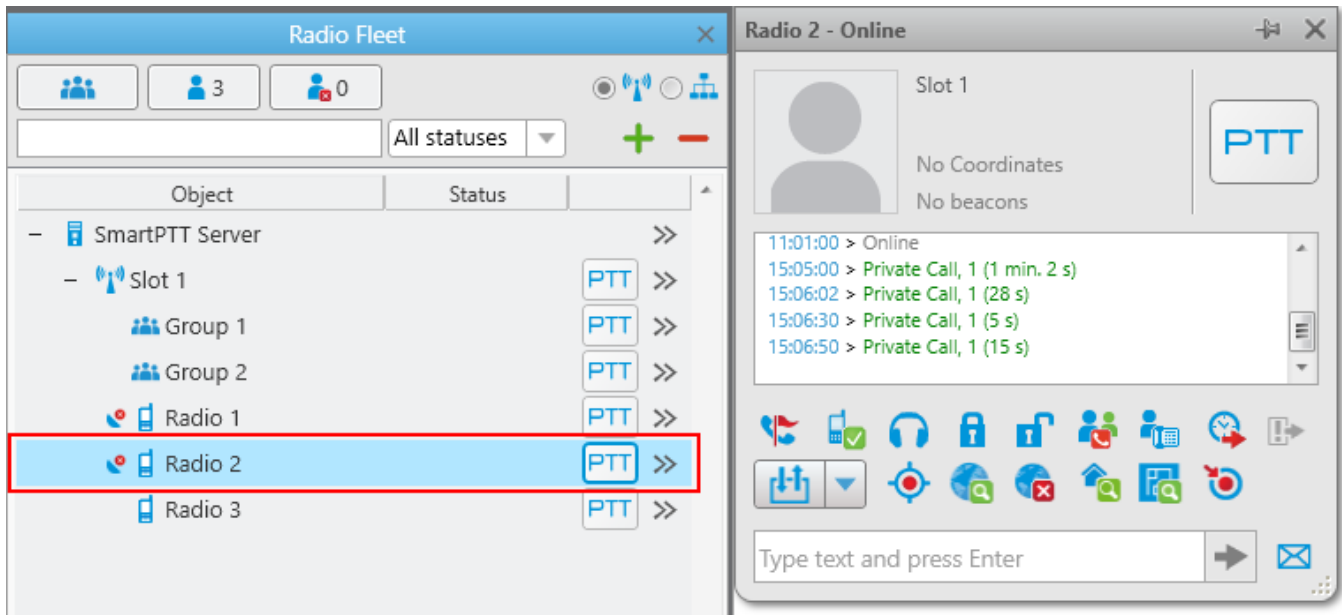
You can also send a message using the **Type text and press Enter** field.

### How to change radio name

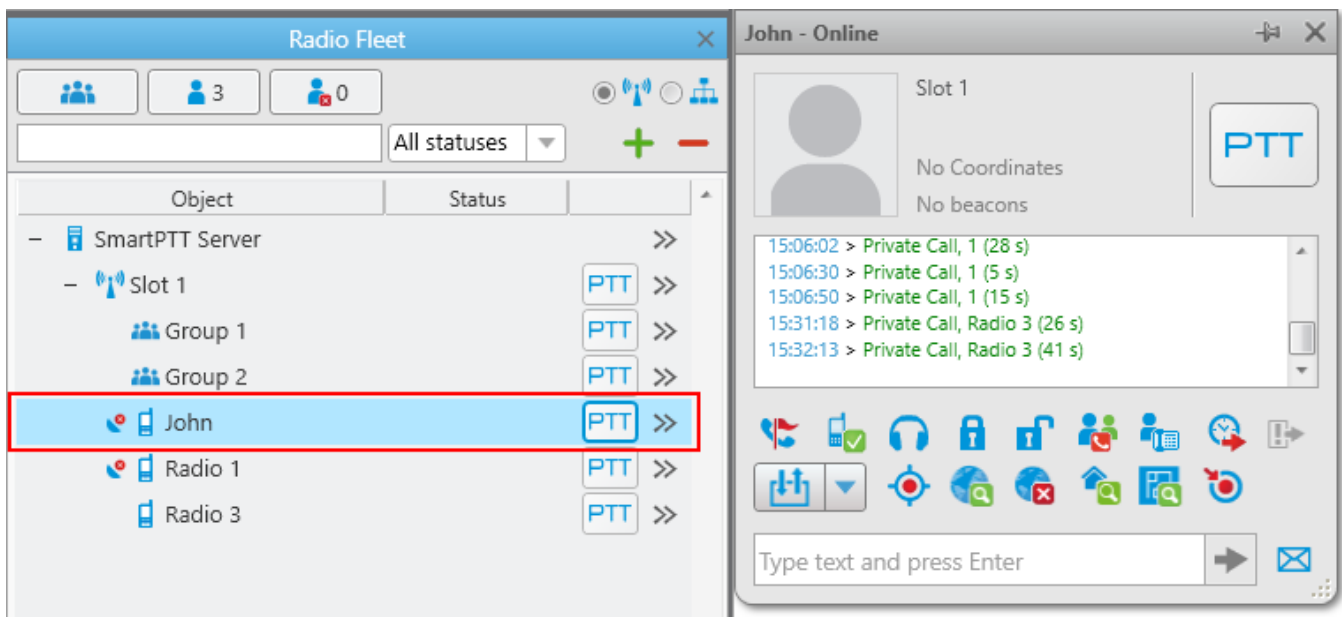
A radio subscriber can easily change his or her name by using the radio. The new name will appear in the **Radios panel**.

To do it, you need to send the text message *profile%name:<new name>* to the Slot ID set in your system.

Before sending:



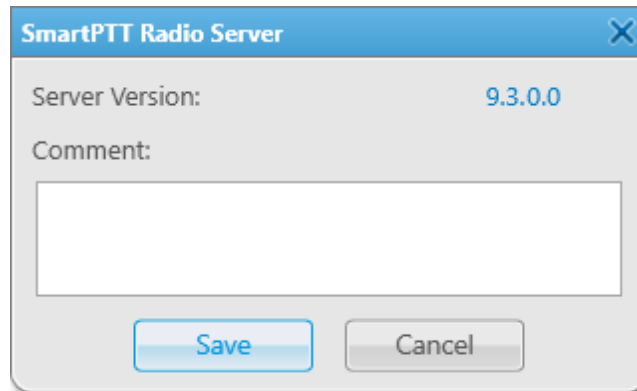
After sending the message:



## 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.

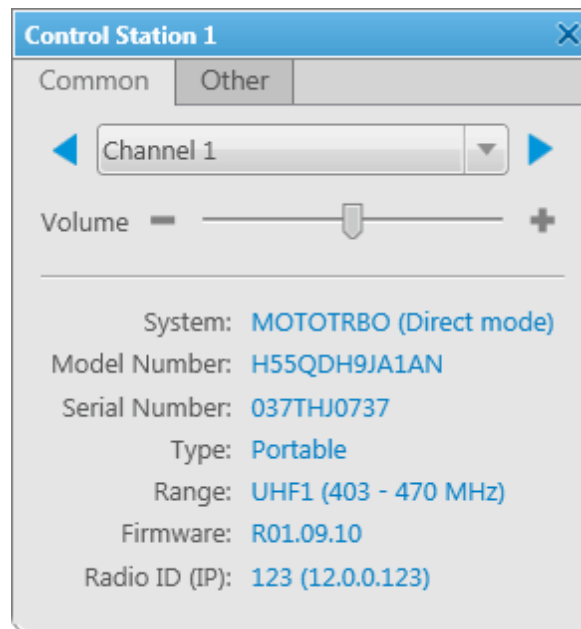
## The Properties Window of Radio Server



**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 field for additional information.

## The Properties Window of Hardware Control Station

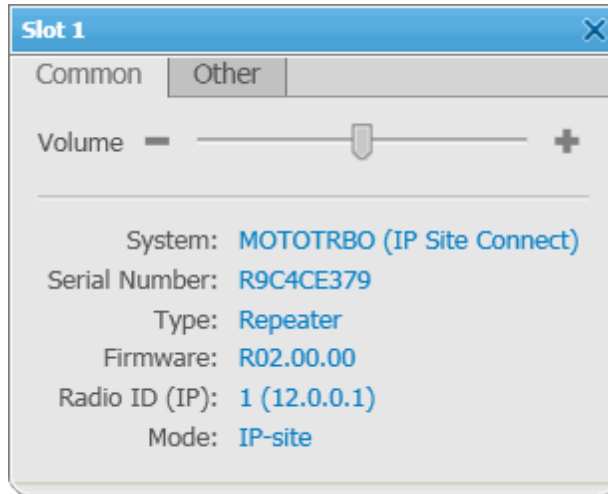


The window displays information on the control station, for example, model number, serial number, control station type, frequency range, firmware version, control station identifier.

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



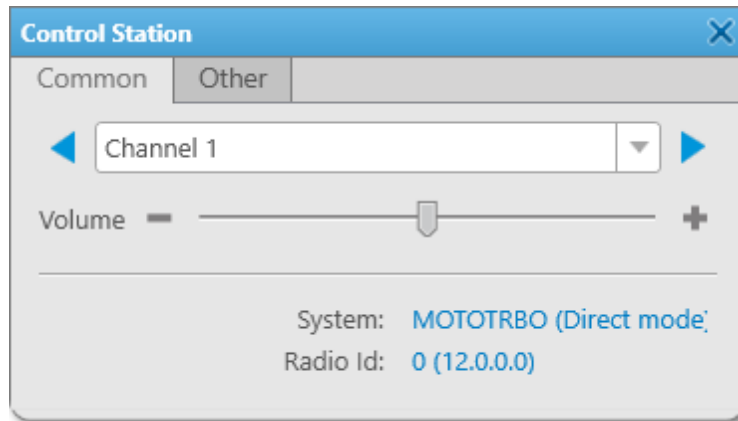
The window displays information about the control station, for example, serial number, firmware version, control station identifier, type of network configuration.

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

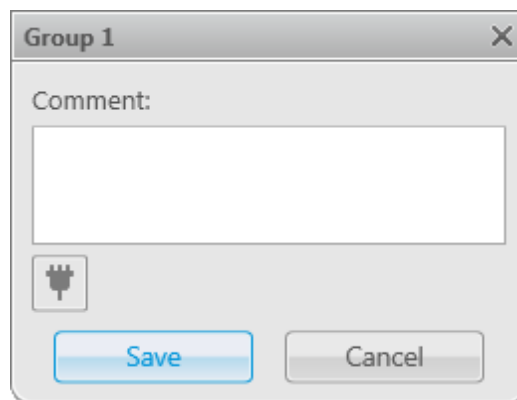


The window displays information on the remote I/O SmartPTT Radioserver Configurator.


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 field 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 dialog box is titled "Radio Properties" and has three tabs: "Common", "Location", and "Other". The "Common" tab is selected. It contains the following fields and controls:


- Radio ID:** A text input field containing "34".
- CAI:** A text input field containing "12".
- Name:** A text input field containing "Radio 1".
- Status:** A dropdown menu with "Free" selected.
- Lone Worker:** A checked checkbox and a dropdown menu with "Default" selected.
- Profile:** A placeholder image for a user profile, with a "Select" button and a close "x" button.
- Device:** A dropdown menu with a mobile phone icon and a "Select" button.
- Power:** A power icon with a "Select" button.
- Buttons:** "Save" and "Cancel" buttons at the bottom.

The dialog box is titled "Radio Properties" and has three tabs: "Common", "Location", and "Other". The "Common" tab is selected. It contains the following fields and controls:

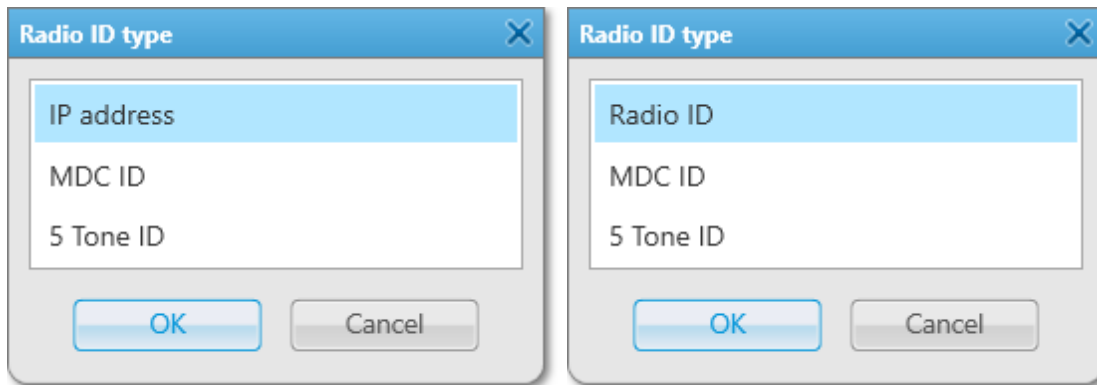
- IP address:** A text input field containing "12.0.0.34".
- Name:** A text input field containing "Radio 1".
- Status:** A dropdown menu with "Free" selected.
- Lone Worker:** A checked checkbox and a dropdown menu with "Default" selected.
- Profile:** A placeholder image for a user profile, with a "Select" button and a close "x" button.
- Device:** A dropdown menu with a mobile phone icon and a "Select" button.
- Power:** A power icon with a "Select" button.
- Buttons:** "Save" and "Cancel" buttons at the bottom.

**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** field in the **Location** tab of the radio **Properties** window).

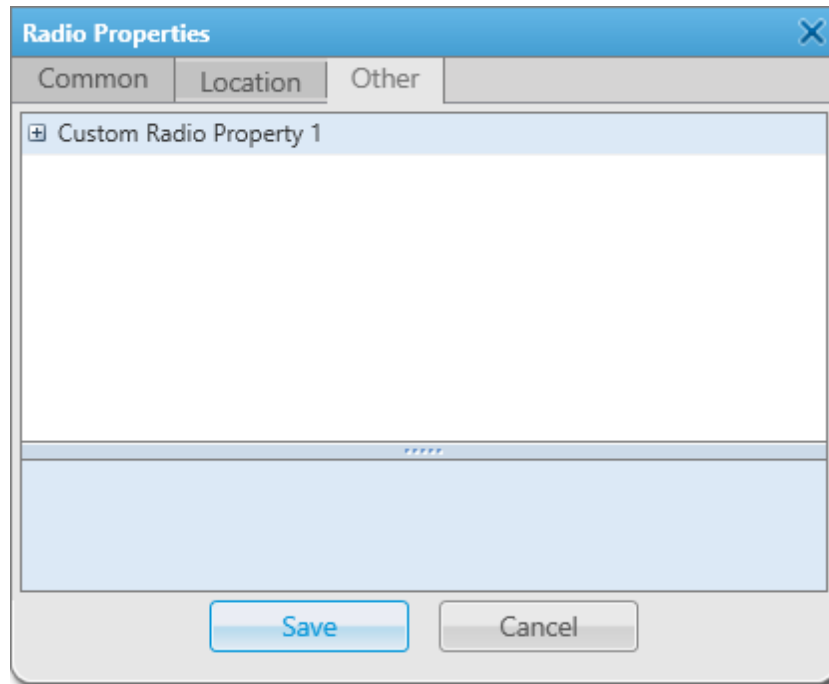
The radio or WAVE user must support Indoor Tracking. **If you use *Motorola* source (iBeacon technology), the Update Interval** field must be selected and specified together with the **Indoor Tracking** field for enabling Indoor support for a radio or WAVE user.

**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 field is mandatory in case of *Motorola* source (iBeacon technology) use.

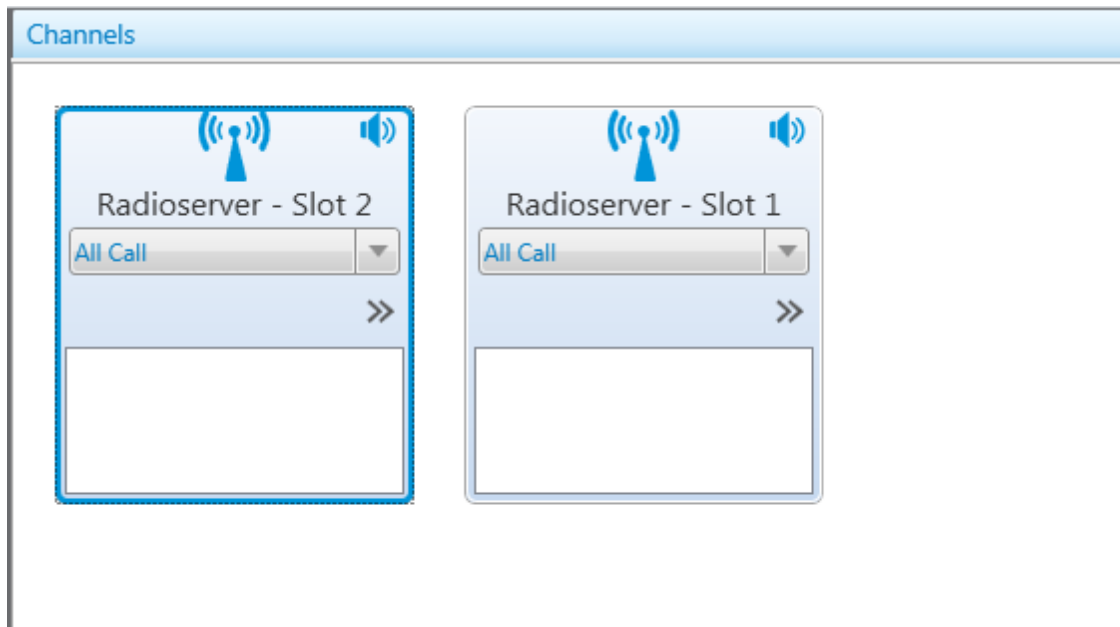
The **Custom** tab:



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 **Action List**. The actions in the **Action List** may be different. This depends on whether the channel is physical or virtual. For more information on the **Action List** of control stations, see **Radio Fleet** in the Help file of SmartPTT Dispatcher

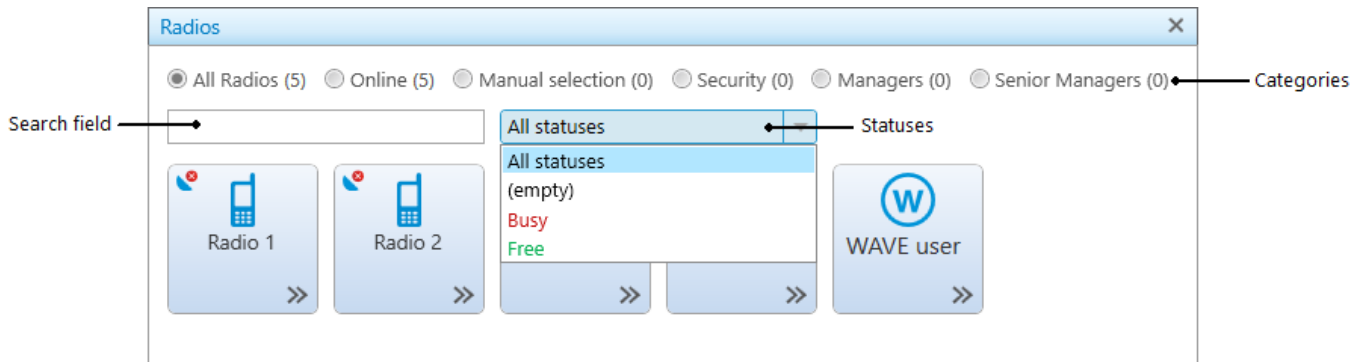
### NOTE

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 during a call the name of the user authorized on the radio is displayed next to the radio name in brackets.

## 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** field
- Open the radio or WAVE user [Call Window](#), by right clicking the corresponding control button on the panel
- Open the radio [Actions List](#) or the WAVE user [Action List](#), by clicking the 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 allows creating special assignments for radios or talkgroups and tracking their performance.

#### NOTE

This functionality is supported only by MOTOTRBO SL Series portable radios. When a job ticket is sent to the radio, which does not support this functionality, it comes as a message, for example, *<JTS> Job Ticket ? 1 Create weekly report.*

To create a job ticket, expand the **Tools** menu on the **Main Menu** bar of the SmartPTT Dispatcher window and click **Job Tickets**.

The **Job Tickets** panel can be divided into three parts:

- Filters

- Job Ticket List
- Status Change Log

The screenshot shows a window titled "Job Tickets" with a close button (X) in the top right corner. Below the title bar is a "Filters" section with several checkboxes and input fields:

- Job ticket: [dropdown]
- Assignee: [dropdown]
- Status: [dropdown]
- Created: [6.4.18 0:00:00] [15] [6.4.18 23:59:59] [15]
- Updated: [6.4.18 0:00:00] [15] [6.4.18 23:59:59] [15]

Below the filters are two buttons: "Apply" (with a funnel icon) and "Clear" (with a back arrow icon). Underneath is a checked checkbox labeled "Show complete job tickets". Below that are four buttons: "+ Add", "- Delete", "Resend" (with a refresh icon), and "Update Status" (with a document icon). At the bottom is a table with the following columns: Job Ticket, Description, Assignee, Status, Created, Expires, Updated, and Delivery Status. The table is currently empty.

The filters arrange the list of job tickets to the operator taste.

You can hide job tickets from the job list after the particular status is achieved. To do that, clear the **Show complete job tickets** check box.

To create a job ticket, click **Add**.

The screenshot shows a dialog box titled "Job Ticket" with a close button (X) in the top right corner. It contains the following fields:

- Task: [text input]
- Description: [text input]
- Validity period (h): [24] [spinners]
- Assignees: [text area containing the instruction: "Drag and drop a radio or a talkgroup here. To remove the assignee, select it and press Delete."] [15]

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

**Task:** Job ticket name. It is a required field.

**Description:** Description of the job ticket. Also required field.

**Validity period:** Defines the time period during which a job ticket can be assigned to offline radios. After this validity period expires, the job ticket is never sent. If a job ticket is not completed before the validity period has expired, the job ticket gets the status **Outdated**.

**Assignees:** Job tickets can be assigned to an individual radio or to a talkgroup. To do this, drag a radio or a talkgroup in this field. To remove the assigned radios or talkgroups, select them in the list and click **Delete**.

After creation, the job ticket will be displayed in the job list with the default status value. When the radio changes the job ticket status, the status in the job list will be changed accordingly. If the job ticket is assigned to a talkgroup, the job ticket table will contain the name of the radio, which changed the job ticket status. Job tickets can be assigned to offline radios too. As soon as offline radios become online, they get the job tickets (if the validity period has not expired).

To see the history of changes for job ticket statuses, click on the job ticket status. The **Status Change Log** table will display the information about status updates.

To cancel the job ticket and delete it from the job list, click **Delete**. The radio, to which the job ticket was assigned, will receive a text message that the job ticket was canceled (only if **Send notification to radio when uncompleted job ticket was deleted by dispatcher** is checked in [Job Ticket Statuses](#)).



If the job ticket has not been delivered (see **Status Delivery**) for some reason, or if you want to resend the existing job ticket to a radio or a talkgroup, click **Resend**. In this case, the edit window will open, and after clicking **OK**, a job ticket with a unique number will be sent. Use of unique numbers is important for job ticket resending, because radios ignore job tickets with same titles. Therefore, before resending a job ticket, make sure automatic numbering is enabled (**Settings ( ⚙ )** → **Job Ticket Statuses**).

**Configuration**

**Job Ticket Statuses**  
Job Ticket Status Configuration

SmartPTT

Enable Automatic Numbering

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

Default Status:  Color:

+ Add   Edit   - Delete

Name	Completion Status	Sound On
In progress	<input type="checkbox"/>	<input type="checkbox"/>
Canceled	<input type="checkbox"/>	<input type="checkbox"/>
Done	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Help   Finish

To get information about job ticket statuses for a period, when the dispatch console was turned off, click **Get Update Status**.

## 3.8 Monitoring

The **Monitoring** panel is a complex tool which gives a comprehensive outlook on the whole radio system.

It includes four tabs:

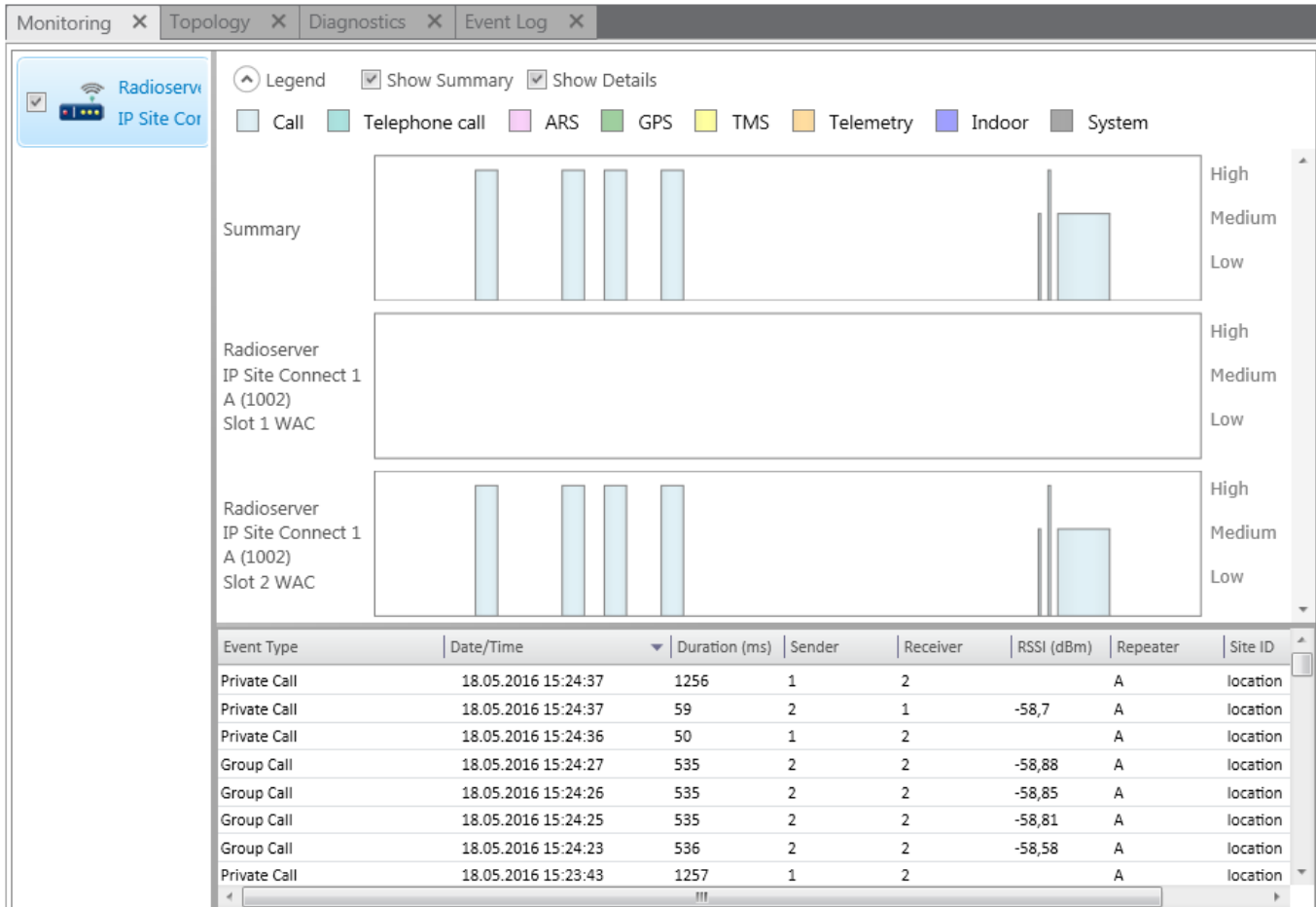
- [Monitoring](#)
- [Topology](#)
- [Diagnostics](#)
- [Event Log](#)

### 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.6565656

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
<b>Call</b>	All Call, group calls, private calls, remote monitoring, emergency calls
<b>Telephone call</b>	Telephone calls
<b>ARS</b>	Registration information, that is information about radio availability in the network (ARS service)
<b>GPS</b>	GPS coordinates of radios and <a href="#">WAVE users</a> (GPS service)
<b>TMS</b>	Text messages (TMS service)
<b>Telemetry</b>	Telemetry commands and signals
<b>Indoor</b>	Data from beacons showing radio locations inside a building (i.e., <a href="#">Indoor Positioning</a> )
<b>System</b>	System events from and to MOTOTRBO equipment (data confirmation, private call confirmation, alarms, remote monitoring (only a command), Radio Check and some other)

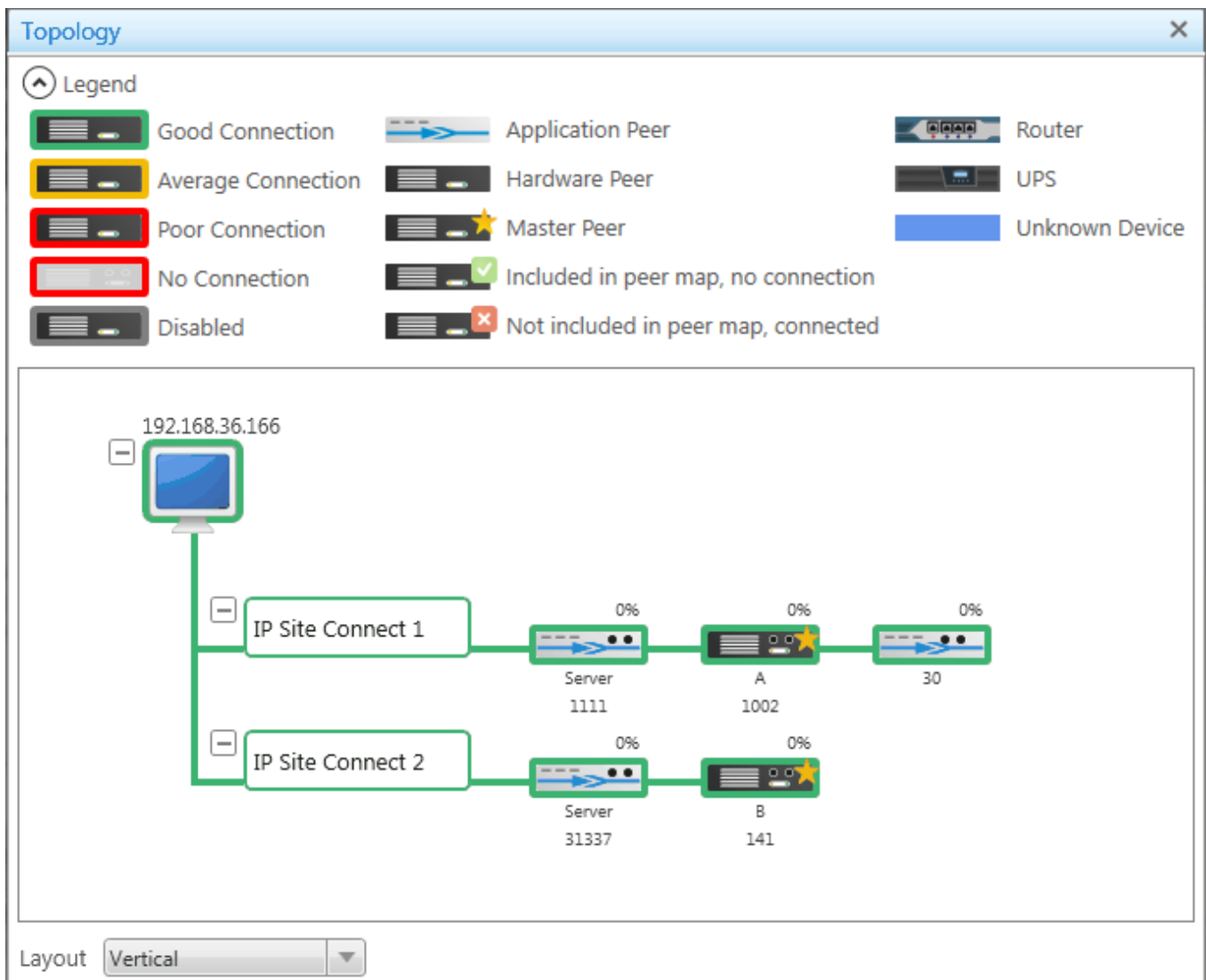
Levels displayed on the right to the blocks (*High, Medium, Low*) correspond to the RSSI level ranges: -80 or more (*High*), -80 to -100 (*Medium*) and -100 or lower (*Low*).

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

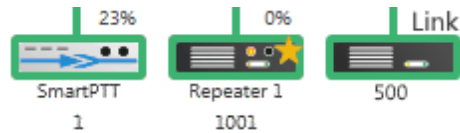
	Location in an unfolded state
	UPS (Uninterruptible Power Supply)
	Router
	Unknown device (any other device)

The **Topology** tab indicates link types between objects of a network.

### Link Types

Link Type	Description	Visual Element	Example
<b>Wireline connection</b>	Connection to repeater is wireline	Solid line	
<b>Wireless connection</b>	Connection to repeater is wireless	Dashed line	
<b>Normal link (no alarms)</b>	Device is connected or no alarms registered on device	Green line	
<b>Minor alarms</b>	Minor alarm is registered on device or there are more than 5 packets lost or corrupted	Yellow line	
<b>Major alarms</b>	Major alarm on device or no connection	Red line	
<b>Dead link</b>	Repeater is turned off	Gray line	

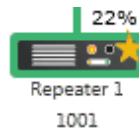
Repeater loading on both logical channels is displayed above each repeater. If you use a repeater to link one site to another site in Backhaul Systems, the **Link** or **Drop** text (depending on the repeater role) appears instead of the load percentage.



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 the 'Radioserver\_Tomsk' node. The dialog 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.

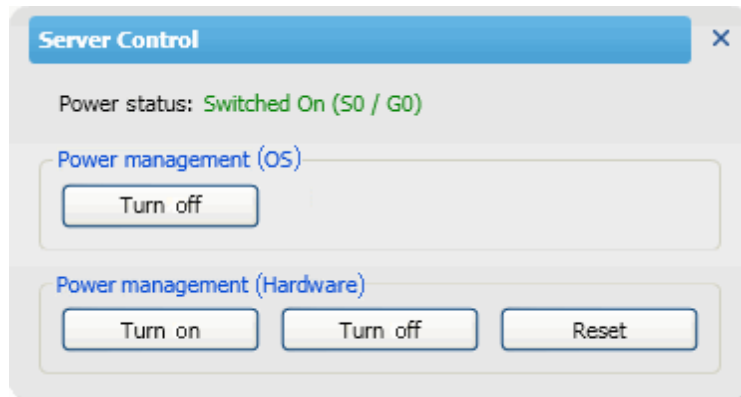
**Processor Load:** Displays current CPU load and other information about PC memory.

**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.

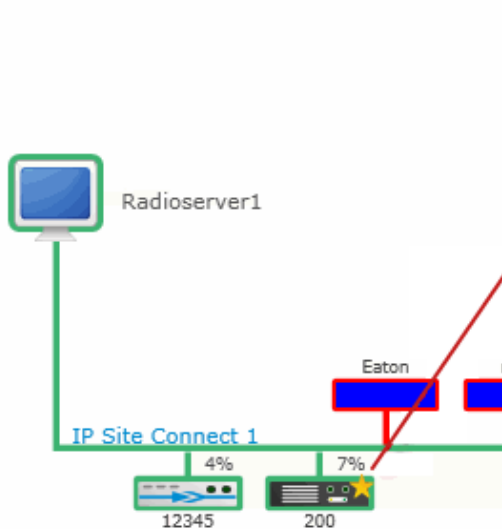
The layout can be selected in the **Layout** list at the bottom of the **Topology** tab. The selected layout is applied not only to radioserver elements, but to all elements, which can be folded and unfolded.

## 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. A 'Radioserver1' (represented by a computer icon) is connected to an 'IP Site Connect 1' (represented by a green line). This connection is split into two paths: one to a repeater with ID '12345' and a 4% load, and another to a repeater with ID '200' and a 7% load. The 'Eaton' repeater is highlighted with a red box, and a red arrow points from it to the 'Repeater Parameters' dialog box.

**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
<b>Repeater</b>	Repeater ID
<b>IP-address</b>	Repeater IP-address
<b>Model</b>	Repeater model number
<b>Firmware Version</b>	Version of firmware used in repeater
<b>Codeplug Version</b>	Repeater parameter block version
<b>Serial Number</b>	Repeater serial number
<b>Voice Calls</b>	Ability to transmit voice (Yes, No)
<b>Data Calls</b>	Ability to transmit data (Yes, No)

## Statistics

Name	Description
<b>Load Percent (%)</b>	Channel loading on repeater for the last 10 seconds
<b>Transmissions Started</b>	Number of times the PTT button was pressed
<b>Registration (ARS)</b>	Number of registration packets transmitted for the last minute
<b>GPS</b>	Number of GPS coordinates transmitted for the last minute
<b>Messages</b>	Number of text messages transmitted for the last minute
<b>Telemetry</b>	Number of telemetry packets transmitted for the last minute

Name	Description
<b>Broken Packets (RX)</b>	Number of packets (Rx) with errors, received for the last minute
<b>Maximum Number of Broken Contiguous Packets (RX)</b>	Maximum number of broken packets (Rx) in a row
<b>Number of Transmit Collision Packets (TX)</b>	Number of not transmitted packets due to collisions on the channel
<b>Uptime</b>	The time during which the repeater is available in the network

To operate remotely, right-click the repeater element and select **Control**. The following 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** field.

**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** field.

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
<b>Alarm Details</b>	Informs about issues in UPS operation
<b>Input Power Source</b>	Input Power Source
<b>Output Power Source</b>	Output Power Source
<b>Last Battery Replacement</b>	Date and time when battery was replaced last time

## Parameters

Name	Description
<b>Input Voltage (V)</b>	Input voltage level (V)
<b>Input Frequency (Hz)</b>	Input frequency level (Hz)
<b>Output Voltage (V)</b>	Output voltage level (V)
<b>Output Frequency (Hz)</b>	Output frequency level (Hz)
<b>Output Current (A)</b>	Output current level (A)
<b>Output Power (W)</b>	Output power level (W)
<b>Load (%)</b>	UPS loading in percent
<b>Battery Charge (%)</b>	Battery charge left in percent
<b>Charge Left (hh:mm)</b>	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** field.

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:

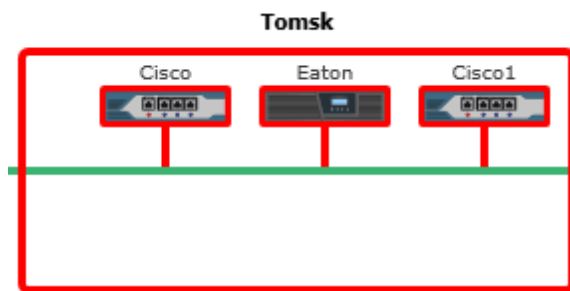
- Folded
- Unfolded



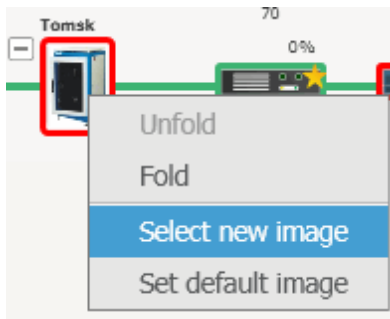
**Folded:** Location is displayed as an image inside a box.



**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 window with a table of repeaters and a detailed view for 'Repeater Tomsk 1'.

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

The detailed view for 'Repeater Tomsk 1' includes:

- Alarms** (dropdown)
- Diagnostics** (dropdown)
- Refresh** button
- RSSL Slot 1: -105.8950
- RSSL Slot 2: -105.8950
- Repeater statistics** (dropdown)
- 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
- Repeater properties** (dropdown)
- Supported alarms** (dropdown)
- Transmitter Failure
- Receiver Failure
- Over heating
- Power Failure

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.

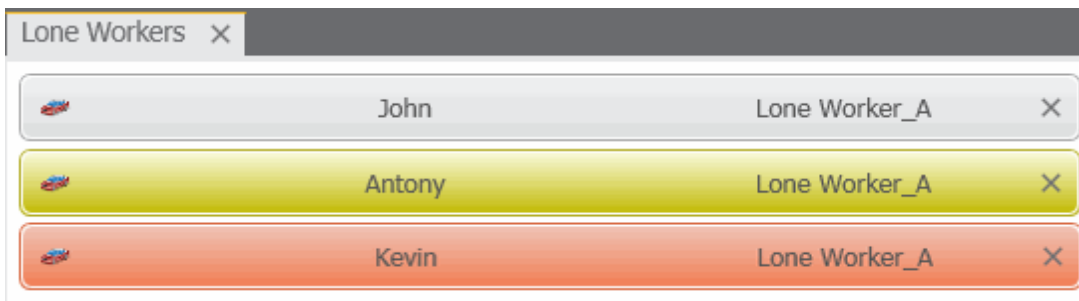
Besides reviewing current events, **Event Log** provides the ability to view saved events for the particular time period.

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 in the **Main 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.

### NOTE

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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

## 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**.



### NOTE

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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

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 opens up 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

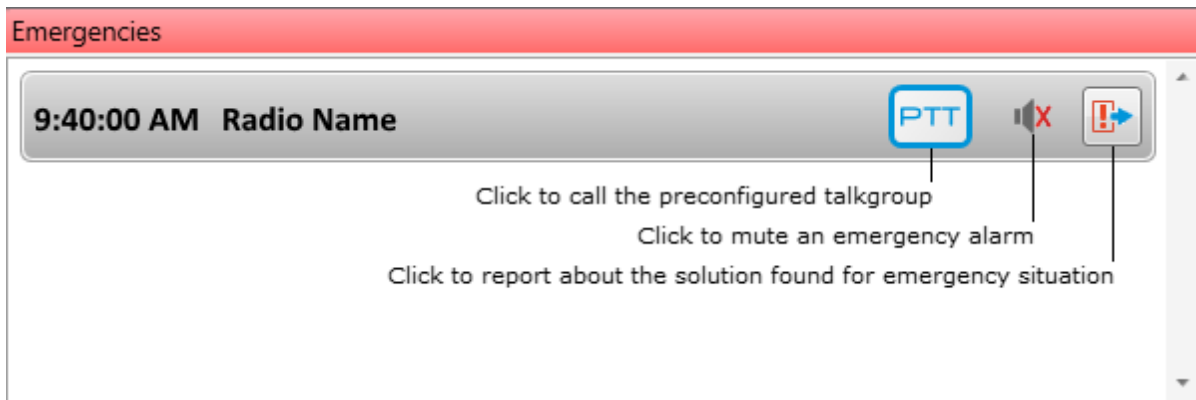


#### NOTE



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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

## 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

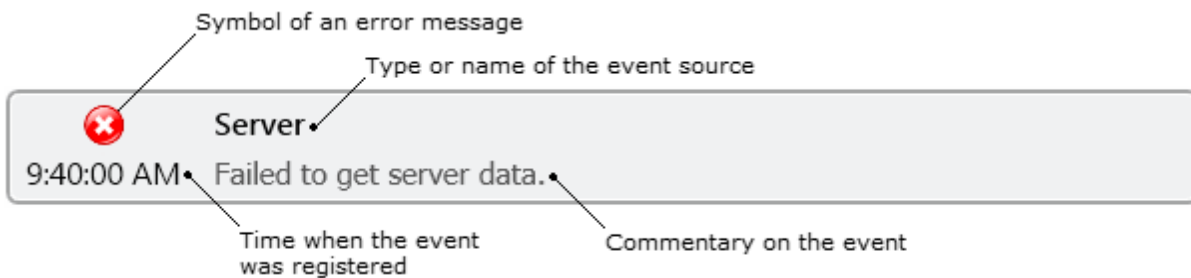
The **System Messages** panel displays messages on events related to the radio network functionality.

The system messages can inform you about the following:

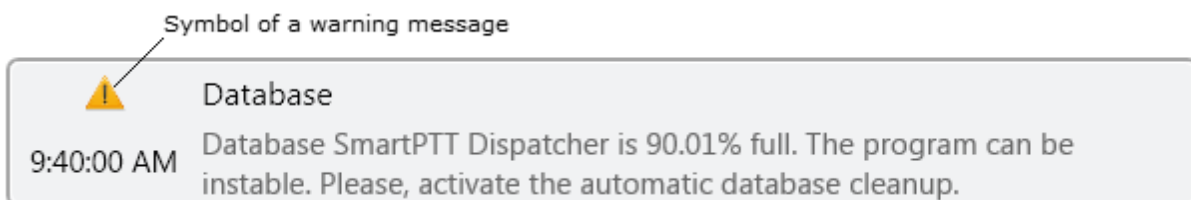
- The statuses of the connections to the radio networks
- The statuses of the connections to the radio network components
- The activity statuses of the network components
- The statuses of the connection to the server and more

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:

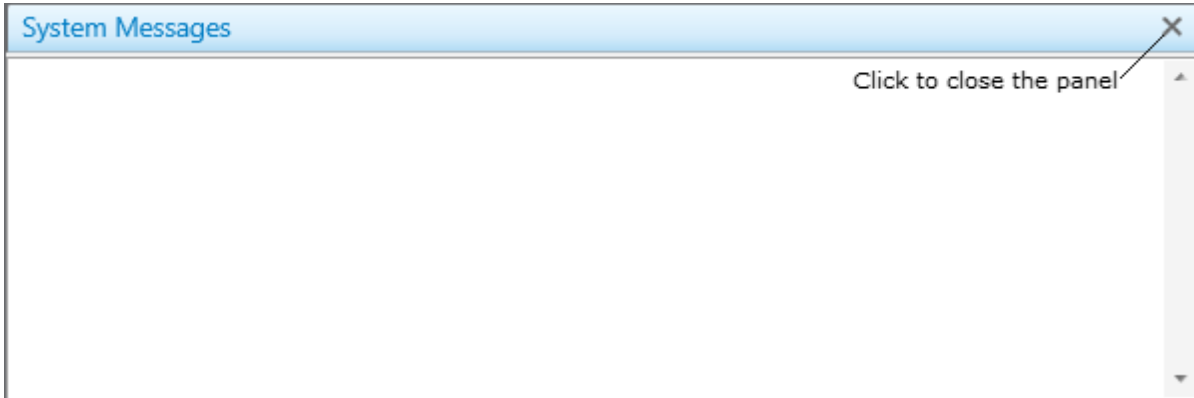
- Client, i.e. the SmartPTT Dispatcher program
- Server, i.e. the SmartPTT Radioserver program
- Client-Server Connection
- Database, i.e. the SmartPTT Dispatcher database

- 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:

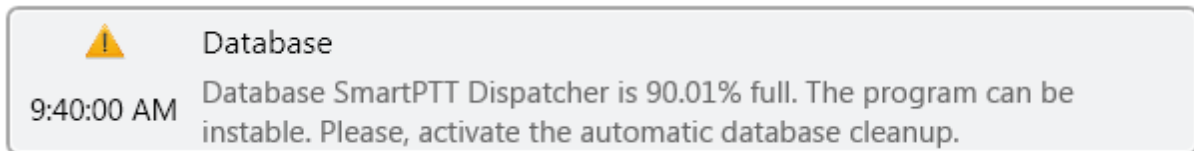
- On the **Tools** menu, click **System Messages**. The **System Messages** window appears.



- By configuring its automatic showing in the [System Messages](#) menu.

To close the **System Messages** panel click **Close** x.

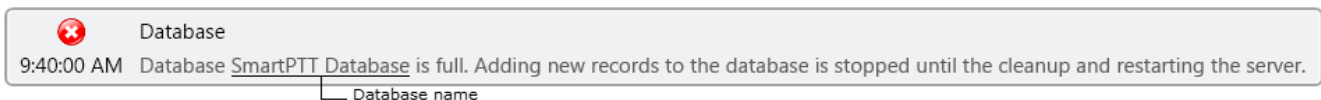
### Warning Message Example



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



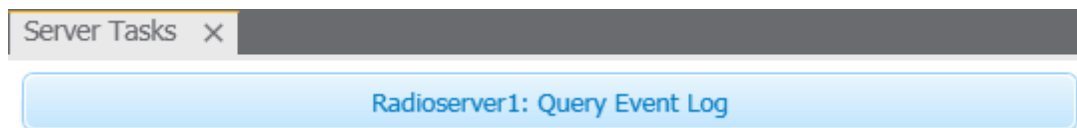


This message indicates that amount of records in the database reached its maximum. It will appear at the start of SmartPTT Dispatcher and will reappear every 30 min until database is not cleaned up.

## 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 Map, Open Street Map, vector maps of various formats, raster maps, polish format maps. 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 **Call Window** by double-clicking on the radio or a WAVE user displayed on the map, or open **Action List** by clicking with the right mouse button.

### NOTE

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 on the radio label the name of the user authorized on the radio is displayed next to the radio name in brackets.

### Polish Format Maps

To open a polish format map, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Map (Polish format)**. In the opened window select the map file in a .mp format.

### Google Map

To open the Google Map, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Google Map**.

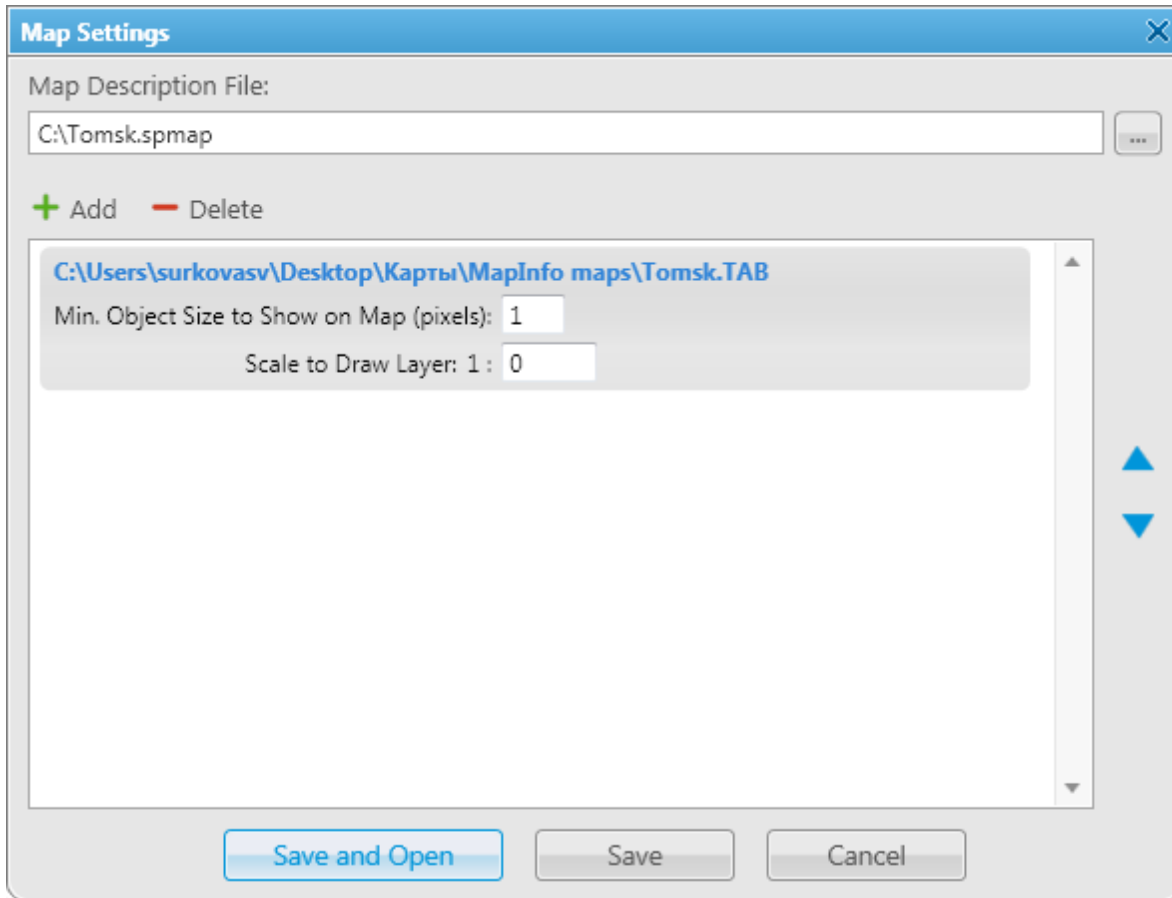
### Raster Map

To open a raster map, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Raster map** → **Open map**. In the opened window select the file in a .map format.

To create a map based on a map image, see the [Raster Map](#) section.

## MapInfo Map

To set a MapInfo map for SmartPTT Dispatcher, expand the **Map** menu in the **Main Menu** bar and click **MapInfo Map** → **Map Settings**. In the **Map Settings** window click **Add** and in the opened window select a map layer – a file in a 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** field specify the path to the map file. Click **Save** when you are finished. The file will be saved in a .spmmap format. To open the map right after you saved it, click **Save and Open**.

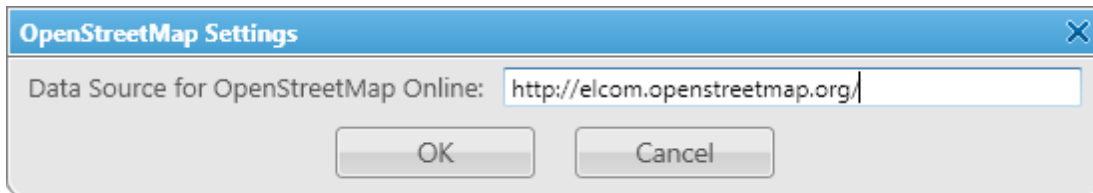
To open a MapInfo map, expand the **Map** menu in the **Main Menu** bar and click **MapInfo Map** → **Open Map**. In the opened window select the file in a .spmap or .ttkqp format. You can create a map in the .ttkqp format using the TatukGIS Viewer free version (<http://www.tatukgis.com/Products/EditorViewer/Editions/Viewer.aspx>).

## Open Street Map

To open the online Open Street Map, expand the **Map** menu in the **Main Menu** bar and click **Open Street map** → **Open Online Map**.

To open the offline Open Street Map, expand the **Map** menu in the **Main Menu** bar and click **Open Street Map** → **Open Map from File**. In the opened window select a map file in an .osm or .tilesurl format.

To open the Open Street Map from local server, expand the **Map** menu in the **Main Menu** bar and click **Open Street Map** → **Settings**. In the **Data Source for OpenStreetMap Online** field specify the path to the local server. If you want to get back to the default address, clear **Data Source for OpenStreetMap Online** and click **OK**.



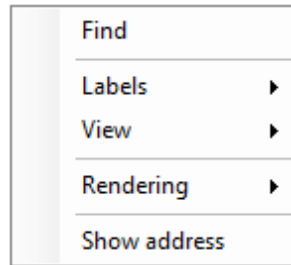
## How to Use Maps

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 set raster map settings, expand the **Map** menu in the **Main 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'. It features a gear icon in the top right corner. The dialog contains the following elements:

- A text field labeled 'Select Image of Map:' with a browse button (three dots) to its right.
- Map Parameters: 'Width: -' and 'Height: -'.
- A section titled 'Points' containing a table with five columns: 'Point:', 'Longitude:', 'Latitude:', 'X:', and 'Y:'. There are four rows of input fields corresponding to points 1, 2, 3, and 4.
- An 'Open...' button located at the bottom right of the 'Points' section.
- At the bottom of the dialog, there are three buttons: 'Help', 'Cancel', and 'Finish'.

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:

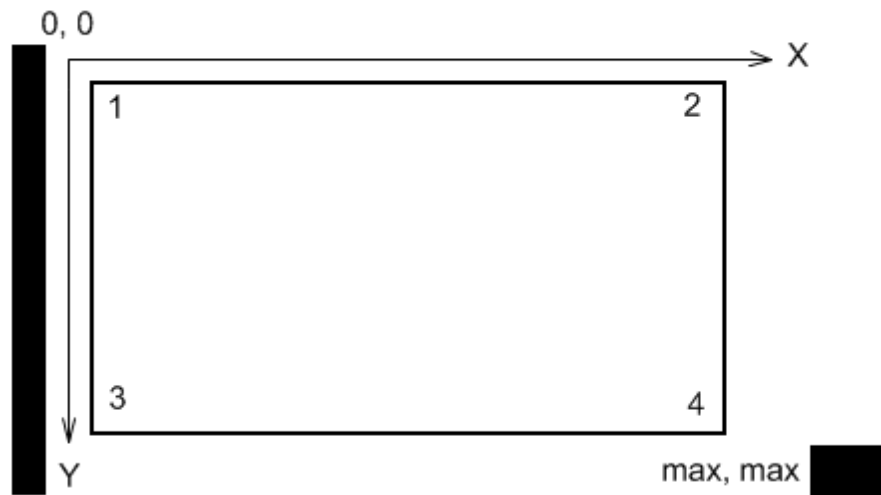
*Longitude and Latitude = Degree + ((Minute \* 60) + Second) / 3600* (this is a conversion from degrees, minutes and seconds into normal values), where X and Y are corresponding coordinates (in pixels) on the image.

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 opened window 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 the database for the raster map, send your query to our [technical support service](#) and attach the raster map image in a .jpeg format with the list of geographical positions on the map (e.g., in a .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 a .bak format.

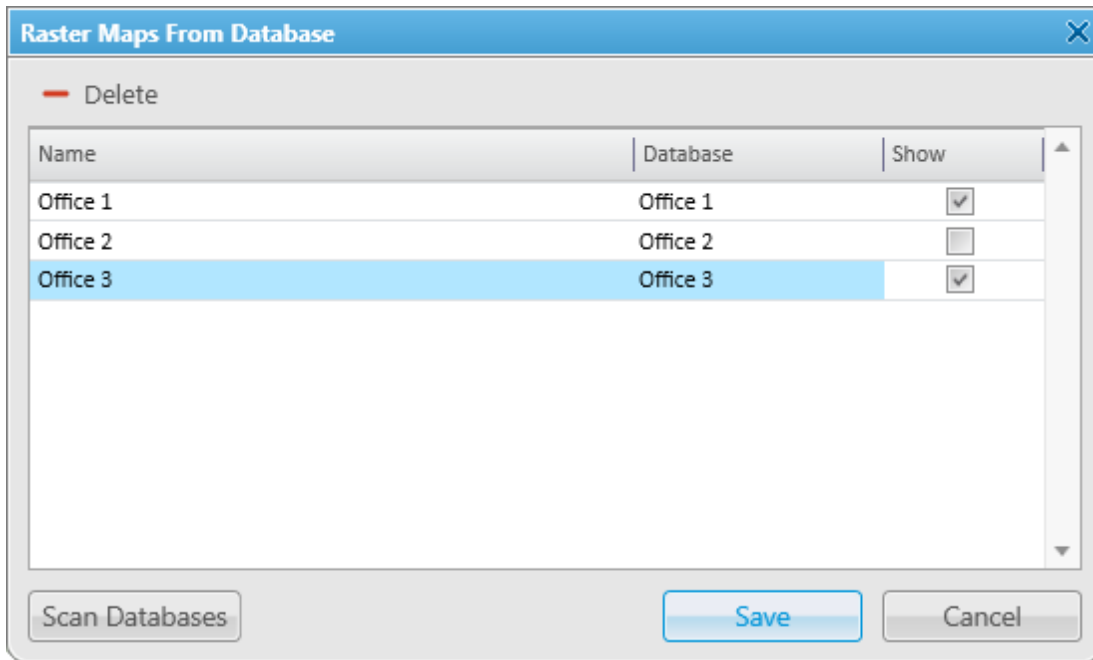
**NOTE**

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](#).



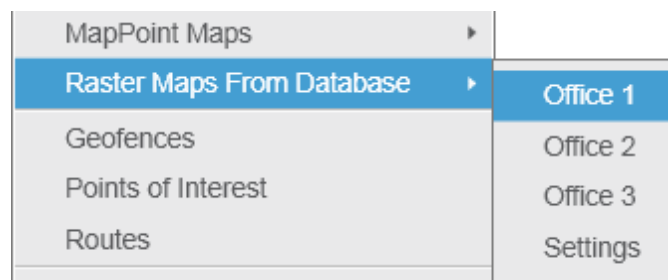
After the database is restored, expand the **Map** menu in the **Main Menu** bar and click **Raster Maps From Database** → **Settings**. Click **Scan Databases** in the opened window, and you will see a list of all available maps stored in the databases of the selected server (see [Database Settings](#), the **Database Server Name** field).



**Name:** Name of the map stored in the database. To change the name of the map, double-click on the name in the **Name** field and enter 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.

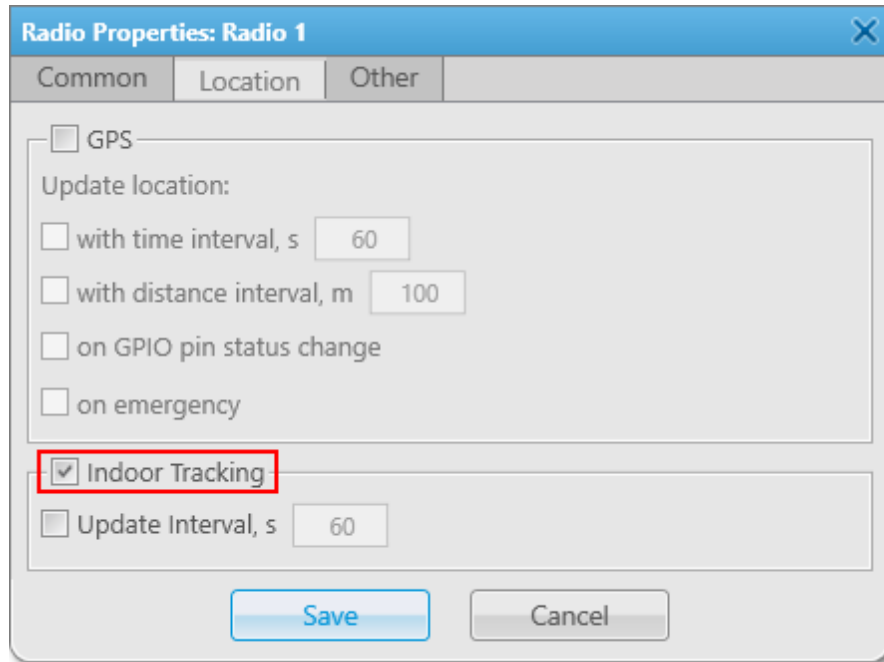
The screenshot displays the SmartPTT Dispatcher interface. The main window shows a floor plan with several beacons (Beacon 1594, Beacon 6499, Beacon 6501, Beacon 1593) and a track for radio 155. The track details table below the map shows the following data:

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

**NOTE**

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 on the radio label the name of the user authorized on the radio is displayed next to the radio name in brackets.

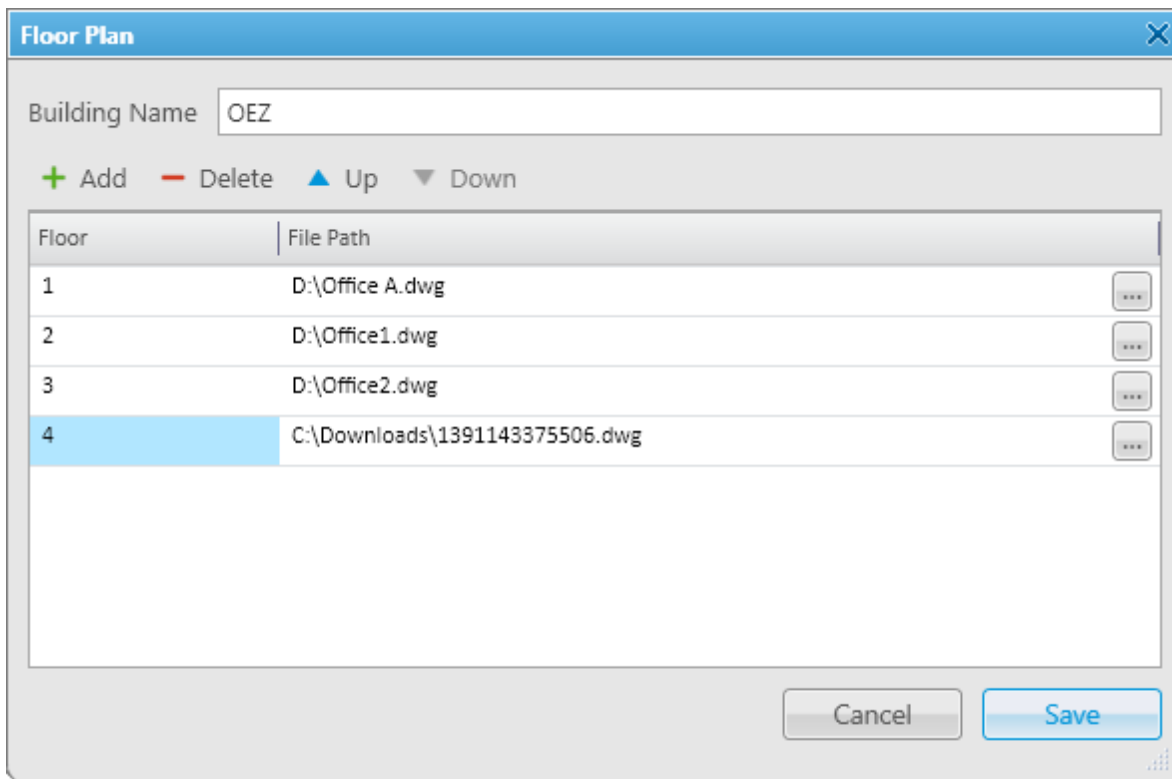
To enable Indoor support for a radio in SmartPTT Dispatcher, open the [Properties](#) window of the radio and in the **Location** tab select **Indoor Tracking**.



**NOTE**

If you use *Motorola* source (iBeacon technology), the **Update Interval** field must be selected and specified together with the **Indoor Tracking** field for enabling Indoor support for a radio.


To create a building plan, expand the **Map** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Indoor Tracking** → **New**. 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** field and type a new value.

**File Path:** A path to the floor plan file. You can use a floor plan in a .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 a .splanx (archive) format.

To open a building plan, expand the **Map** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Indoor Tracking** → **Open**. 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 a .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 fields 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 *Motorola* source, specify the number of the beacon in the **Beacon Number** field 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** field. If the beacon name is not specified in the **Beacon Name** field, the value from the **Beacon Number** field will be shown as a beacon name on the building plan. To remove the beacon from the plan, double-click on the beacon and in the opened window 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 opened window 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 created and activated in SmartPTT Radioserver Configurator.


**Radio:** Radio ID or name.

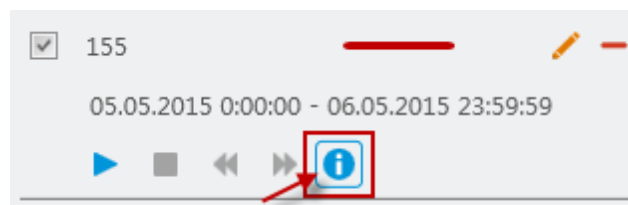
**User:** User name.

**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.

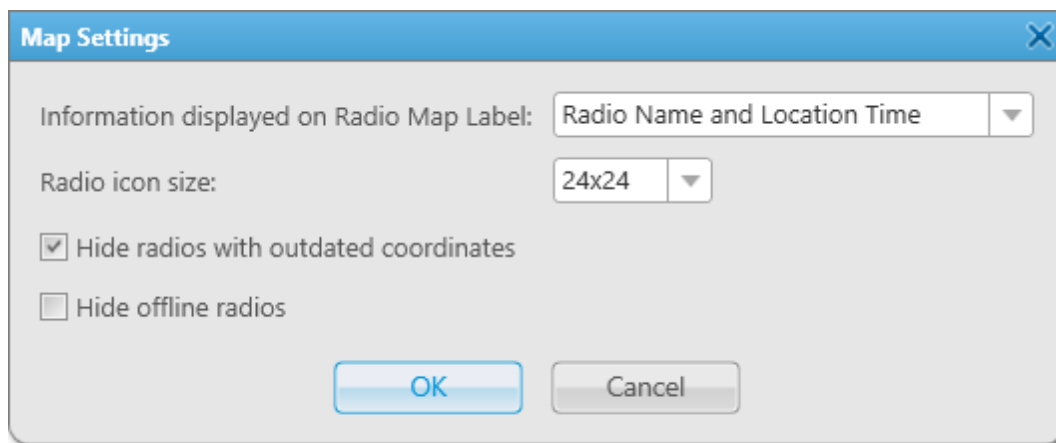


## 4.4 Map Settings

Follow the procedure below to configure the settings of displaying radios or WAVE users on a map.

### Procedure:

1. In the **Main 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 is shown 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 a 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** field.

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

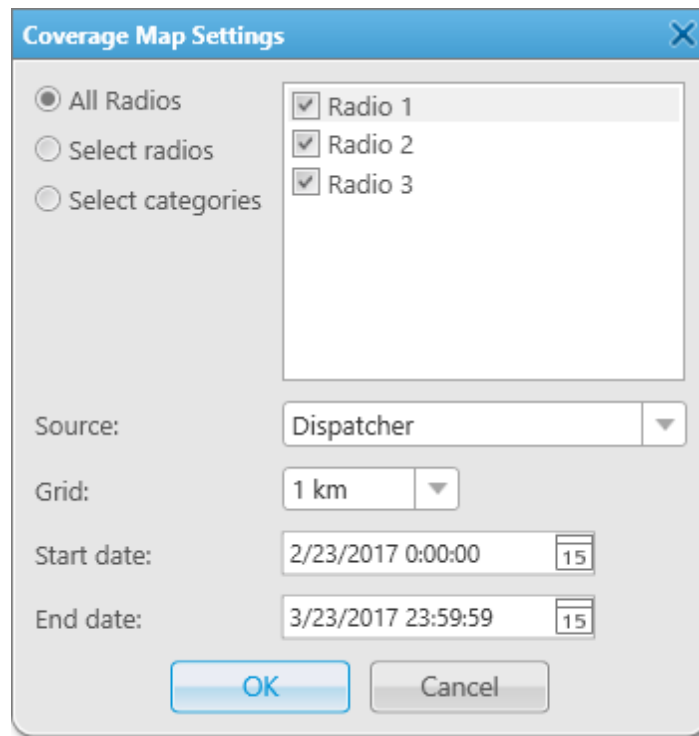
Coverage maps give you information about signal strength (RSSI) of a particular radio in a particular place. To build a coverage map for a radio, make sure that it has GPS enabled, and there is GPS data in the database.

**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.

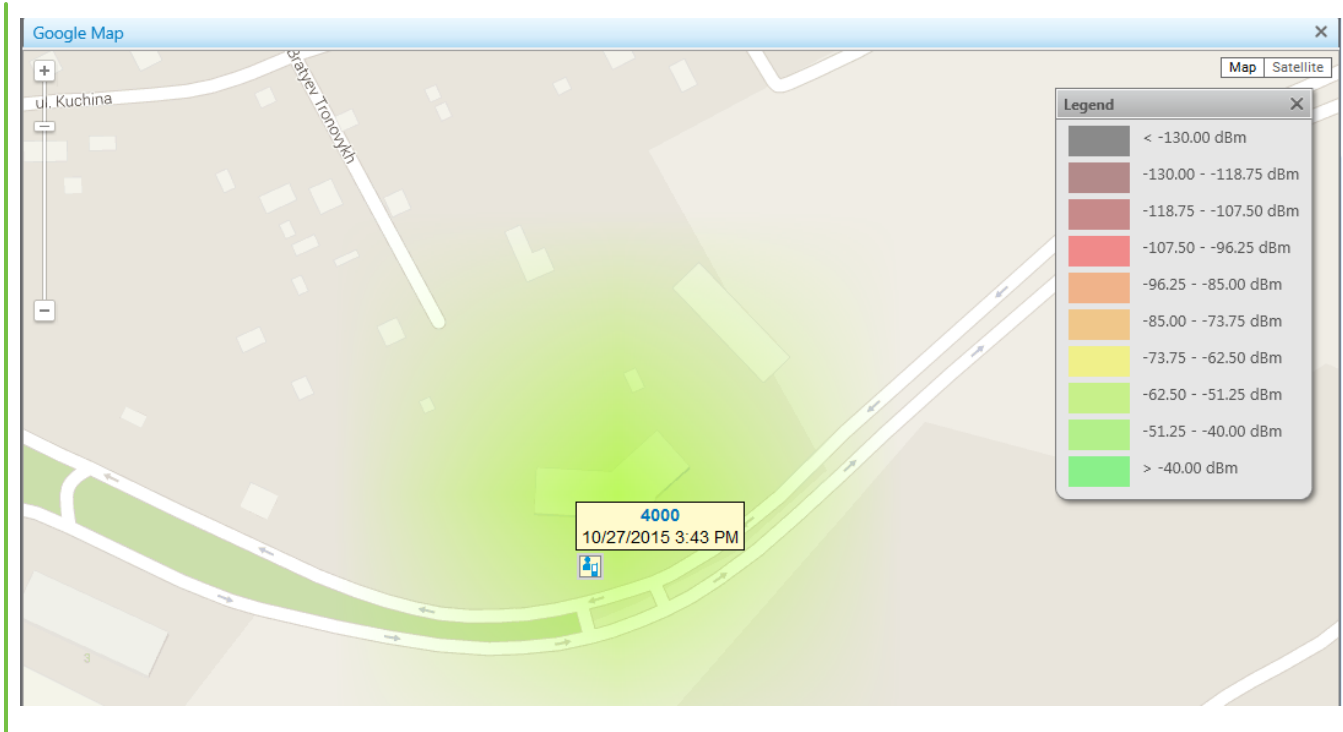
**Select categories:** Select this option to build a coverage map for all the radios of the selected category.

**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 field.

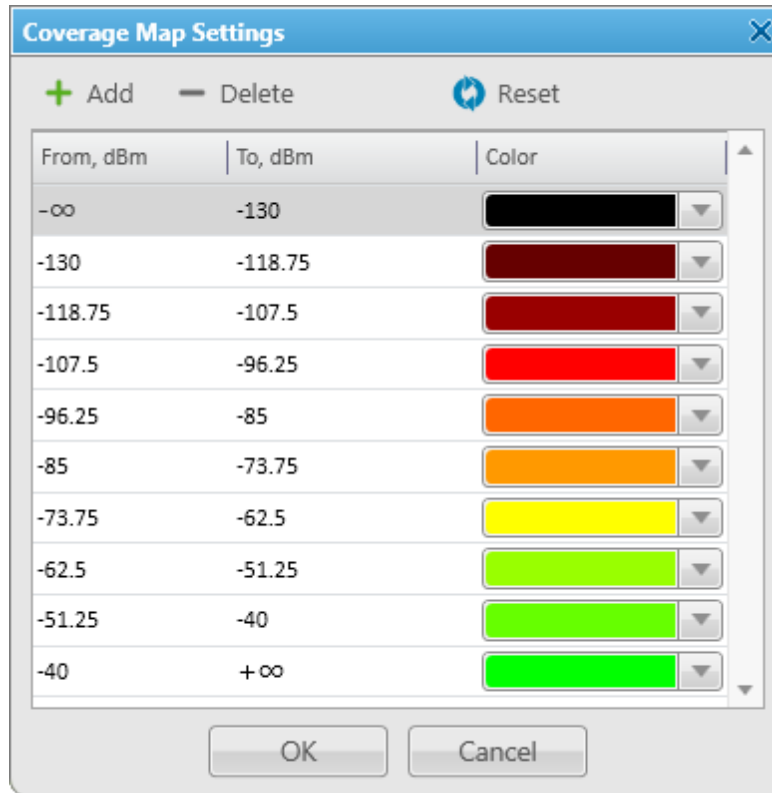
**Start date/End date:** Defines over which period the data will be used for the map.

### 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**.

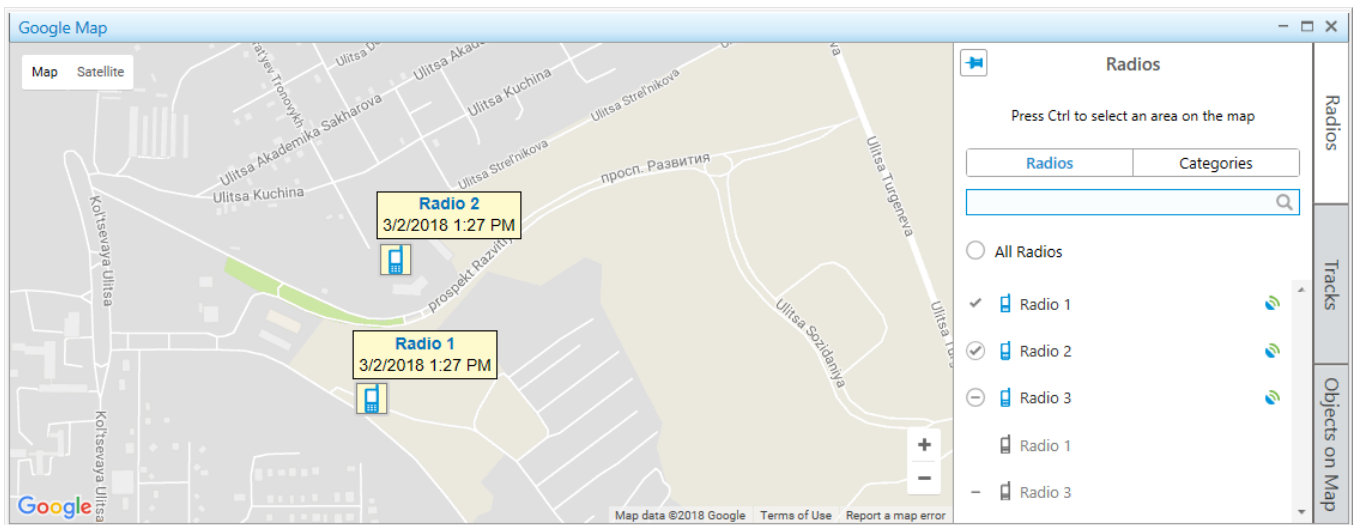
## 4.6 Map Control Panel


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

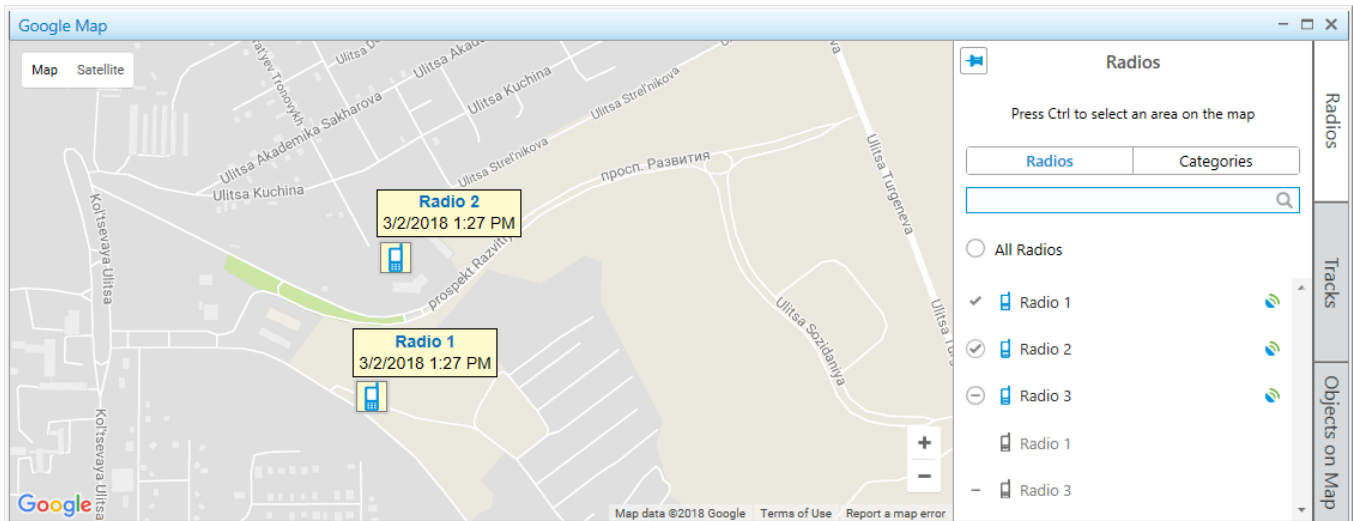


By default, the expanded control panel is unfixed, and it automatically collapses by clicking on a map. The Fix (  ) button fixes the expanded panel, and in this state you can collapse it only by clicking **Radios**, **Tracks**, or **Objects on Map** buttons.

## 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 ( ○ )

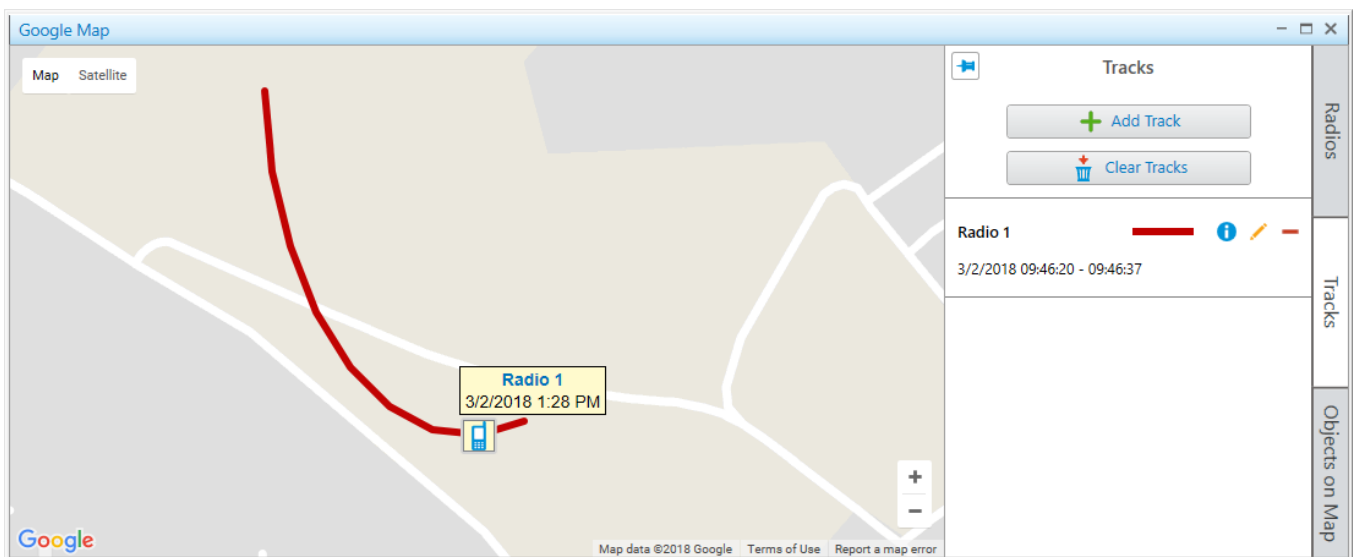
The indicator appears in the following conditions: **a)** after right-clicking the **All Radios** element to restore all radios to the states they were in before clicking the indicators, or **b)** next to the radio categories names when radios in the categories are in mixed states.

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.

**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.

**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 (  )**

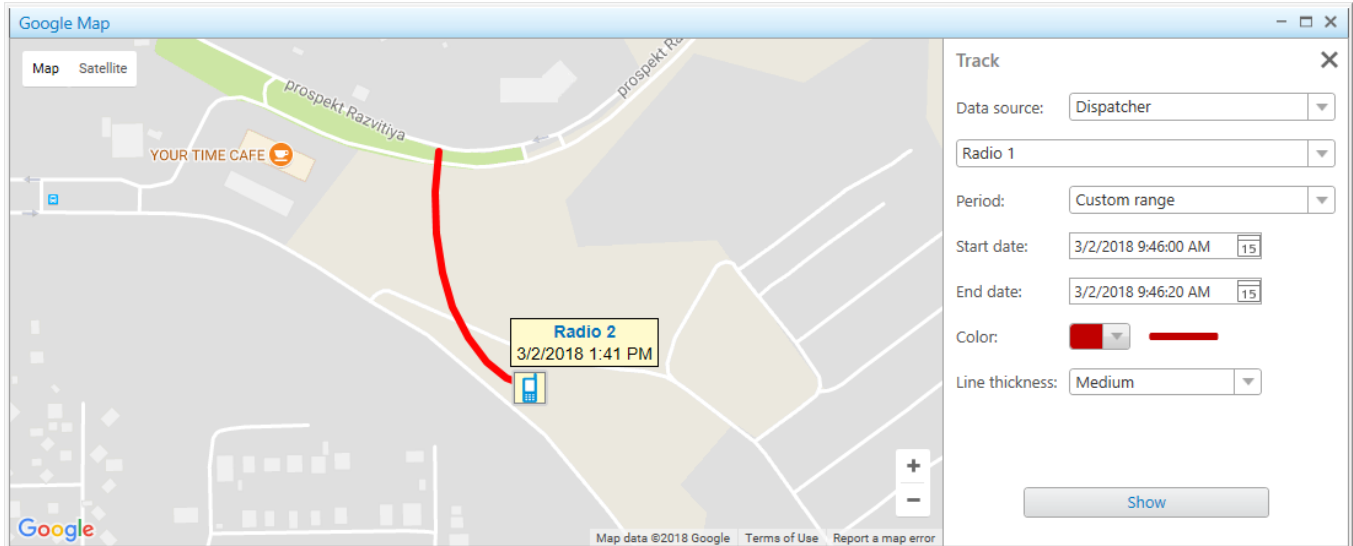
Deletes the track from the map and from the **Tracks** panel.



## 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 [Managing 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 [action menu](#) of a radio, in the list of radios, the radio is selected automatically.


#### 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.

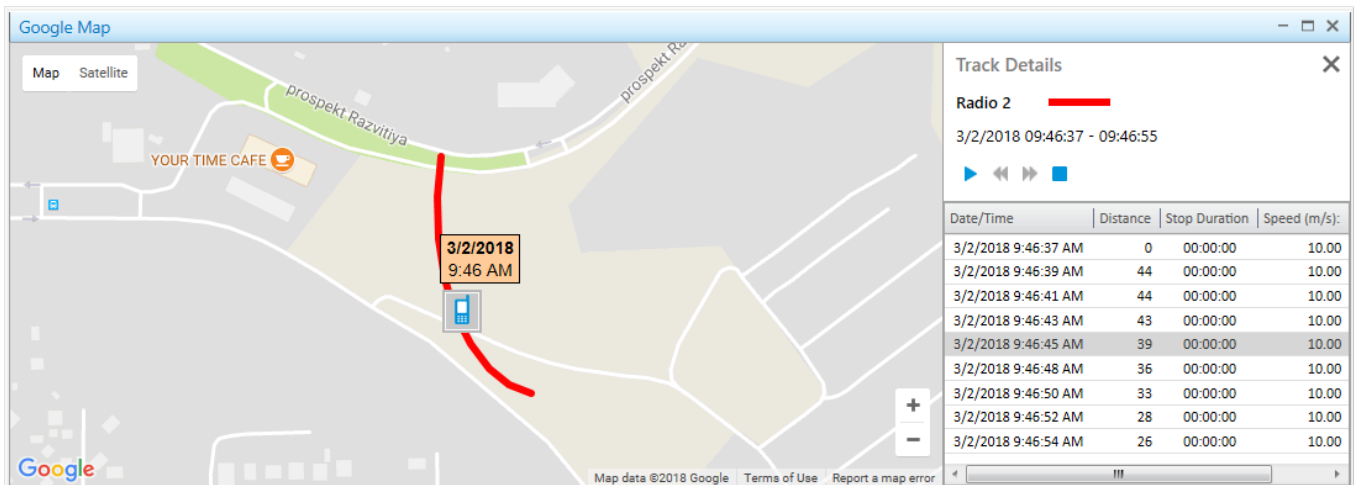
### Show

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.



### NOTE

For information on track animating, see [Animating Track](#).

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 track animation.
  - **Pause Playback ( || )** pause track animation.
  - **Stop Playback ( ■ )** stops track animation.
  - **Decrease speed ( ◀ )** decreases track animation speed.
  - **Increase speed ( ▶ )** increases 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 (m/s)** column displays the radio movement speed in the each track point.
  - The **Precision** column displays the coordinates precision.

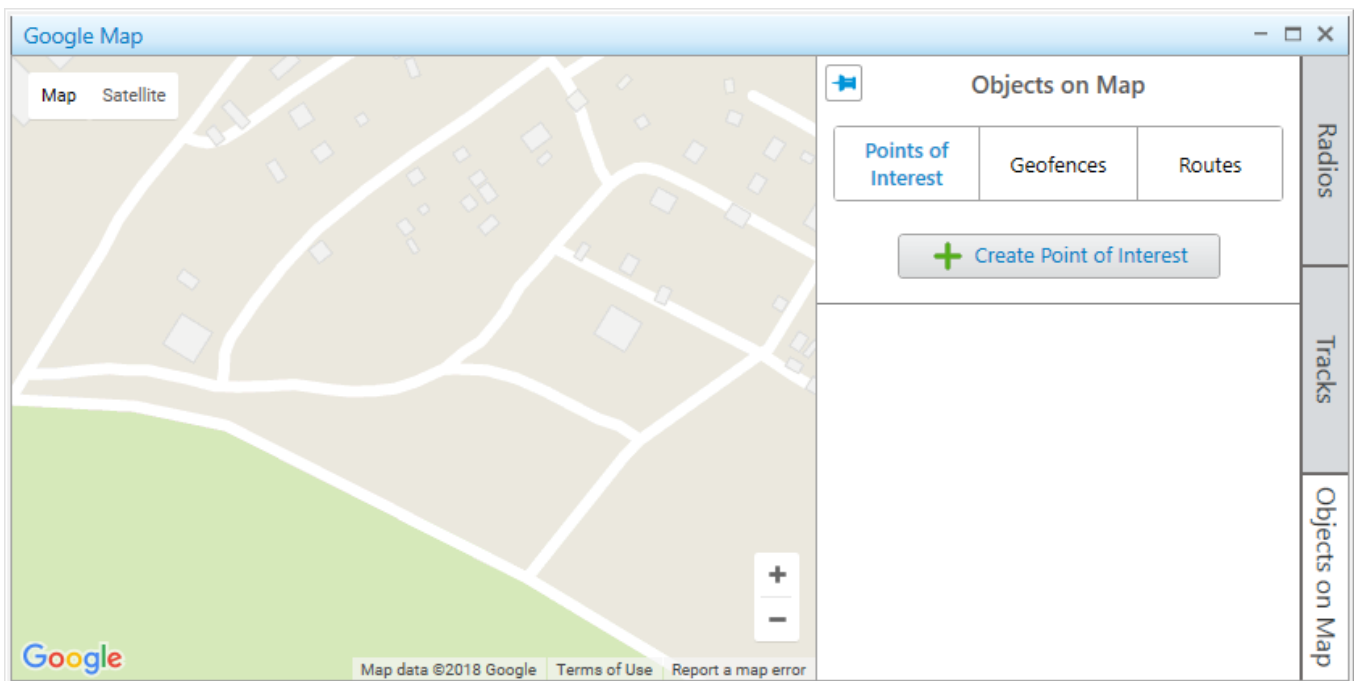
You can double-click a table line to show a track on the map in the desired moment of time.

### 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:

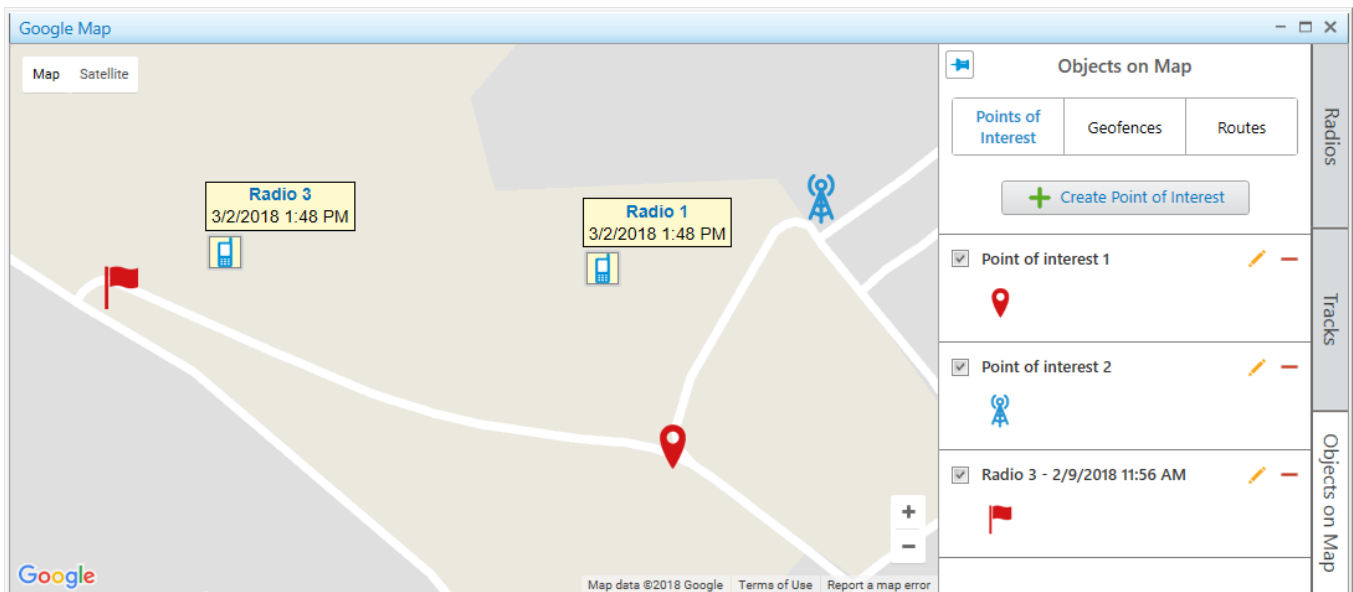
- [Points of Interest](#)
- [Geofences](#)
- [Routes](#)

#### 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.

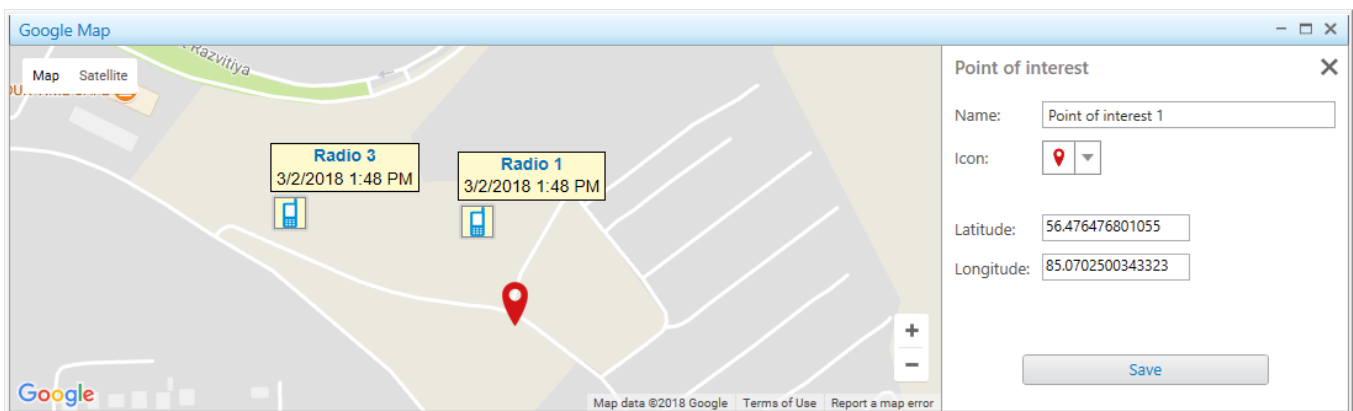
### Delete ( - )

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](#).



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

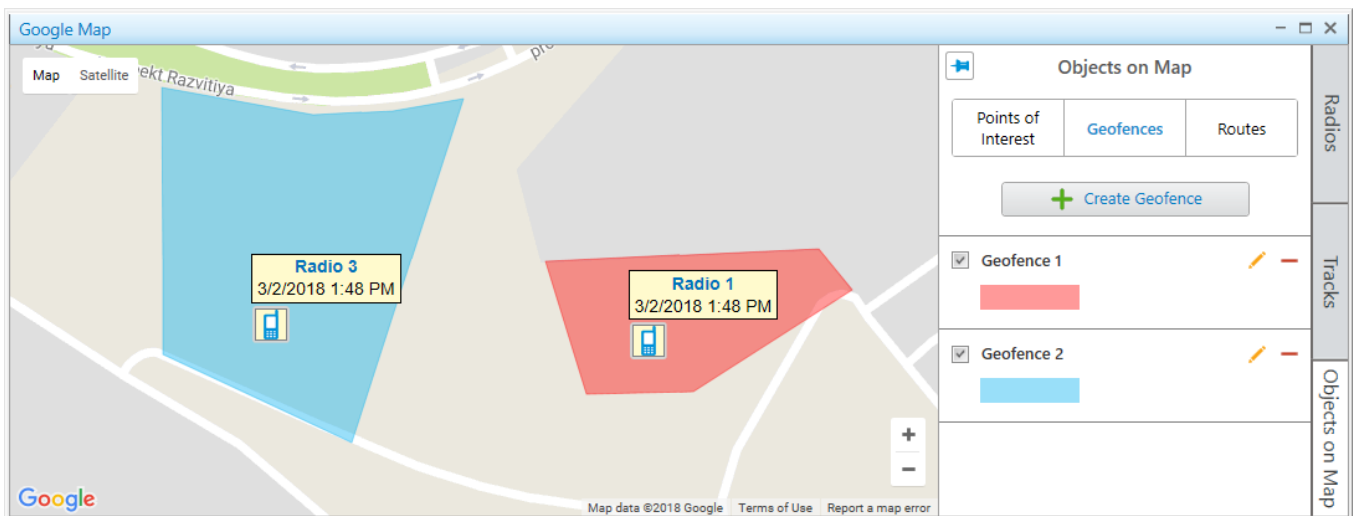
You should enter coordinates of a point of interest. An alternative way of adding a point of interest is to click the desired location on a map.

### 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 in [Adding Geofences](#).

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.

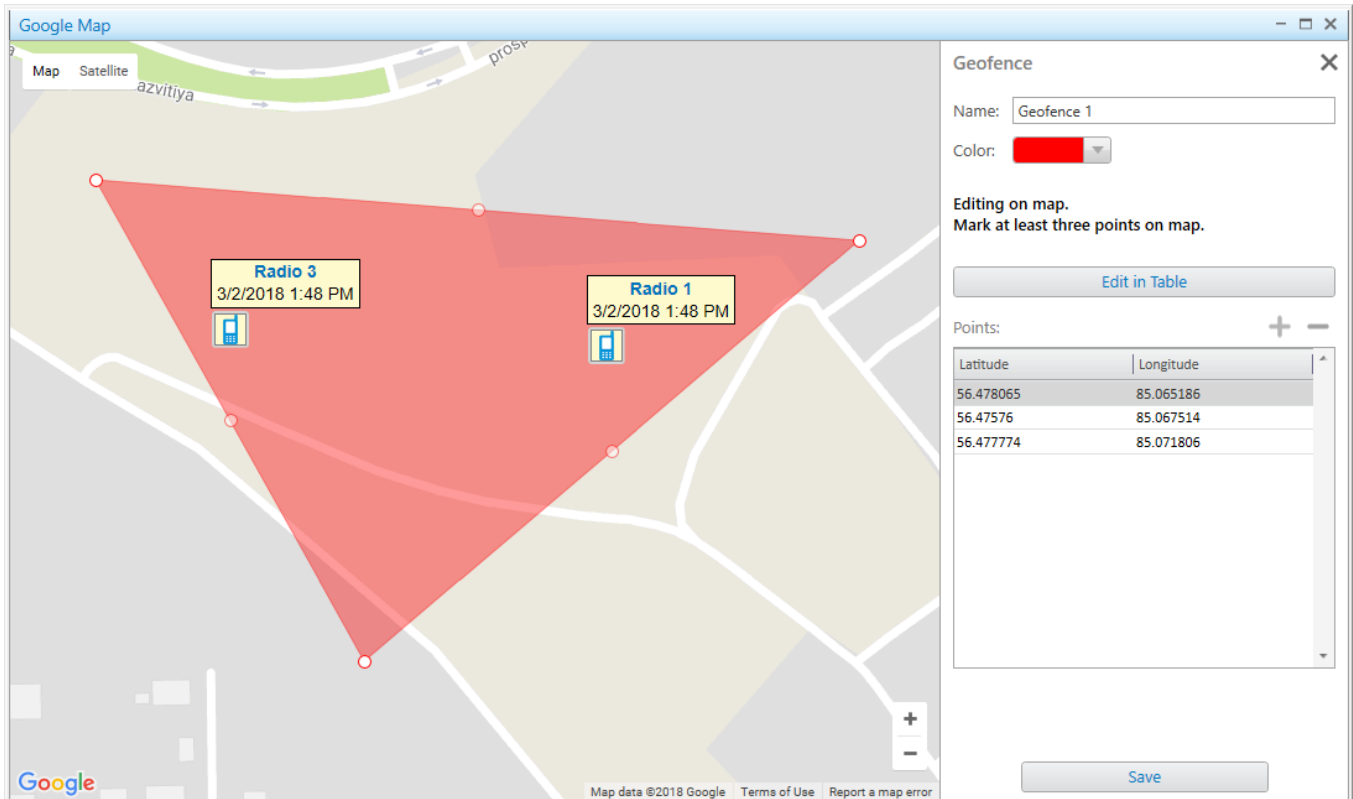
Geofences can be used in [positioning rules](#) to track radios in the area.



### 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](#).



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 in [Adding Routes](#).

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 ( )

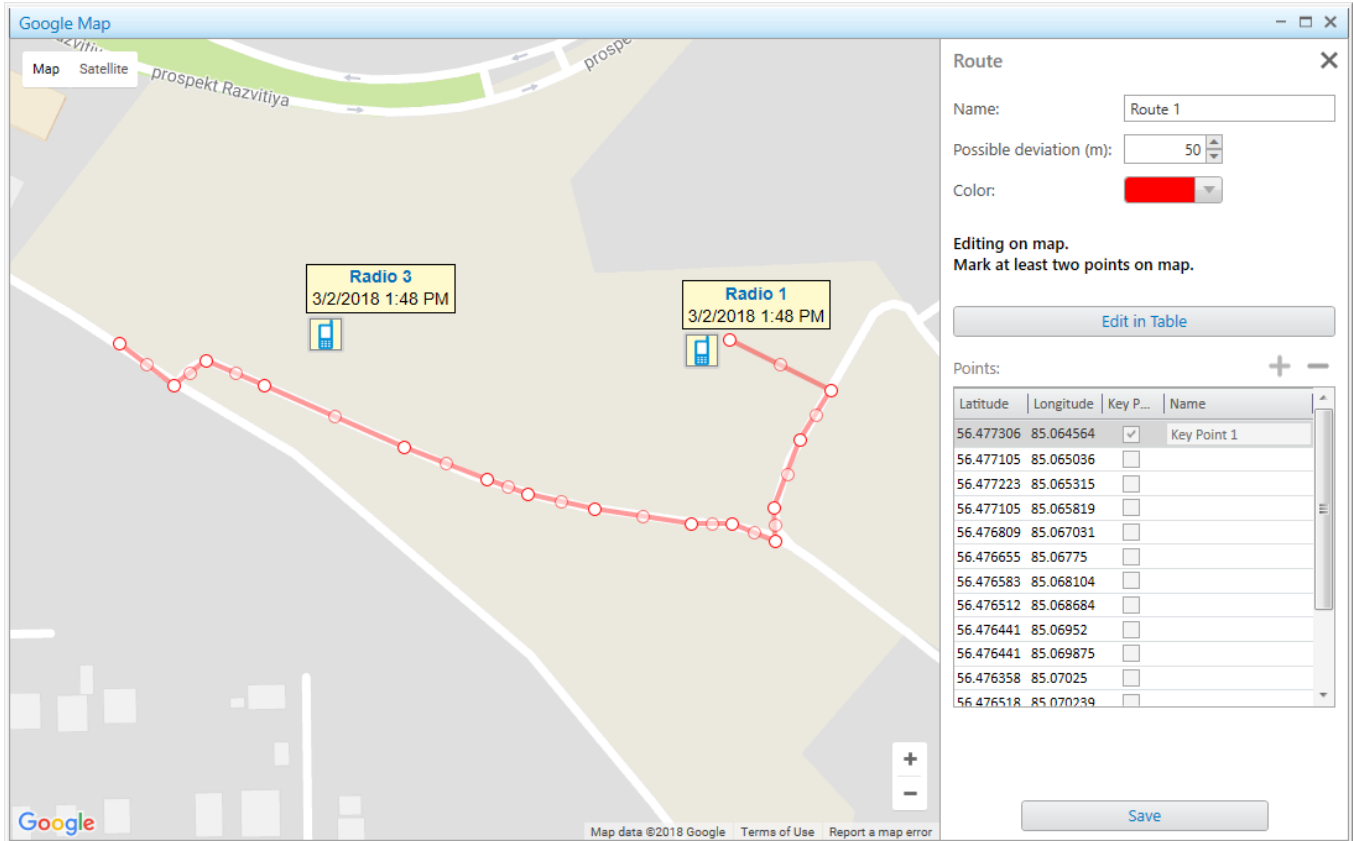
Removes a route from the **Routes** tab and from all maps.

Routes can be used in [positioning rules](#) to track that radios follow the desired route.

### 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](#).



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 Radios 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

To get 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  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 on map according to the settings in [Configuring 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**

To get 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  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 on map according to the settings in [Configuring 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 select **Set Locations**.
  - If the desired map is closed, in the [action menu](#) or [call window](#) of the radio, click **Set Locations** and select the map.  
The **Set Location** panel opens.
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** fields, 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 [action 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.
- 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  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** field, enter the desired amount of hours.
  - If from the **Period** list the *Custom range* is selected, in the **Start Date** and **End Date** fields, 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  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 information on controls, 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.

#### Procedure:

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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 Parameters](#).
- To remove the point of interest, see [Deleting Objects Parameters](#).

## 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.

#### Procedure:

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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 **Object 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 in Panel](#) or [Editing Objects on 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.

#### Procedure:

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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 in Panel](#) or [Editing Objects on 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.

#### Procedure:

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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**, select or clear the **Show on map** check box.
- To edit a route, see [Editing Objects in Panel](#) or [Editing Objects on 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.

**Procedure:**

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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.

- 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 in Panel](#) or [Editing Objects on 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  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 the **Save** button. 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  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:

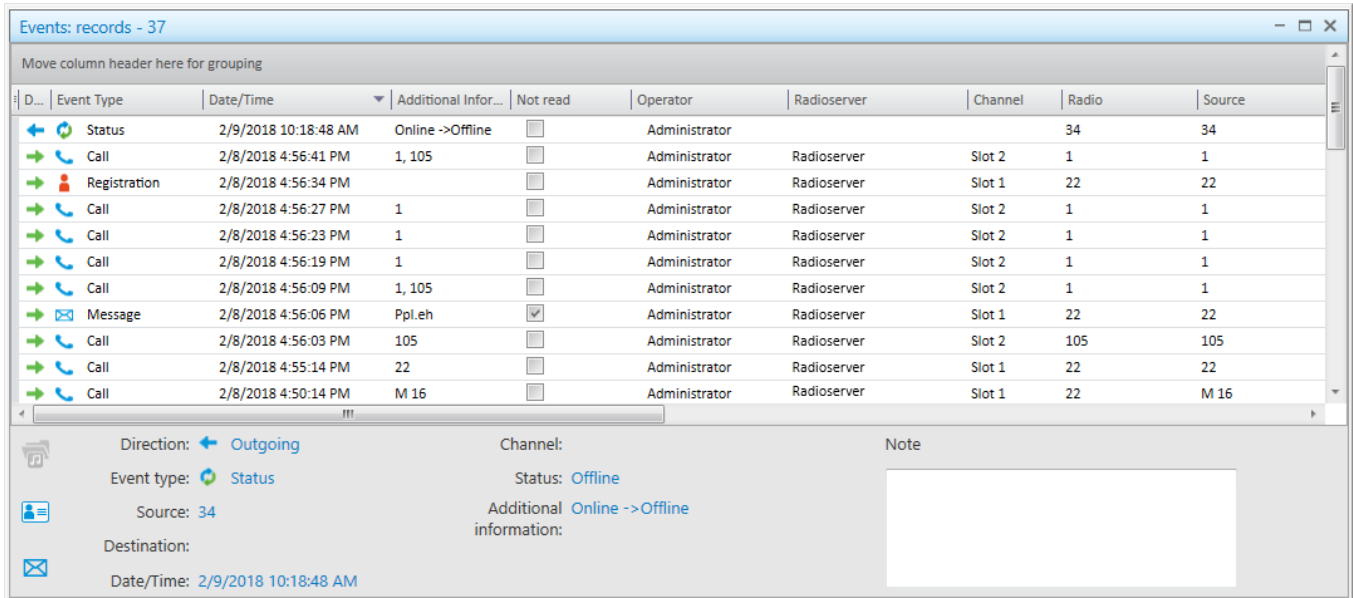
Ensure that at least one desired object exists in the list.

### Procedure:

1. In the right part of the open map, click **Objects on Map**.  
The **Objects on Map** panel opens.
2. *Optional:* Click  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

The **Event Log** panel displays information about SmartPTT statuses, system events, and other. You can open the system event log by clicking **All Events** on the **Event Log** menu in the Main Menu of SmartPTT Dispatcher.



The event log of SmartPTT Dispatcher contains the following columns with the corresponding filters:

Column Name	Filter	Description
<b>Direction</b>	Incoming/Outgoing	Shows whether the event is incoming (the green arrow), or outgoing (the blue arrow).
<b>Event Type</b>	Registration, Call, Message, Telemetry, Alarm, Status, Block radio, Job Ticket, User Authorization, Radio Check, Lone Worker, , Radio Kill	Shows the type of the event.
<b>Date/Time</b>	Date/Time	Shows the date and time of the event.

Column Name	Filter	Description
<b>Not Read</b>	Read/Not Read	Shows if the message was read or not.
<b>Additional Information</b>	The text in the <b>Additional Information</b> field	<p>Depending on the event type, contains the following information:</p> <ul style="list-style-type: none"> <li>• <b>Registration</b> – empty field</li> <li>• <b>Call</b> – identifiers of call initiators, or operator name</li> <li>• <b>Message</b> – message text</li> <li>• <b>Telemetry</b> – telemetry event</li> <li>• <b>Alarm</b> – date and time of alarm acknowledgment, and the operator name who acknowledged it</li> <li>• <b>Status</b> – changing of radio status</li> <li>• <b>Block radio</b> – empty field</li> <li>• <b>Job Ticket</b> – job ticket number, name, and description</li> <li>• <b>User Authorization</b> – empty field</li> <li>• <b>Lone Worker</b> – empty field at activating/deactivating lone worker profile. The field is filled when the profile changes</li> <li>• <b>Radio Check</b> – empty field</li> <li>• <b>Radio Kill</b> – empty field</li> </ul>
<b>Operator</b>	Operator name	Shows the dispatch console operator who registered the event. The column exists in the event log of the dispatch console only.
<b>Radioserver</b>	Radioserver name	Shows the name of the radioserver used in the event.
<b>Channel</b>	Channel name	Shows the channel on which the event was registered.

Column Name	Filter	Description
<b>Radio</b>	Radio or WAVE user	Shows the radio or the <a href="#">WAVE user</a> that can be a source or target in the event. Here you can also see all the radios and WAVE users that participated in a group call.
<b>User</b>	Radio user name	Shows the radio user which can be a source or target in the event.
<b>Source</b>	Event initiator	Shows the event initiator name or ID.
<b>Talkgroup</b>	Talkgroup name	Shows the talkgroup which participated in the event.
<b>Status</b>	Status name	Shows the status of the event set in <a href="#">Status</a> .
<b>Duration</b>	List of time intervals	Shows how long the event lasted in seconds.
<b>Connection Type</b>	IP, PBX, DMR	Shows the connection type of the event. The column exists in the event log of the dispatch console only.
<b>Destination</b>	Private call recipient	Shows the recipient ID or name.
<b>Record</b>	Yes/No	Shows if you can play the record or not.
<b>Lone Worker</b>	Yes/No	Shows if the lone worker profile is assigned to a radio or a WAVE user or not.
<b>Note</b>	Text in the <b>Note</b> box	Contains the text which the dispatcher added to a record.

**NOTE**

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 the name of the user authorized on the radio is displayed next to the radio name in brackets.

The lower panel of the event log contains the following:

- The **Play Selected Records** ( 🎧 ) button provides audio records of the selected calls.
- The **Open Radio Call Window** ( 📞 ) button opens a radio or a WAVE user call window.
- The **Send Message On Radio** ( ✉ ) button opens a window for message sending.

**NOTE**

Sending messages is unavailable to WAVE users.

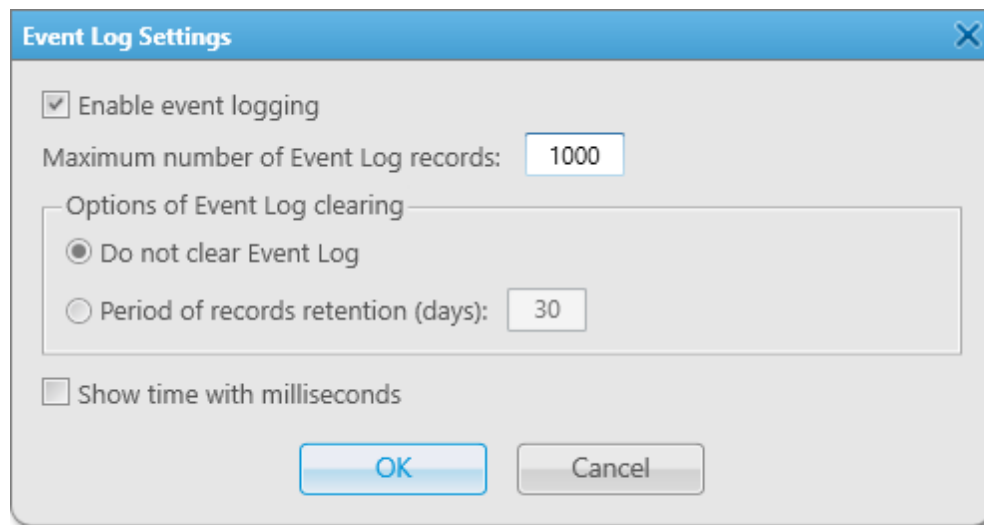
- The **Note** field contains notes for event log records.

## 5.1 Configuring Event Log Settings

Follow the procedure below to activate and configure the event log.

**Procedure:**

1. In the **Main Menu** bar of the SmartPTT Dispatcher window, click **Event Log** → **Event Log Settings**.



2. In the **Event Log Settings** window, perform the following actions:
  - a. Select **Enable event logging** to record events to the SmartPTT Dispatcher database.
  - b. *Optional:* In the **Maximum number of Event Log records** box, type the desired value. The maximum value is 9999.
  - c. In the **Options of Event Log clearing** area, select the desired option:
    - Select **Do not clear Event Log** to record new events to the database until it takes maximum space on a hard drive.
    - Select **Period of records retention (days)** to delete records made a specified amount of days ago.
  - d. *Optional:* If **Period of records retention (days)** is selected, type the desired amount of days to keep records. The maximum value is 999.
  - e. *Optional:* Select the **Show time with milliseconds** check box to display milliseconds in the **Data/Time** column of the event log.
  - f. Click **OK** to apply changes and close the window.

## 5.2 Displaying Events

### 5.2.1 Displaying All Events

Follow the procedure below to display all events of SmartPTT Dispatcher.

**Procedure:**

Click **Event Log** → **All Events**.

**NOTE**

Alerts and events initiated in the emergency mode are colored red in **Event Log**.

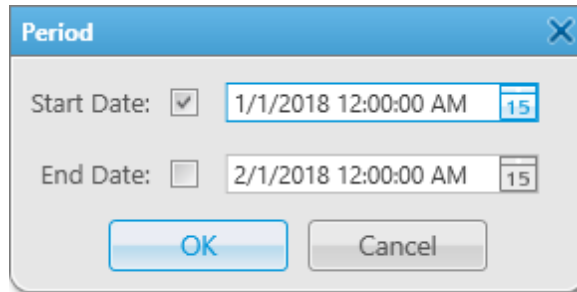
## 5.2.2 Displaying Events for Period


Follow the procedure below to display events of SmartPTT Dispatcher for a certain period.

### Procedure:

1. In the **Main Menu** bar of the SmartPTT Dispatcher window, click **Event Log** → **Events for Period**.

The **Period** window opens.



2. In the open **Period** window, perform the following actions:
  - a. Set the period to show events:
    - Select the **Start Date** check box only to show events starting from the specified date.
    - Select the **End Date** check box only to show events before the specified date.
    - Select the **Start Date** and the **End Date** check boxes to show events for a certain period of time.
    - Clear the **Start Date** and the **End Date** check boxes to show all events from the dispatcher database.
  - b. Click  and select the desired start and end dates, or enter the dates manually.
  - c. *Optional:* In the fields with the dates, type the start and end time.
  - d. Click **OK** to apply changes and close the window.



## 5.3 Managing Event Log Elements

### 5.3.1 Sorting Events

Follow the procedure below to sort events.

**Procedure:**

Select the column and sort it entries:

- To sort the entries ascending, click the column header until the Up ( ▲ ) icon appears.
- To sort the entries descending, click the column header until the Down ( ▼ ) icon appears.

**Postrequisites:**

To cancel entries sorting, click the column header until the sorting icon disappears.

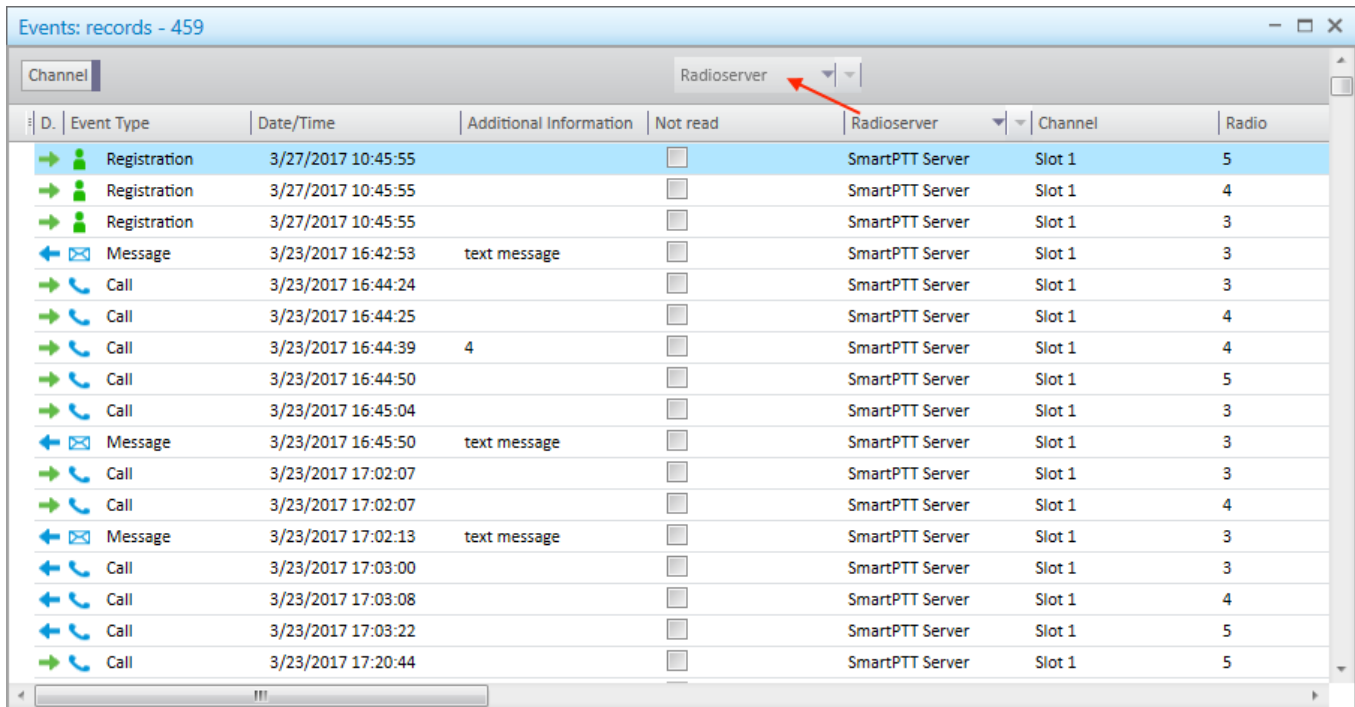
### 5.3.2 Grouping Events

Follow the procedure below to group log entries in columns.

**Procedure:**

1. Click the column header, and drag and drop it to the area *Move column header here for grouping*.

2. *Optional:* Repeat [step 2](#) to group entries in several columns.





D.	Event Type	Date/Time	Additional Information	Not read	Radioserver	Channel	Radio
	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Message	3/23/2017 16:42:53	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 16:44:24		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 16:44:25		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
	Call	3/23/2017 16:44:39	4	<input type="checkbox"/>	SmartPTT Server	Slot 1	4
	Call	3/23/2017 16:44:50		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
	Call	3/23/2017 16:45:04		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Message	3/23/2017 16:45:50	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 17:02:07		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 17:02:07		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
	Message	3/23/2017 17:02:13	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 17:03:00		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
	Call	3/23/2017 17:03:08		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
	Call	3/23/2017 17:03:22		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
	Call	3/23/2017 17:20:44		<input type="checkbox"/>	SmartPTT Server	Slot 1	5

### 5.3.3 Filtering Events

Follow the procedure below to filter contents of the column.

#### Procedure:

1. Select the desired column header and click the appeared button (  ).
2. From the drop-down list, select the desired check boxes or click **Select All**.  
Next to the filtered column header the filter icon (  ) appears.

#### Postrequisites:

To cancel filtering, click the filter icon and then click **Clear Filter**.

## 5.3.4 Displaying Columns

Follow the procedure below to hide or show columns in the event log.

**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.

## 5.3.5 Moving Columns

Follow the procedure below to configure the order of the event log columns.


**Procedure:**

Drag and drop the desired column header to the left or right of any other column.

## 5.3.6 Keeping Column Positions

Follow the procedure below to keep certain columns position in the event log ,regardless of the scroll bar.

### Procedure:

In the column headers, drag the element (  ) to the right of the column you want to keep the position regardless of the scroll bar.

## 5.4 Viewing Unread Messages

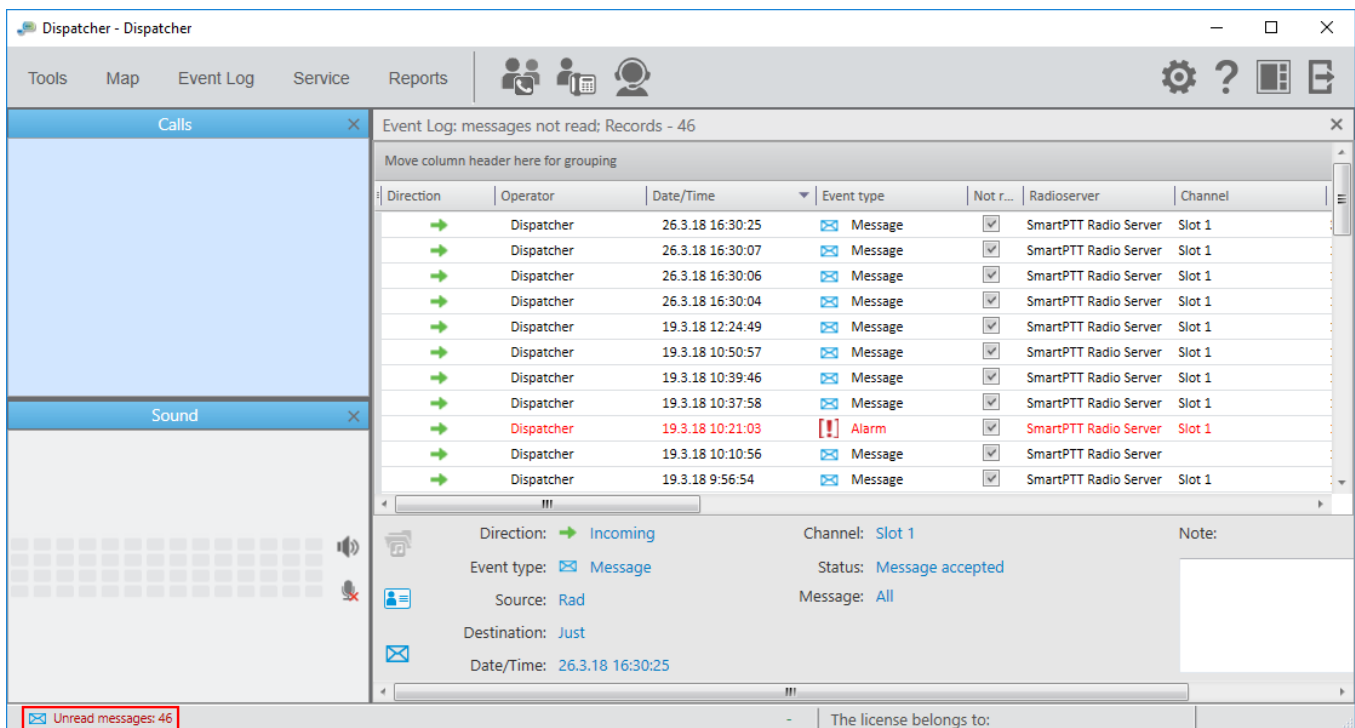
Follow the procedure below to view unread messages in the event log.

### Procedure:

To view unread messages, use one of the following ways:

- On the Main Menu bar of SmartPTT Dispatcher, click **Event Log** → **Unread Messages**.
- If in the left corner of the Information bar you can see the text **Unread messages**,click it.

The **Event Log: messages not read** panel opens:




The screenshot shows the SmartPTT Dispatcher software interface. The main window is titled "Dispatcher - Dispatcher" and has a menu bar with "Tools", "Map", "Event Log", "Service", and "Reports". The "Event Log" panel is open, displaying a list of messages. The list has columns for Direction, Operator, Date/Time, Event type, Not r..., Radioserver, and Channel. The messages are sorted by Date/Time. The most recent message is an "Alarm" from "Dispatcher" at "19.3.18 10:21:03". Below the list, there is a detailed view of the selected message, showing "Direction: Incoming", "Event type: Message", "Source: Rad", "Destination: Just", and "Date/Time: 26.3.18 16:30:25". In the bottom left corner, there is a red box around the text "Unread messages: 46".

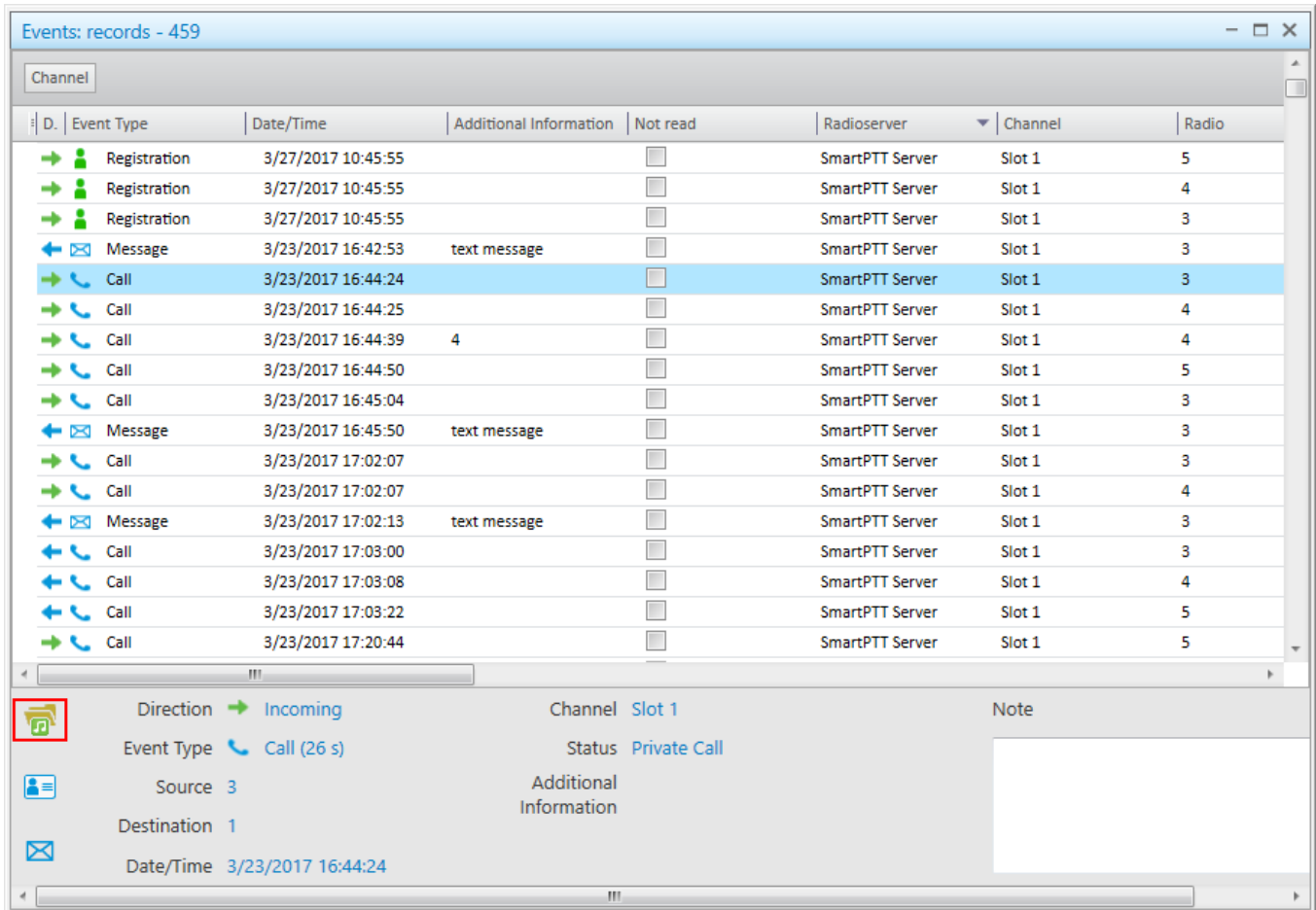
Direction	Operator	Date/Time	Event type	Not r...	Radioserver	Channel
→	Dispatcher	26.3.18 16:30:25	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	26.3.18 16:30:07	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	26.3.18 16:30:06	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	26.3.18 16:30:04	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 12:24:49	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 10:50:57	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 10:39:46	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 10:37:58	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 10:21:03	Alarm	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 10:10:56	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1
→	Dispatcher	19.3.18 9:56:54	Message	<input checked="" type="checkbox"/>	SmartPTT Radio Server	Slot 1

## 5.5 Listening to Call Records

Follow the procedure below to listen to audio records of the calls.



### Procedure:

1. In the event log panel, in the events list, select the desired calls.
2. Under the events list, press the **Play Selected Records** (  ) button.



The screenshot displays the 'Events: records - 459' window. The main area is a table with columns: D., Event Type, Date/Time, Additional Information, Not read, Radioserver, Channel, and Radio. A call record from 3/23/2017 16:44:24 is selected and highlighted in blue. Below the table, a detailed view for the selected call is shown, including a 'Play Selected Records' button (highlighted with a red box), Direction (Incoming), Event Type (Call (26 s)), Source (3), Destination (1), Date/Time (3/23/2017 16:44:24), Channel (Slot 1), and Status (Private Call). There is also an 'Additional Information' field and a 'Note' field.

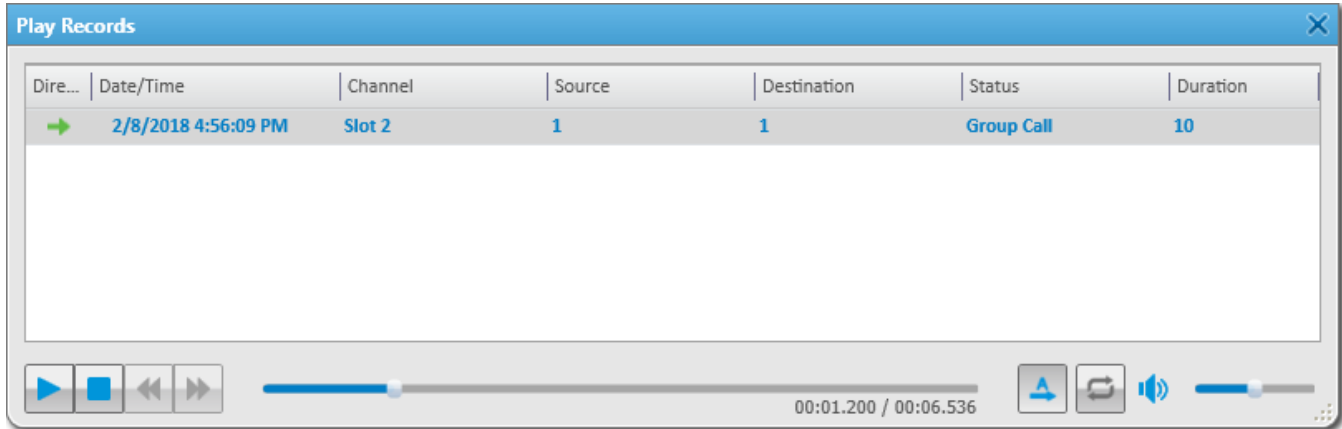
D.	Event Type	Date/Time	Additional Information	Not read	Radioserver	Channel	Radio
→	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
→	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
→	Registration	3/27/2017 10:45:55		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
←	Message	3/23/2017 16:42:53	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
→	Call	3/23/2017 16:44:24		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
→	Call	3/23/2017 16:44:25		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
→	Call	3/23/2017 16:44:39	4	<input type="checkbox"/>	SmartPTT Server	Slot 1	4
→	Call	3/23/2017 16:44:50		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
→	Call	3/23/2017 16:45:04		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
←	Message	3/23/2017 16:45:50	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
→	Call	3/23/2017 17:02:07		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
→	Call	3/23/2017 17:02:07		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
←	Message	3/23/2017 17:02:13	text message	<input type="checkbox"/>	SmartPTT Server	Slot 1	3
←	Call	3/23/2017 17:03:00		<input type="checkbox"/>	SmartPTT Server	Slot 1	3
←	Call	3/23/2017 17:03:08		<input type="checkbox"/>	SmartPTT Server	Slot 1	4
←	Call	3/23/2017 17:03:22		<input type="checkbox"/>	SmartPTT Server	Slot 1	5
→	Call	3/23/2017 17:20:44		<input type="checkbox"/>	SmartPTT Server	Slot 1	5

Direction:  Incoming  
 Channel: Slot 1  
 Event Type:  Call (26 s)  
 Status: Private Call  
 Source: 3  
 Additional Information:  
 Destination: 1  
 Date/Time: 3/23/2017 16:44:24








**NOTE**

To record calls, you need to configure [Audio Record Settings](#).

3. *Optional:* In the open **Play Record** window, configure the playing mode:

**NOTE**

When the record playback window opens, the selected records play automatically, starting from the earliest date.

- Click **Play All Records** (  ) to activate the mode of playing all records one by one.
  - Click **Replay** (  ) to activate the mode of replaying the current record or all the records one by one if the **Play All Records** mode is activated.
4. *Optional:* In the **Play Records** window you can manage audio record playing:
- Click **Start Playback** (  ) to play the selected record and all the records of the list without stopping.
  - Click **Pause Playback** (  ) to pause playback of the current record.
  - Click **Stop Playback** (  ) to stop playback of the current record.
  - Click **Return to Previous Record** (  ) to play the previous record after the current record.
  - Click **Go to Next Record** (  ) to play the following record after the current record.

## 5.6 Displaying Radioserver Event Log

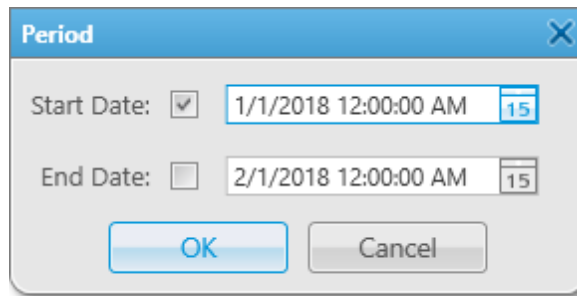
Follow the procedure below to open the radioserver event log.


Prerequisites:

Ensure the radioserver event log is active in SmartPTT Radioserver Configurator. For information on activating event log, see "Event Log" in *SmartPTT Radioserver Configurator Guide*.

### Procedure:

1. On the **Radio Fleet** of SmartPTT Dispatcher, open the radioserver **Action List** ( >> ).
2. From the **Action List**, select **Show Radioserver Event Log**.



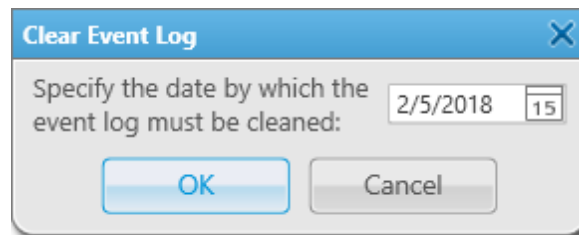
3. In the open **Period** window, perform the following actions:
  - a. Set the period to show events:
    - Select the **Start Date** check box only to show events starting from the specified date.
    - Select the **End Date** check box only to show events before the specified date.
    - Select the **Start Date** and the **End Date** check boxes to show events for a certain period of time.
    - Clear the **Start Date** and the **End Date** check boxes to show all events from the dispatcher database.
  - b. Click  and select the desired start and end dates, or enter the dates manually.
  - c. *Optional:* In the fields with the dates, type the start and end time.
  - d. Click **OK** to apply changes and close the window.

## 5.7 Clearing Event Log

Follow the procedure below to clean the event log.

### Procedure:

1. In the **Main Menu** bar of the SmartPTT Dispatcher window, click **Event Log** → **Clear Event Log**.
2. In the open **Clear Event Log** window, enter the date by which the event log must be cleaned.



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



## 6 Service

The **Service** menu allows you to carry out secondary functions, namely:

- [Radio Check](#) allows you to send the radio check command to radios.
- [Voice Notifications](#) allows you to play voice notifications.
- [Deferred Actions](#) allows you to view and edit deferred actions.
- [Received Files](#) allows you to view files received by the radioserver via SmartPTTFile Transfer.
- [Radio Kill](#) allows you to block a radio irreversibly.
- [System Information](#) allows you to check event statistics registered on the radioserver or in the dispatcher console and other information on the system.
- [Export Radio List](#) allows you to save the list of registered radios and [WAVE users](#) in .xml or .xls formats.
- [Import Radio List](#) allows you to import previously exported list of radios and [WAVE users](#).
- [Upload to KML](#) allows you to export current geographical position of radios in .kml format.
- [Import Connect Plus Logs](#) allows you to import data from the Connect Plus radio system.
- [Save Dispatcher Settings](#) allows you to save current settings of the dispatcher console and database to restore them in the future.
- [Restore Dispatcher Settings](#) allows you to restore saved settings of the dispatcher console and the database.

### 6.1 Radio Check

The **Radio Check** command allows you to check whether a radio is available.

#### NOTE

If you connected to the Capacity Max system by using a control station, the **Radio Check** command is unavailable.

You can send the **Radio Check** command on the selected stations available to a dispatcher in the following ways:

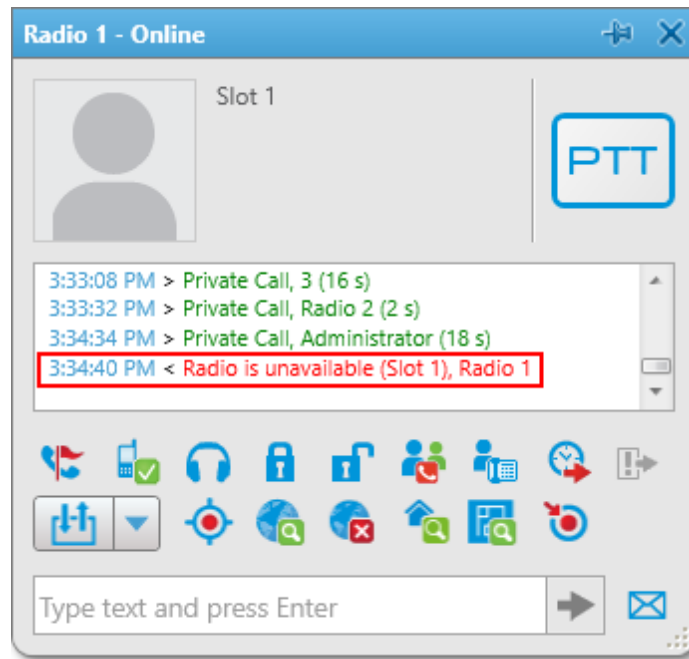
- From the **Radio Check** menu. Ensure you have a *Radio ID* or *radio IP Address*

- From the radio [Call Window](#)
- From the radio [action menu](#)

Before sending the **Radio Check**, you can change the **Radio ID input format** in the [General Settings](#) menu.

After the command sending, the radio status is shown:

- In the open radio call window (if you send the radio check from the **Radio Check** menu, from the radio call window, or from the radio action menu):



- In the **Event Log**:

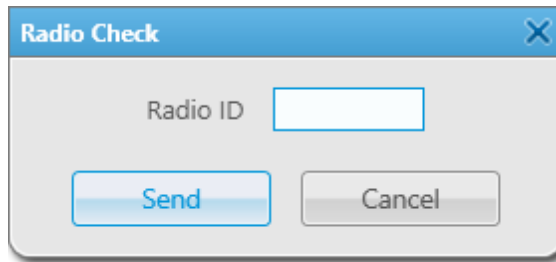
Event Type	Date/Time	Operator	Radioserver	Channel	Radio	Source	Talkgroup	Status	Duration	Connection...	Destination	Record	Repeater IP
Call	9/18/2017 5:27:32 PM	Administrator	SmartPTT Radioserver	Slot1	5	Radio 5		Private Call	17	DMR	Administrator	<input checked="" type="checkbox"/>	
Radio Check	9/18/2017 5:27:29 PM	Administrator	SmartPTT Radioserver	Slot1	4	Administrator		Radio is unavailable		DMR	Radio 1	<input type="checkbox"/>	
Call	9/18/2017 5:27:25 PM	Administrator	SmartPTT Radioserver	Slot1	4	Radio 1	Group 2	Group Call	24	DMR	Group 2	<input checked="" type="checkbox"/>	
Call	9/18/2017 5:27:23 PM	Administrator	SmartPTT Radioserver	Slot1	1	Radio 5		Private Call	10	DMR	Radio 2	<input checked="" type="checkbox"/>	
Call	9/18/2017 5:27:23 PM	Administrator	SmartPTT Radioserver	Slot1	3	Radio 3	Group 1	Group Call	26	DMR	Group 1	<input checked="" type="checkbox"/>	
Call	9/18/2017 5:22:33 PM	Administrator	SmartPTT Radioserver	Slot1	2	Radio 2		Private Call	8	DMR	Radio 5	<input checked="" type="checkbox"/>	
Call	9/18/2017 5:22:26 PM	Administrator	SmartPTT Radioserver	Slot1	4	Radio 1	Group 2	Group Call	15	DMR	Group 2	<input checked="" type="checkbox"/>	

## 6.1.1 Sending Radio Check

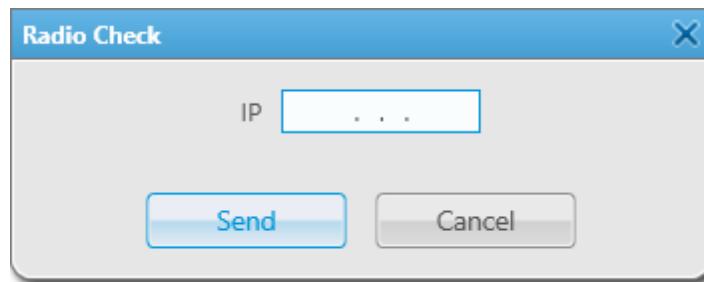
### Radio Check Window

To perform a radio check from the **Radio Check** window, follow these steps:

1. Click **Service** → **Radio Check**. The **Radio Check** window appears:
  - If *CAI+Radio ID* input format is selected in the [General Settings](#) menu:



- If *IP Address* input format is selected in the [General Settings](#) menu:



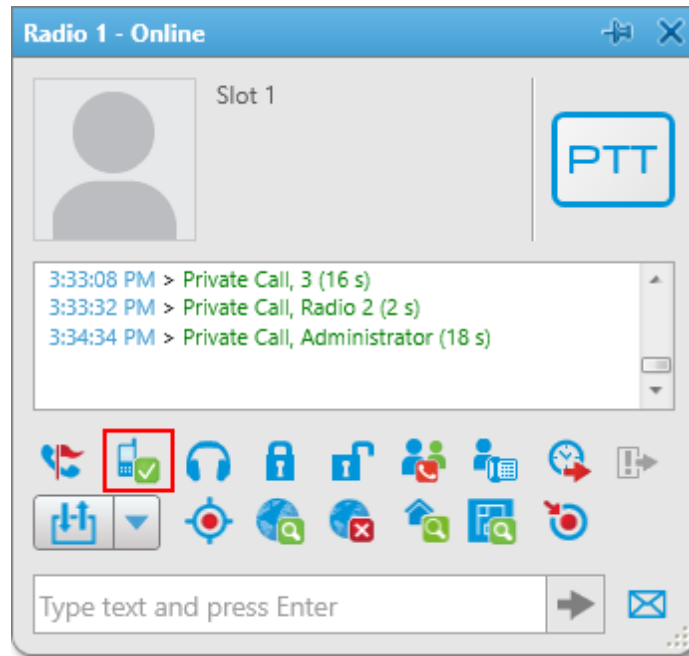
2. In the **Radio ID** or **IP** field, enter the radio ID or IP Address correspondingly.
3. Click **Send** to send the radio check command the radio.

### Radio Call Window

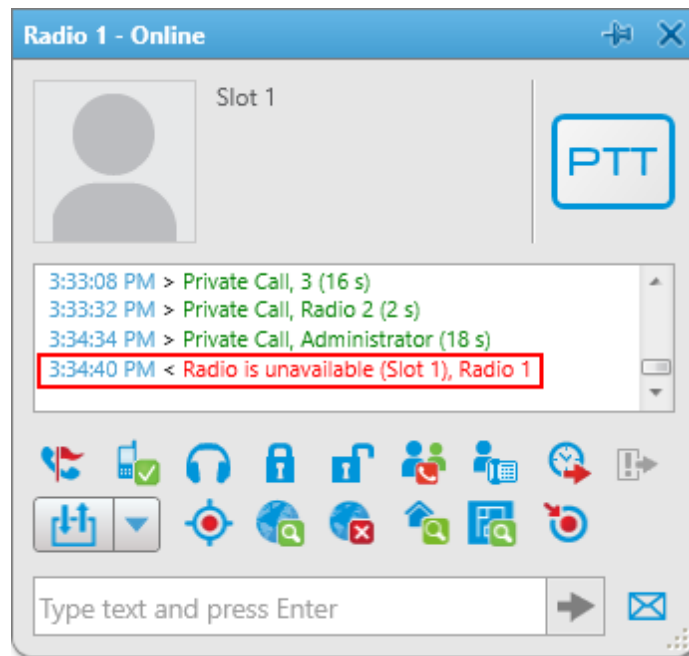
To send a radio check from the radio call window, follow these steps:

1. Open the radio [Call Window](#).

2. In the open window, click **Radio Check**.



The radio status appears in the radio call window:

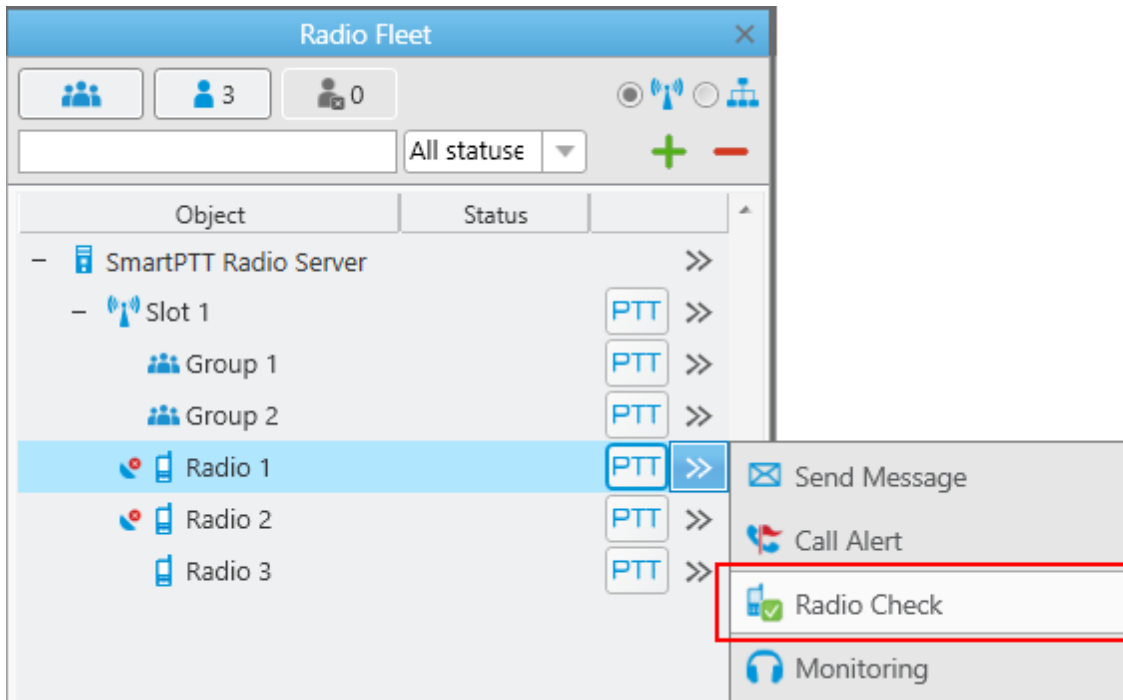


## Radio Actions List

To send a radio check in the radio actions list, follow these steps:

1. Open the radio [action menu](#).

- From the open menu, select **Radio Check**.



#### NOTE

To display the radio call window with the radio status, selected the **Radio Check** check box in the **Open Call Window for Event Types** box of the [Call Windows Settings](#) menu.

## 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 can be activated by selecting the **High priority of calls** or **Allow priority increasing** check boxes in the settings of the profile assigned to the dispatcher account.

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

For more information on profile assigning, see [Radioservers](#).

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
  - 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.

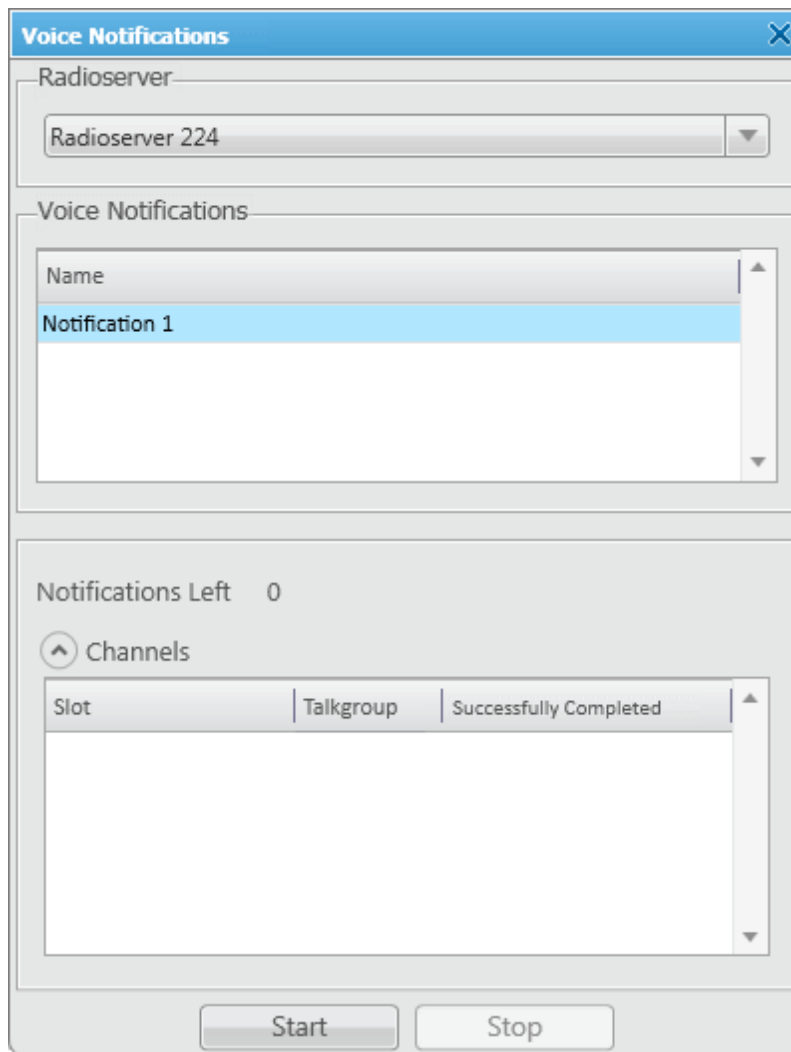
## 6.3 Voice Notifications

The main purpose of the voice notification functionality is to warn talkgroups about the fire or other emergency and to manage evacuation. However, in normal mode voice notification can be used for usual voice announcements.

### WARNING

You can create voice notifications only in SmartPTT Radioserver Configurator (**Radioserver** → **Add-on Modules** → **Voice Notifications**). You can run the created voice notifications from SmartPTT Dispatcher.

To play a voice notification in selected systems, expand the **Service** menu in the **Main Menu** bar and click **Voice Notifications**. The **Voice Notifications** window appears:



**Radioserver:** Select the radioserver from the list. The list contains only active and running radioservers, registered in the dispatch console.

**Voice Notifications:** Select a voice notification from the list of items created in SmartPTT Radioserver Configurator.

To play the voice notification, select the radioserver and the voice notification, and click **Start**. To stop playing, click **Stop**.

#### NOTE

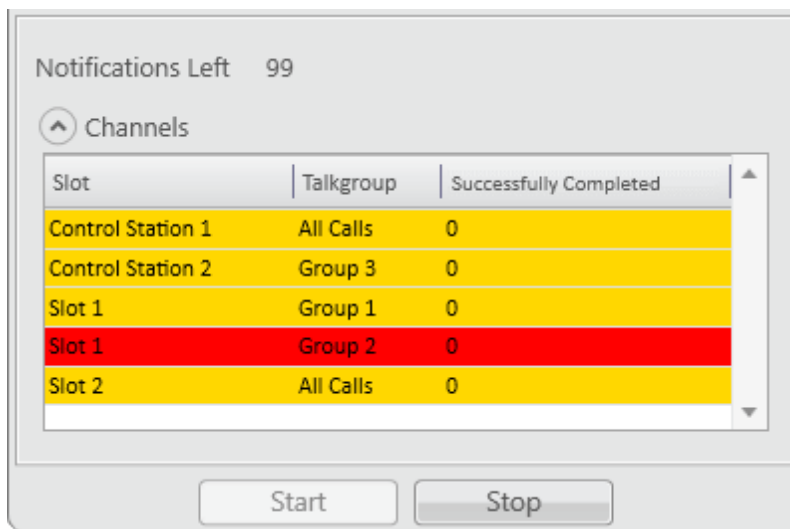
To play a voice notification, you can use the **Voice Notification** element, added to the [custom console](#).

#### NOTE

When the voice notification is stopped, it does not stop playing immediately, but only after it played on all selected channels within a single repetition.

**Notifications Left:** Specifies the number of remaining voice notification repetitions.

**Channels:** Contains a list of channels specified for the selected voice notification. Here you can also see the current status of the voice notification playing, and the number of completed playbacks. The channel is highlighted green, when voice notification playing was successfully completed on this channel. When voice notification can't be played on the channel (for example, hardware or virtual device is not available at the moment), the channel is highlighted red. While voice notification is played on the channel, the channel is highlighted yellow.





## 6.4 Deferred Actions

Deferred actions allow to deliver an information to the offline radio. When radio becomes online, it will immediately receive it.

You can use deferred action for the online radios. They will receive them immediately after the creation.

SmartPTT Dispatcher allows you to create, edit, view and delete two types of deferred actions:

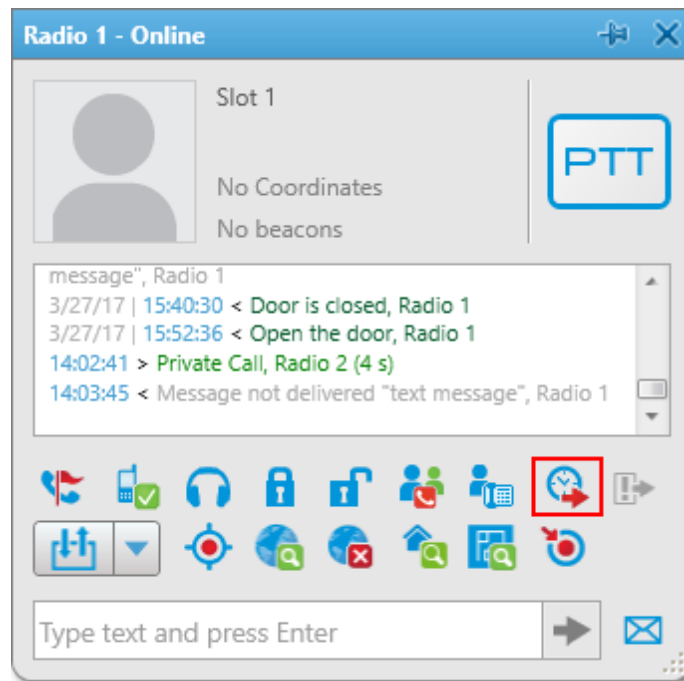
- Voice messages
- Text messages

### NOTE

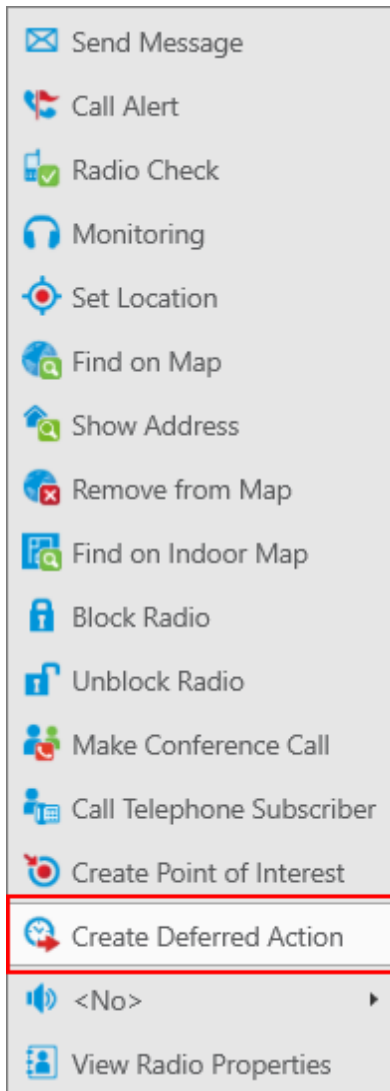
Operator of SmartPTT Dispatcher should have the right to [create deferred actions](#).

You can create a deferred action in two ways:

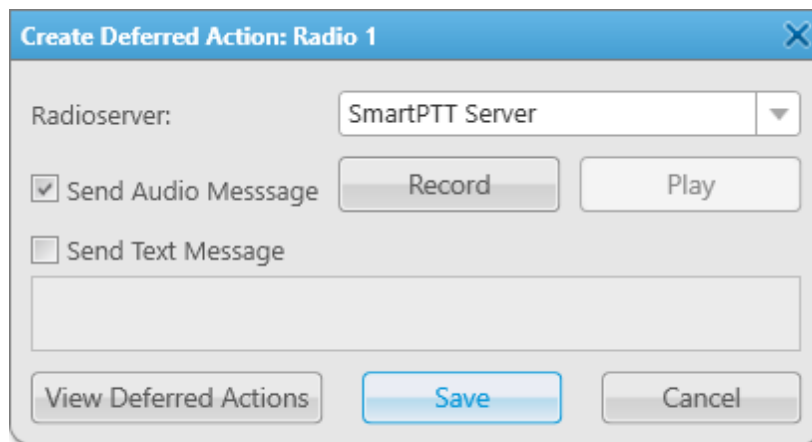
- Double-click the radio in the **Radio Fleet** window and click **Create Deferred Action** icon in the radio window.



- Click » next to the radio and click **Create Deferred Action**.



The **Create Deferred Action** window will be opened:



**Radioserver:** A list of the [active radioservers](#), to which a radio belongs.

**Send Audio Message:** Select to create a voice message:

- Click **Record** and start the recording of the voice message. When you do, the button changes to **Stop**. Click it to stop the recording.
- Click **Play** to play the recorded message. When you do, the button will change to **Stop**. Click it to stop the recording.

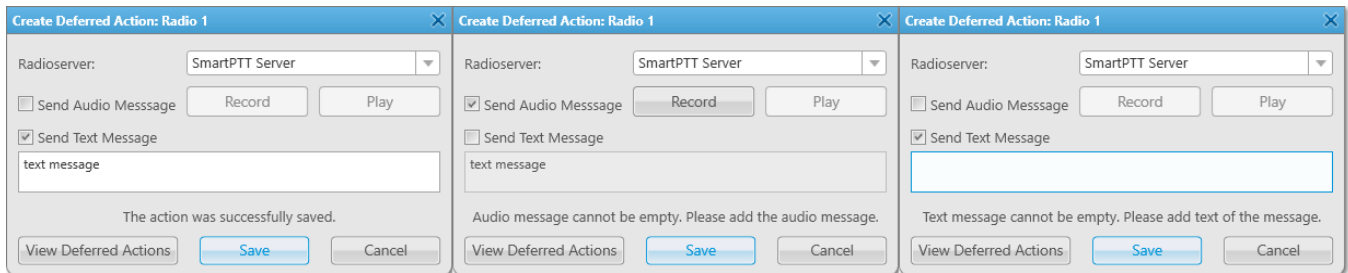
If you do not record the voice message, you can rewrite it by recording a new voice message.

**Send Text Message:** Select to create a text message and type your text message in the field below.

#### NOTE

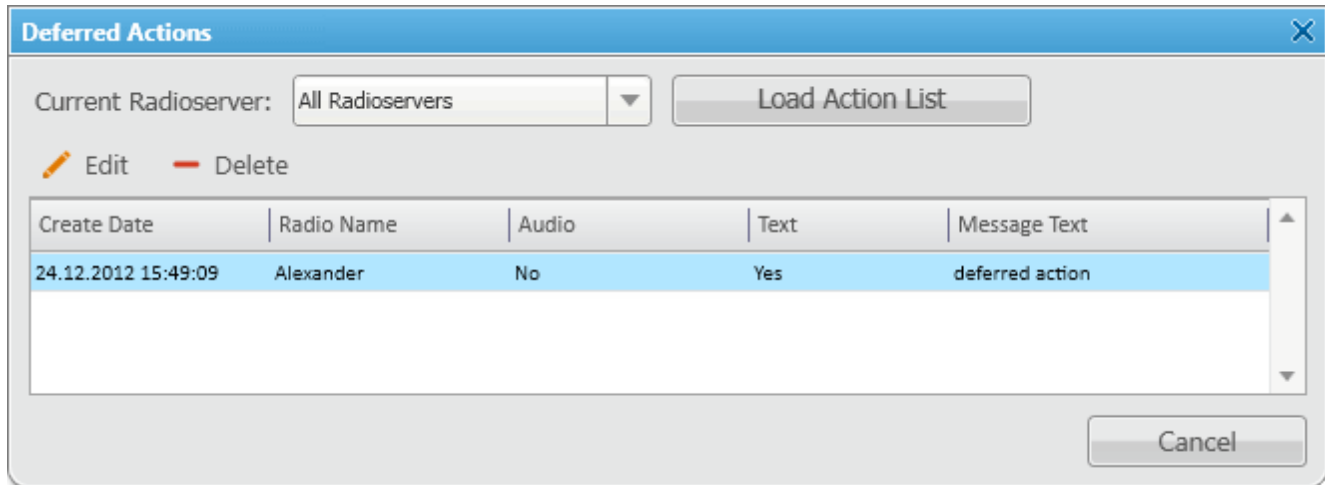
If you clear **Send Text Message**, the text will be kept in the field except it becomes unavailable and will not be included into action when you will save it.

**Save:** Click to save the action. At this, your message will be transmitted to the radioserver, so the execution of the deferred action is independent on SmartPTT Dispatcher. You will be notified about the successful creation of the deferred action or issues that resist its creation.



**Cancel:** Click to cancel the creation of the action or adding changes to it.

**View Deferred Actions:** Closes the **Create Deferred Action** window without saving and opens the **Deferred Actions** list.



In this list you can view deferred actions which were not executed yet (queued actions). When the deferred action is executed, it will be removed from the list.

**Current Radioserver:** Select the radioserver to view actions which it should execute.

#### NOTE

If you do not see your radioserver in the list, check if it is active in the [Radioservers](#) menu.

**Load Action List:** Click to show or refresh the list of deferred actions on the selected radioserver.

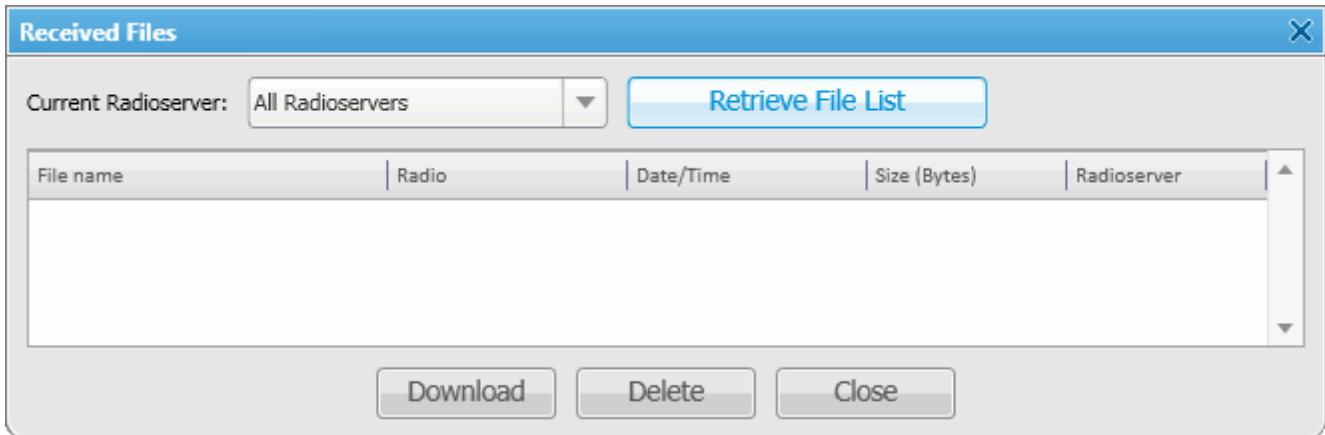
**Edit:** Click to change the selected action. At this, **Create Deferred Action** will be opened again.

**Delete:** Click to delete the selected action. Be careful with this, because no notifications occur at this action.

## 6.4.1 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 in the **Main 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.

## 6.5 Administration

### 6.5.1 Radio Kill

Capacity Max radio system supports the **Radio Kill** function, which allows to block a radio irreversibly.

#### **WARNING**

After sending **Radio Kill** to the radio, you can restore this radio only in Motorola service center.

To send **Radio Kill** to the radio, perform the following actions:

1. Expand the **Service** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Administration** → **Radio Kill**. The **Radio Kill** window appears:



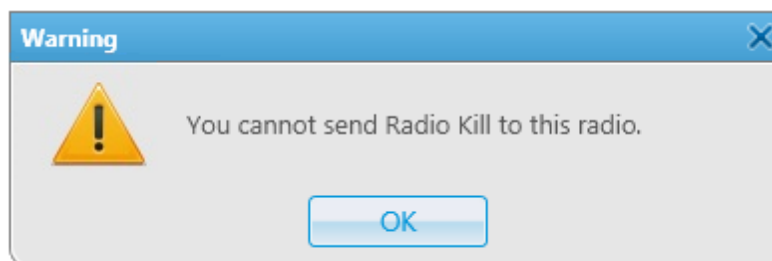
2. In the **Radio ID** field enter the radio unique identifier. If this identifier has a name in the SmartPTT Dispatcher database, this name will be displayed on the right. To continue, click **OK**. To cancel the command, click the **Cancel** or **Cross** button.



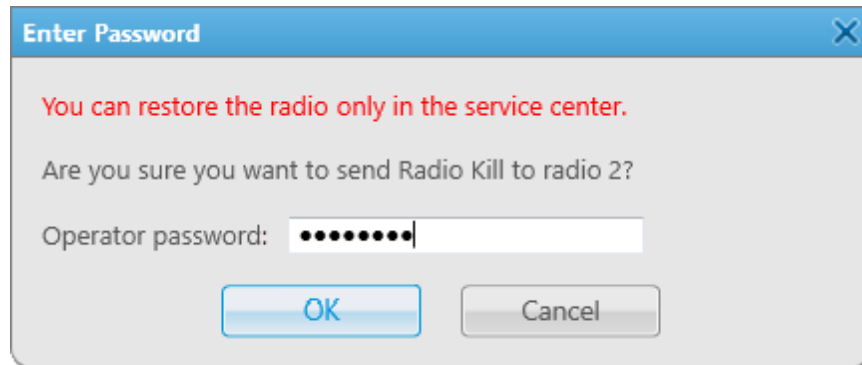
Pay attention that the **Radio Kill** command can be executed only under the following conditions:

- The radio is registered in a network (it is online).
- The radio identifier is in the range of allowed radio IDs for radioserver and profile configured in SmartPTT Radioserver Configurator (for more detailed information refer to SmartPTT Radioserver Configurator User Guide).

If one of the given conditions is not fulfilled, after clicking **OK** the **Warning** window will open and **Radio Kill** will not be sent.



3. If all the conditions described above are fulfilled, after clicking **OK** the **Enter Password** window appears: In the **Operator password** field enter the password used to log in SmartPTT Dispatcher. To send the **Radio Kill** command, click **OK**. To cancel the command, click the **Cancel** or **Cross** button.



## 6.6 System Information

The **System Information** window contains brief information on the usage of the SmartPTT network systems. To call this window click **System Information** in the **Service** menu of the Dispatcher main menu.

The screenshot shows the 'System Information' dialog box with the following sections and annotations:

- Source:** Radio buttons for 'Dispatcher' (selected) and 'Server'. A dropdown menu shows 'Radioserver'.
  - Annotation: 'Select the source of data' points to the radio buttons.
  - Annotation: 'If you selected "Server", you should also select the proper radioserver from the list' points to the dropdown menu.
- Events:** A list of statistics:
  - Registration 0
  - Calls 0
  - Messages 3
  - Telemetry 0
  - Alarms 0
  - Annotation: 'Summary on the event in the source' points to this section.
- Database:** A table showing database file information:

File Name	Current Size	Max Size
SmartPTT.mdf	2,3 Mb	4,00 Gb

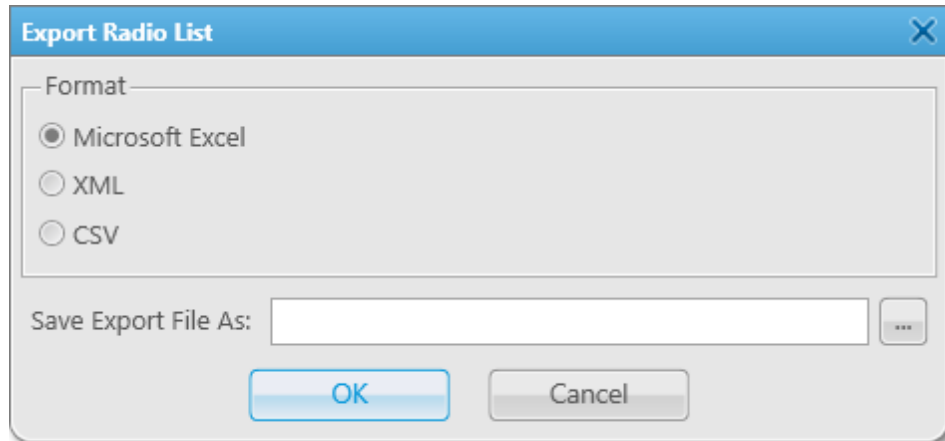
  - Annotation: 'Hard drive space dedicated to the database (not the space occupied by the records)' points to the table.
- Audio:** Shows 'Record Folder Size 1,4 Mb'.
  - Annotation: 'Information on the hard drive usage by the records (audio files)' points to this section.
- An 'OK' button is located at the bottom center.



## 6.7 Export Radio List

SmartPTT Dispatcher provides the ability to export the radio and [WAVE user](#) list from one SmartPTT Dispatcher and then to import it into another. Only registered radios and WAVE users can be exported.

To export the list of radios and WAVE users, expand the **Service** menu in the **Main Menu** bar and click **Export Radio List**. The following window appears:



In the **Format** area select the format in which you want to export the list. To select the file for export, click . Supported file formats: .xls, .xml and .csv. Then click **OK**. The file with the exported data will open.

### XLS format 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

### XML format 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	Yes			Yes	No		Yes	No	60	Yes	60	Yes	100	Yes	Yes
67108876	12.0.0.4	12	4	Radio 2	Yes			Yes	No		Yes	Yes	60	Yes	60	No	100	Yes	Yes
83886092	12.0.0.5	12	5	Radio 3	No			No	No		No	No	60	No	60	No	100	No	No

**ID:** Automatically generated ID of a radio or a WAVE user.

**Radio IP Address:** Radio or WAVE user IP address.

**Network ID:** Network ID which is specified in *MOTOTRBO CPS* (see parameter **CAI Network**).

**Radio ID:** Unique identifier of a radio or a WAVE user.

**Name:** Radio or WAVE user name specified in its **Properties** window in SmartPTT Dispatcher.

**GPS:** Shows whether the radio supports GPS.

**MDC ID:** Radio ID in the analog mode and MDC 1200 signaling.

**Icon:** Path to the icon selected per a radio or a WAVE user. If a radio has a default icon, the corresponding field in the export file is empty.

**Show on map:** Shows whether the radio or WAVE user location is visible on the map.

**Lone Worker:** Shows whether a radio or a WAVE user is in the "lone worker" mode.

**Select 5 ID:** Shows the 5 Tone identifier of the radio.

**Indoor Support:** Shows whether the radio is visible on the building plan by the dispatcher request or after the predefined time period.

**Indoor Request:** Shows whether the option **Update Interval** for **Indoor Tracking** is selected.

**Indoor Update Interval:** The time interval in seconds for location data update from special beacons, which are installed in buildings.

**GPS update with time interval:** Shows whether the **GPS Update location with time interval** option is selected.

**Time Interval:** Shows the time interval in seconds after which the GPS coordinate request will be sent to the radio.

**GPS update with distance interval:** Shows whether the **GPS Update location with distance interval** option is selected.

**Distance Interval:** Shows the distance interval in meters or feet after which the GPS coordinate request will be sent to the radio.

**GPS on GPIO pin status change:** Shows if the GPS coordinate request will be sent to the radio when the status of telemetry contacts changed.

**GPS on emergency:** Shows if the GPS coordinate request will be sent to the radio when the radio sends an emergency alarm.

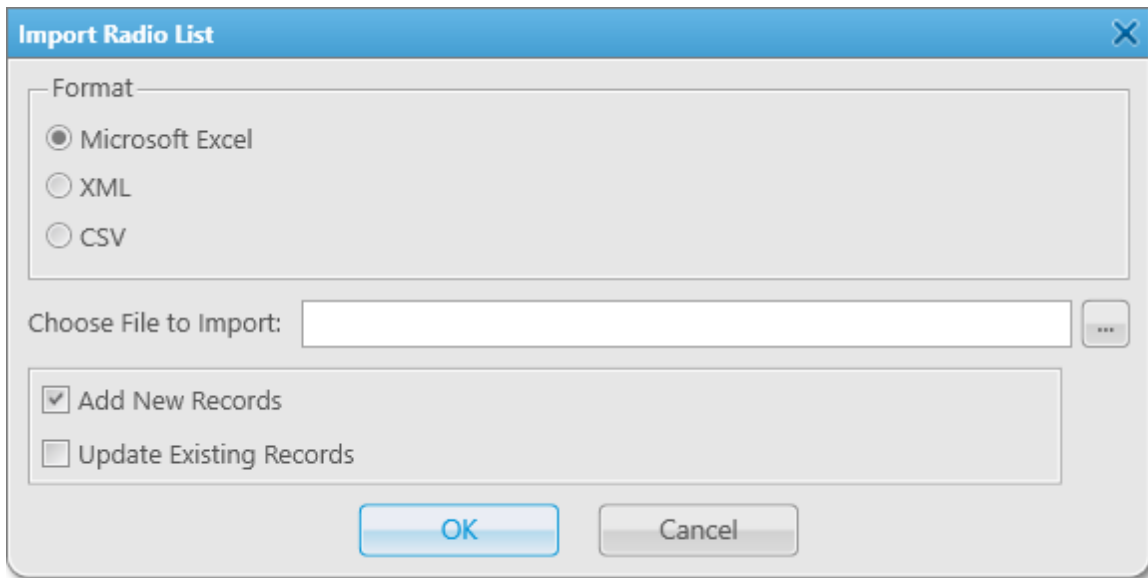
#### **NOTE**


The following properties of the radio in exported files may have two possible values: **True** or **False** in .xls and .csv files; **Yes** or **No** in .xml files: **GPS, Show on map, Lone Worker, Indoor Support, Indoor Request, GPS update with time interval, GPS update with distance interval, GPS on GPIO pin status change, GPS on emergency.**

## 6.8 Import Radio List

SmartPTT Dispatcher provides the ability to import radios and [WAVE users](#) (in .xls, .xml and .csv) from one SmartPTT Dispatcher to another.

To import the list of radios and WAVE users, expand the **Service** menu in the **Main Menu** bar and click **Import Radio List**. The following window appears:



In the **Format** area select the format in which you want to import the radio and WAVE user list. To select the file for import, click . Then select the import options.

**Add New Records:** When the check box is selected, at importing, new radios and WAVE users (not existing in SmartPTT Dispatcher) will be added to the list.

**Update Existing Records:** When the check box is selected, at importing, the existing data on the radios and WAVE users in SmartPTT Dispatcher is replaced with the data from the imported file.

### NOTE

It is possible to select both import options at a time. New records will be added and the existing records will be updated.

Click **OK** to launch import process.

Click **Cancel** to close the window.

**NOTE**

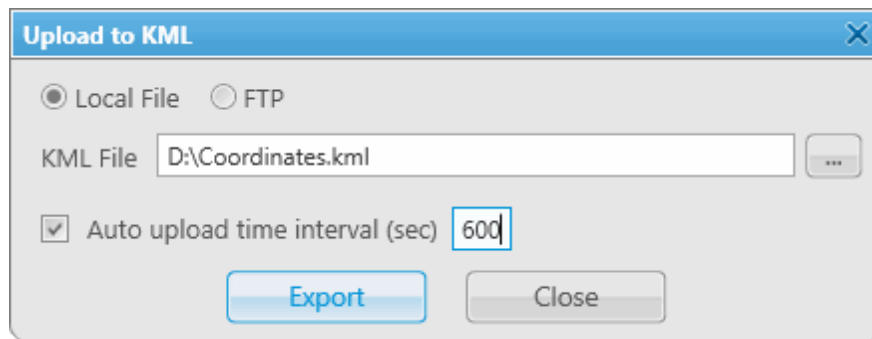
To apply changes after importing, it is important to restart SmartPTT Dispatcher.

The formats of the importing files should match the formats of the exported files.

## 6.9 Upload to KML

SmartPTT Dispatcher supports export of the current radio coordinates in .kml format. This format is used in Google Maps/Google Earth systems.

To save radio coordinates in .kml file format, expand the **Service** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Upload to KML**. The following window appears:



The interface of the window depends on where you selected to store the .kml file – to a local folder or to FTP.

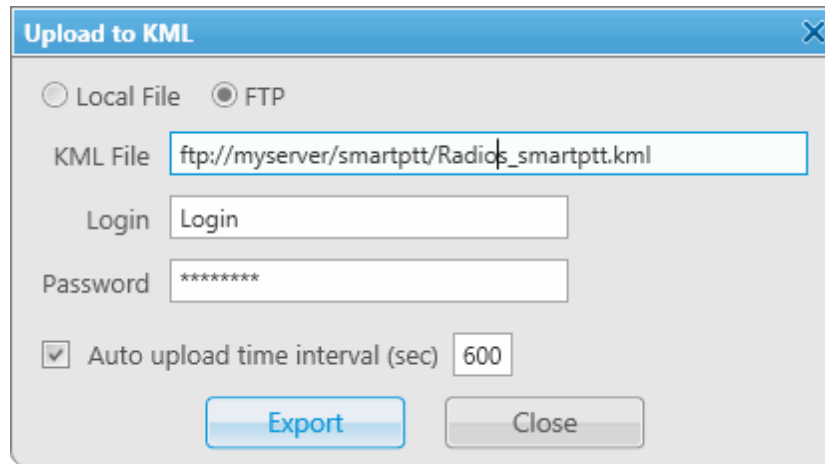
Click **Local File** to keep the uploaded .kml file locally.

**KML File:** Specify the destination folder and the name of the KML file with the radio coordinates.

You can also set up automatic upload. Select the **Auto upload time interval** check box and enter the time interval.

When everything is ready click **Export** to launch the upload process.

You can also store the uploaded file on FTP. To do that, click **FTP** at the top of the window.



**KML File:** Specifies the destination folder and the name of the .kml file with the radio coordinates on the FTP server.

Fill in the **Login** and **Password** fields if the FTP server requires authentication.

To exit and save the settings, click **Close**.

To exit without saving the settings, press Esc.

## How to display radio coordinates

To view radio coordinates from the FTP file, follow these steps:

1. Open the website <http://www.google.com>.
2. Click on **Maps** (the page <http://maps.google.com/maps?hl=en&tab=wl> is displayed).
3. Enter a direct HTTP link to the file located on the FTP server (for example, [http://myserver/smartptt/Radios\\_smartptt.kml](http://myserver/smartptt/Radios_smartptt.kml)) in the Google maps field and click **Search Maps**.

To view radio coordinates from the local file in Google Earth, follow these steps:

1. Start Google Earth.
2. Select **Open** (from the **File/Open** menu or press Ctrl+O).
3. Specify the path to the local file with the radio coordinates in KML format and click **Open**.

## How to configure radio coordinates display with automatic update in Google Earth

1. Start Google Earth.
2. Select the menu command **Add/Network Link**.
3. In the **Name** field specify the place mark name to be displayed in Google Earth.
4. To view the file from the FTP server, enter a direct HTTP link to the file located on the FTP server (for example, *http://myserver/smartptt/Radios\_smartptt.kml*).

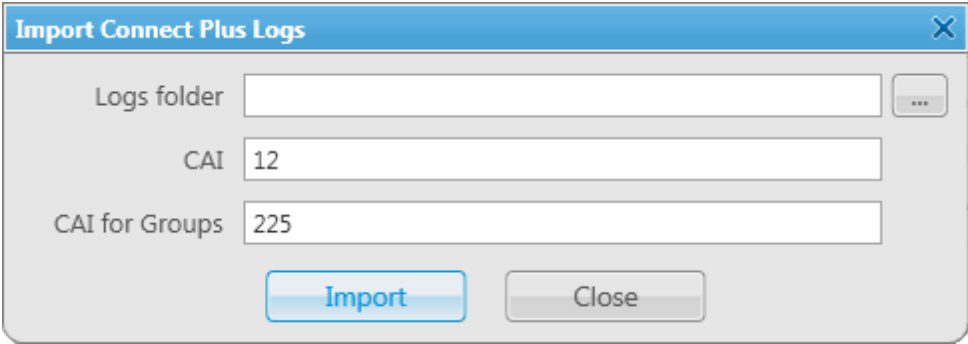
To view the file from the local disk, click **Browse**, specify the path to the file with radio coordinates in KML format and click **Open**.

1. Click the **Refresh** tab, select the **Periodically** option and set an update interval.
2. Click **OK**: SmartPTT radios should now be displayed in Google Earth.
3. To open the added KML file automatically the next time Google Earth is run, you should save the temporary place mark Radios (SmartPTT) to **My Places** list. To do this please select the menu command **File/Save/Save to My Places** or press Ctrl+Shift+S.

## 6.10 Import Connect Plus Logs

SmartPTT Dispatcher allows importing **Connect Plus Logs** to the **Event Log**. This is useful for dispatchers joining a new Connect Plus radio network to get data on the events in this network. The data is taken from the XRC Controller.

To import **Connect Plus Logs**, expand the **Service** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Import Connect Plus Logs**. The **Import Connect Plus Logs** window appears:



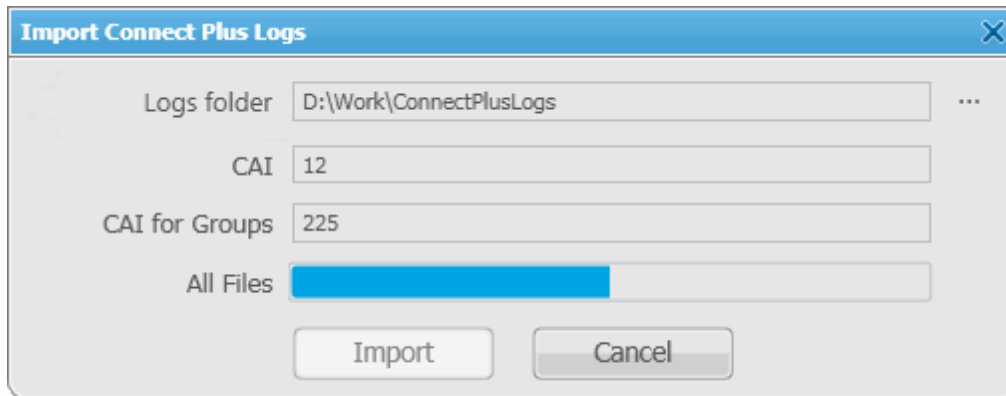
The screenshot shows a dialog box titled "Import Connect Plus Logs". It has a blue title bar with a close button (X). The dialog contains three input fields: "Logs folder" with a browse button (...), "CAI" with the value "12", and "CAI for Groups" with the value "225". At the bottom are two buttons: "Import" and "Close".

**Logs File:** Specifies the path to the folder where Connect Plus log file is stored.

**CAI:** CAI-Network identifier. It's recommended to use the default value 12. It is set in the range from 1 to 126.

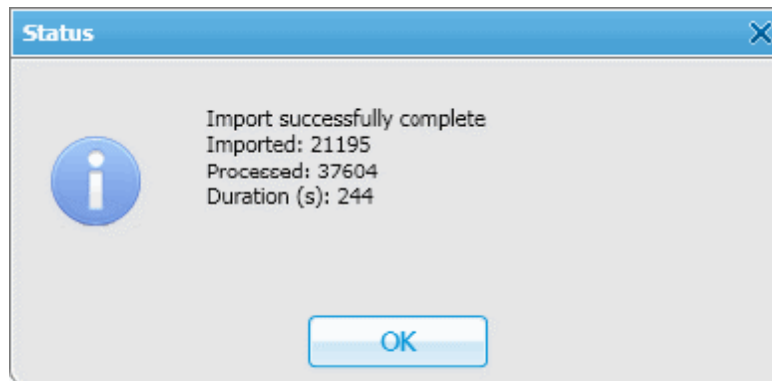
**CAI for Groups:** The identifier of the group's CAI-Network. It's recommended to use the default value 225. It is set in the range from 225 to 239.

If you click **Import**, Connect Plus data import to the **Event Log** will be started.



**All Files:** Displays the total download progress.

When **Connect Plus Log** file is imported, you will see the following notification window.



## 6.11 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



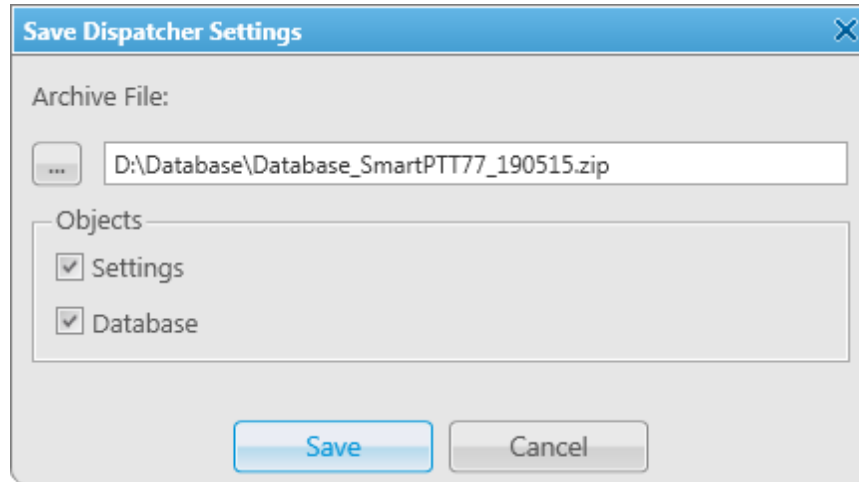
- Other settings

**NOTE**

This feature is unavailable if SmartPTT Dispatcher is connected to the remote database.

To save current settings or database, follow these steps:

1. Open the **Service** menu and select **Save Dispatcher Settings**. The following window appears:



2. In the **Archive File** field, 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.

## 6.12 Restore Dispatcher Settings

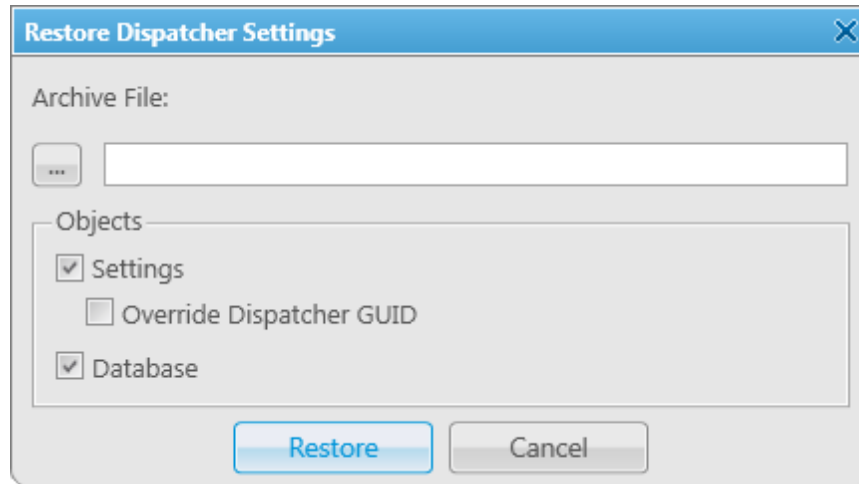
This feature allows you to restore the saved dispatch console settings or database (see how to save the dispatch console settings [here](#)).

**NOTE**

This feature is unavailable if SmartPTT Dispatcher is connected to the remote database.

To restore the saved settings, follow these steps:

1. Open the **Service** menu and select **Restore Dispatcher Settings**. The following window will open:



2. In the **Archive File** field, 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

The **Reports** menu presents all the reports available in the system:

- [Report Wizard](#) allows you to build a report on the basis of the **Event log**.
- [Radio Activity Report](#) allows you to view the number of all calls and group calls during a defined time period.
- [Radio Locations Report](#) is a special report that displays GPS coordinates of the selected radios and [WAVE users](#).
- [Online Radios](#) report gives you a list of registered and non-registered online radios and [WAVE users](#).
- [Monitoring Report](#), [Monitoring Analytics](#), [Monitoring Log](#) give you consolidated information collected during monitoring process.
- [Lone Workers](#) report gives you the information about events that occur when a radio or a [WAVE user](#) is in the Lone Worker mode.

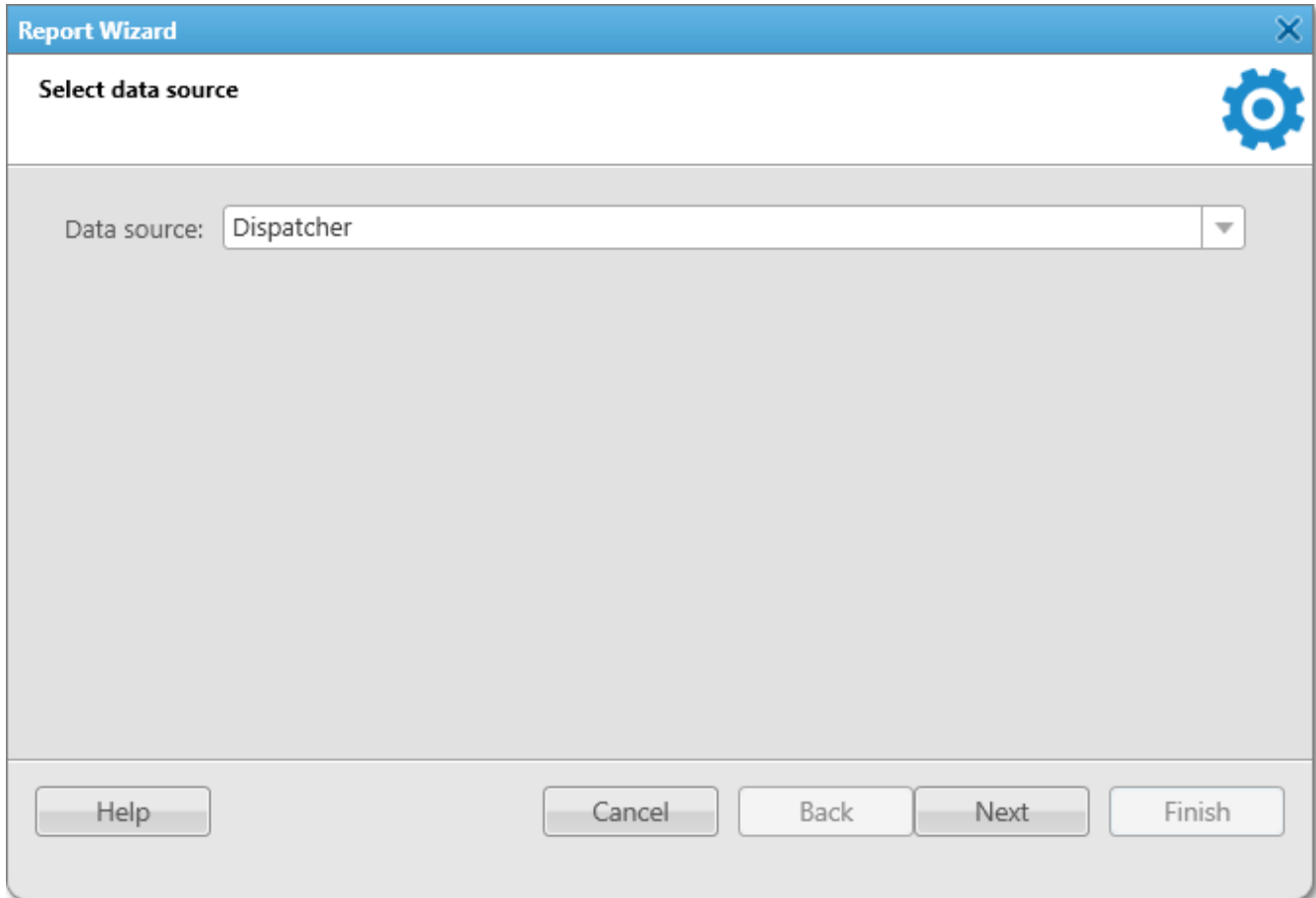
### 7.1 Report Wizard

**Report Wizard** functionality provides flexible report creation based on the information stored in the SmartPTT Dispatcher **Event Log**.

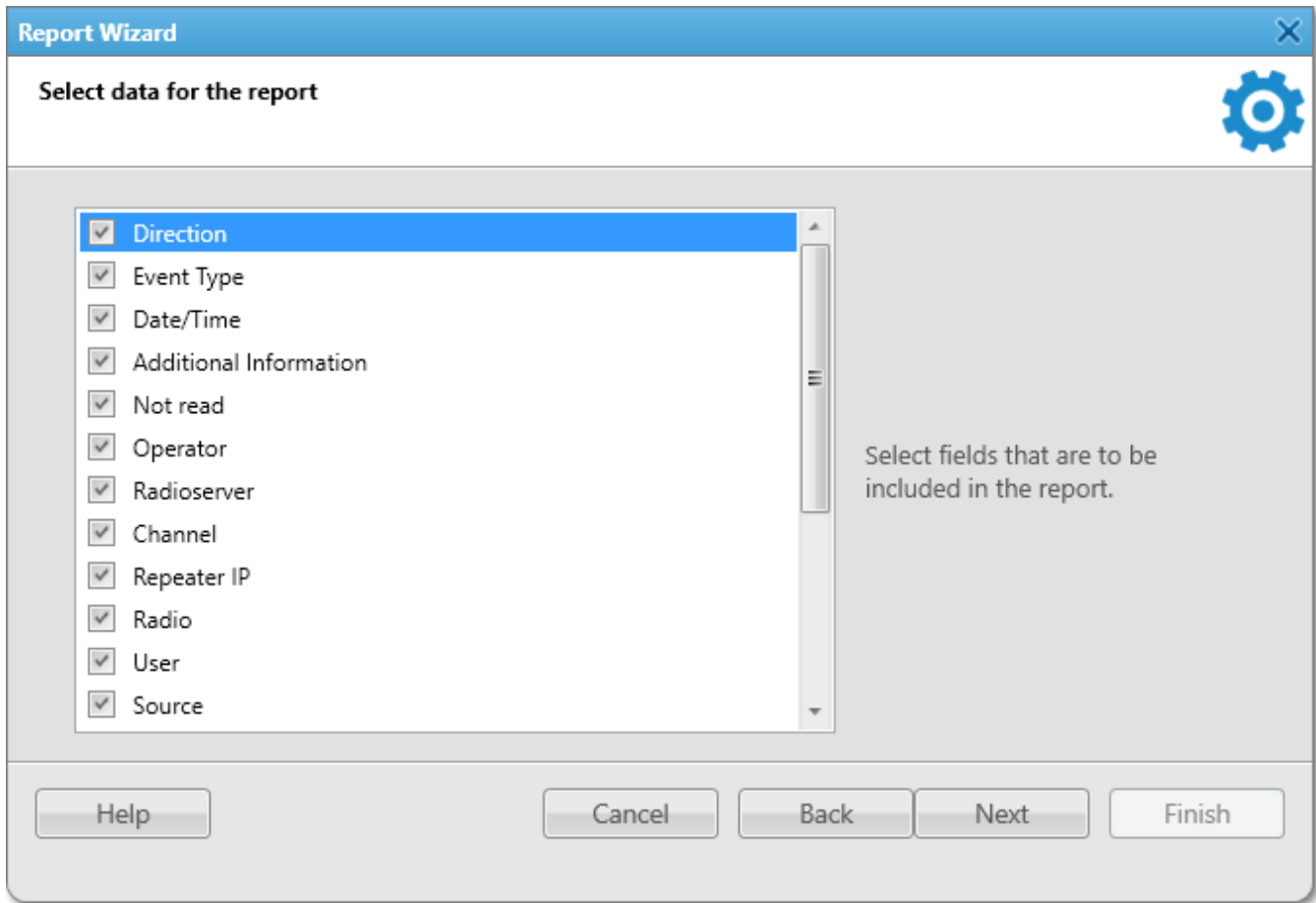
Using the **Report Wizard** it is possible to select the necessary fields for the report, specify grouping and sorting fields, specify filtering criteria. Reports generated by the **Report Wizard** are exported to Microsoft Excel.

To use the **Report Wizard**, expand the **Reports** menu in the **Main 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 fields 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 fields are not specified, the report will be grouped and sorted by default.

**Report Wizard** [Close]

**Group and sort report data** [Settings]

Group by: Not Specified [v]

Sort by: Not Specified [v]

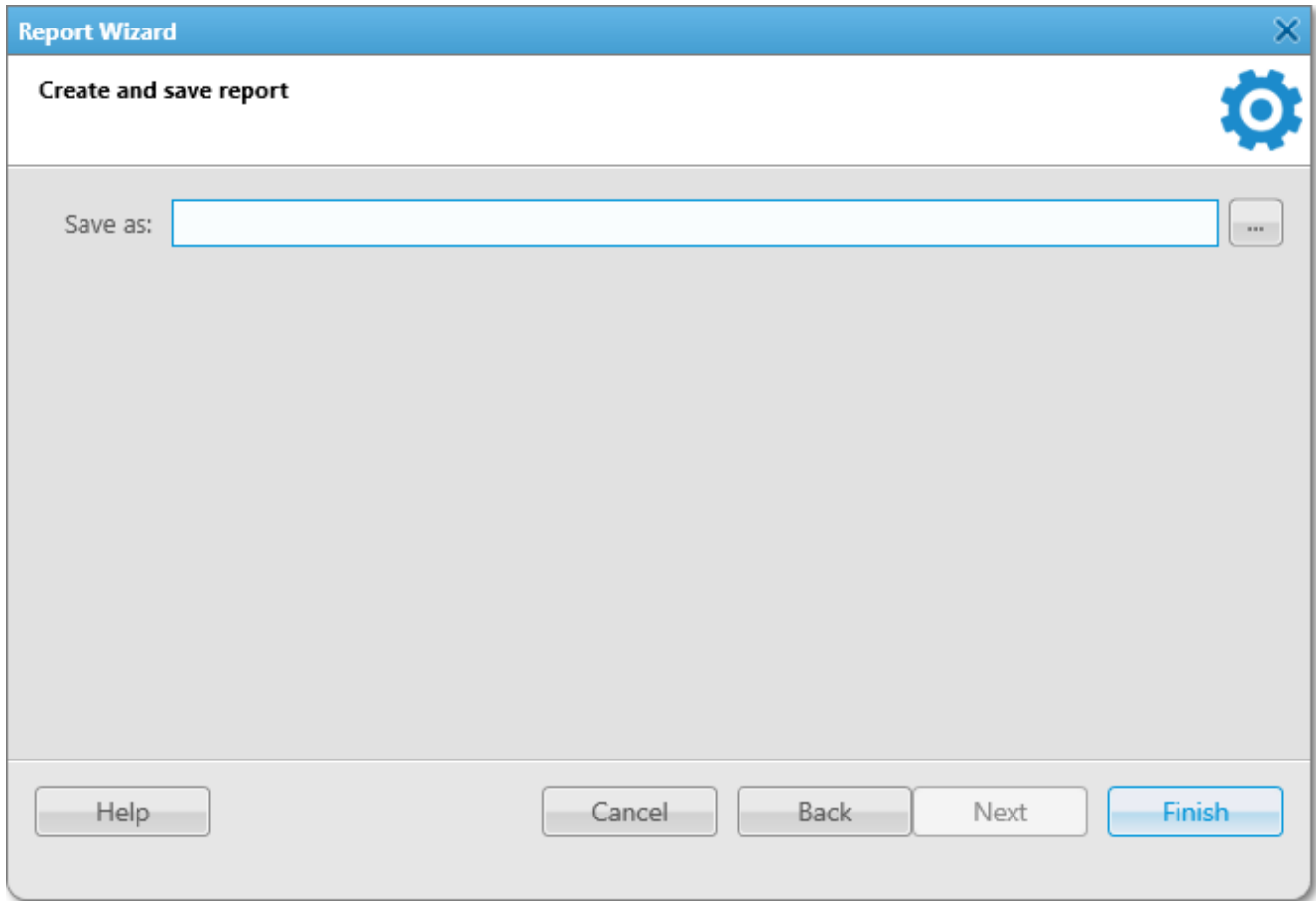
Help Cancel Back Next Finish

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.

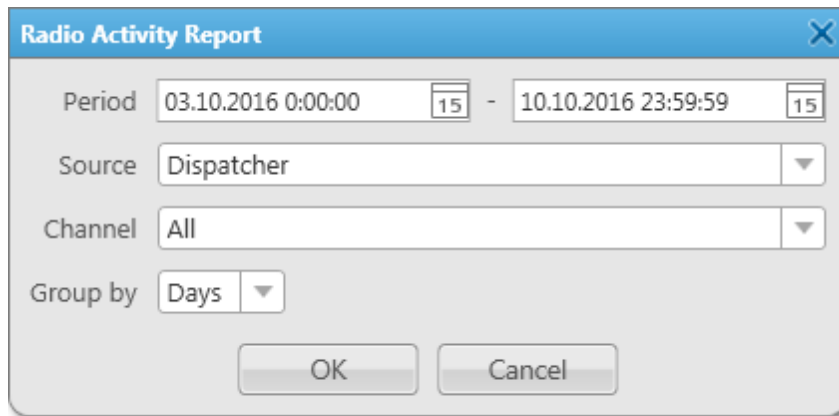




## 7.2 Radio Activity Report

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:

- 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.

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

**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

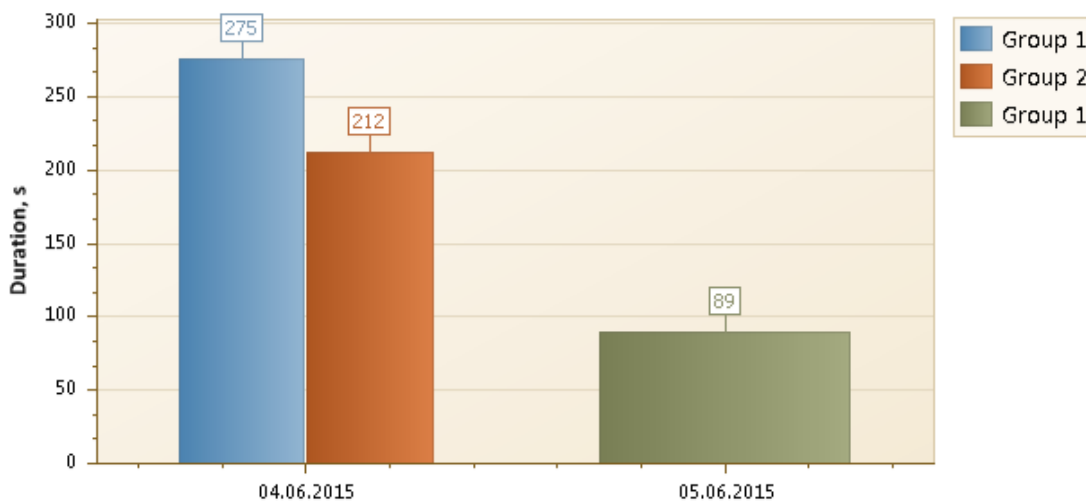
## Radio Activity Report

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

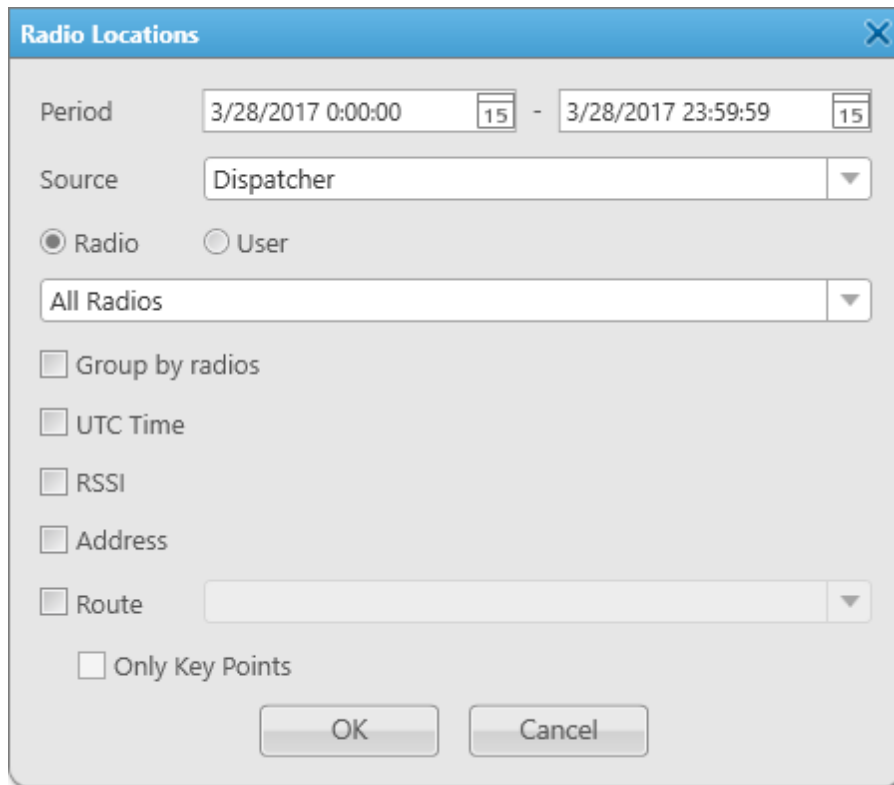
	Amount of Calls	Duration, hh:mm:ss	Period
Total Calls	9	00:08:07	04.06.2015 17:00 - 04.06.2015 18:00
Group 1	5	00:04:35	04.06.2015 17:00 - 04.06.2015 18:00
Group 2	4	00:03:32	04.06.2015 17:00 - 04.06.2015 18:00
Total Calls	16	00:01:29	05.06.2015 15:00 - 05.06.2015 16:00
Group 1	16	00:01:29	05.06.2015 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 in the **Main Menu** 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 series of checkboxes for 'Group by radios', 'UTC Time', 'RSSI', 'Address', and 'Route'; a 'Route' dropdown menu; 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	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:08:57	4000	56,47897	85,06808	0,24	57,72	-58,71	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:08:39	4000	56,47897	85,06808	0,15	51,83	-58,68	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:08:23	4000	56,47897	85,06808	0,05	58,72	-58,62	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:08:07	4000	56,47897	85,06808	0,39	53,80	-58,57	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:07:55	4000	56,47897	85,06806	1,19	108,91	-58,65	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:07:47	4000	56,47898	85,06811	0,23	104,32	-58,72	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:07:03	4000	56,47898	85,06811	0,10	48,55	-58,63	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:06:51	4000	56,47898	85,06811	0,05	316,60	-58,55	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:05:37	4000	56,47898	85,06812	0,49	100,37	-58,65	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:05:15	4000	56,47899	85,06812	0,23	144,66	-58,71	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015 17:04:59	4000	56,47899	85,06810	0,48	119,75	-58,70	<a href="#">ulitsa Bratyev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>

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.

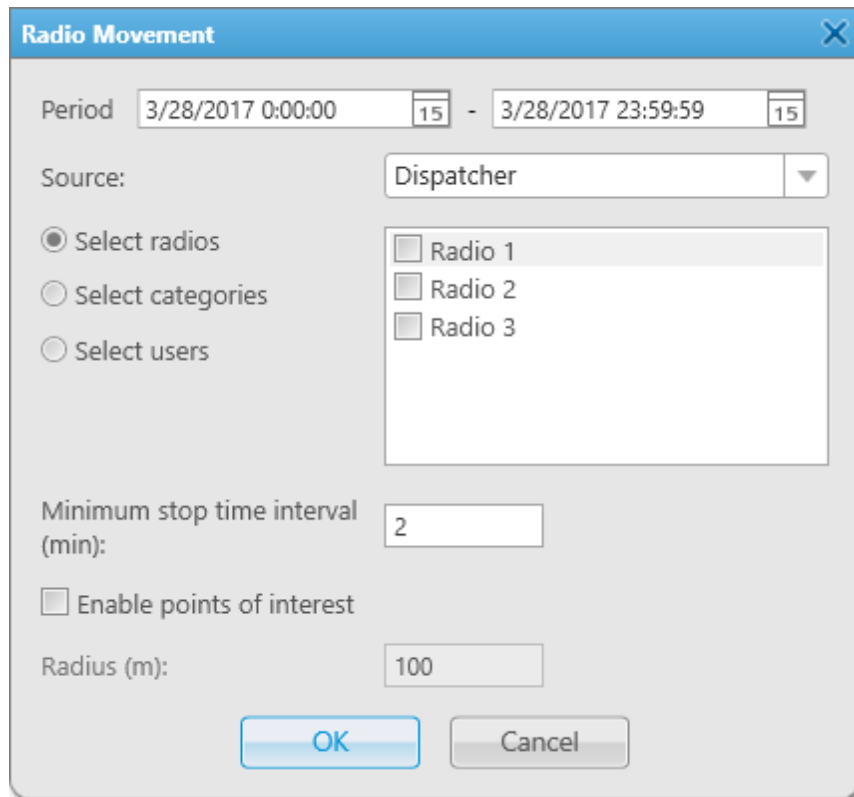
**NOTE**

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.

## 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** field 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** field 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)

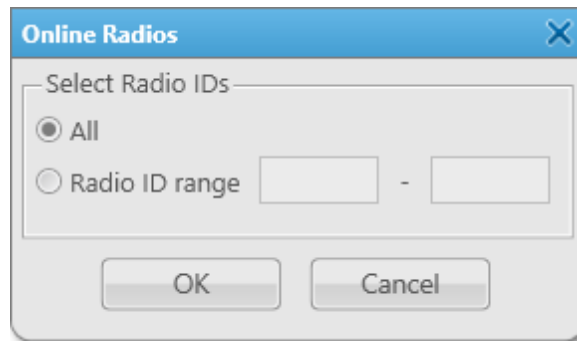
Start time	Stop time	Moving time	Distance, km	Maximum speed, km/h	Location	Stop time interval	Idle time
<b>Radio: 1</b>							
<b>24.08.2016</b>							
-	-	-	-	-	ElcomPlus	00:10:24	00:10:24
12:24:46	12:28:22	00:03:36	0,07	0,42	ElcomPlus	00:02:00	00:02:00
12:30:22	12:33:07	00:02:45	0,02	1,49	ElcomPlus	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
<b>Radio: 2</b>							
<b>05.08.2016</b>							
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
<b>08.08.2016</b>							
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
<b>Radio: 3</b>							
<b>08.08.2016</b>							
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 in the **Main 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

<b>Online Radios (3)</b>		
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:

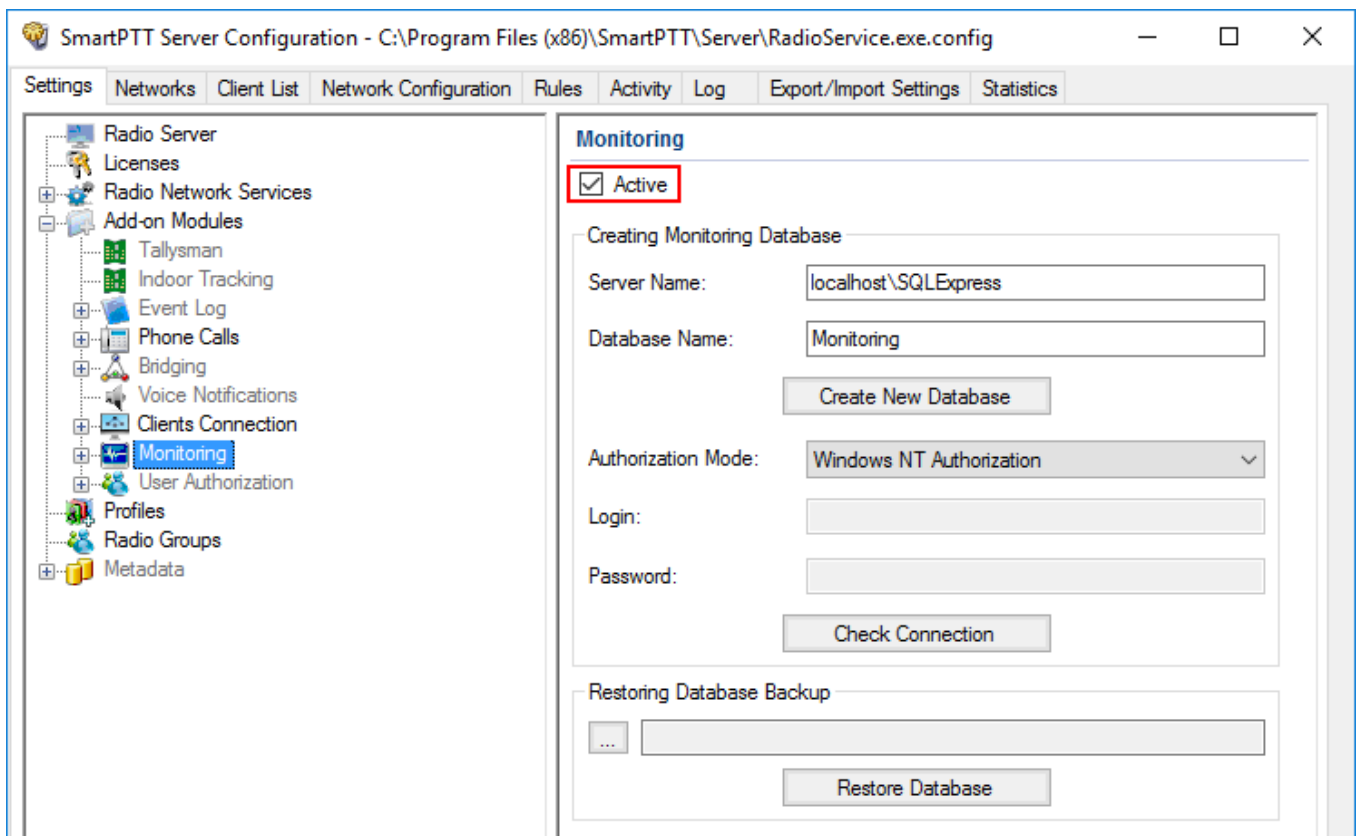
- [Monitoring Report](#)
- [Event Log Report](#)
- [Analytic Report](#)
- [System Usage Report](#)

They are based on the data collected during the monitoring and filtered by different criteria.

To create a report, in the **Main Menu** bar click **Reports**, point on **Monitoring** and click the needed type of report.

**NOTE**

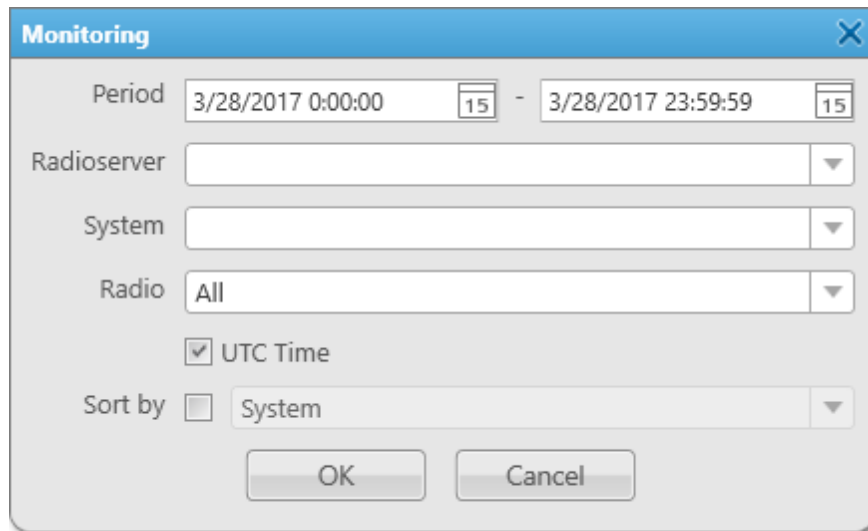
Before creating a report, make sure the radioserver is running and **Monitoring** is active in SmartPTT Radioserver Configurator.



## 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 in the **Main Menu** bar and under **Monitoring** select **Report**. The following window appears:



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

- Period:** Two date-time pickers. The first is set to "3/28/2017 0:00:00" and the second to "3/28/2017 23:59:59". Both have a "15" in a small box next to them, likely representing minutes.
- Radioserver:** A text input field with a dropdown arrow on the right.
- System:** A text input field with a dropdown arrow on the right.
- Radio:** A text input field containing the word "All" and a dropdown arrow on the right.
- UTC Time:** A checked checkbox.
- Sort by:** A text input field containing the word "System" and a dropdown arrow on the right.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**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.

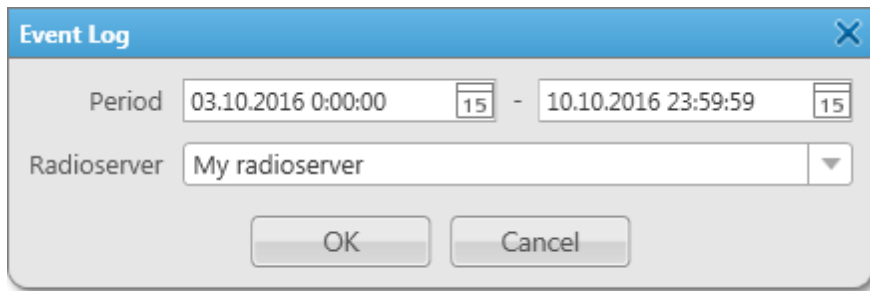
**UTC Time:** If **UTC Time** is selected, the report time and report start date and end date are shown in UTC (UTC+00:00). If **UTC Time** is not selected, the report time and report start date and end date are shown according to the time zone set on the computer of dispatcher (for example, UTC+05:00).

**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 in the **Main Menu** bar and under **Monitoring** select **Event Log**. The following 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:

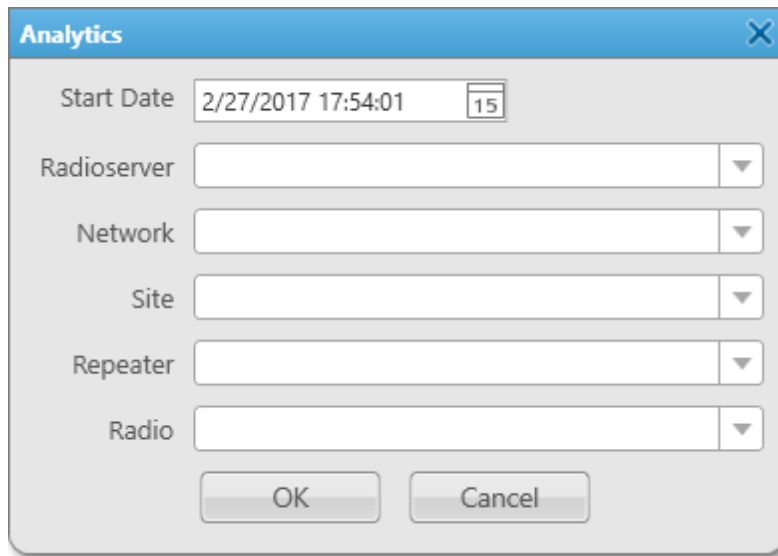
### Example

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 in the **Main Menu** bar, and under **Monitoring** select **Analytics**. The following 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 on the 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.

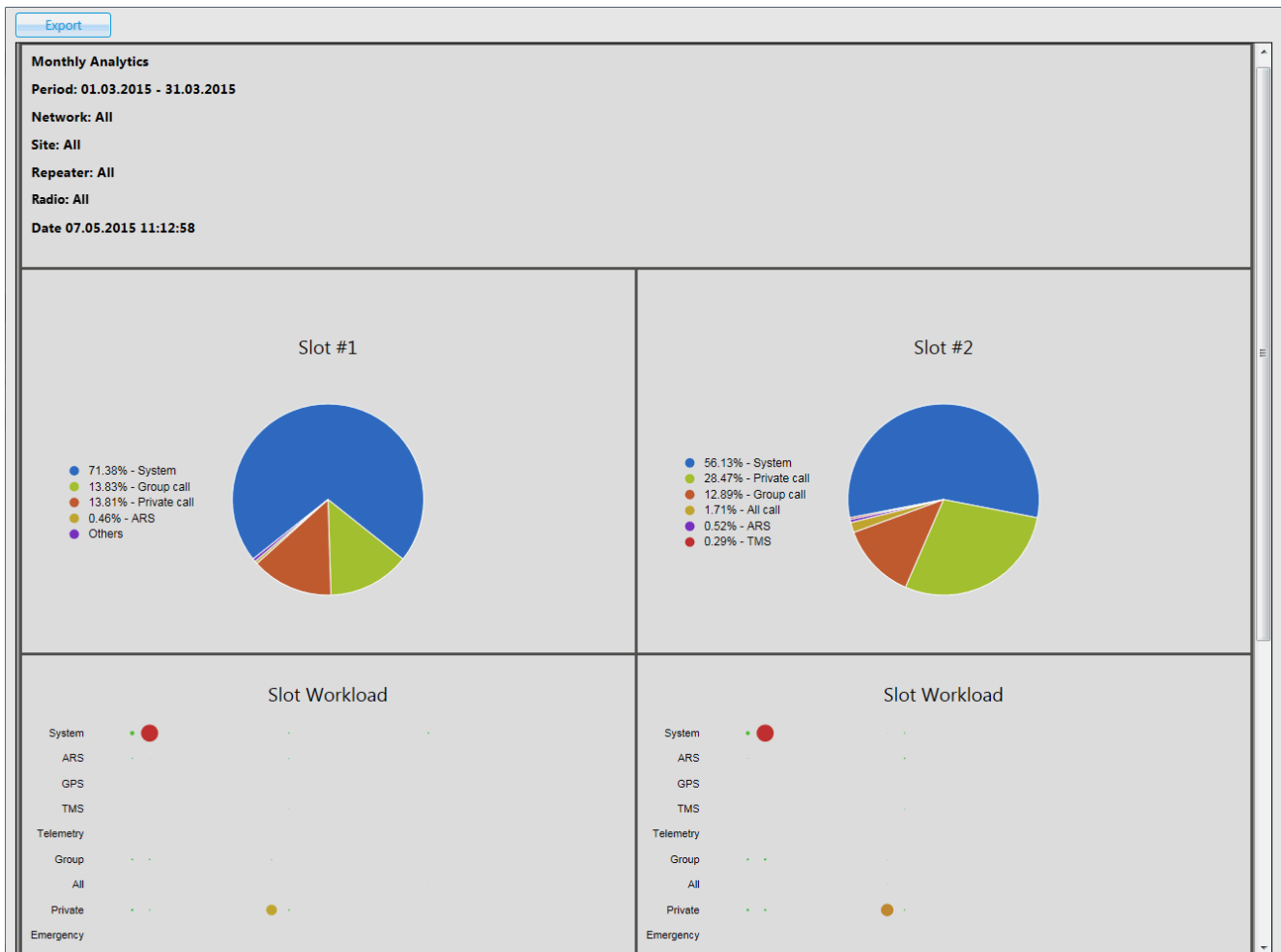
**Network:** Select the radio system for which you want to build a report. The drop-down list contains all radio systems which have been ever used. Network ID's are used for old networks, and names – for existing ones.

**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

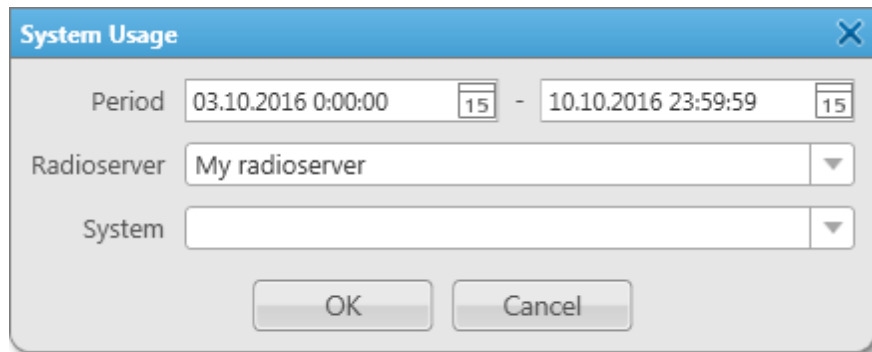


**Export:** Allows you to save the report in HTML format for further use.

## 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 in the **Main Menu** bar and under **Monitoring** select **System Usage**. The following window appears:



The screenshot shows a dialog box titled "System Usage" with a close button (X) in the top right corner. It contains three input fields: "Period" with a date range from "03.10.2016 0:00:00" to "10.10.2016 23:59:59" and a "15" minute interval; "Radioserver" with a dropdown menu showing "My radioserver"; and "System" with an empty dropdown menu. At the bottom are "OK" and "Cancel" buttons.

**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	-
	<b>Total</b>	<b>0:00:00</b>
Radioserver 77	1	0:01:07,54
	2	-
	<b>Total</b>	<b>0:01:07,54</b>
Repeater Tomsk 1	1	-
	2	-
	<b>Total</b>	<b>0:00:00</b>
System Total	1	0:01:07,54
	<b>Total</b>	<b>0:01:07,54</b>

**Subscribers: 3**

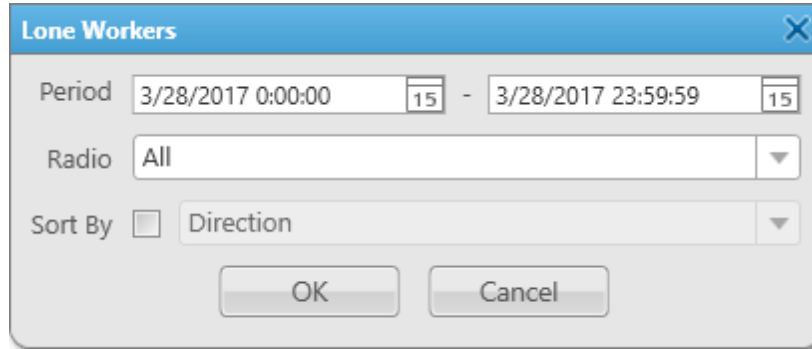
#	Radio ID	Name	Sites
1	1	1	Radioserver 77
2	77	77	Radioserver 77
3	4000	Alex O.	Radioserver 77



## 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 in the **Main 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 field 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**

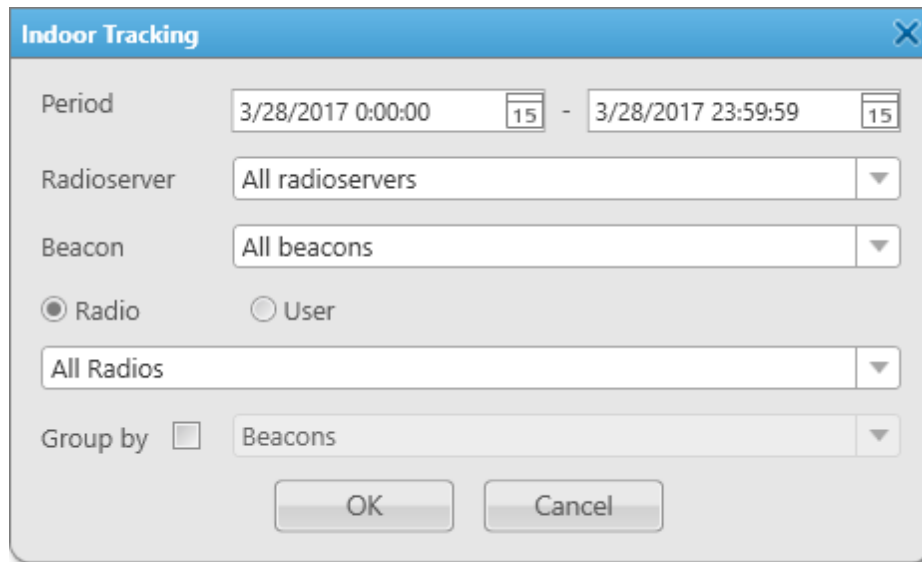
Period 3/28/2017 0:00:00 - 3/28/2017 23:59:59  
Radio: All

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**. At that the following window opens.



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

- Period:** Two date-time pickers showing "3/28/2017 0:00:00" and "3/28/2017 23:59:59", separated by a hyphen. Each picker has a small calendar icon to its right.
- Radioserver:** A dropdown menu with "All radioservers" selected.
- Beacon:** A dropdown menu with "All beacons" selected.
- Radio/User:** Two radio buttons, "Radio" (selected) and "User".
- Radio Selection:** A dropdown menu with "All Radios" selected.
- Group by:** A checkbox (unchecked) followed by a dropdown menu with "Beacons" selected.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**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** fields 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:

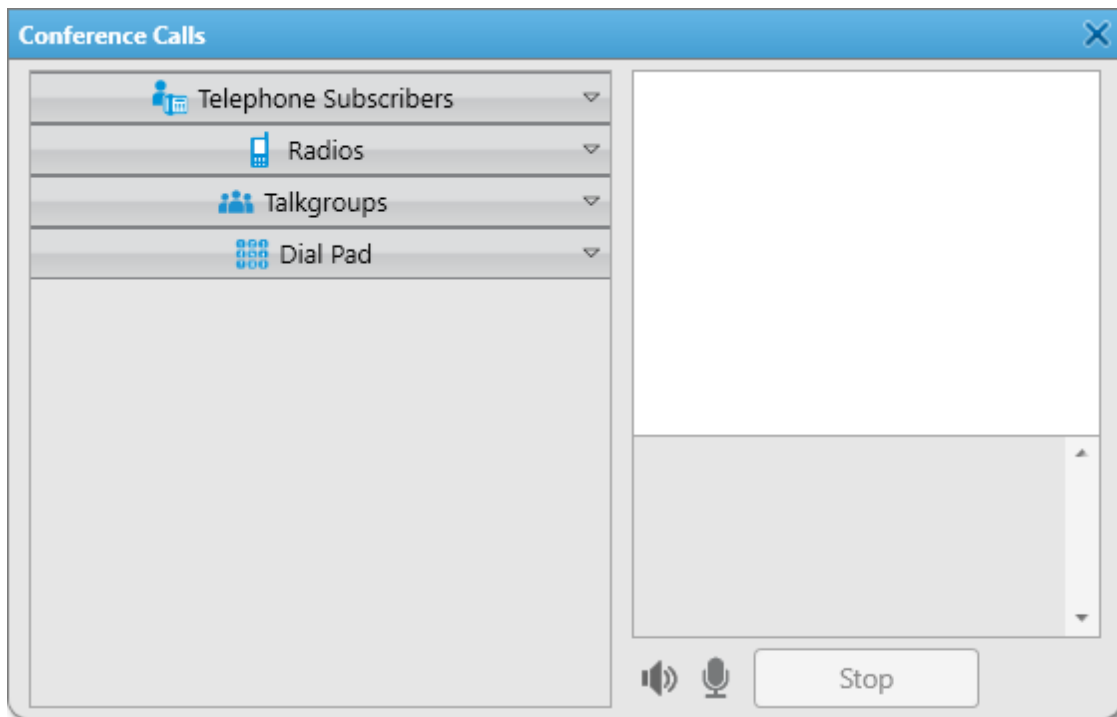
- Telephone subscribers
- Other dispatchers using SmartPTT Dispatcher
- Radios and [WAVE users](#)
- Talkgroups

### 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  in the **Main Menu** bar of SmartPTT Dispatcher.


The **Conference Call** window appears:




**NOTE**

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 radios list and event log the name of the user authorized on the radio is displayed next to the radio name in brackets.


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.

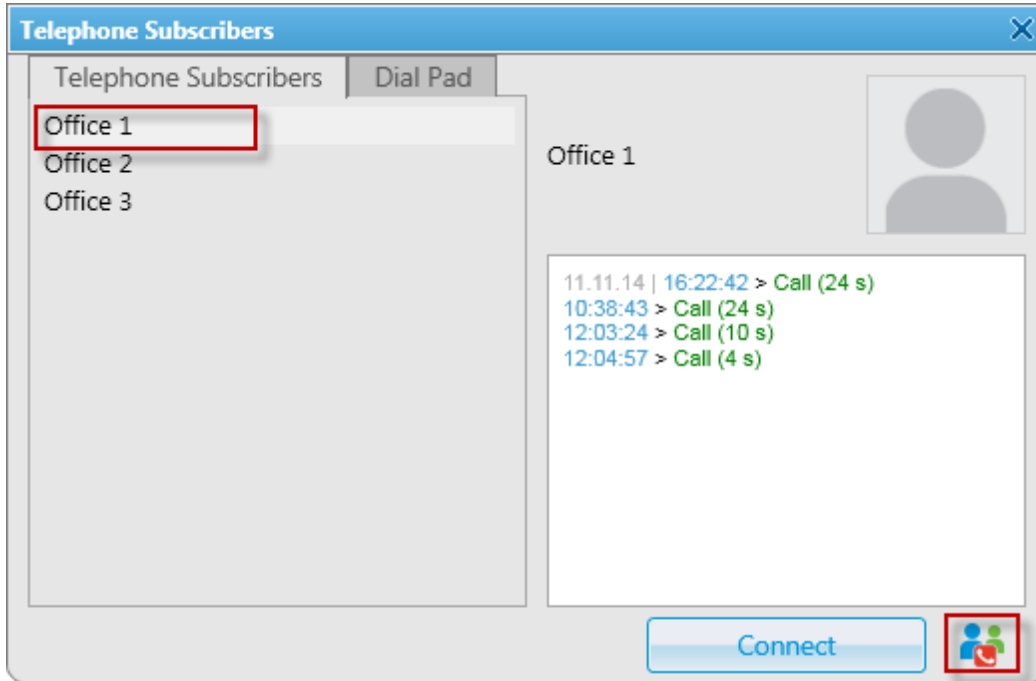
**Stop:** Click the button to end the current conference call. If the person should make a radio call right after the telephone call, it is necessary for him or her to wait for a special tone notifying about the end of the call. If the person presses the PTT button before this tone, an incorrect phone 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**).

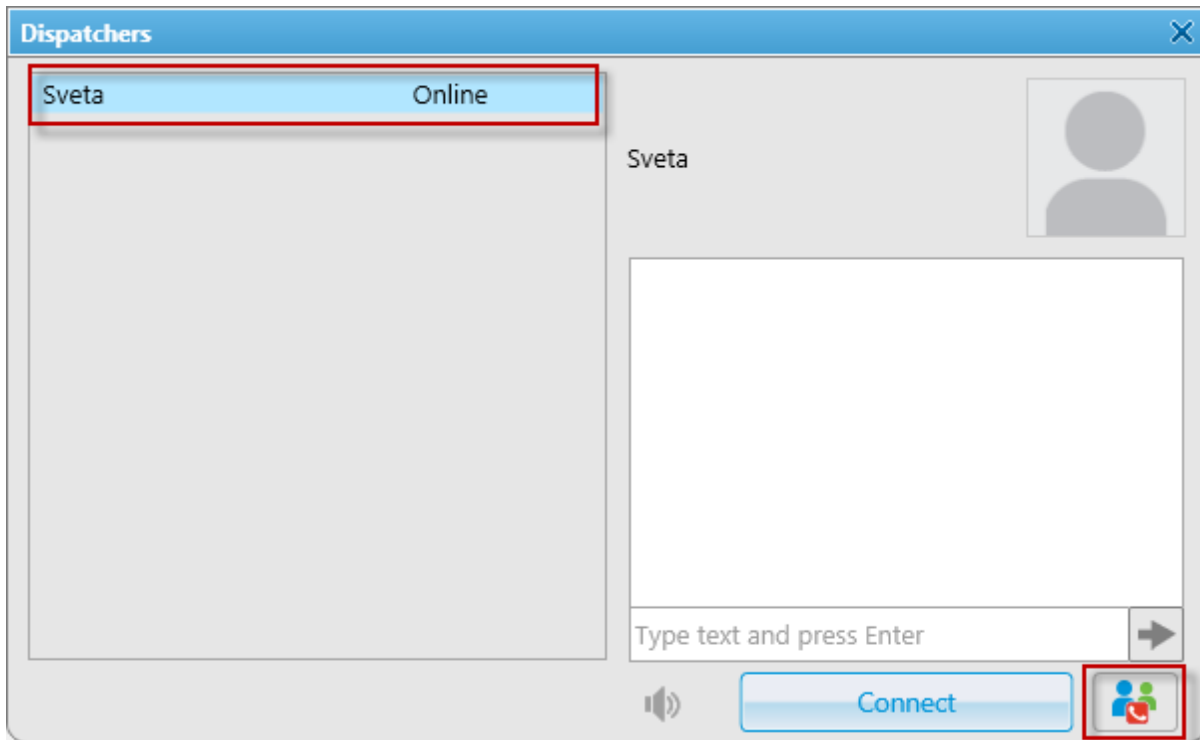
To finish the ongoing conference call with one of the participants, click the button  next to the participant.

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:

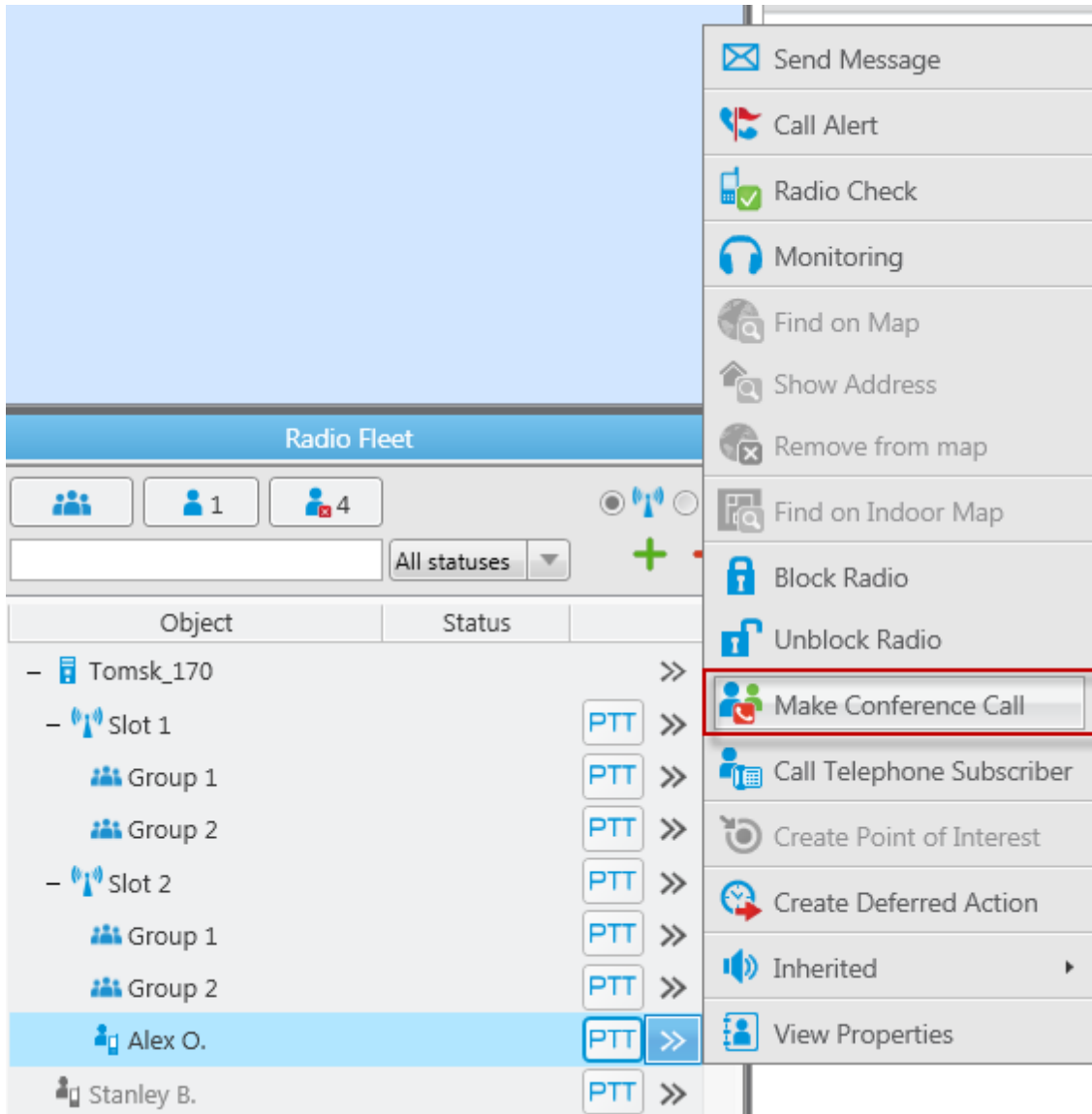


**NOTE**

Only dispatchers from the **Dispatcher List** with status **Active** can be invited into the conference call.



3. Use **Actions List** 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 [Saving UI Interface 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

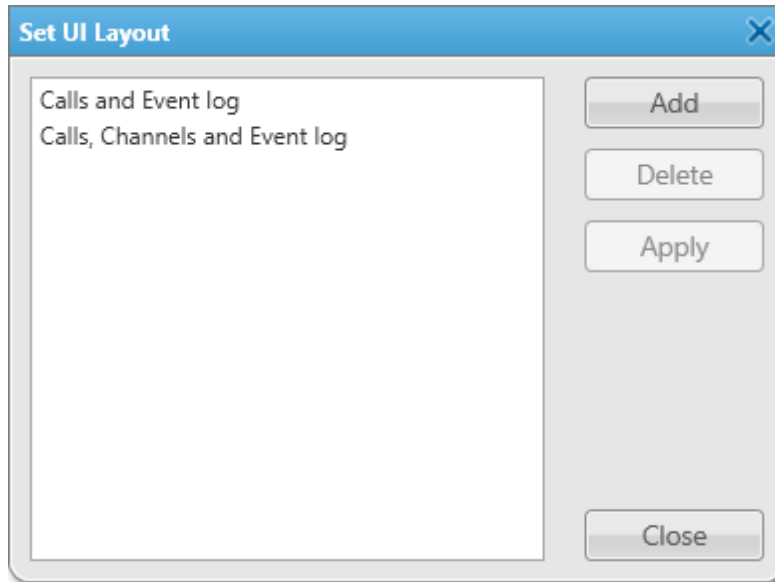
## 9.1 Saving UI Layout

Follow the procedure below to save the current user interface layout.

### Procedure:

1. In the **Main Menu** bar of the SmartPTT Dispatcher window, click **UI Layout Settings** (  ) → **Set UI Layout**.

The **Set UI Layout** window opens.

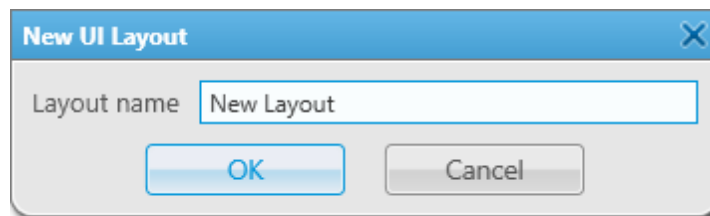


### NOTE

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 opens.



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. In the **Main Menu** bar of the SmartPTT Dispatcher window, 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:**

In the **Main Menu** bar of the SmartPTT Dispatcher window, 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 opened 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 Bridging

SmartPTT Bridging service allows joining multiple network systems into a single radio network. The bridging service is implemented by SmartPTT Radioserver and provides intelligent means of patching for voice and data streams between various network systems.

In SmartPTT PLUS the bridging service allows you to :

- Join various radio networks
- Bridge two or more radioservers to cover distributed regions
- Bridge selected voice and data
- Bridge private, group, telephone, and dispatcher calls dynamically
- Break the barrier of 15 repeaters per IP Site Connect network.
- Have calls bridged with only a short voice delay (from 60 ms), when joining IP Site Connect radio system

radio system supporting bridging:

- NAI radio system
- Connect Plus networks. The current version of SmartPTT Dispatcher supports only [talkgroup](#) call exchange between Connect Plus networks and analog control stations, digital control stations (analog or digital conventional channels), NAI networks (the Voice connection type) or Connect Plus networks. Bridging of Connect Plus radio system with other network types is not supported yet. Any other data exchange between Connect Plus and other networks is not supported yet.
- SIP/RTP interfaces
- External SmartPTT Radioservers
- Digital conventional channels. Private calls or data can't be bridged in networks based on control stations
- Analog conventional channels. Private calls can't be bridged in networks based on control stations

## How to Configure Bridging in SmartPTT Dispatcher Console


You can configure bridging settings in the call bridging table in SmartPTT Dispatcher. The main idea of the configuration process is to manage bridging with the help of the so-called **Profiles** and **Route Groups**. The profiles contain information on the bridging rules, which are specified in route groups and further in routes. So, there are three levels:

- Routes
- Route Groups
- Profiles

**Route:** A basic unit of the bridging process and an integral part of the route group, that is a route cannot be used separately. It is in the route where you define the source and the destination networks, and other main characteristics of the route.

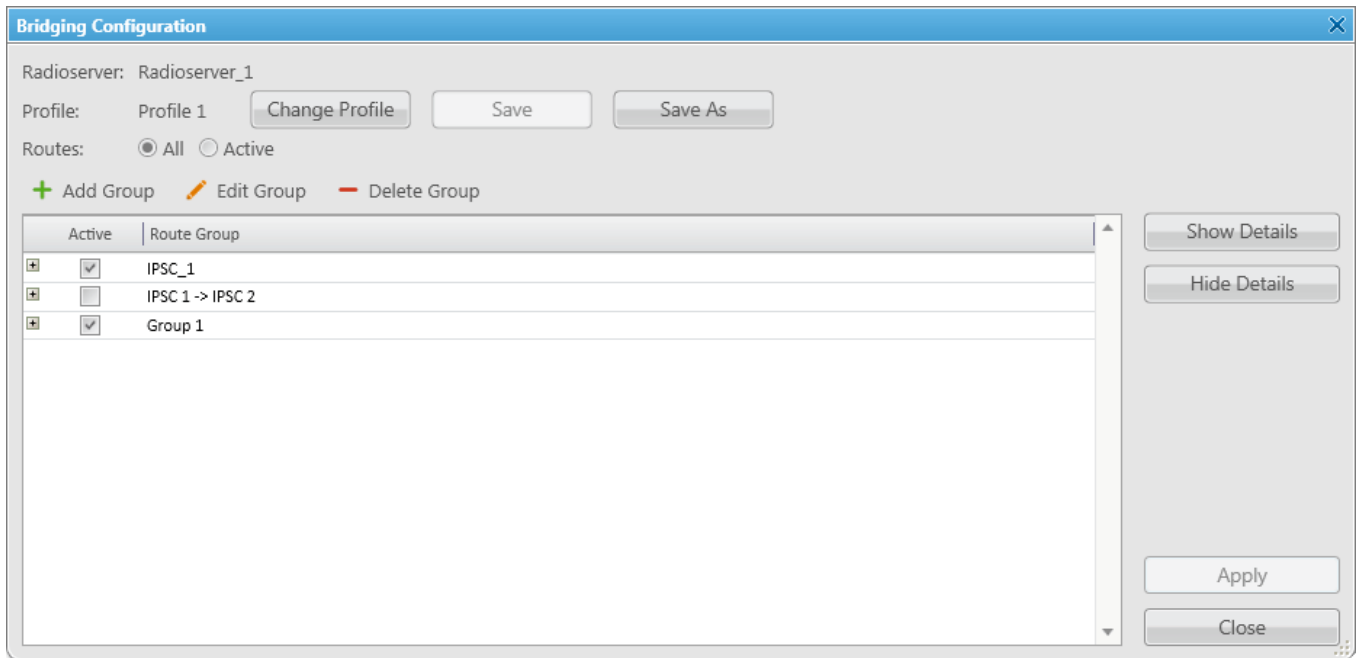
**Route Group:** Group which unites several routes. It was designed to provide a neat look to profiles. Route groups can be easily activated and deactivated, which will either make routes inside route groups usable or not usable.

**Profile:** Saved template of route groups. Profiles can be created for various business fields, for example, there can be profiles for general purposes, for carrying out engineering work or for emergency situations, etc.

You can configure bridging settings individually for each radioserver from SmartPTT Dispatcher. To open the call bridging table, open the **Actions List** by clicking the button  next to the radioserver and select **Configure Call Bridging Table**.



The **Bridging Configuration** window opens.

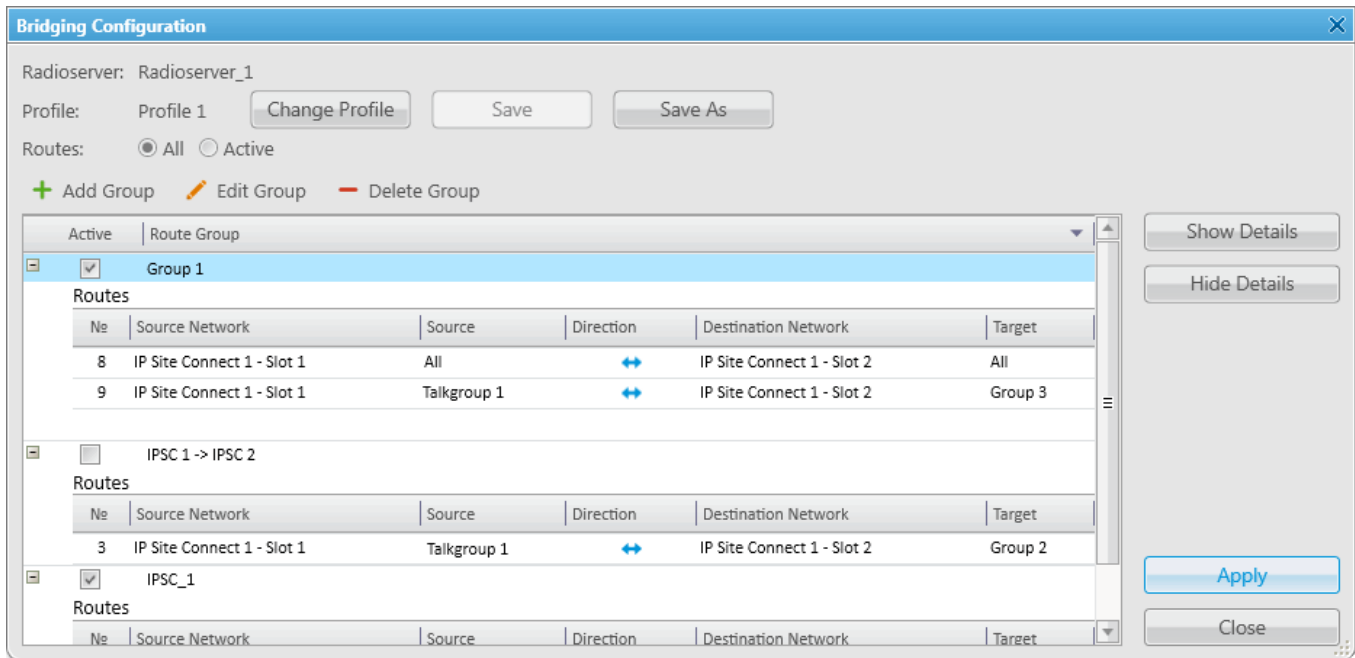


This is the main window from where you can create routes, route groups and add them to new profiles. The window also informs about the name of the current radioserver, its current profile, the list of available routes organized in groups.

**Show Details:** Displays details of the route groups. You can also check the details of a particular route group by clicking a plus sign next to the route group name.



**Hide Details:** Displays only route group names and the **Active** check box.



By default, the bridging table displays only active route groups, which belong to the selected profile. To display all route groups, select the **All** option.

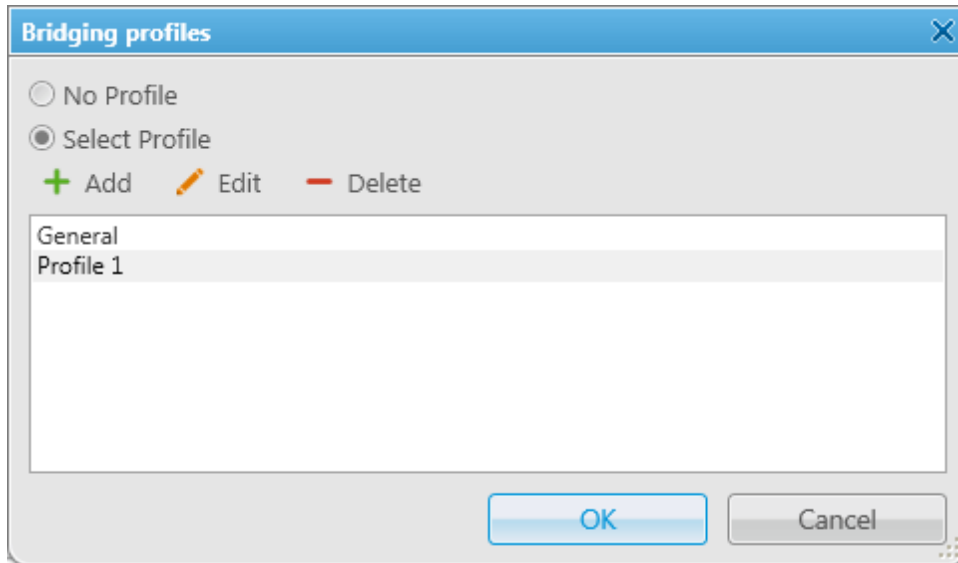
The buttons **Change Profile**, **Save**, **Save As** allow you to create a new profile or edit the existing one.

The buttons **Add Group**, **Edit Group**, **Delete Group** allow creating new route groups and attach routes to groups.

## Profiles

Profiles are used for quick switching between predefined bridging tables.

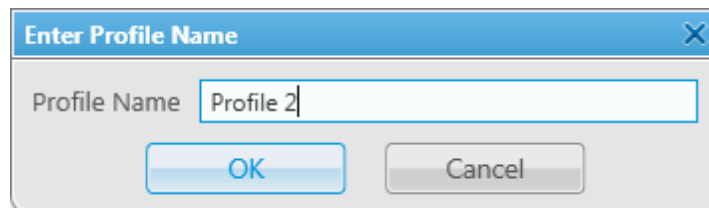
To add, modify or delete a profile, click **Change Profile** in the **Bridging Configuration** window.



If **No Profile** is selected, the created groups have no reference to a specific profile. The profile list and buttons for profile edition are not available in the **Bridging Profiles** window.

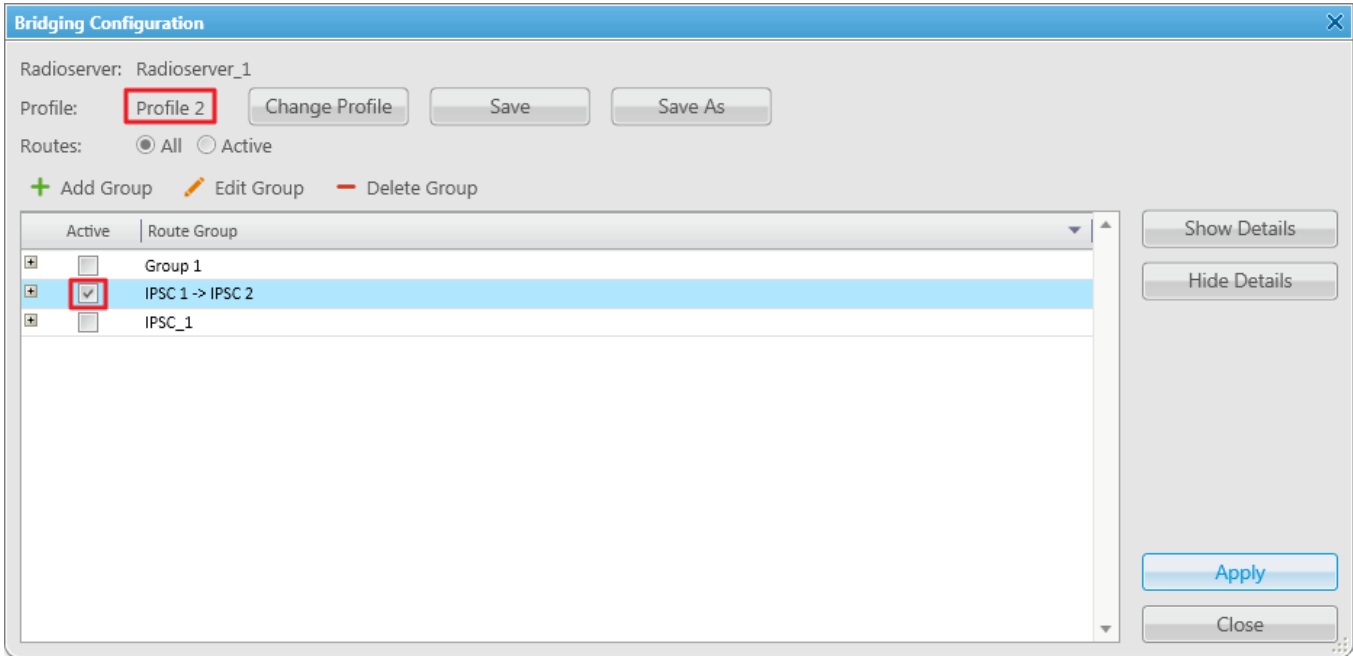
If **Select Profile** is enabled, the profile list is available for editing and route groups can be assigned to the selected profile.

In the **Bridging Profiles** window, click **Add** to create a new bridging profile. The **Enter Profile Name** window appears: Use the **Profile Name** field to specify the profile name, click **OK**.

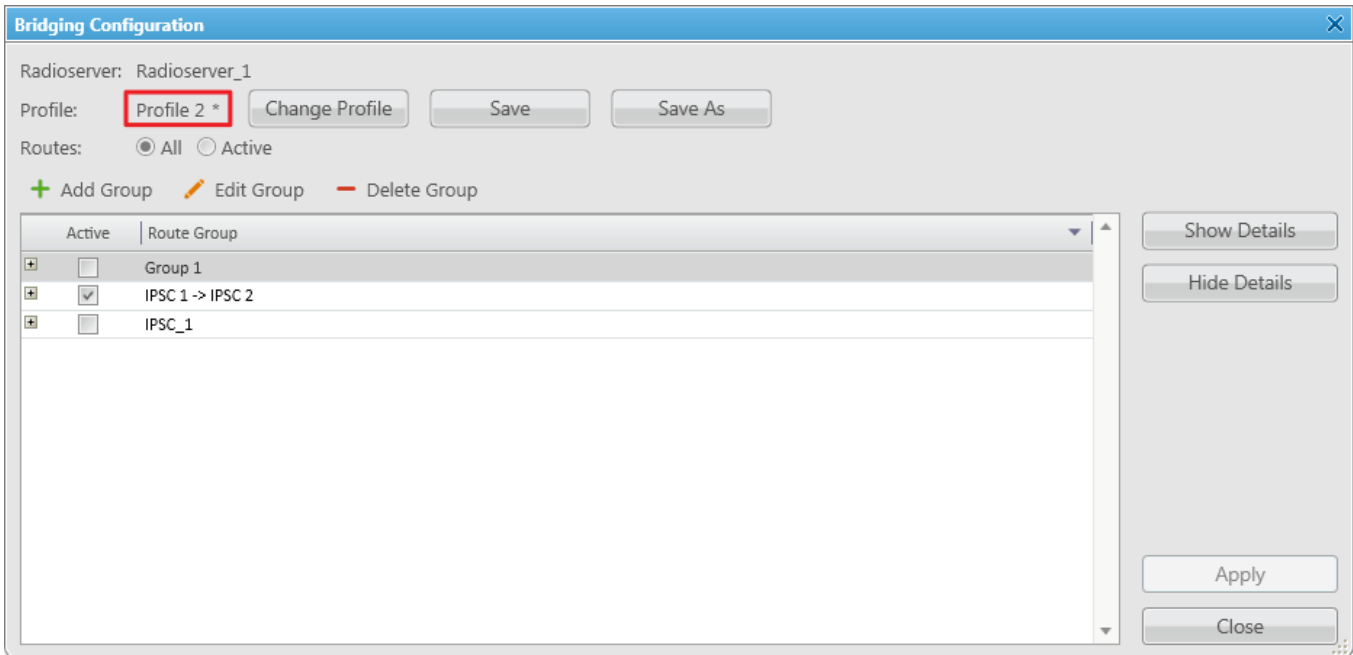


Left-click on the profile name in the **Bridging Profiles** window and click **OK**.

In the list of groups, select **Active** check boxes near the route groups that should apply to the chosen profile.

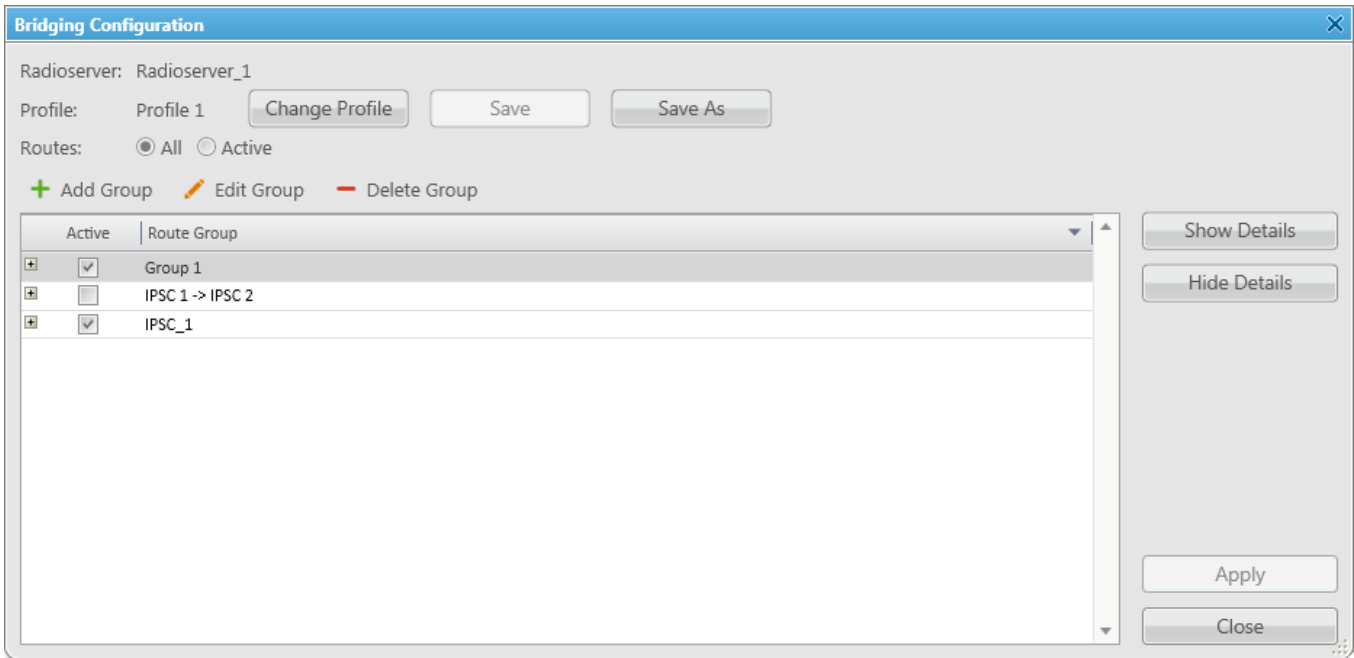


As you finished editing the profile settings, click **Apply** to activate the current profile settings. The asterisk character ("\*") appears in front of the profile name.



Click **Save** to save the profile settings.

To switch the profile, click **Change Profile** in the **Bridging Configuration** window, select a profile from the list and click **OK**. The **Bridging Configuration** window displays settings of the selected profile – active route groups.

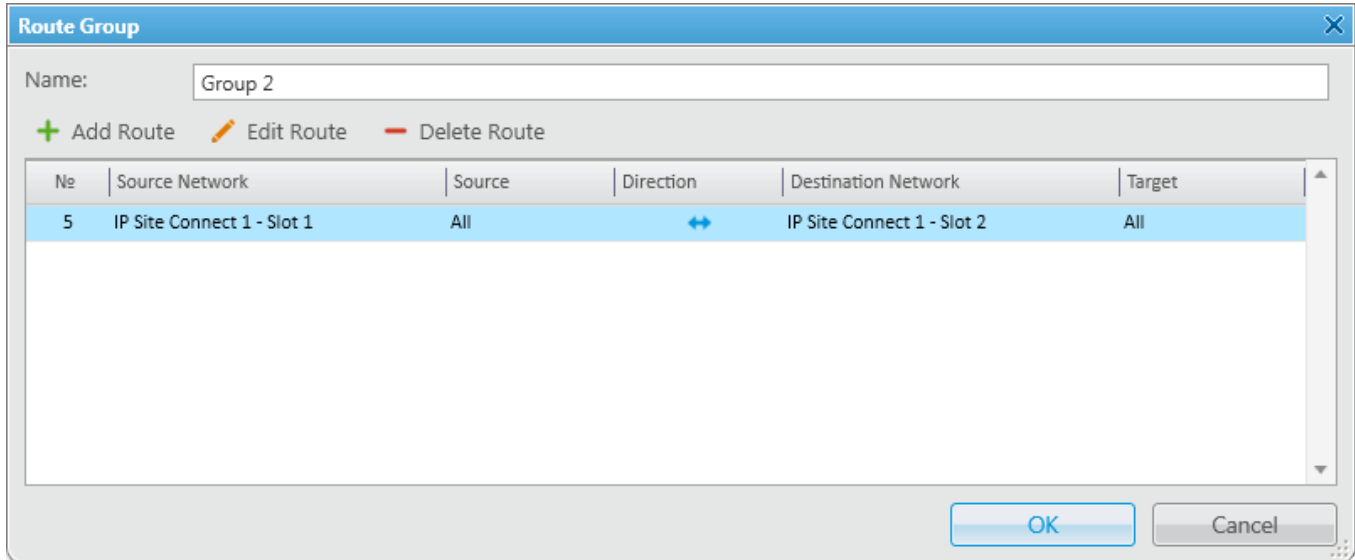


**Save As:** Allows you to save a copy of the current profile with a new name.

## Route Groups

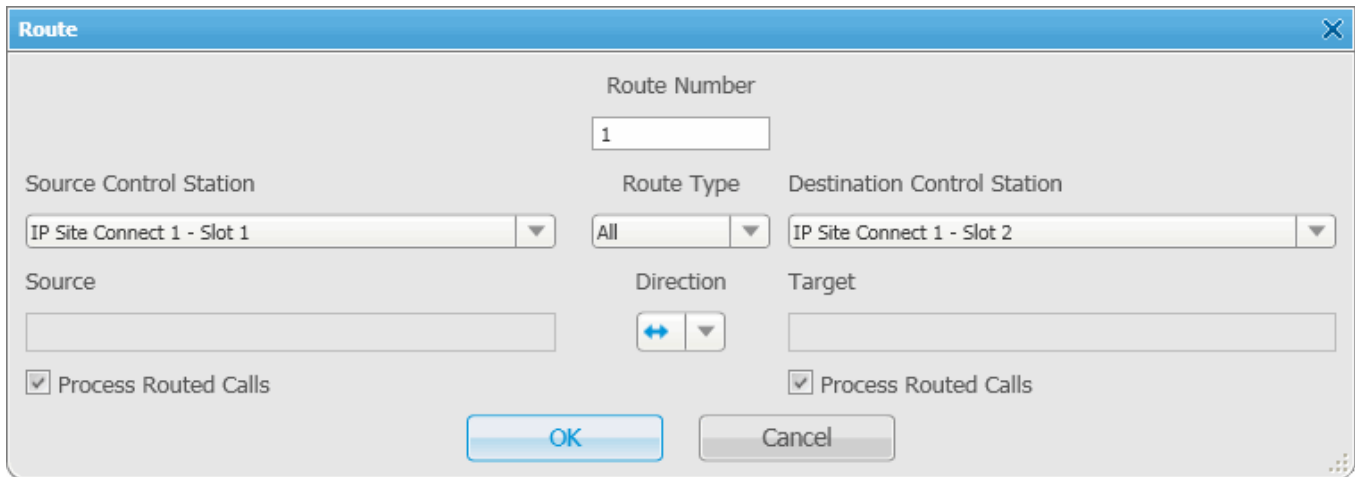
To create a new bridging route group and add routes to it, click **Add Group** in the **Bridging Configuration** window.

In the **Route Group** window, specify name of the route group, add routes to the group and click **OK**.



To save the changes in the route groups, click **Apply**.

Add routes to the group by clicking **Add Route** in the **Route Group** window. The window for adding routes opens up.



This is the window where you create routes. Here you can define the source and the target networks, route direction (one-way or two-way), the source radio or talkgroup and the target radio or talkgroup. You can also select the **Route Type**, which depends on the data type you want to patch.

Here you can find a detailed description how to configure routes of different types.

## Configuring "All" Route Type

If you need to patch all voice and data packets from the source network to the destination network, select **All** in the **Route Type**.

In this case you need to fill in the following fields:

**Route Number:** Ordinal number of the route.

**Source Control Station:** Select any of the added control stations serving as a source. You can add control stations of various networks in SmartPTT Radioserver Configurator.

**Destination Control Station:** Select any of the added control stations serving as a destination. You can add control stations of various networks in SmartPTT Radioserver Configurator.

**Direction:** Allows you to select either one-way or two-way.

**Process Routed Calls:** If selected the call which is already routed once (by one route) also can be routed another time by another route. It takes place only when several routes are added.

### 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 create 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

Please don't use round routes. They can cycle all routes and lead to unstable system operation (for example, IPSC 01 slot 01 <---> IPSC 04 slot 01).

### Configuring "Talkgroup" Route Type

In order to patch a group call, select **Talkgroup** in the **Route Type**. Specify the source and the destination networks, and other parameters as if you were configuring the "All" **Route Type**.

The only difference is that for this route type you need to specify the groups' IDs, that is the source talkgroup ID in the **Source** field and the destination talkgroup ID in the **Target** field. For All Call, use 0 as **Source ID** or **Target ID**.

## Configuring "Radio" Route Type

To patch individual calls or text messages, in the **Route Type** field select **Radio**.

### NOTE

Since private calls cannot be bridged in control station networks, this route type is not supported in such networks.

Specify the source and the destination networks, and other parameters as if you were configuring any of the previous route types.



In the **Source** field specify the radio ID from the source network. The **Target** field will be populated automatically. In this case, all the radios from the destination network (see **Destination Control Station**) will be able to call to radio 123 and v.v.

The screenshot shows the 'Route' dialog box with the following configuration:

- Route Number:** 3
- Source Control Station:** IP Site Connect 1 - Slot 1
- Route Type:** Radio
- Destination Control Station:** IP Site Connect 1 - Slot 2
- Source:** 123
- Direction:** Bidirectional (indicated by a double-headed arrow icon)
- Target:** 123
- Process Routed Calls (checked for both Source and Target)

## 2.4. Configuring "Dynamic" Route Type

### NOTE

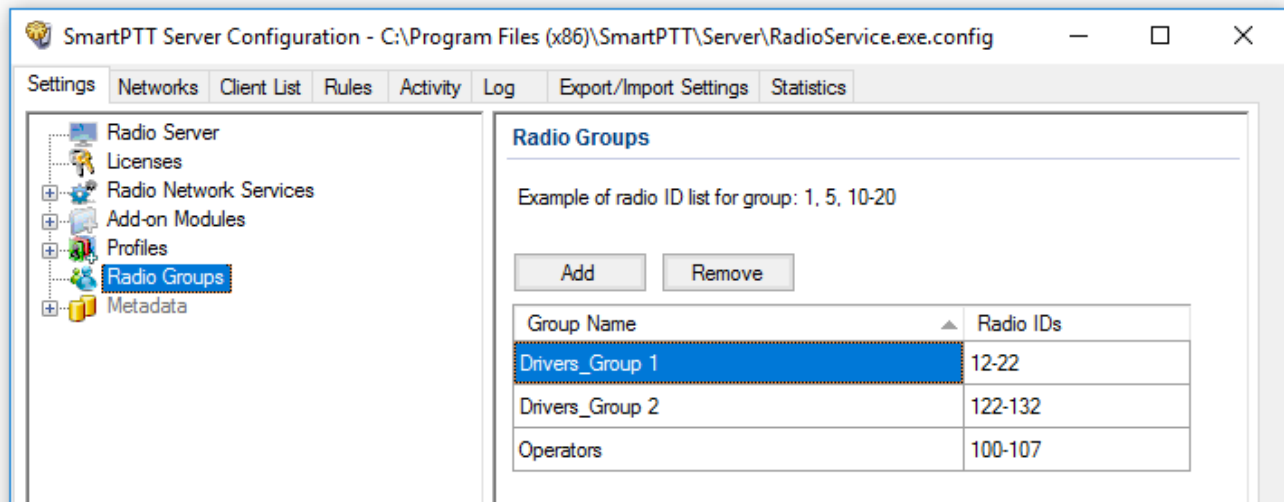
Since private calls cannot be bridged in control station networks, this route type is not supported in such networks.

To patch private voice calls or text messages of the radios from the **Radio Groups**, select **Dynamic** in the **Route Type** field.

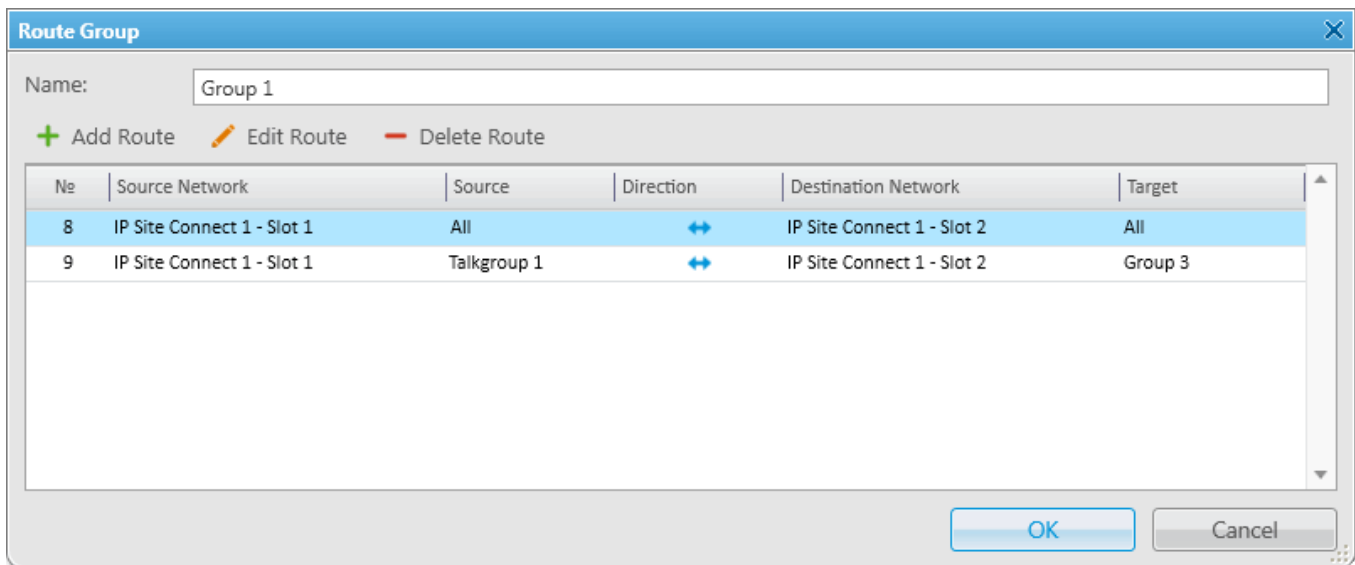
The screenshot shows the 'Route' dialog box with the following configuration:

- Route Number:** 5
- Source Control Station:** Automatically
- Route Type:** Dynamic
- Destination Control Station:** Automatically
- Radio Group:** Drivers\_Group 1

In the **Radio Group** select a group, which was added in **Radio Groups** of SmartPTT Radioserver Configurator.



Once created, the routes will display in the **Route Group** window. Here is the example of the route group containing routes of three types (**All**, **Group**, **Radio**).



## Activating Bridging Service

To activate Bridging Service, follow these steps:

1. Run SmartPTT Radioserver Configurator.
2. Click **Bridging**.

3. Select **Active**.
4. Save changes and restart the SmartPTT Radioserver.

## 11 Help

The **Help** menu includes:

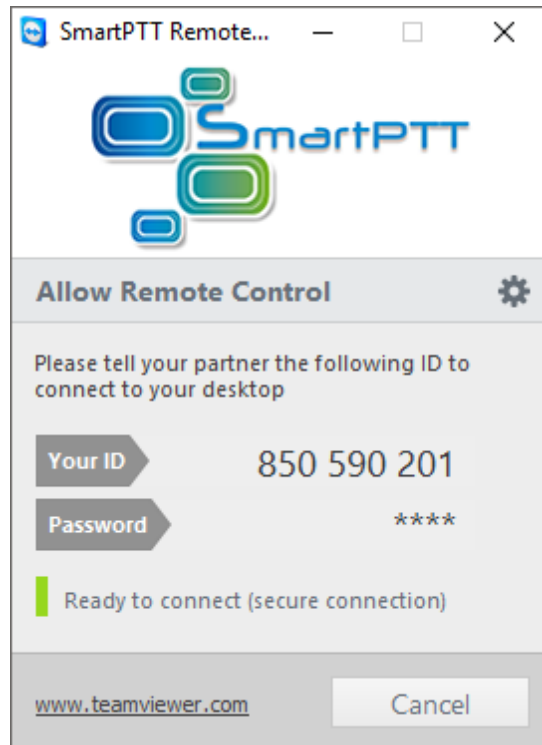
- **Help.** Here you can find useful information on the system objects and functionality. You can also open the **SmartPTT Help** file any time by pressing F1
- **About.** It contains information on the application version, license, and the third-party software used in development process
- [Check for Updates](#)


## 12 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. Chat function can be used for communication with the engineer.
5. To stop the session, click **Close** .