



Version 9.0

# SmartPTT PLUS

Dispatcher User Guide

April, 2016

# Table of Contents

1 SmartPTT Dispatcher	6
1.1 SmartPTT Dispatcher Interface	6
1.1.1 Change Layout	8
1.2 Map	9
1.2.1 Raster Map	15
1.2.2 Raster Maps From Database	16
1.2.3 Indoor Tracking	18
1.2.4 Geofences	24
1.2.5 Points of Interest	25
1.2.6 Routes	27
1.2.7 Show Track	29
1.2.8 Animate Track	30
1.2.9 Coverage Map	32
1.3 Event Log	35
1.4 Tools	43
1.4.1 Calls	43
1.4.2 Sound	45
1.4.3 Cross Patches	46
1.4.4 Radio Fleet	49
1.4.5 Channels	68
1.4.6 Subscribers	68
1.4.7 Job Tickets	70
1.4.8 Monitoring	73
Monitoring	73
Topology	76
Diagnostics	87
Event Log	88
1.4.9 Lone Workers	88
1.4.10 Latest Incoming Calls	89

1.4.11 Notifications	90
1.4.12 System Messages	91
1.4.13 Server Tasks	94
1.4.14 Map Tools	94
Points of Interest	94
Geofences	95
Routes	96
Subscriber Location Panel	98
1.5 Settings	98
1.5.1 Database	100
1.5.2 Licenses	101
1.5.3 General Settings	103
1.5.4 Subscribers	105
1.5.5 Control Devices	107
1.5.6 Radioservers	108
1.5.7 Operators	113
1.5.8 Statuses	115
1.5.9 Events and Notifications	119
1.5.10 Call Windows	123
1.5.11 Sound	124
1.5.12 Records	132
1.5.13 Positioning Systems	133
1.5.14 Telemetry	136
1.5.15 Categories	142
1.5.16 Dispatchers	146
1.5.17 Telephone Subscribers	151
1.5.18 Telephone Interconnect	154
1.5.19 Job Ticket Statuses	171
1.5.20 Third-Party Equipment	173
1.5.21 Hot Keys	175

1.5.22 Database Auto Backup	180
1.5.23 Rules and Alerts	182
1.5.24 Positioning Rules	190
1.5.25 Lone Worker Rules	197
1.5.26 Subscriber Custom Properties	204
1.5.27 Custom Consoles	208
1.6 Service	217
1.6.1 Radio Check	218
1.6.2 Voice Notifications	219
1.6.3 Deferred Actions	221
1.6.4 Received Files	224
1.6.5 System Information	225
1.6.6 Export Radio Subscribers	226
1.6.7 Import Radio Subscribers	228
1.6.8 Upload to KML	229
1.6.9 Import Connect Plus Logs	231
1.6.10 Save Dispatcher Settings	233
1.6.11 Restore Dispatcher Settings	234
1.7 Reports	234
1.7.1 Report Wizard	235
1.7.2 Radio Activity	237
1.7.3 Subscriber Locations	240
1.7.4 Online Subscribers	242
1.7.5 Monitoring Report	243
1.7.6 Monitoring Log	243
1.7.7 Monitoring Analytics	245
1.7.8 System Usage	247
1.7.9 Lone Workers	249
1.8 User Interface Layout	251
1.8.1 Lock UI Layout	251



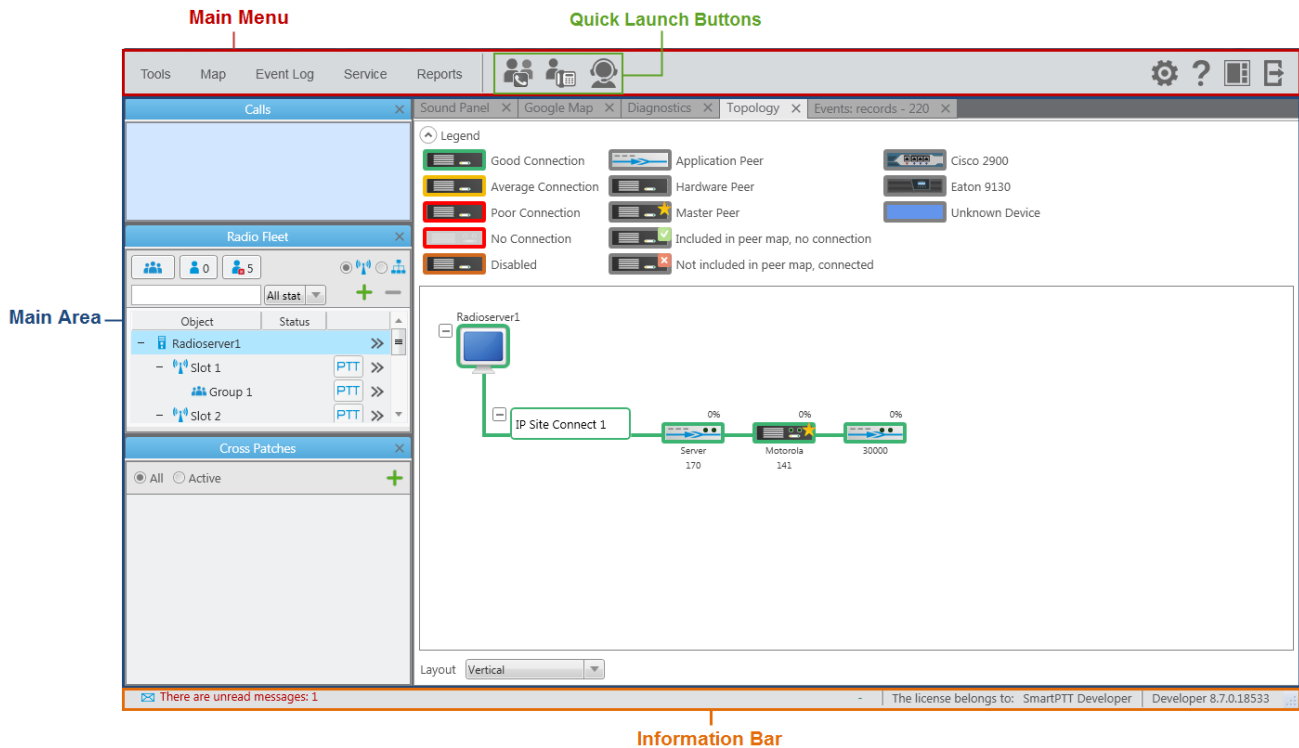
## Table of Contents

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1.9 Bridging	252
1.10 Conference Calls	263
1.11 Help	267
1.12 Remote Assistance	268

# 1 SmartPTT Dispatcher

## 1.1 SmartPTT Dispatcher Interface



SmartPTT Dispatcher interface can be divided into the following sections:

1. **Main Menu** which also contains **Quick Launch Buttons**.
2. **Main Area**
3. **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. Currently, there are 3 such buttons.



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 **Help** button opens the [Help](#) menu where you can read the help file, learn about the application or check for updates.



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 simply click the this button and select the layout he or she used earlier. For more information see [User Interface Layout](#).

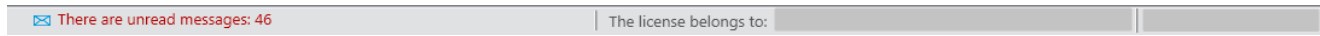


The **Change Operator** button allows you to change the operator. At clicking on this button the dispatch console is restarted, and you can select another operator in the **Authorization** window.

## 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.

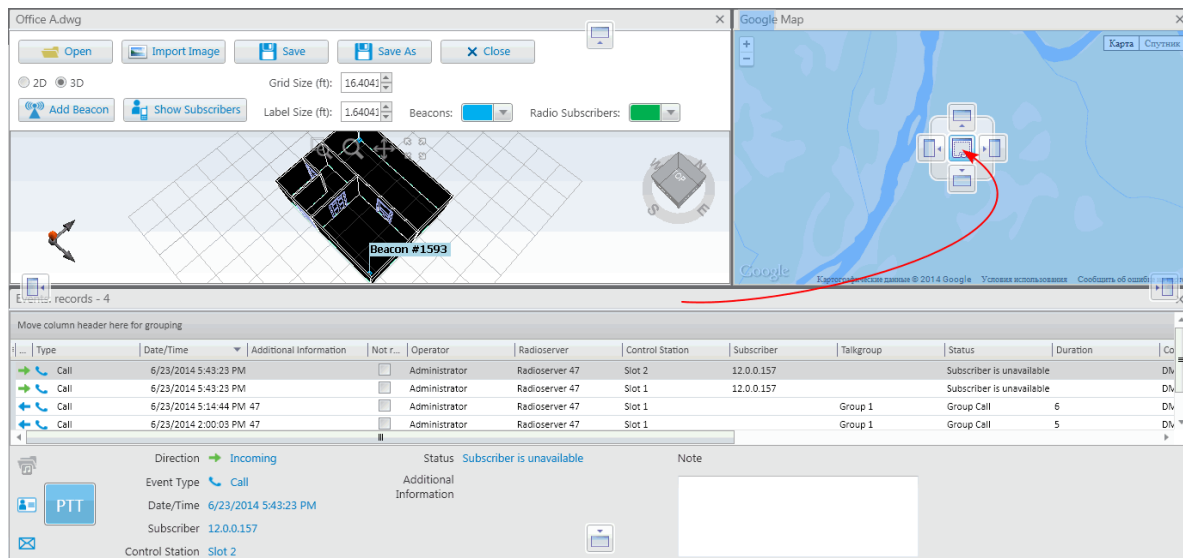
## Information Bar



The **Information Bar** was designed to give the user information about the number of unread messages, the selected subscriber, 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.


### 1.1.1 Change Layout

There is an ability to adjust the layout of the opened panels in the **Main Area**. In order to do that, click on the tab of the opened panel, drag it to the location where you would like to place it and release. As soon as you start dragging a panel, new icons appear on the screen. The icons represent a new location of the panel on the screen.



The table displays description of the icons.

Icon	Description
	<p>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.</p>

Icon	Description
	<p>The four standalone icons can be used to place the panel in any position of the <b>Main area</b> outside any other panel.</p>

## 1.2 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 radio subscribers. You can open the **Call Window** by double-clicking on the radio subscriber displayed on the map, or open the **Action List** by clicking with the right mouse button.

### 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.

### INGIT Map

To work with INGIT vector maps in SmartPTT Dispatcher, the GWX ActiveX Control application (version 6.1), the registration key (HASP) and INGIT vector maps are required.

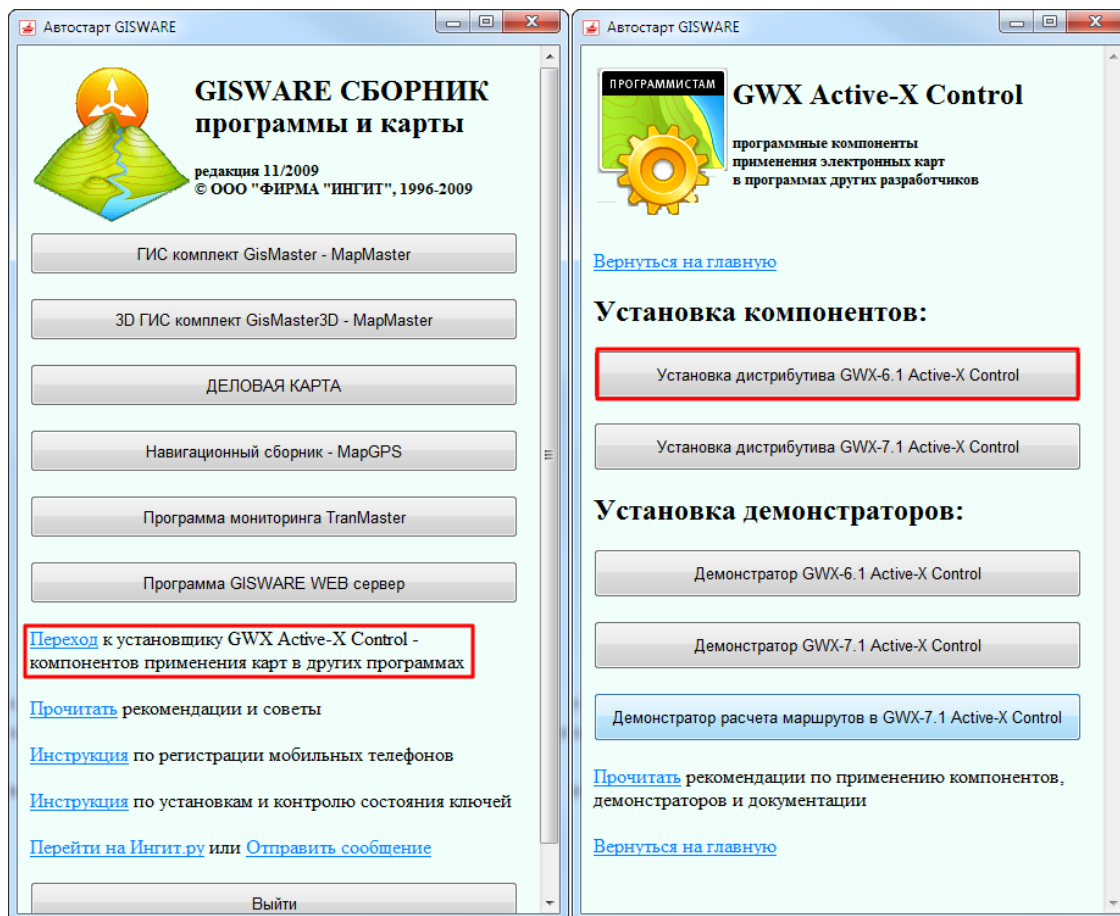
**Note:** The GWX ActiveX Control software is designed to build INGIT vector maps into independent applications as a unit, which provides mapping service as a part of these applications. GWX ActiveX Control is purchased once

and then allows you to use various INGIT vector maps. Each map must be purchased separately. See the purchase conditions on the INGIT company website (<http://www.ingit.ru>).

### GWX ActiveX Control Installation

Follow these steps to install GWX ActiveX Control:

1. Run purchased disk with maps. Insert your HASP into the USB of PC.
2. Click **Proceed with the installation of GWX Active-X Control**.
3. Select **GWX-6.1 ActiveX Control Installation**.



4. In the license agreement window, click **I Agree**.

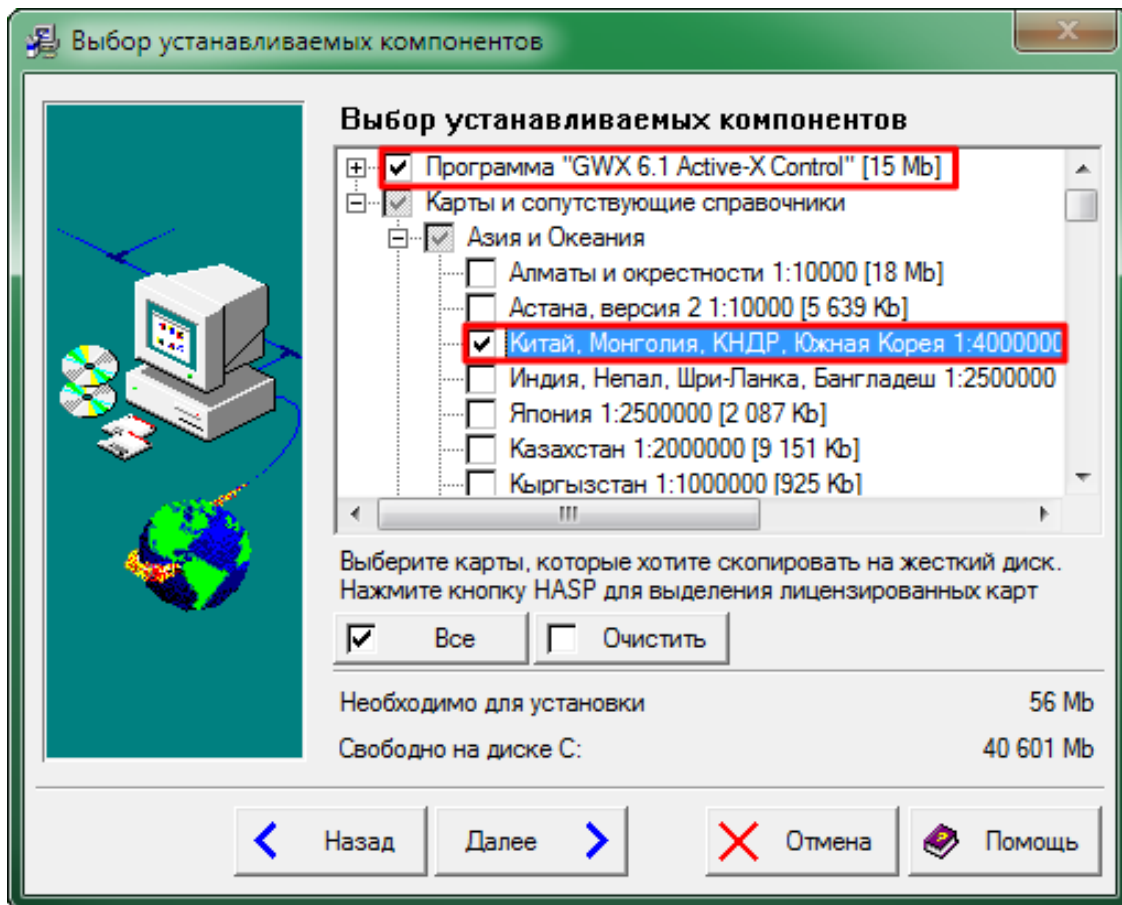
5. GWX ActiveX Control offers a wizard that will perform the HASP driver upgrade if necessary.

**Note:** To upgrade the HASP driver manually, download the latest HASP driver installer from the [supplier](#) site and follow the instructions provided.

6. Continue to follow any remaining on-screen instructions to install the software. Select the installation

folder. It is recommended to use the default installation directory, or create a folder at the root of the other local drive and name it *GWX61*.

7. Select the check box that is next to the component that you want to add. Make sure the **GWX-6.1 ActiveX Control** check box is selected.



8. Once the installation is over, run **Register GWX ActiveX Control**.

When GWX ActiveX Control is installed and the software components are registered, it is possible to work with the maps, allowed by licenses embedded in HASP. HASP must be plugged into the USB of your PC.

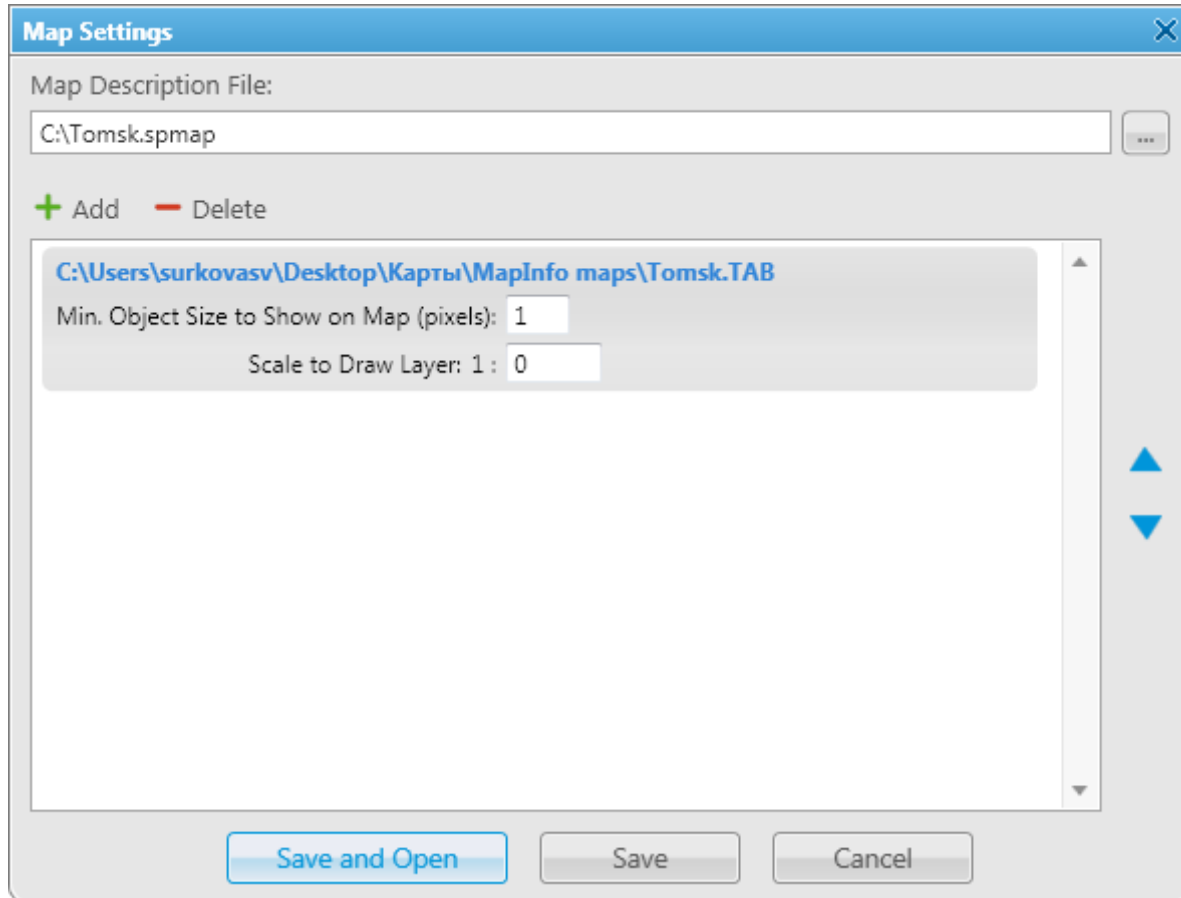
To open an INGIT map, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **INGIT Map**. In the opened window select the map file in a CHART format.

**Note:** If the map failed to load, restart **Register GWX ActiveX Control**.

## 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 SPMAP 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 format.

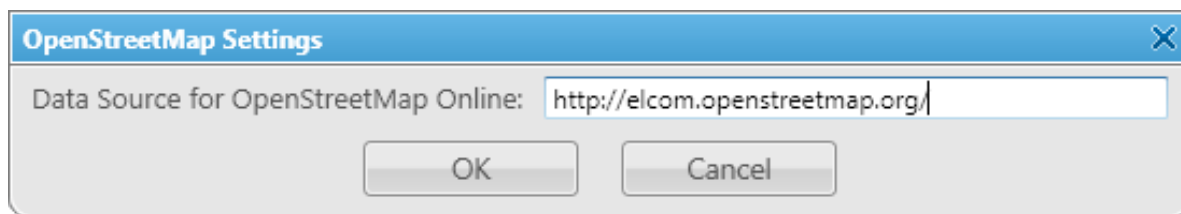


## Open Street Map

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 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**.



## MapPoint Map

To work with MapPoint maps in SmartPTT Dispatcher, you must first install Microsoft MapPoint on this PC. Europe or North America version depends on required target coverage area.

**Note:** All versions of Microsoft MapPoint show a simple outline map of the world when zoomed and scrolled outside of their target coverage area. National borders and a large number of cities are shown outside the target coverage area. For the target coverage area, road detail and internal subdivisions such as provinces, parishes, counties, states are shown.

To open a MapPoint map of Europe or North America, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **MapPoint Maps > MapPoint "Europe"** or **MapPoint "North America"**.

To open a MapPoint map file created in Microsoft MapPoint earlier, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **MapPoint Maps > Open MapPoint Map File**. In the opened window select the map file in a PTM or PTT format.

## 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.

Online maps allow you to display the object address. To do this, right-click at any place on the map—the object address will be shown. This feature is supported by online maps only (Google Map and Open Street Map).

Offline maps provide more opportunities for improvement. Right-click on the offline map. At that, a context menu appears.



Using this menu you can:

1. Search on the map
2. Select elements to be labeled on the map.
3. Change the map's appearance.
4. Select the map's rendering type.

## 1.2.1 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**. At that, the configuration window is displayed for creating geographic raster maps based on an image.

**Configuration**

**Raster Maps**  
Create Raster Maps from Image File


Select Image of Map:  ...

Map Parameters: Width: - Height: -

Point:	Longitude:	Latitude:	X:	Y:
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Open...

Help Cancel 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.

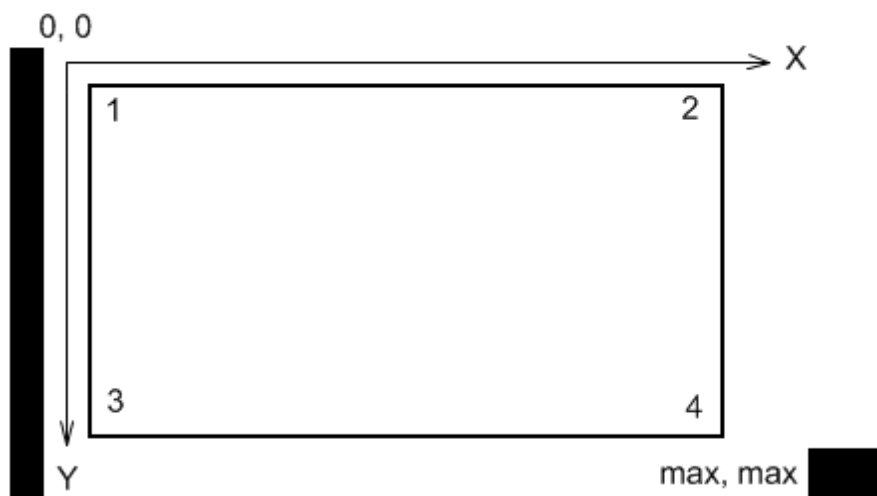
The longitude corresponds to the horizontal coordinate (X) and the latitude corresponds to the vertical coordinate

(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 subscriber's current locations, are also shown in the subscriber's **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.

## 1.2.2 Raster Maps From Database

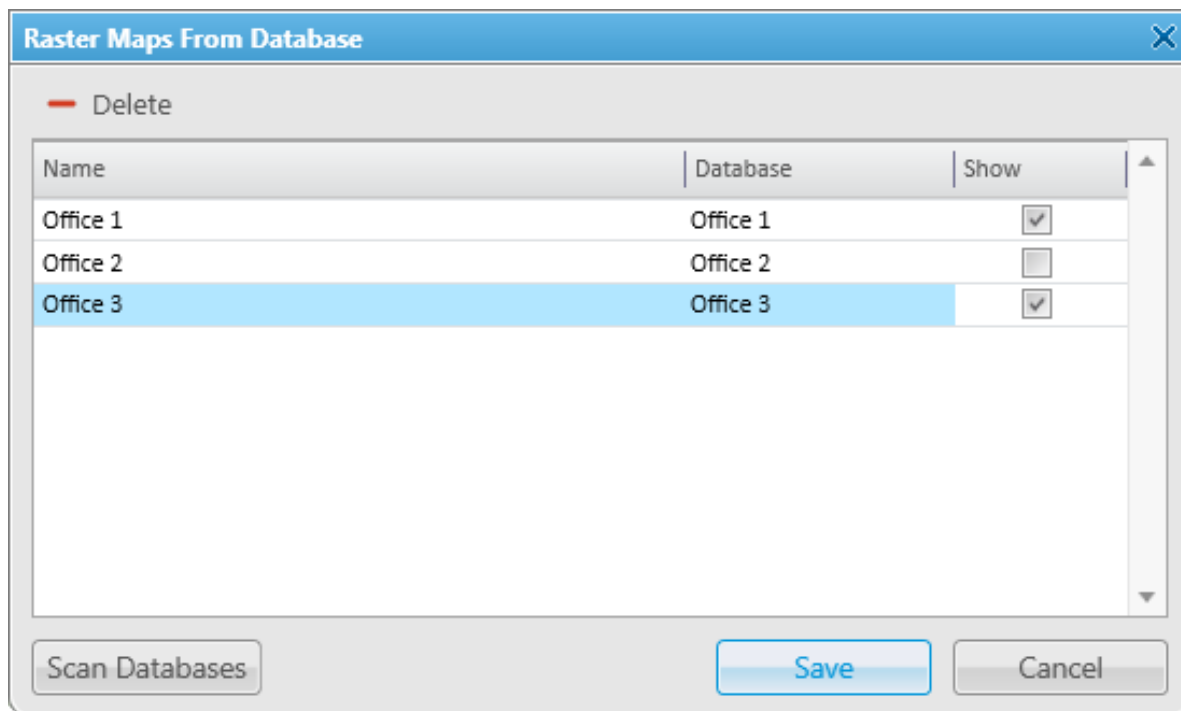
SmartPTT Dispatcher allows you to work with large raster offline maps with a size of more than 5000x5000 pixels. The functionality is used for displaying SmartPTT system objects located at a long distance from each other. This is achieved by dividing the original raster image into pieces and storing 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 more information see [How to restore from SmartPTT Dispatcher database backup](#).

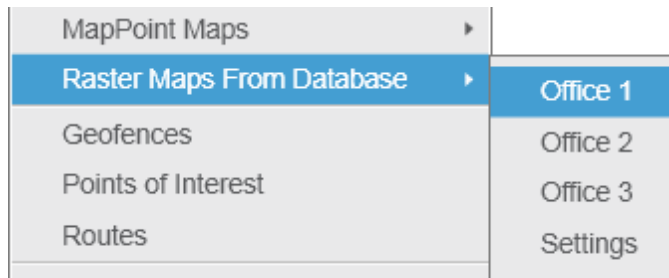
After the database is restored, expand the **Map** menu in the **Main Menu** bar and click **Raster Map From Database**. Click **Scan Database** in the opened window, and you will see a list of all available maps stored in the databases of the selected server (see [Database Settings](#), the **Database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

## 1.2.3 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), and

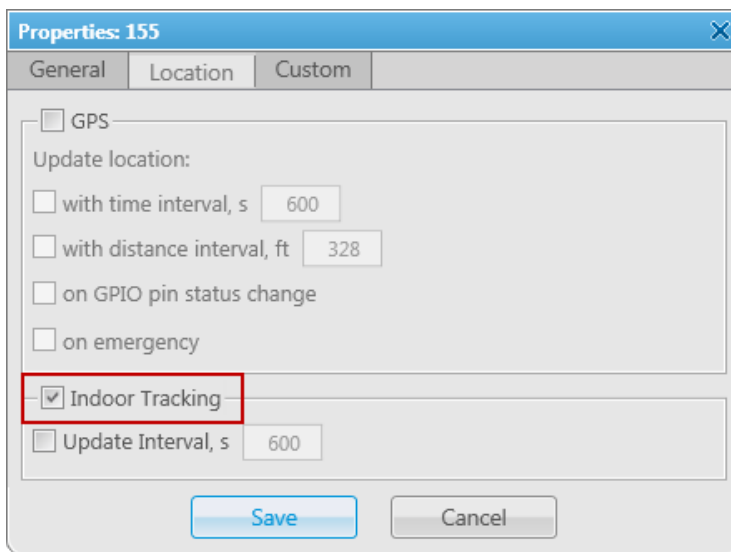
- Kilchherr option boards (K-TERM 44) with special beacons (K-TERM 70IC Beacon Transmitter).

The screenshot displays a software interface for indoor mapping. The main window shows a floor plan with several beacons marked: Beacon 1594, Beacon 6499, Beacon 155 (with a timestamp of 06.05.2015 10:21:18), Beacon 6501, and Beacon 1593. A green line indicates a subscriber's path across the floor plan. The interface includes a top menu bar with options like 'Events: records - 310', 'Job Tickets', 'Subscribers', 'Topology', and 'BuildingPlan'. On the right, there is a 'Floor Plan' panel with buttons for 'Save', 'Save As...', 'Add beacon', 'Geofences', 'Routes', and 'Edit Plan'. Below these are settings for 'Label size' (0.3), 'Beacons' (blue), and 'Radio Subscribers' (green). At the bottom, a 'Track details' window shows a table of movement events.

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:** 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.

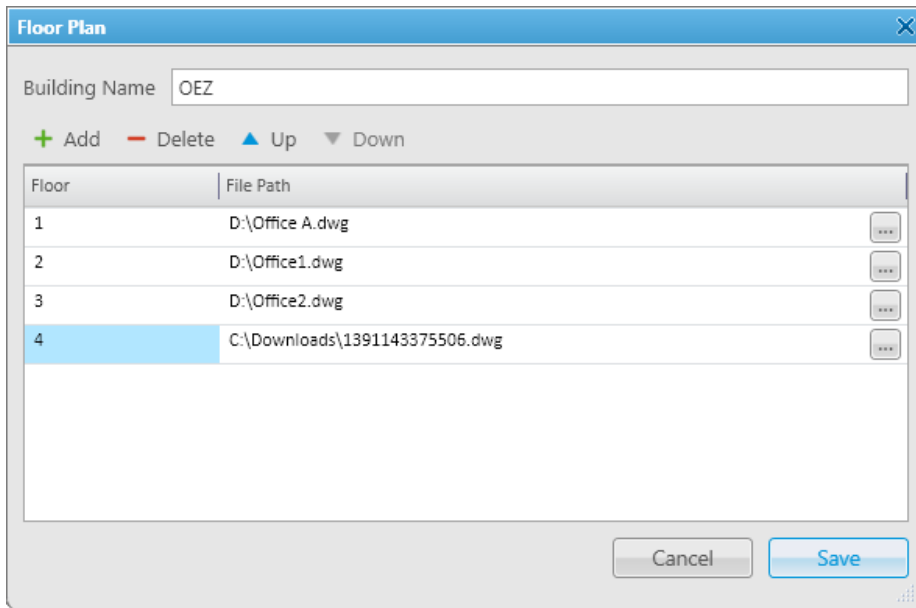
To enable Indoor support for a radio subscriber in SmartPTT Dispatcher, open the [Properties](#) window of the radio subscriber and in the **Location** tab select **Indoor Tracking**.



**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 subscriber.

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-storey 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, double-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 SPLAN or 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 SPLAN or 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**. At that, 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 radio subscriber's moving about the building. These geofences are used in Indoor positioning rules.

**Routes:** Allows you to create routes for radio subscribers. 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 subscriber and beacon labels displayed on the building plan.

**Beacons:** Select a color for a beacon label.

**Radio Subscribers:** Select a color for a radio subscriber label.


**Subscribers on Indoor Map:** A list of radio subscribers who support the [Indoor Tracking](#) feature. Select the check box, to display the radio subscriber's label on the building plan.

**Subscribers' tracks:** Here you can record tracks of radio subscribers and watch them in real time, or check old records. To watch the radio subscriber move about the building, click **Add Track**. In the opened window specify the following parameters:

- **Subscriber:** The name or radio ID of the radio subscriber.
- **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.
- **Color:** The color of the future subscriber's 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 subscriber moving in real time, select **Update in real time**.





**Show All:** Shows tracks of all the radio subscribers from the **Subscribers on Indoor Map** 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 user to control the way the building plan is displayed:

Button	Description
	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 <b>Indoor Tracking Overview Map</b> panel.



Available only for three-dimensional building plans. Allows changing the angle of the displayed building plan.

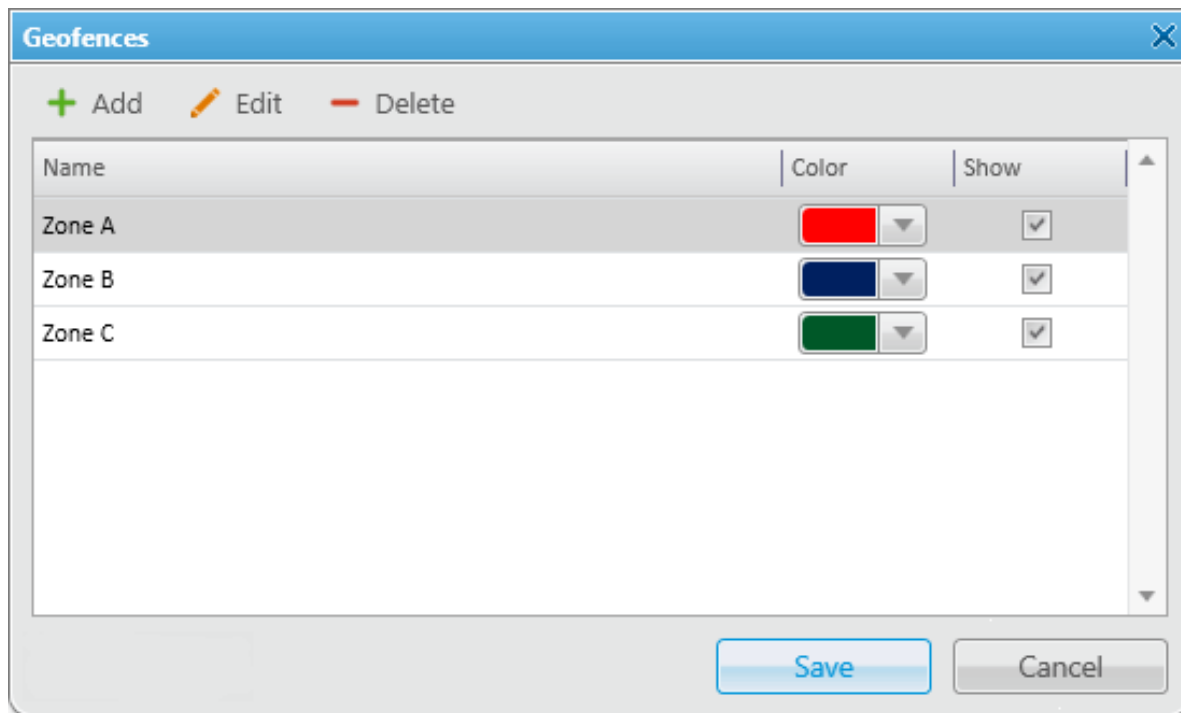
## 1.2.4 Geofences

Geofences help dispatchers to keep an eye on the radio subscribers. A dispatcher can define the area of the geofence on his or her own and attach [GPS rules](#) to it.

You can add a geofence in two ways:

1. By drawing a geofence on the map. For more information see [Geofences](#).
2. By specifying coordinates of the geofence. You will learn about it in this article.

To add a geofence by specifying its coordinates, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Geofences**. In the opened window you can add a new geofence or modify settings of the existing one – name, color, and whether it should be displayed on the map:



**Name** – the geofence name.

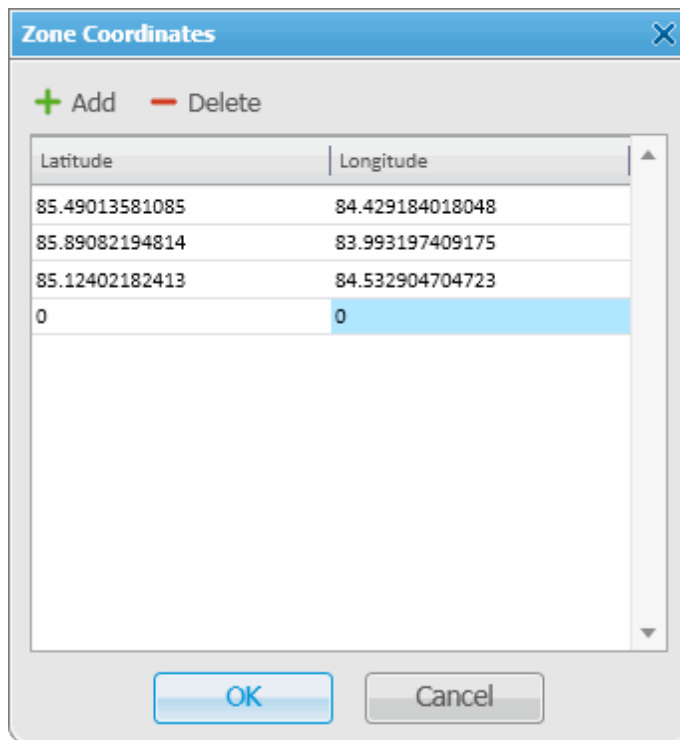
**Color** – the geofence color on the map.

**Show** – enables the option to display the geofence on the map.

**Note:** Whether the geofence is displayed on the map or not, the rules set for the geofence are enabled. To assign a rule to the geofence, go to [Positioning Rules](#).

Add the zone-forming points of the new zone. To do that, click **Add** in the **Geofences** window. To edit the zone-forming points, select the zone and click **Edit**.

Specify a pair of longitude and latitude values for a zone-forming point. To edit point coordinates, place the cursor into the required field and type new value. You can't create a zone with less than 3 longitude and latitude pairs. To delete the points, click **Delete**.



Latitude	Longitude
85.49013581085	84.429184018048
85.89082194814	83.993197409175
85.12402182413	84.532904704723
0	0

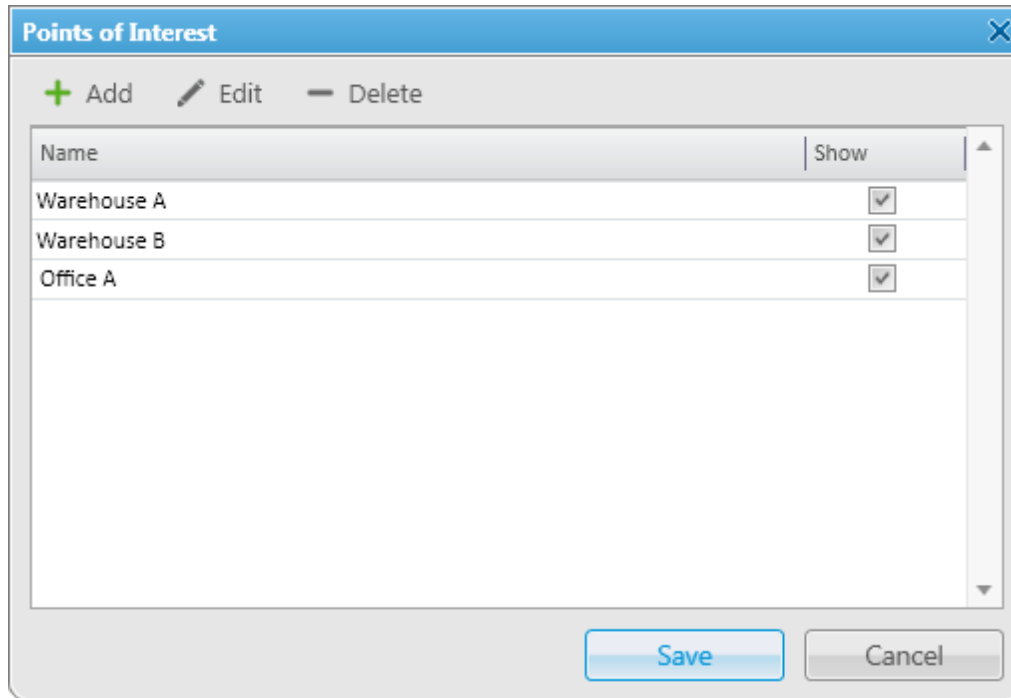
To delete a geofence from the list, select the geofence and click **Delete**.

## 1.2.5 Points of Interest

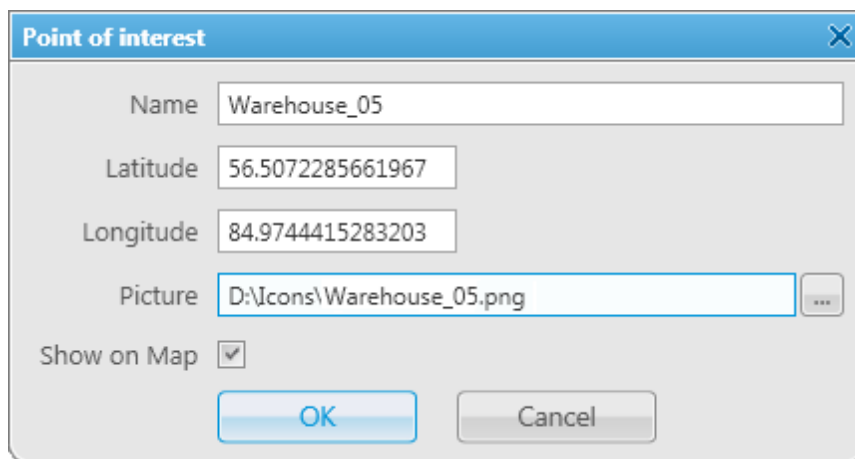
Points of interest (POI) identify location of special interest which are shown on the map and can be quickly found in SmartPTT Dispatcher. A point of interest consists of the point name, location coordinates and the picture.

To add a point of interest, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Points of Interest**.

The **Points of Interest** window allows you to change the name of the existing point of interest and whether it should be displayed on the map. To modify the existing point of interest, select it and click **Edit**. To delete the point of interest, select it and click **Delete**.



To add a new point of interest, click **Add**.



**Name** – name of the point of interest.

**Latitude** – latitude coordinate of the point of interest.

**Longitude** – longitude coordinate of the point of interest.

**Picture** – the image which represents the point of interest on the map. Maximum image size of the point of interest is 64×64 pixels. Images of the bigger size are be automatically cropped to 64×64.

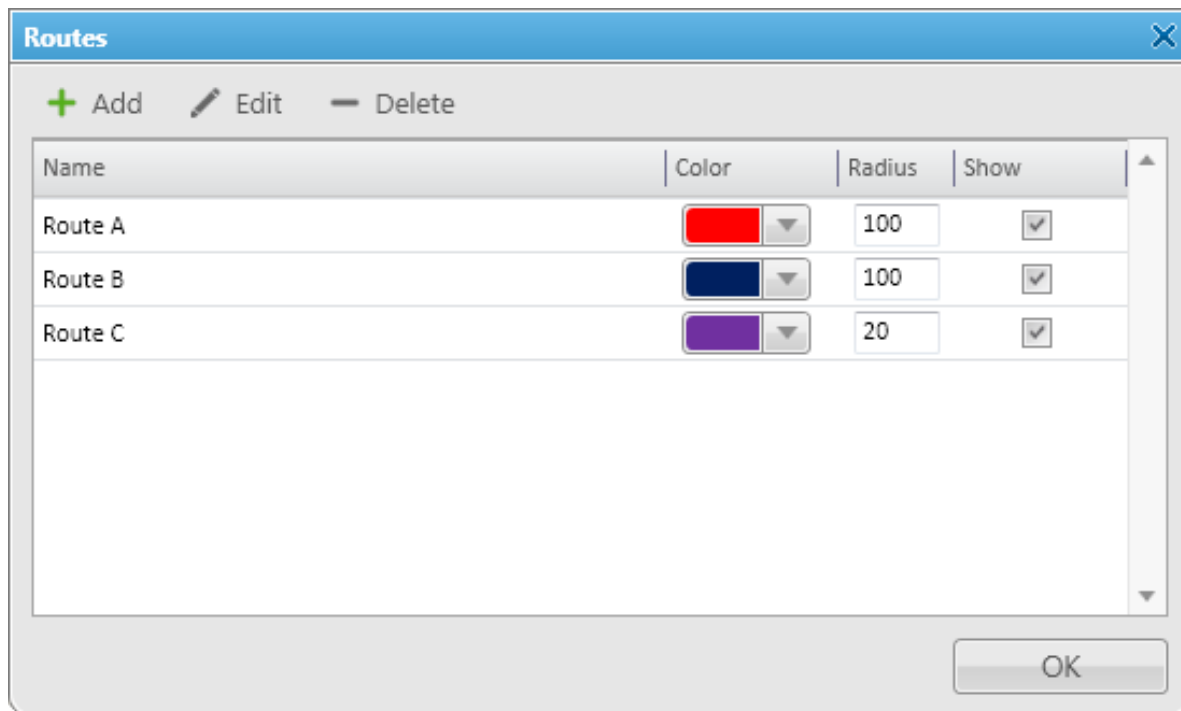
**Show on Map** – enables the option to display the point of interest on the map.

You can also create a point of interest from the **Tools** menu. For more information see [Points of Interest](#) panel.

## 1.2.6 Routes

The route is a polyline connecting key points of the network coverage area. Subscriber location near the key points is identified by the specified radius of the route and can be summarized in the [Subscriber Location Report](#).

To specify the route parameters (Color, Radius, Coordinates), expand the **Map** menu in the **Main Menu** of SmartPTT Dispatcher and click **Routes**. In the opened window you can add a new route or modify settings of the existing one.



**Name** – the route name.

**Color** – the route color on the map.

**Radius** – the allowed deviation from the route.

**Show** – enables the option to display the route on the map.

To add a new route, click **Add**. To modify route settings, select a route from the list and click **Edit**.

In the **Route Coordinates** window specify the route name, the route line color, the acceptable deviation from the route for the radio subscriber, coordinates of the route points and its properties. **Key Point** is used for singling out particular places of the track on the map. You can give a name to each key point to be displayed on the map. The key points are represented by small white squares on the map. Select **Show on Map** to display the route on the map.

**Zone Coordinates**

Name:

Color:  ▼

Route Radius:  (m)

Show on Map:

+ Add - Delete

Latitude	Longitude	Key Point	Name
56.4952310426744	84.884523976125	<input checked="" type="checkbox"/>	Key point1
56.4918645999976	84.8913874504658	<input checked="" type="checkbox"/>	Key Point 2
56.4917560050725	84.8913874504658	<input type="checkbox"/>	
56.4879008852329	84.8953094358034	<input type="checkbox"/>	
56.4876836953828	84.8957996839706	<input type="checkbox"/>	
56.4886610497083	84.8980548255397	<input checked="" type="checkbox"/>	Key Point 3
56.4937107137236	84.8936425920349	<input type="checkbox"/>	
56.4918645999976	84.8910933015655	<input type="checkbox"/>	
56.4919188974601	84.890995251932	<input type="checkbox"/>	
56.4918645999976	84.8910933015655	<input type="checkbox"/>	

To delete the route, select it from the list and click **Delete**.

The route example:





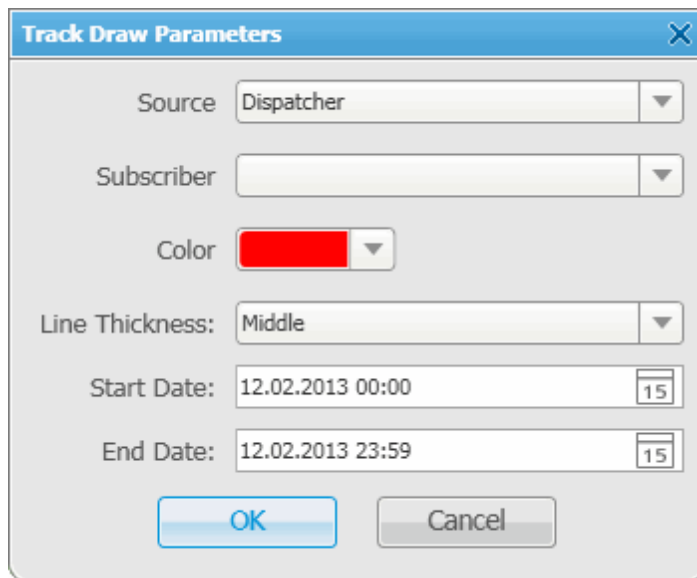
You can also create a route from the **Tools** menu. For more information see [Routes](#) panel.

## 1.2.7 Show Track

GPS tracking is very helpful for seeing real-time positions of the radio subscribers you are tracking. In addition, the **Show Track** feature allows the dispatcher to see where a radio subscriber was during a particular time period.

**Note:** By default, GPS coordinates are not saved in the database. If you want to save GPS coordinates, open the **GPS Settings** window in the **Settings** menu and select **Save GPS Locations in Database**.

To specify draw parameters of the track, expand the **Map** menu in the **Main Menu** of SmartPTT Dispatcher and click **Show track**. The **Track Draw Parameters** window opens.



The screenshot shows a dialog box titled "Track Draw Parameters" with a close button (X) in the top right corner. The dialog contains several input fields and buttons:

- Source:** A dropdown menu with "Dispatcher" selected.
- Subscriber:** An empty dropdown menu.
- Color:** A color selection field showing a red color swatch.
- Line Thickness:** A dropdown menu with "Middle" selected.
- Start Date:** A date and time input field showing "12.02.2013 00:00" and a "15" spin box.
- End Date:** A date and time input field showing "12.02.2013 23:59" and a "15" spin box.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**Source** – defines the source, which database will be used for drawing the track. 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.

**Subscriber** – defines subscriber whose track is to be displayed.

**Color** – the track color on the map.

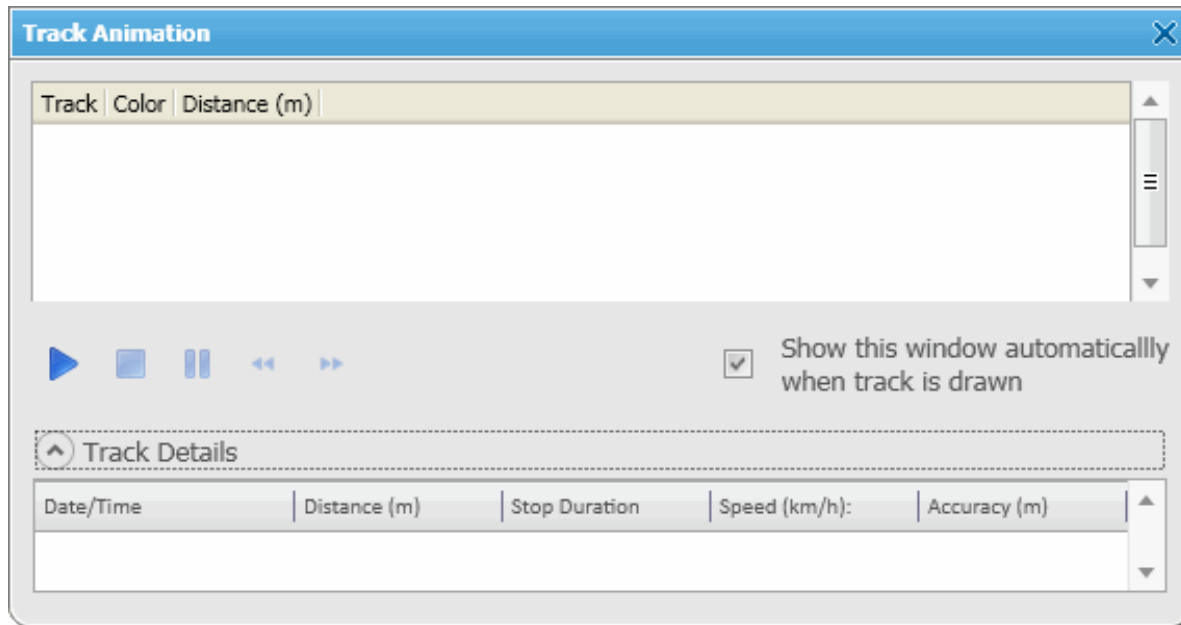
**Line Thickness** – thickness of the track line on the map.

**Start Date, End Date** – the time frame of the track.

## 1.2.8 Animate Track

To animate displayed tracks, expand the **Map** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Animate Track**.

The **Track Animation** window opens.



Run track animation



Stop track animation



Pause



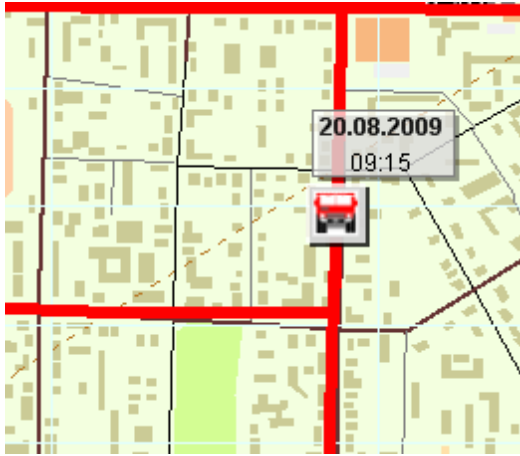
Run track animation slower



Run track animation faster

During track animation you can slow it down or make it faster. The system remembers the last track animation speed and uses it during next track animation.

Here is an image of a sample track on the map.



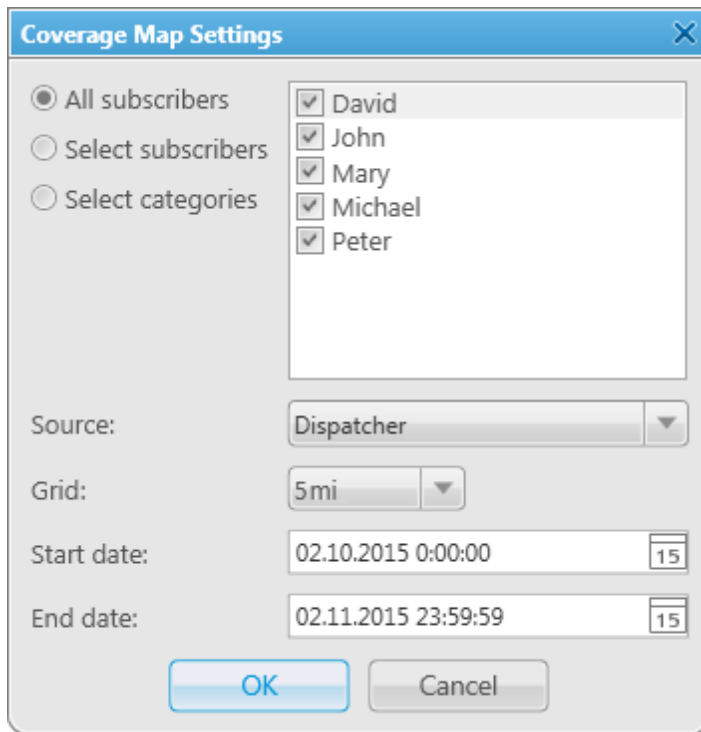
To clear the tracks shown on the current map, expand the **Map** menu in the **Main Menu** of SmartPTT Dispatcher and click **Clear Shown Tracks**.

To clear the shown tracks on all maps, expand the **Map** menu in the **Main Menu** of SmartPTT Dispatcher and click **Clear Shown Tracks on All Maps**.

## 1.2.9 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 subscriber, make sure that he has GPS enabled, and there is GPS data in the database.

To build a coverage map, click **Map > Coverage map > Show**.



The screenshot shows a dialog box titled "Coverage Map Settings" with a close button (X) in the top right corner. On the left side, there are three radio button options: "All subscribers" (which is selected), "Select subscribers", and "Select categories". To the right of these options is a list box containing five names: David, John, Mary, Michael, and Peter, each with a checked checkbox. Below the list box, there are four input fields: "Source:" with a dropdown menu showing "Dispatcher"; "Grid:" with a dropdown menu showing "5mi"; "Start date:" with a date and time field showing "02.10.2015 0:00:00" and a "15" in a small box; and "End date:" with a date and time field showing "02.11.2015 23:59:59" and a "15" in a small box. At the bottom of the dialog are two buttons: "OK" and "Cancel".

**All subscribers:** Select this option to build a coverage map for all the subscribers on the list.

**Select subscribers:** Select this option to build a coverage map for the selected subscribers only.

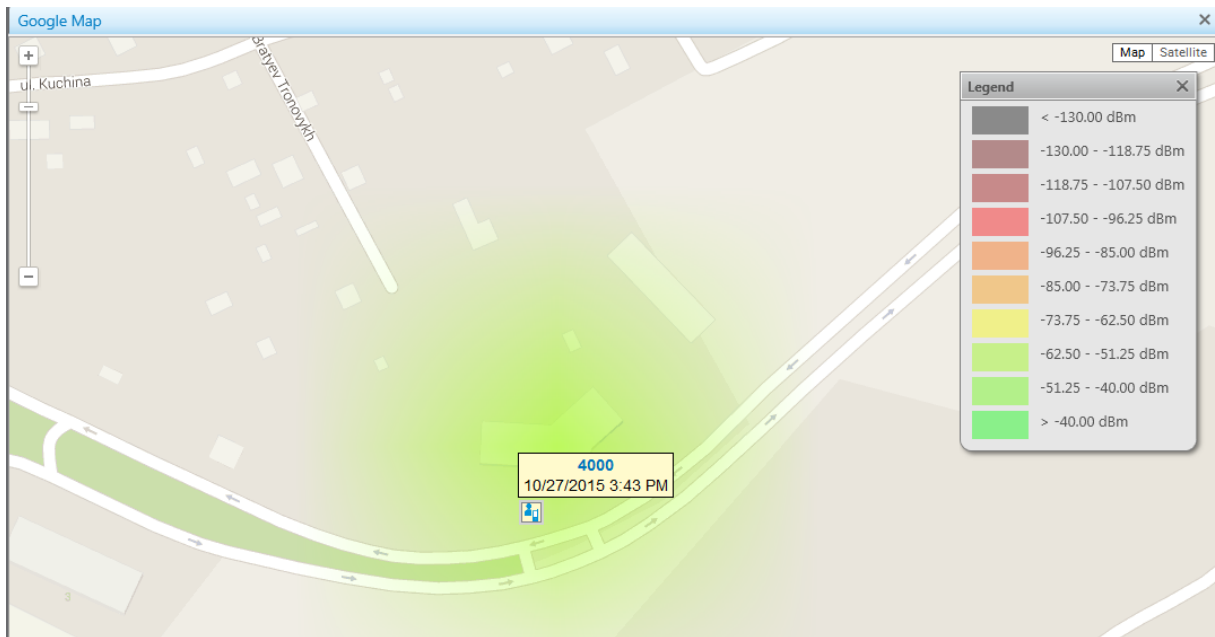
**Select categories:** Select this option to build a coverage map for all the subscribers of the selected category.

**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.

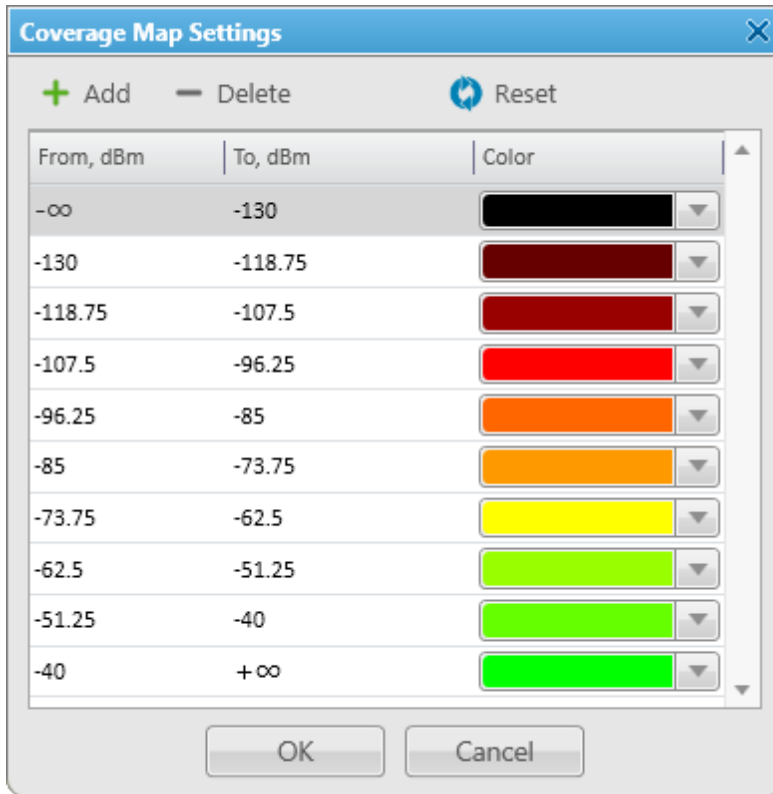
**Grid:** Defines a radius for checking signal strength. The system of units selected in **Settings > Positioning systems > System of Units** will be applied to this field.

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

The example of the coverage map:



The **Legend** 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**.



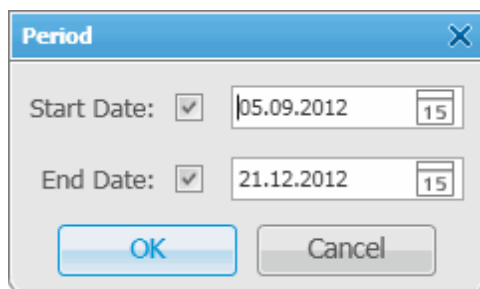
To clean the map, select **Map > Coverage map > Hide**.

## 1.3 Event Log

The **Event Log** allows you to see what is going on in the system. The event log displays status and event messages from SmartPTT system, and other useful information.

To open the event log, click **Event Log** in the **Main Menu** bar and then **All Events**. To tune **Event Log** settings, see [Event Log](#).

You can limit the number of displayed data by setting a period of time. To do this, click **Events for Period** in the **Events** menu. The **Period** dialog is displayed. Specify start and end date for entries displayed in the log.



















To display only not read messages in the log, select **Unread Messages**.

The system event log appears as follows.

Events: records count - 570 ×

Move column header here for grouping

D.	Type	Date/Time	Additional I...	Not re...	Operator	Radioserver
	 Registration	12/21/2012 12:31:26		<input type="checkbox"/>	Administrator	valera
	 Registration	12/21/2012 12:31:26		<input type="checkbox"/>	Administrator	valera
	 Registration	12/21/2012 12:30:29		<input type="checkbox"/>	Administrator	valera
	 Registration	12/21/2012 12:30:29		<input type="checkbox"/>	Administrator	valera
	 Registration	12/21/2012 12:30:06		<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:29:56	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:29:31	11	<input type="checkbox"/>	Administrator	valera
	 Registration	12/21/2012 12:27:29		<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:26:45	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:26:24	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:26:11	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:24:02	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 12:23:42	11	<input type="checkbox"/>	Administrator	valera
	 Call	12/21/2012 11:55:01		<input type="checkbox"/>	Administrator	Radioserver1
	 Registration	12/21/2012 11:47:57		<input type="checkbox"/>	Administrator	Radioserver1
	 Registration	12/21/2012 11:14:01		<input type="checkbox"/>	Administrator	Radioserver1

The event log of SmartPTT Dispatcher contains the following columns:



- ✓ Type
- ✓ Date/Time
- ✓ Additional Information
- ✓ Not read
- ✓ Operator
- ✓ Radioserver
- ✓ Control Station
- ✓ Subscriber
- ✓ Talkgroup
- ✓ Status
- ✓ Duration
- ✓ Connection Type
- ✓ Repeater IP
- ✓ Receiver
- ✓ Record
- ✓ Lone Worker
- ✓ Note

By default, all the columns are displayed in the log. To hide or show columns in the log, right-click on the menu with column names and select the necessary columns.

Column Name	Description
<b>Direction</b>	Shows whether the event is incoming or outgoing. You can tell the direction by the arrows: the green one stands for the incoming event, and the blue one—for the outgoing event.
<b>Type</b>	Shows the type of the event. It can be a call, registration, a block command, a message, change of a status, an alarm, a telemetry command, a job ticket, enabling or disabling the lone worker mode and other.
<b>Date/Time</b>	Shows the date and time of the event.
<b>Additional Information</b>	Additional information includes: text messages, titles and description of tasks, initiators and contributors of group calls, and other.
<b>Not Read</b>	Shows if the message was read or not.
<b>Operator</b> This column exists in the event log of the dispatch console only.	Shows the operator of the dispatch console who participated in the event.
<b>Dispatcher</b>	Shows the operator of the dispatch console who participated in the event.

Column Name	Description
This column exists in the event log of the radioserver only.	
<b>Radioserver</b>	Shows the name of the radioserver used in the event.
<b>Channel</b>	Shows the channel on which the event was registered.
<b>Subscriber</b>	Shows the subscriber who can be a source or target in the event. Here you can also see all the subscribers who talked in a group call.
<b>Talkgroup</b>	Shows the talkgroup which participated in the event.
<b>Status</b>	Shows the status of the event ("Message delivered", "Power down", etc.)
<b>Duration</b>	Shows how long the event lasted in seconds.
<b>Record</b>	Shows if you can play the record or not.
<b>Connection Type</b> This column exists in the event log of the dispatch console only.	Shows the connection type of the event. It can be IP, PBX and DMR.
<b>Repeater IP</b> This column exists in the event log of the dispatch console only.	Shows the IP address and port of the repeater which was used.
<b>Destination</b>	Shows the radio ID or name of the target radio subscriber or talkgroup.
<b>Lone Worker</b>	Shows if the lone worker profile is assigned to a radio subscriber.
<b>Note</b>	Contains the text which the dispatcher added to a record.

You can filter the event log by any of these columns. You can also filter the event log by the **Not Read** column by clicking on "There are unread messages: n" in the **Information bar**.

The screenshot displays the 'Dispatcher - Administrator' application window. The main area shows an event log with columns for 'Type', 'Date/Time', and 'Not read'. The log contains multiple 'Message' entries with timestamps ranging from 5/28/2014 4:51:27 PM to 5/29/2014 3:22:08 PM. A red arrow points from the 'Date/Time' column header to a message entry at 5/29/2014 3:19:08 PM. At the bottom left, a red box highlights a notification that reads 'There are unread messages: 31'. The interface also includes sections for 'Calls', 'Sound Spectrum', 'Online Subscribers', and 'Offline Subscribers'.

Type	Date/Time	Not read
Message	5/29/2014 3:22:08 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:21:47 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:21:26 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:20:57 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:20:36 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:20:16 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:19:50 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:19:29 PM	<input checked="" type="checkbox"/>
Message	5/29/2014 3:19:08 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:55:51 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:55:30 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:55:09 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:54:21 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:54:01 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:51:48 PM	<input checked="" type="checkbox"/>
Message	5/28/2014 4:51:27 PM	<input checked="" type="checkbox"/>

Click on any column name, so the log sorts its contents according to this column content. You can filter the content displayed in the log using filters.

To group the log entries, click on the column title and drag it to the area labeled as "Move column header here for grouping".

Type	Date/Time	Additional Information	Not r...	Operator	Radioserver	Control Station	Subscriber
Type: Call (8 items)							
Call	6/24/2013 4:39:18 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	95
Call	6/24/2013 4:39:21 PM	123	<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	123
Call	6/24/2013 4:39:31 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	123
Call	6/24/2013 4:39:33 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	5
Call	6/24/2013 4:39:36 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	95
Call	6/24/2013 4:39:37 PM	123	<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	123
Call	6/24/2013 4:39:56 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot2	123
Call	6/24/2013 4:40:23 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot2	95
Type: Registration (2 items)							
Registration	6/24/2013 4:39:27 PM		<input type="checkbox"/>	Administrator	Radioserver_224	Slot1	95

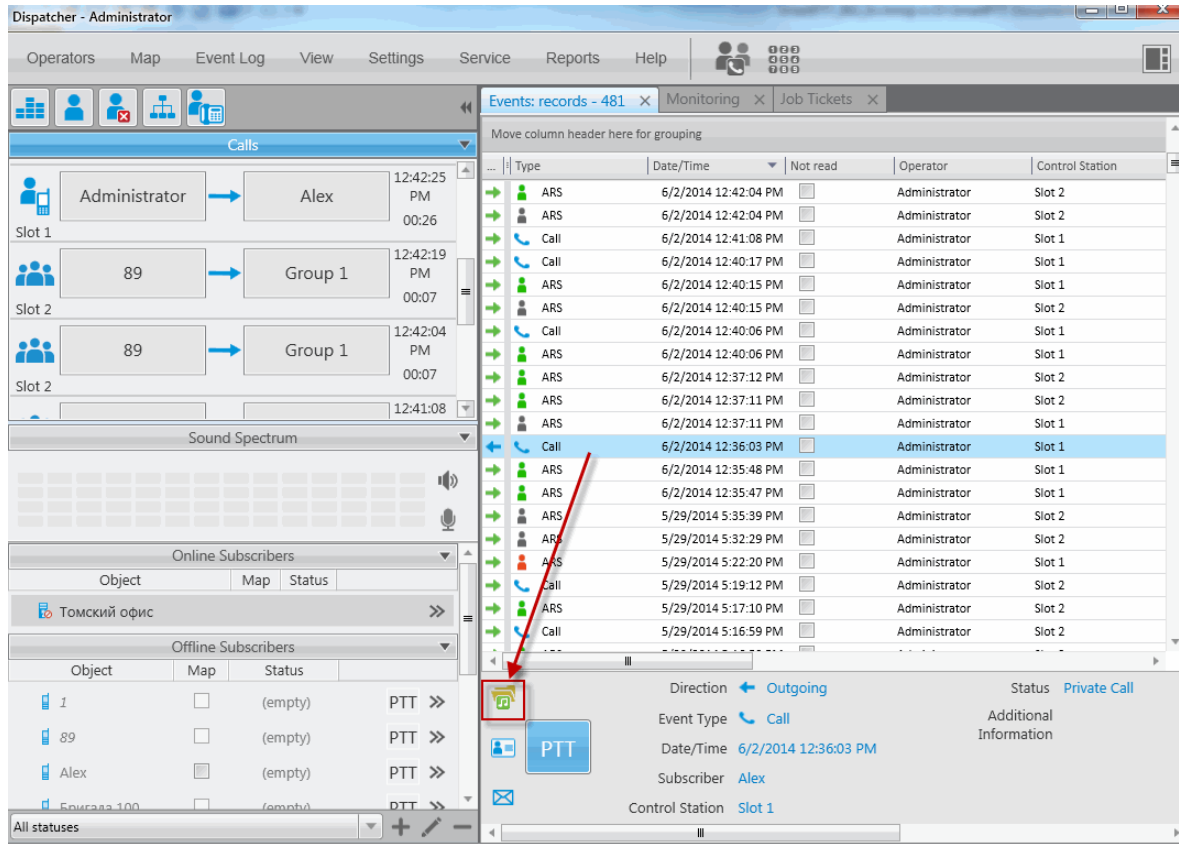
If you want to have particular columns to be always seen in the log regardless of the scroll position, use the special element in the column titles. Just drag it after the column you want to be always there.

Type	Date/Time	Not read	Operator	Radioserver
Move column header here for grouping				
Registration	11/01/2012 15:33:27	<input type="checkbox"/>	Administrator	Julia
Registration	11/01/2012 15:32:54	<input type="checkbox"/>	Administrator	Julia
Call	11/01/2012 15:12:47	...	Administrator	Julia
Registration	11/01/2012 15:11:36	<input type="checkbox"/>	Administrator	Julia
Registration	11/01/2012 15:11:30	<input type="checkbox"/>	Administrator	Julia
Call	11/01/2012 15:10:53	...	Administrator	Julia
Call	11/01/2012 15:04:14	...	Administrator	Julia
Call	11/01/2012 15:04:00	...	Administrator	Julia

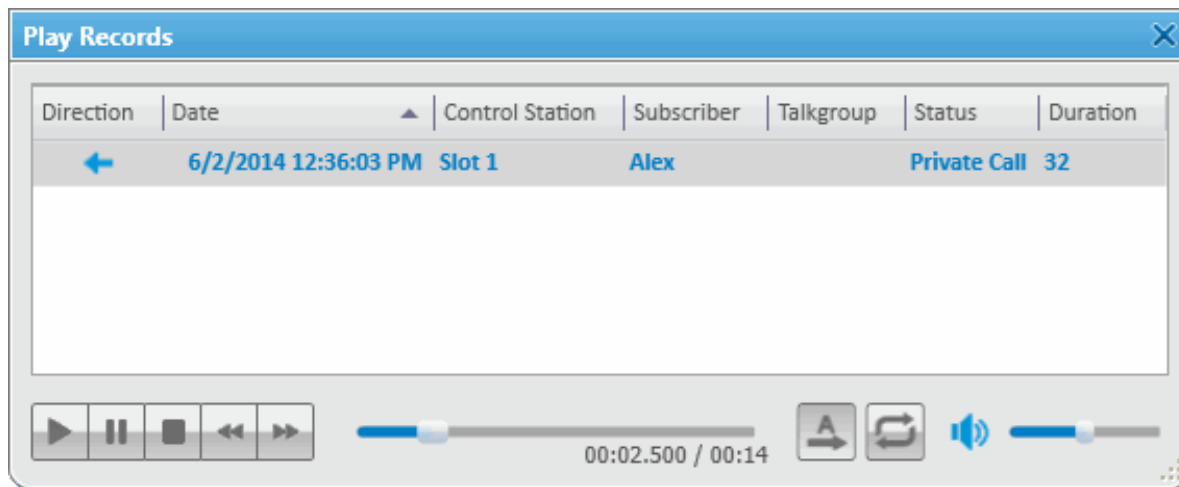
To listen to audio records of the calls, select the call in the event log and click the **Play Selected Records** button



**Note:** To enable recording of calls, go to **Settings** and select **Records**. There select **Record Calls**.



The **Play Records** window for selected records opens.



After the record playback window opens, selected records are reproduced automatically, starting from the earliest date.

Player buttons:



**Start Playback** plays the selected record and all the records of the list without stopping.



**Pause Playback** pauses playback of the current record. Clicking the **Start Playback** button resumes playback of the record from the place of suspension.



**Stop Playback** stops playback of the current record. Clicking the **Start Playback** button enables playback of the record from the beginning.



**Return to Previous Record** plays the previous record after the current one.



**Go to Next Record** plays the following record after the current one.

Settings:



**Play All Records** enables the mode of all records reproduction in turn. Playback is controlled by the previously described buttons.



**Replay** enables the mode of replaying the current record or all the records in turn if the **Play All Records** mode is activated.

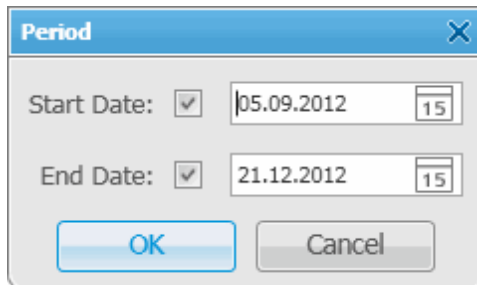
Button  opens a subscriber call window. Button  opens a window for message sending.

## Opening Radioserver Event Log

Depending on SmartPTT system configuration the event log can be saved either on the dispatcher side or the server side, or both.

To open the event log saved at the radioserver:

1. Open the radioserver **Action List** and select **Show Radioserver Event Log**.



The screenshot shows a dialog box titled "Period" with a close button (X) in the top right corner. It contains two rows of date selection controls. The first row is labeled "Start Date:" and has a checked checkbox, a text field containing "05.09.2012", and a small calendar icon with the number "15". The second row is labeled "End Date:" and also has a checked checkbox, a text field containing "21.12.2012", and a similar calendar icon with "15". At the bottom of the dialog are two buttons: "OK" and "Cancel".

2. Select the **Start** and **End Dates** to show events of the period. The **Radioserver Event Log** is displayed in the same way as the **Dispatcher Event Log** in a separate tab.

To make subscriber radio activity report based on the radioserver data, select **Create Radio Activity Report**. In the opened window specify the period of time, grouping, a file to save the report and click **OK**.

## 1.4 Tools

From the **Tools** menu you can open all the panels used in SmartPTT Dispatcher.

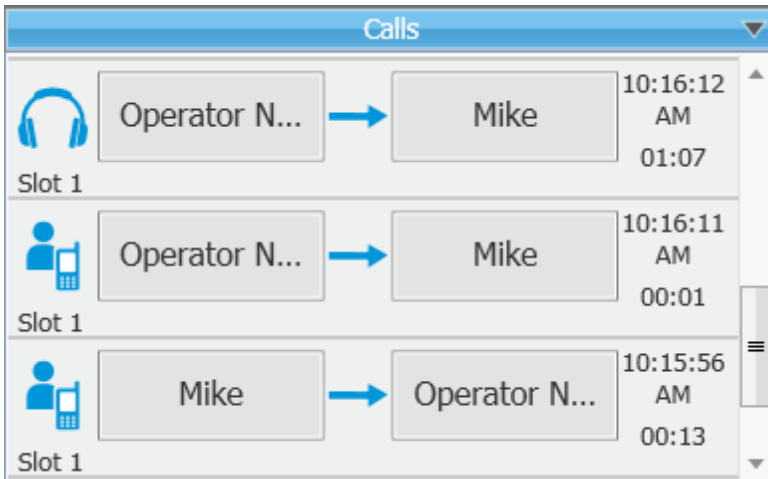
These are the following panels:

- [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 subscribers registered in the system.
- [Subscribers](#) panel for quick access to the subscribers.
- [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.
- [Latest 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
- **Map Tools** contains all the available map tools of the dispatch console: [Points of Interest](#), [Routes](#), [Geofences](#), [Subscriber Location](#) panels.
- [Custom Console](#) panel created by the SmartPTT dispatcher to manage subscribers, talkgroups or control stations.

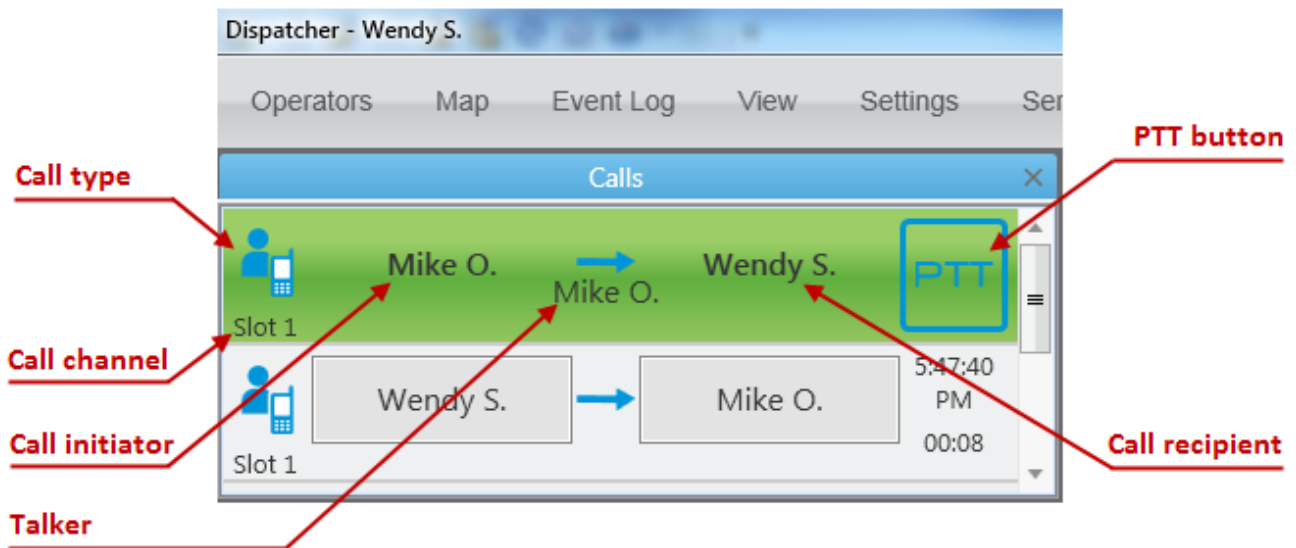
### 1.4.1 Calls

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

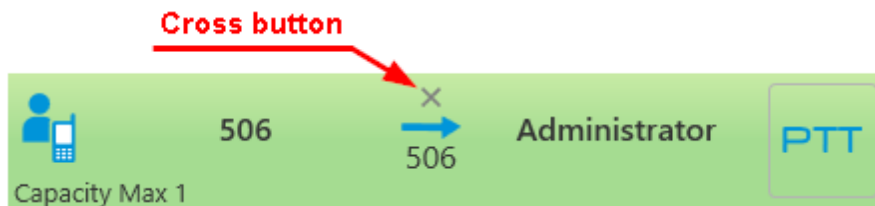
The first time you install SmartPTT, the **Calls** panel opens automatically. The panel can also be opened or closed manually. To do this, expand the **Tools** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Calls**.



A call record in the **Calls** section contains several elements.



In the Capacity Max systems, a call record in the **Calls** section also contains the **Cross** button that is used to end the call during the hang time or to decline the call.





From the **Calls** panel the dispatcher can do the following:

- To answer the ongoing call by clicking anywhere on the call record.
- To see the ongoing call activity. The call status can be determined by the color of the call record.
- To see history of all registered calls, time of call and its duration.
- To make all types of call by clicking the button with the subscriber name.
- To decline the incoming call by clicking the **Cross** button or right-clicking the call record (in the Capacity Max systems only).
- To end the call during the hang time by clicking the **Cross** button or right clicking the call record (in the Capacity Max systems only).

Call status is determined by the color of the call record:

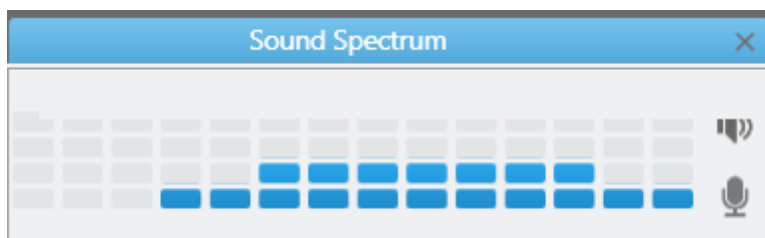
1. Light yellow – outgoing call attempt, or a call in the queue (in conventional systems).
2. Yellow – all outgoing radio calls.
3. Green – all incoming radio calls or radio monitoring.
4. Light green – incoming call attempt to SmartPTT Dispatcher in the Capacity Max systems only.
5. Blue – none of the parties transmit or receive voice (hang time). The subscriber 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 clicking the **Cross** button or right clicking the call record.

If the **Calls** section is empty, to make a call to a radio subscriber, select the subscriber under **Radio Fleet** and click the **PTT** button. The correspondent call record will appear in the **Calls** section and the call will be initiated.



## 1.4.2 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. The  button allows you to adjust the microphone volume.



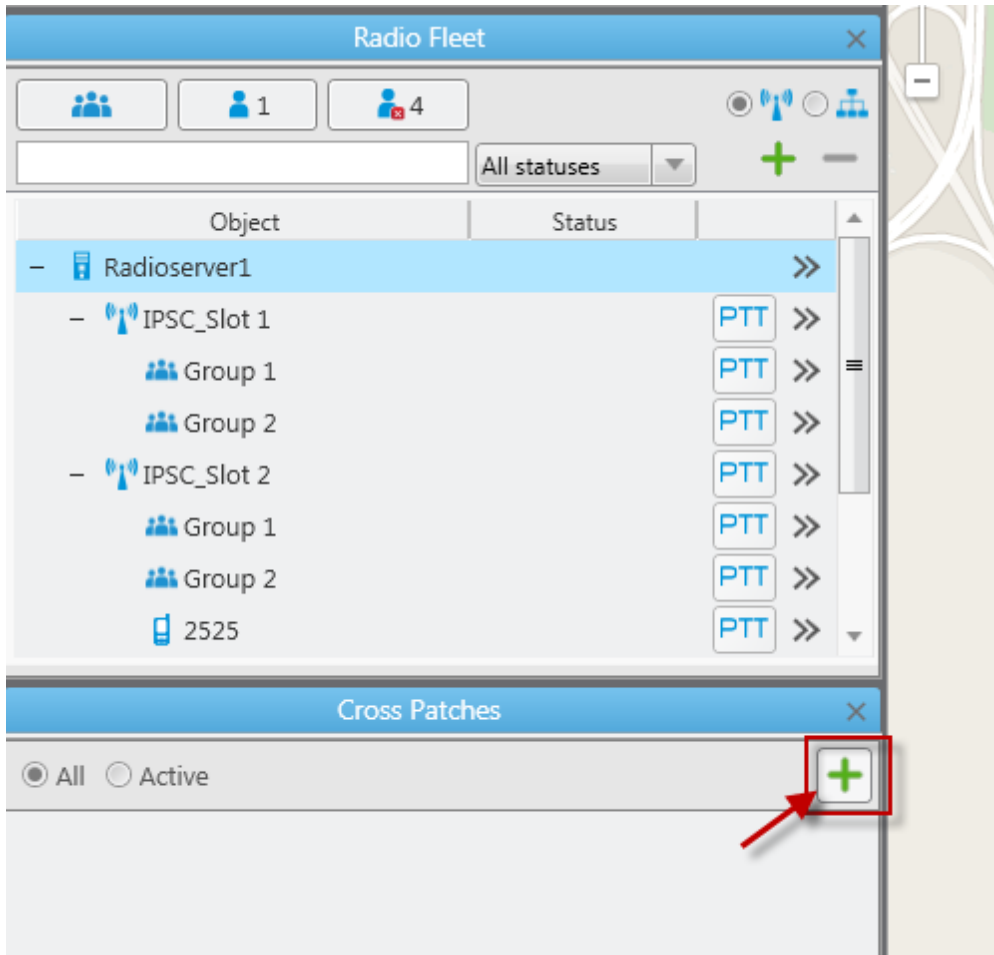
## 1.4.3 Cross Patches

**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 this cross patch. Also, a call made to a talkgroup included in the cross patch will be heard by all participants of this cross patch (this is true even for a call made by the dispatcher).

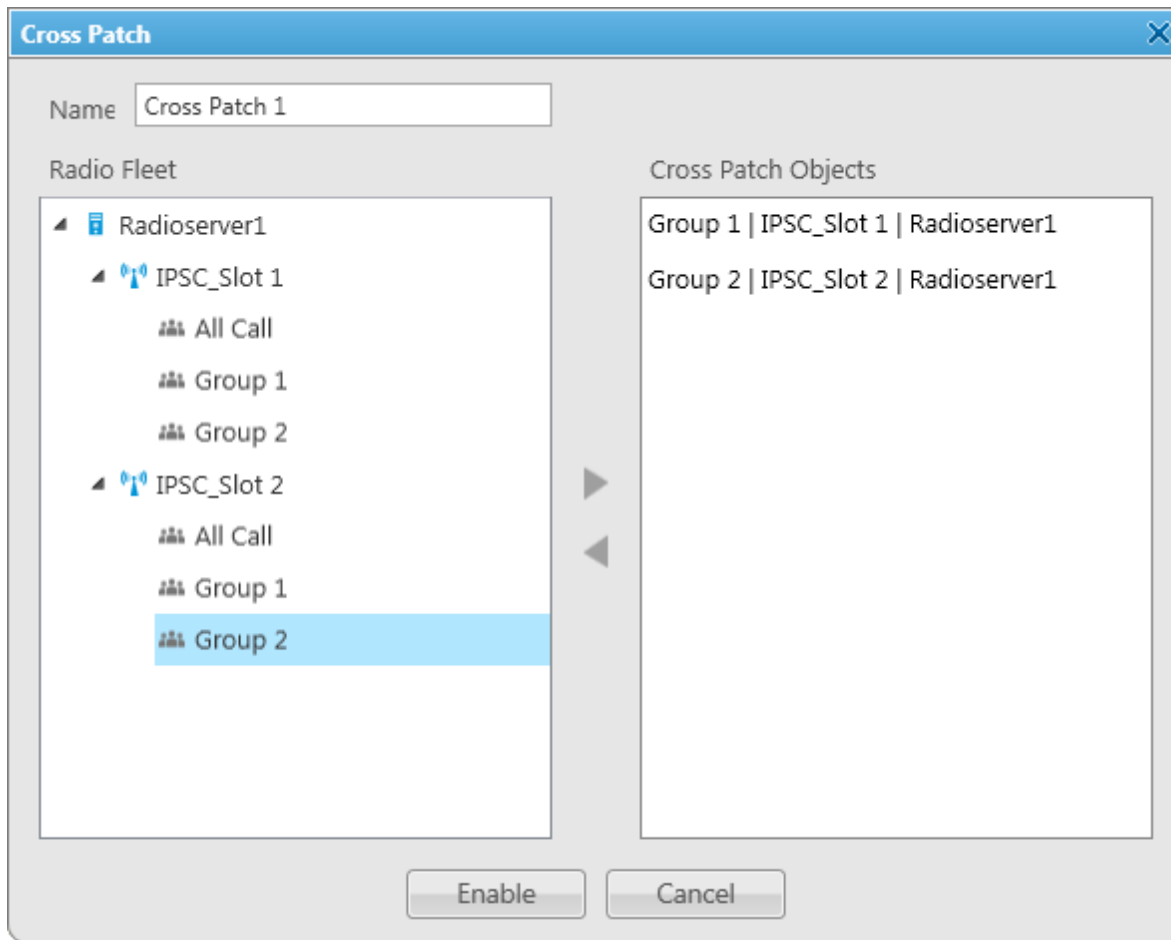
A cross patch is created in the dispatch console and controlled by the dispatcher. When the dispatch console gets closed, all the cross patches created in this dispatch console will be saved.

To create a cross patch, do the following:

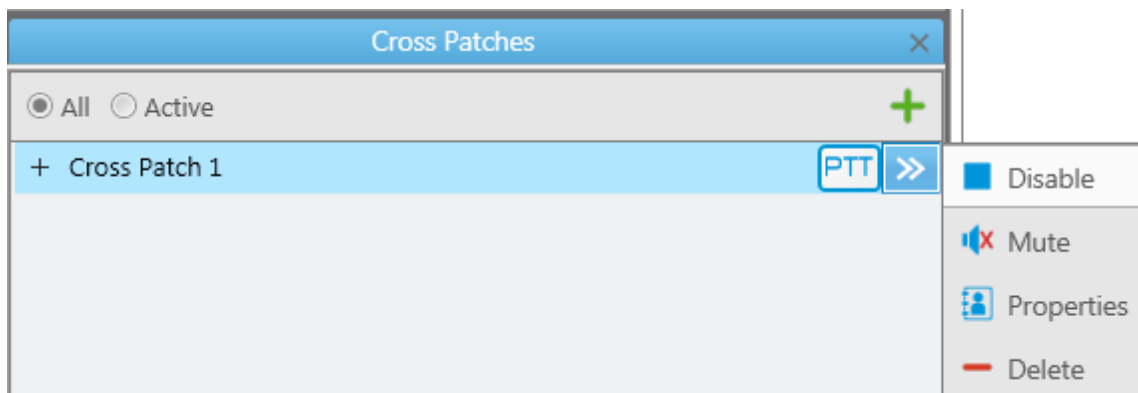
1. Open the **Cross Patches** panel from the **Tools** menu (if it's not open).
2. Add a cross patch. To do this, in the **Cross Patch** panel click on the **Add Cross Patch** button:



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 on 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:

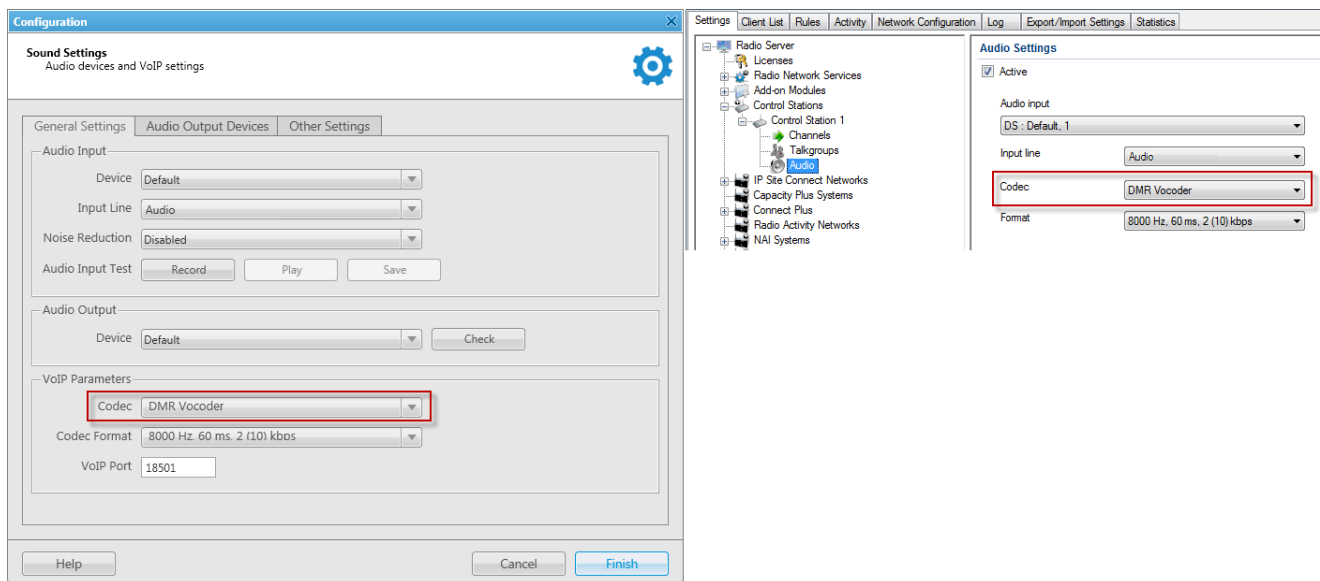
- Filter the list of cross patches to see active cross patches or all cross patches (the **Active** and **All** options).
- Make a call to all the parties of the cross patch by clicking on the **PTT** button.
- Perform actions from the **Action List** of the cross patch: enable or disable the cross patch,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

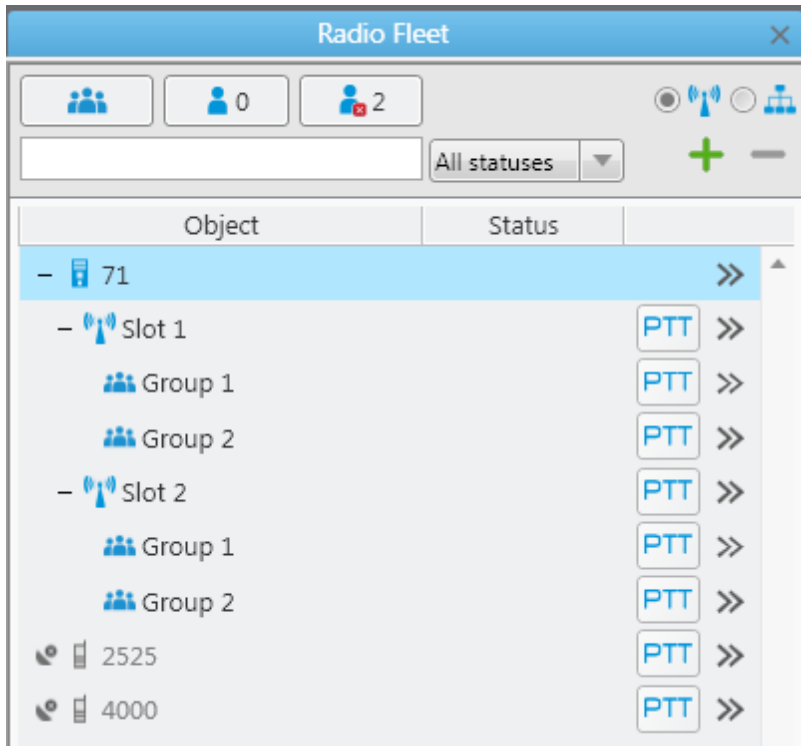
**Note:** If the cross patch contains groups from network topologies based on control stations and direct connection, and you can hear hoarse voice, select *DMR Vocoder* as a codec in the sound settings in the dispatch console (**Settings > Sound**) and in the audio settings of the control station (SmartPTT Radioserver Configurator > **Control stations > Audio**):






## 1.4.4 Radio Fleet

The **Radio Fleet** panel displays a list of radio subscribers registered in the system.

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**.





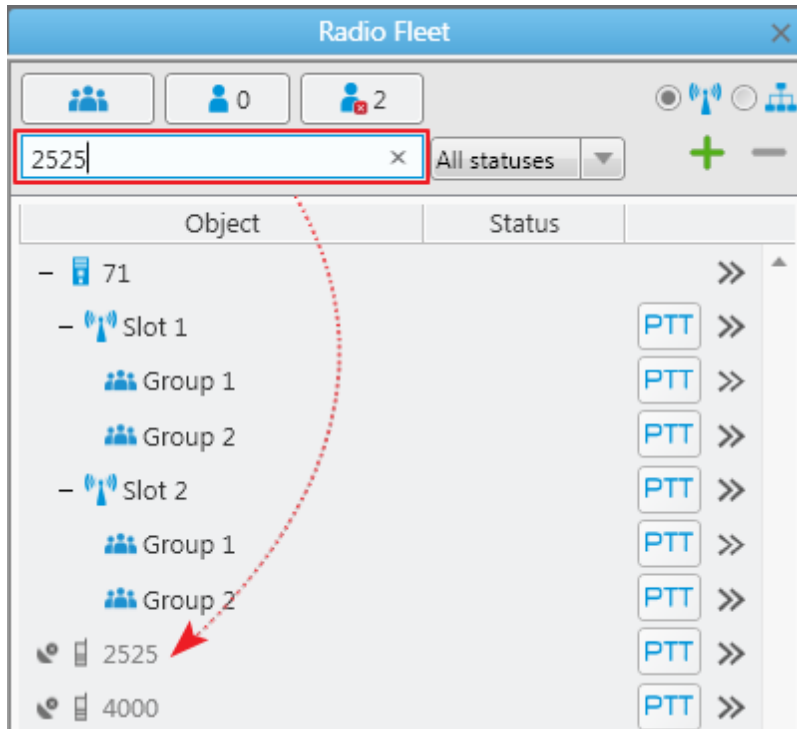
The radio subscriber list consists of the following columns – object, status and the **PTT** button. The **Object** field shows the name of the subscriber or radioserver. The **Status** field displays the current status of the radio subscriber. The **PTT** button initiates a call.

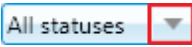
To edit the list of subscribers, use the    buttons. You can show or hide talkgroups, show or hide online or offline radio subscribers. Also, you can

filter radio subscribers by the categories. To do that, click **Filter by category** . To filter radio subscribers

by the channels, click **Filter by channel** .

The entry field under the    buttons allows you to search a radio subscriber by name or ID.




To filter the radio subscribers by a status, click the  button and select the required status from the list.



The  and  allows the dispatcher to add a new radio subscriber or delete the existing subscriber.

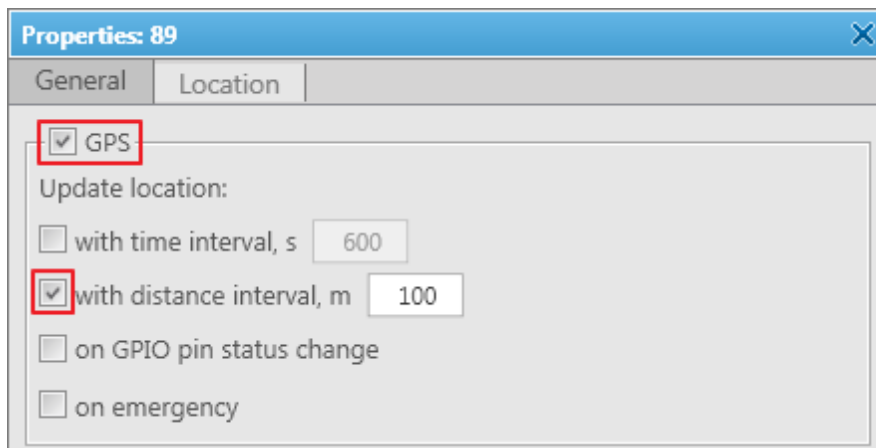
Radio subscribers not added in SmartPTT Dispatcher are considered unregistered and displayed in italic in the **Radio Fleet** panel. Unregistered subscribers are displayed in the list of subscribers after a radio is turned on and registration on the radioserver is successfully completed.

 — GPS coordinates of a radio subscriber are outdated or missing.


 — GPS coordinates of a radio subscriber are valid. Validity period of GPS coordinates is defined by the

**Validity of GPS coordinates** parameter in **Settings** > [Positioning Systems](#).

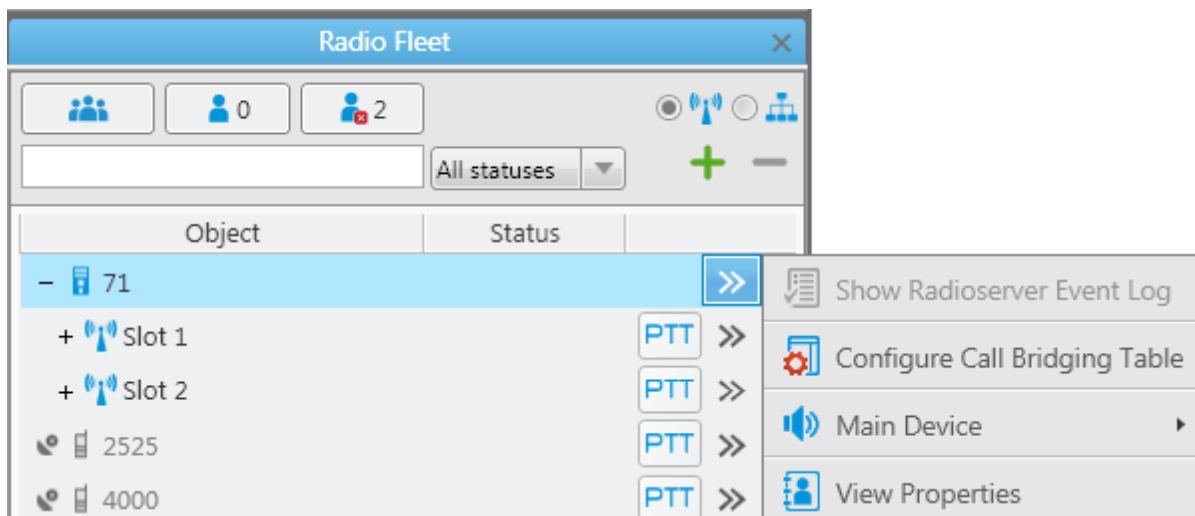
**Note:** The icons  and  are displayed if GPS support is enabled in the **Properties** window of a radio subscriber and at least one location update criterion is selected.



## Action List

The  button opens the **Action List** including a list of actions which can be applied to a radio subscriber, the radioserver, a control station or a talkgroup.

The Action List of the 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](#).

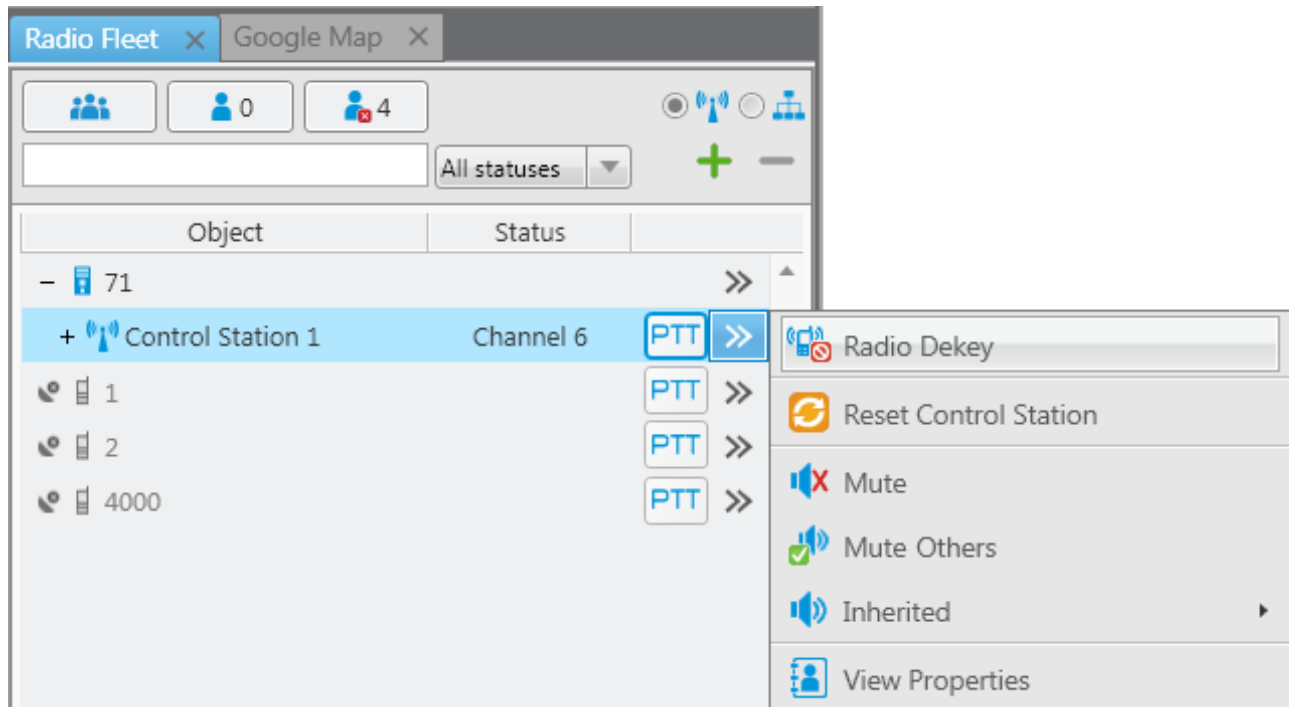
**Configure Call Bridging Table** – redirects to the routing configuration window.



**Main Device** – shows what audio output device is currently used for the radioserver. You can also change to another device.

**View Properties** – opens the [radioservers's Properties window](#).

The Action List of a hardware control station



**Exit Emergency Mode** – disables emergency mode.

**Note:** The **Exit Emergency Mode** action becomes available after a radio subscriber 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. Only hardware control stations can be reset.

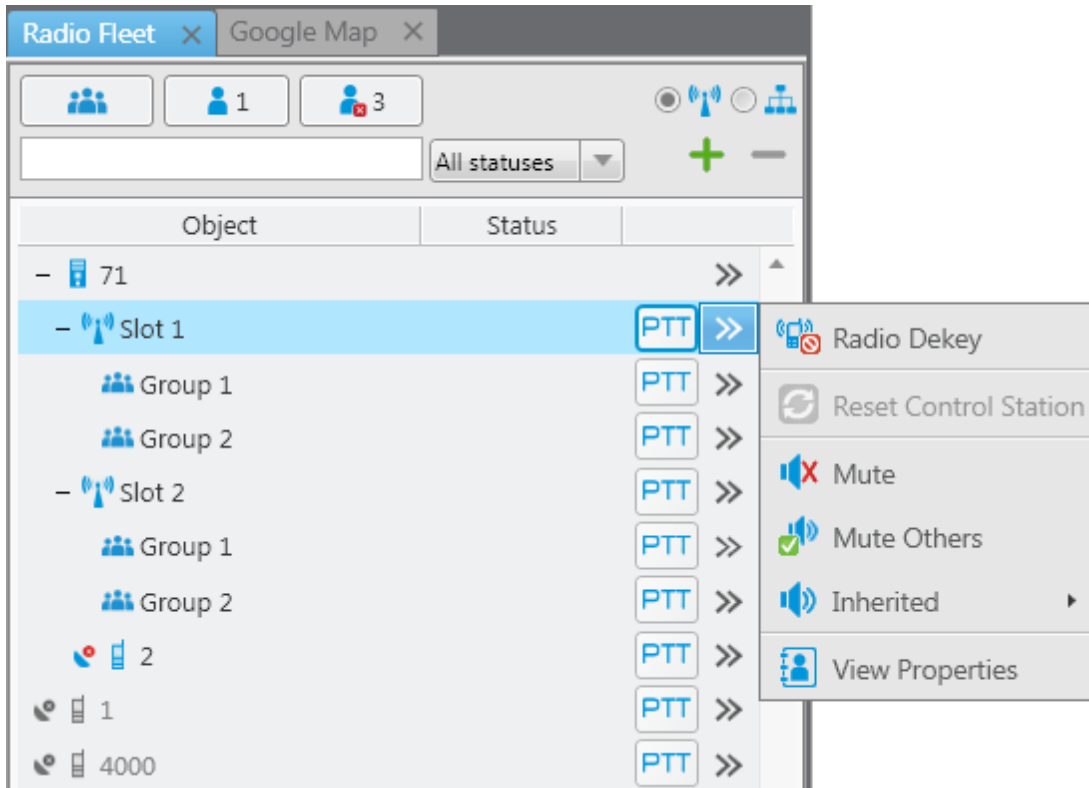
**Mute** or **Unmute** – turns off/on the control station mute mode.

**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. To change to another device, select a specific output device or **Inherited device**, i.e., the device selected for the higher level, in this case, for the radioserver.

**View Properties** – opens the [control stations's Properties window](#).

The Action List of a 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. Only hardware control stations can be reset.

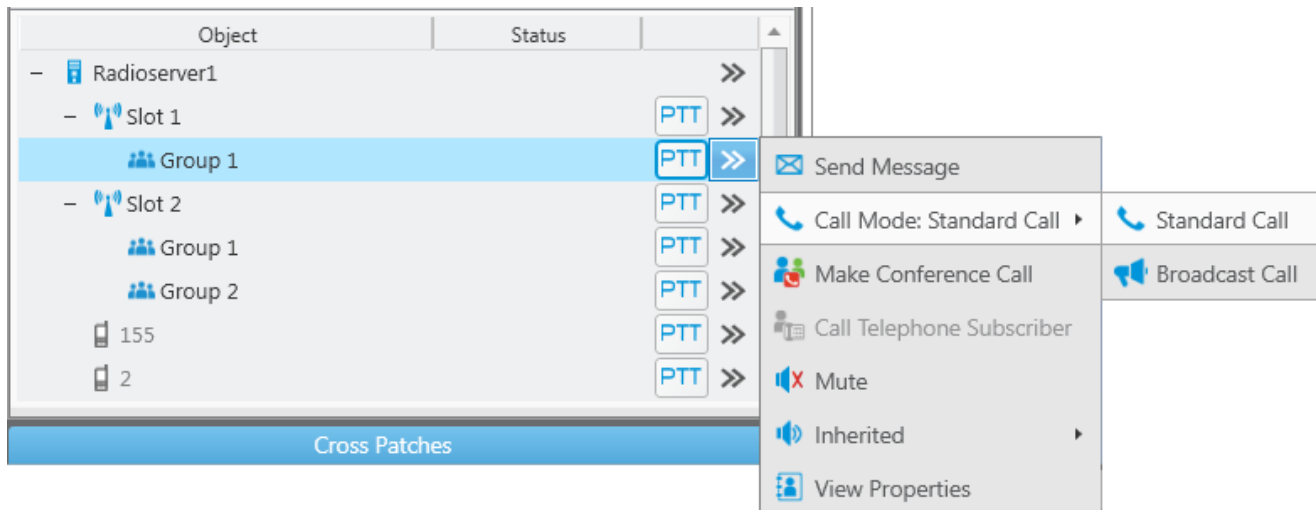
**Mute** or **Unmute** – turns off/on the control station mute mode.

**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. To change to another, select a specific output device or **Inherited device**, i.e. the device selected for the higher level, in this case, for the radioserver.

**View Properties** – opens a window there you can specify some information.

## The Action List of a talkgroup



**Exit Emergency Mode** – disables emergency mode. The **Exit Emergency Mode** action becomes available only after a radio subscriber has sent the emergency signal.

**Send Message** – opens a window for creating and sending messages.

**Call Mode** – shows what call mode is currently used for the talkgroup: **Standard Call** or **Broadcast Call**.

**Standard Call** stands for the two way Group Call, while **Broadcast Call** stands for the one way Group Call. The **Call Mode** action is available only in the Capacity Max systems.

**Note:** All talkgroups in the Capacity Max systems are wide area groups. So, the Group Call for these talkgroups in any call mode is broadcasted 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.

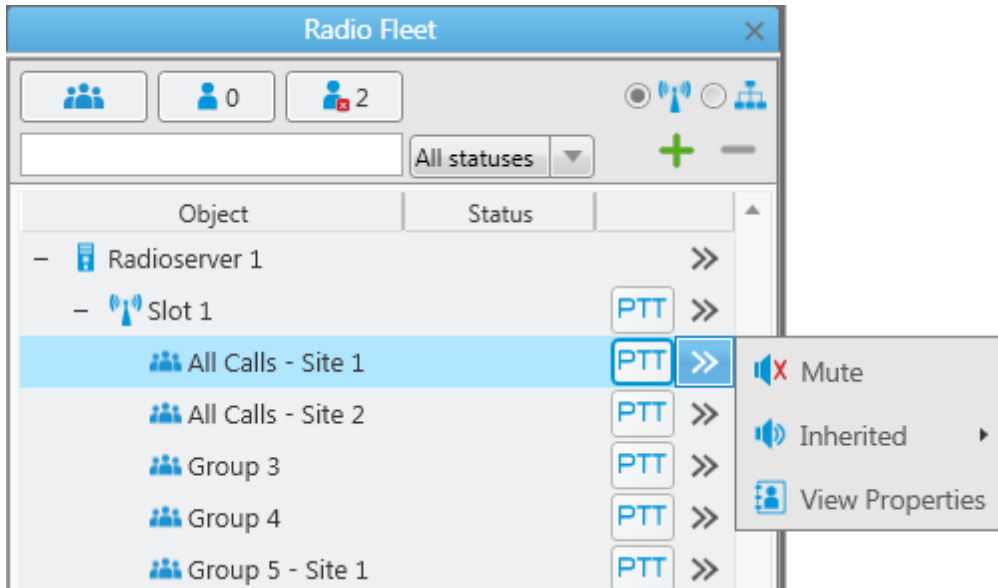
**Mute / Unmute** – turns on/off mute mode for this group.

**Main Device** – shows what audio output device is currently used for the talkgroup. To change to another device, select a specific output device or **Inherited device**, i.e., the device selected for the higher level, in this case, for the slot.

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 an All Call limited to a site

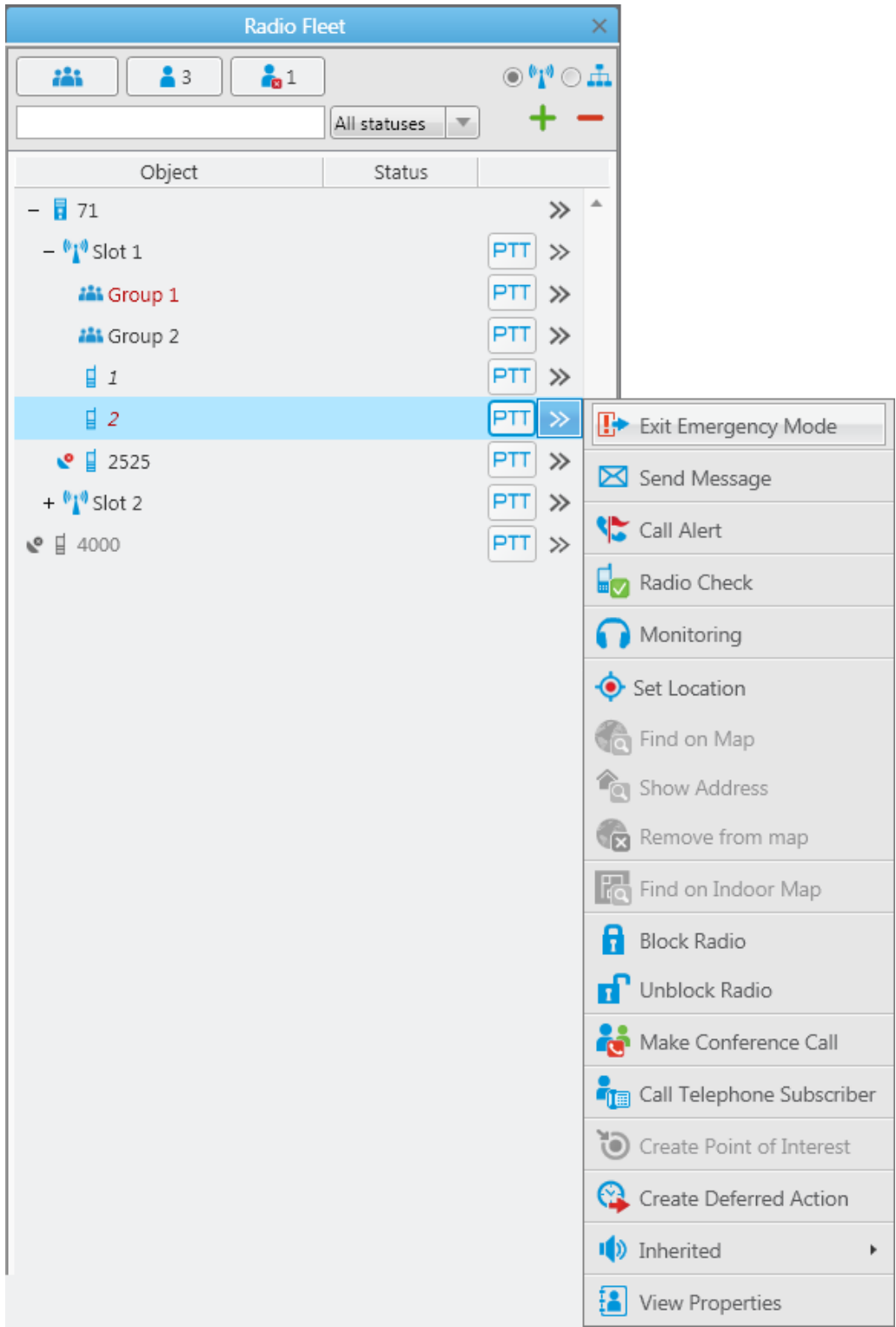


**Mute / Unmute** – turns on/off mute mode for the All Call. This can be useful if you don't want to hear the All Call initiated by another dispatcher.

**Main Device** – shows what audio output device is currently used for the All Call. To change to another device, select a specific output device or **Inherited device**, i.e., the device selected for the higher level.

**View Properties** – opens a window where you can add a comment about the All Call.

The Action List of a radio subscriber



**Exit Emergency Mode** – disables emergency mode. The **Exit Emergency Mode** action becomes available after a radio subscriber sends the emergency signal.

**Send Message** – opens a window for creating and sending messages.

**Send Call Alert** – sends a call alert to the subscriber.

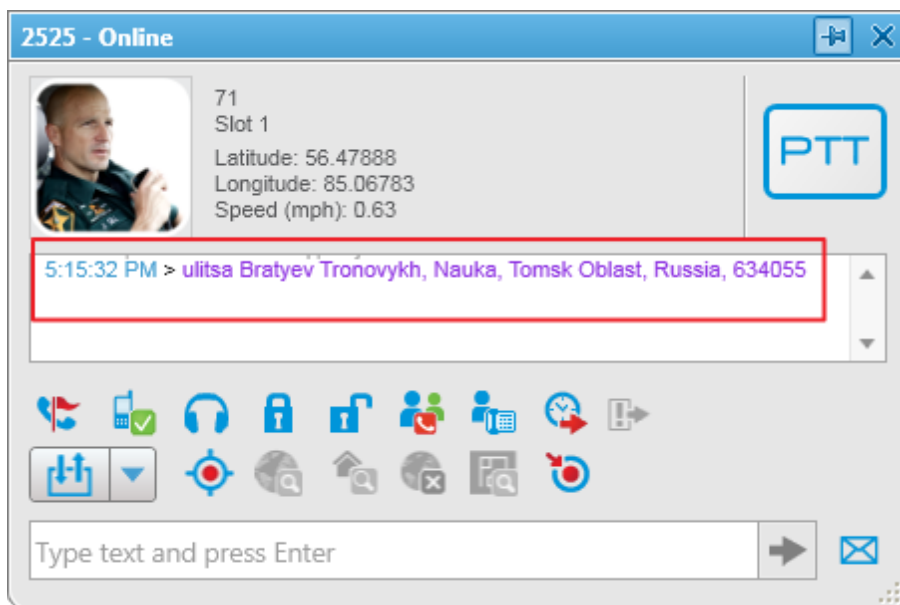
**Radio Check** – sends the radio check command to the subscriber radio.

**Monitoring** – allows you to listen to the radio subscribers without their awareness.

**Set Location** – allows you to define location of a radio unit on the map manually, without GPS data. If GPS support is enabled in the radio subscriber's [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 subscriber's [Properties](#) window, the location set manually is always valid.

**Find on Map** – shows the subscriber on the map. If there are more than one subscriber on the same position on the map, the subscriber's label will be placed above all other labels.

**Show Address** – displays the subscriber address based on the current GPS coordinates. When you reopen **Call Window** (after it was closed), previously received information on the address is not displayed.



**Remove from Map** – removes the subscriber from the map.

**Find on Indoor Map** – shows the subscriber on the building map. The **Find on Indoor Map** action is available for a radio subscriber if the **Indoor Tracking** check box is selected in the [Properties](#) window of the radio

subscriber.

**Block Radio** – sends the Block Radio command to the subscriber radio.

**Unblock Radio** – send s the Unblock Radio command to the subscriber 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 subscriber. If there are no coordinates, the system uses the latest coordinates received from the radio. If coordinates are absent altogether, nothing happens.

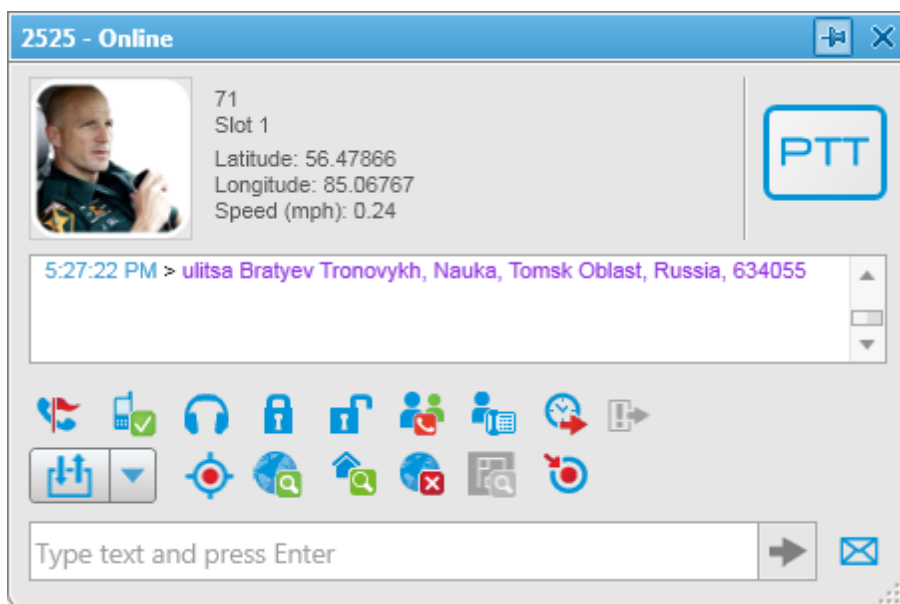
**Create Deferred Action** – opens a window for creation of a deferred action.

**Main Device** – shows what audio output device is currently used for this radio subscriber. To change to another device, select a specific output device or **Inherited device**, i.e., the device selected for the higher level, in this case, for the talkgroup.

**View Properties** – opens the [subscriber's Properties window](#).






## Call Window

The **Call Window** of a radio subscriber contains some of actions available for the radio subscriber. The main function of the **Call Window** is to give the ability to apply actions to the subscriber and to view the action log. To open the window, double-click on the radio subscriber. To customize the appearance and behavior of the **Call Window**, to the [Call Window settings](#).



## 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:

1. Light yellow  – outgoing call attempt, or a call in the queue (in conventional systems).
2. Yellow  – all outgoing radio calls.
3. Light green  – incoming call attempt to SmartPTT Dispatcher in the Capacity Max systems only.
4. Green  – all incoming radio calls or radio monitoring.
5. Blue  – none of the parties transmit or receive voice (hang time). The subscriber 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 subscriber in all systems, except Capacity Max:

1. Select the subscriber from the **Online Subscribers** list
2. Click **PTT** next to the subscriber name or press the specified keyboard [hot key](#). At that, the **PTT** button changes its color to light yellow, and then to yellow. The caller subscriber will hear your voice.
3. Click **PTT** again to give the subscriber an opportunity to respond. At that, the color of the **PTT** button changes to blue.
4. When the subscriber starts to respond, the color of the **PTT** button changes to green.


To call a radio subscriber in the Capacity Max systems:

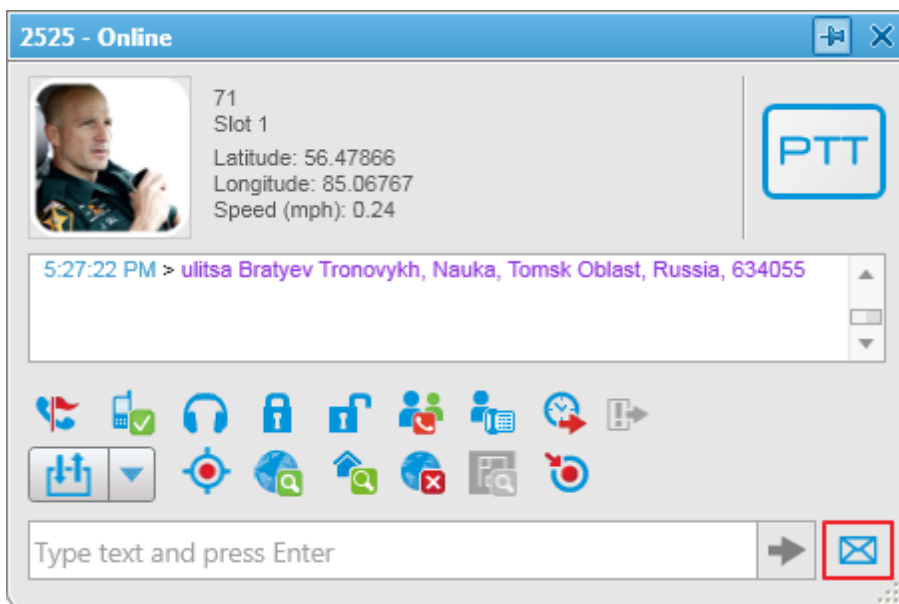
1. Select the subscriber from the **Online Subscribers** list.
2. Click **PTT** next to the subscriber name or press the specified keyboard [hot key](#). At that, the **PTT** button changes its color to light yellow. The subscriber will not hear your voice and will see two options on the radio display: Accept or Reject.
3. When the subscriber presses **PTT** on his radio and accepts the call, the color of the **PTT** button on your console changes to green. At that, you can hear the subscriber.
4. When the subscriber finishes to talk and releases **PTT** on his radio, the **PTT** button on your console changes to blue (hang time). During the hang time you can either continue or end the call.

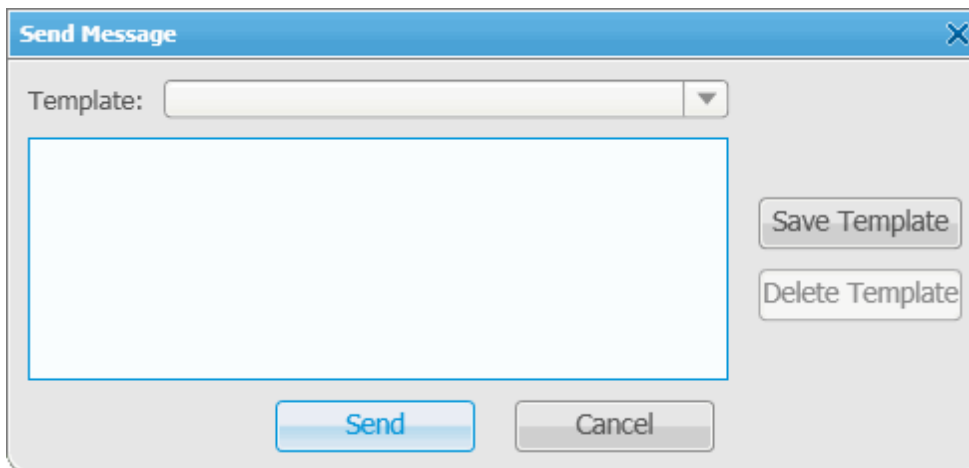
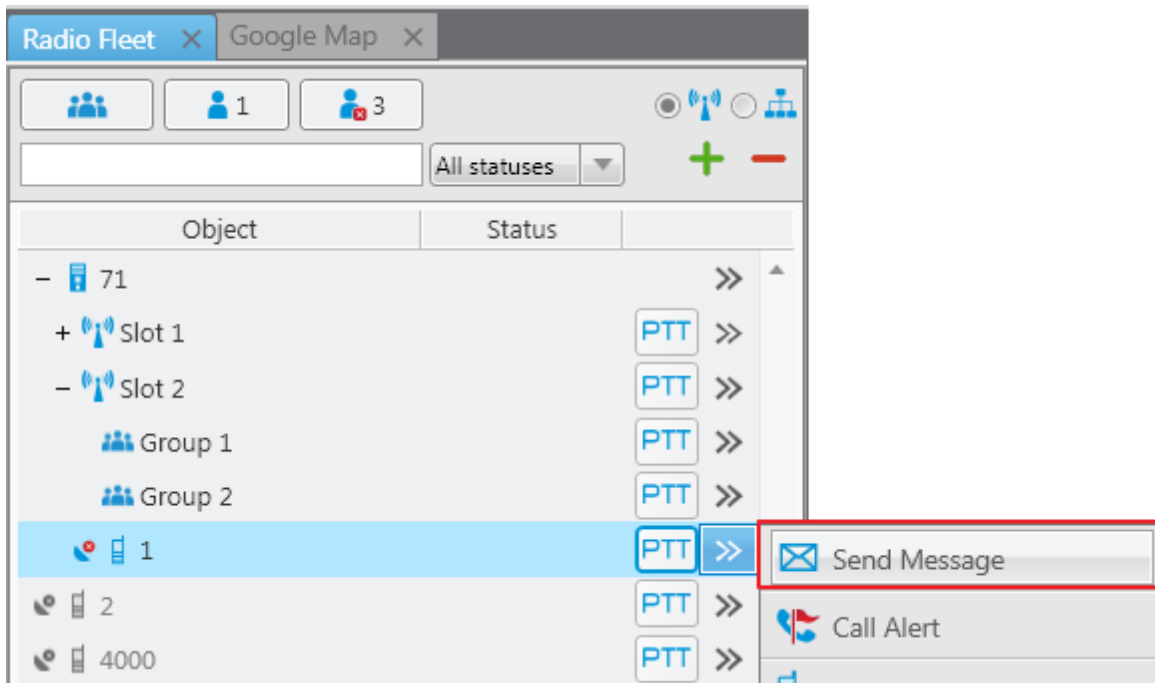


5. To continue the call, click **PTT** again. At that, the **PTT** button changes to yellow. The caller subscriber will hear your voice.
6. To end the call, click the **Cross** button in the **Calls** panel or right-click the corresponding call record or **PTT** in the subscriber's **Call window**.

## Sending messages

To send a message to a subscriber, click  in the **Call window** of the radio subscriber 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 to the subscriber

**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.

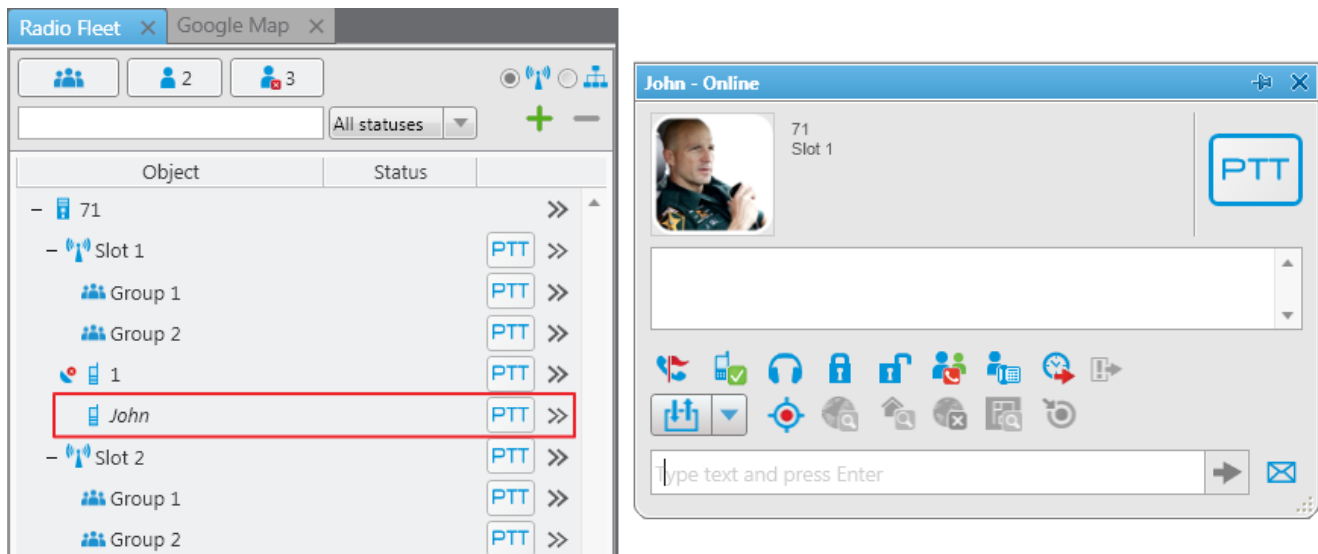
How to change subscriber name using radio

A subscriber can easily change his or her name by using the radio. At that, the new name will appear in the

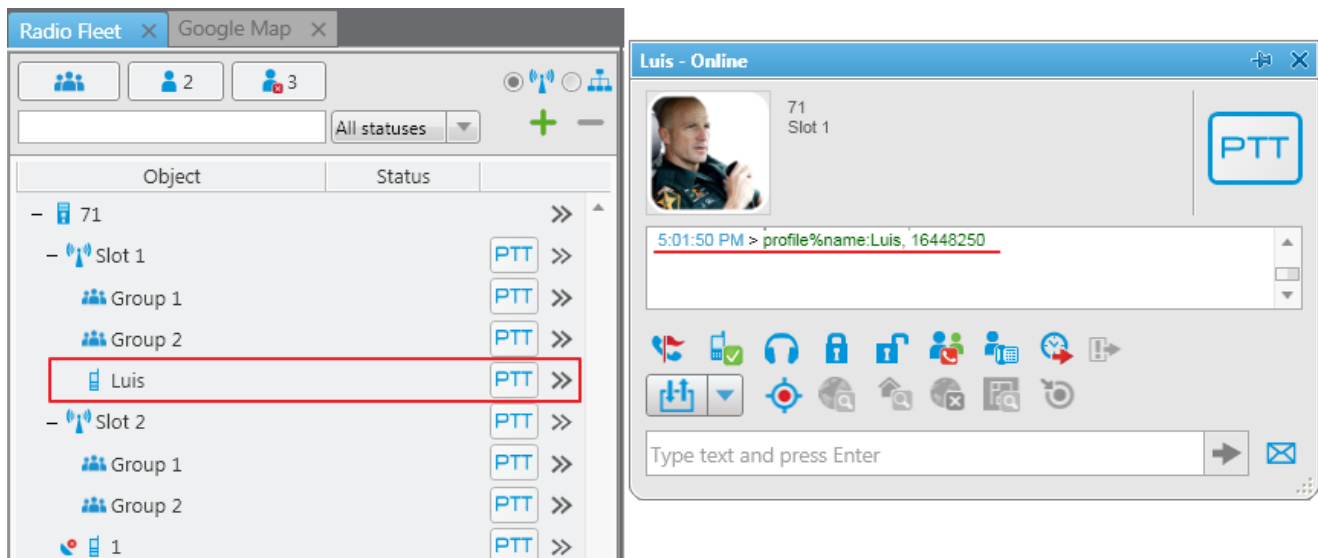
**Subscriber panel.**

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

Before sending:



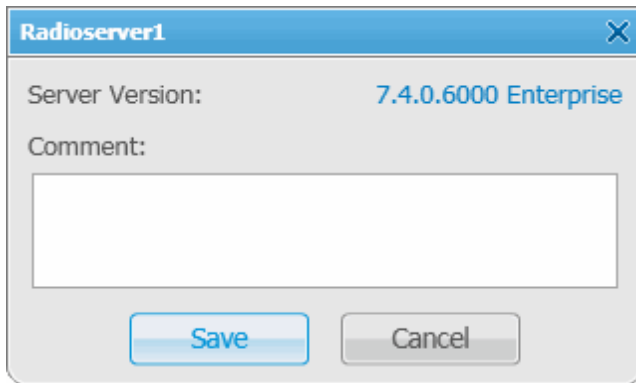
After sending the message:



## The Properties Window

To open the **Properties** window of the radioserver, control station, talkgroup, radio subscriber, dispatcher or telephone subscriber, right-click on the corresponding item.

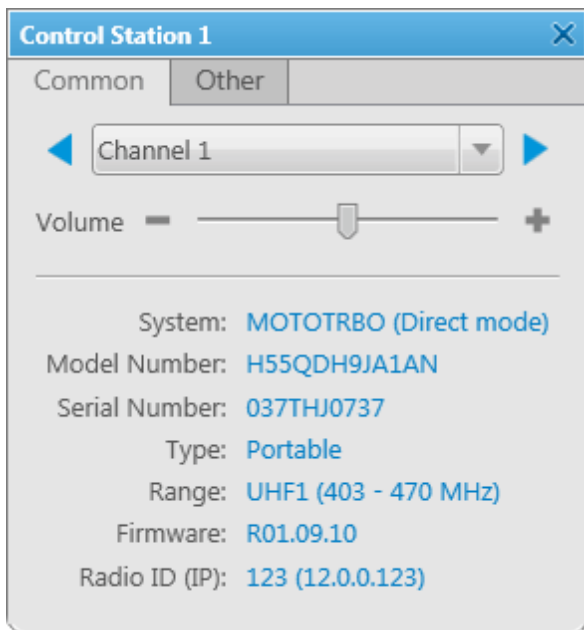
The Properties window of the radioserver



**Server Version** – the version of the radioserver. If the version of SmartPTT Radioserver does not match the version of SmartPTT Dispatcher, the version number is displayed in red.

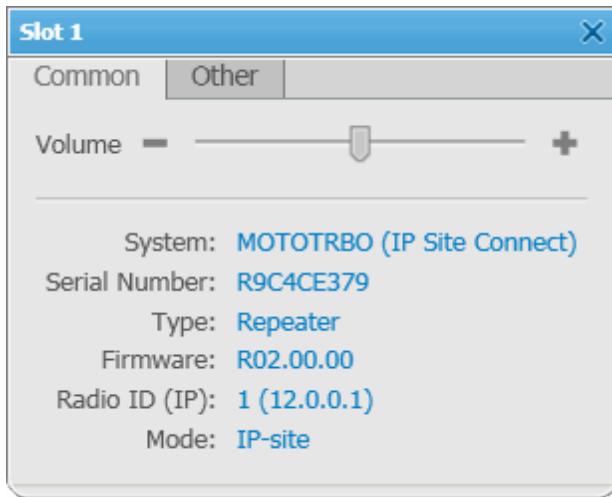
**Comments** – text field for additional information.

The Properties window of the hardware control station



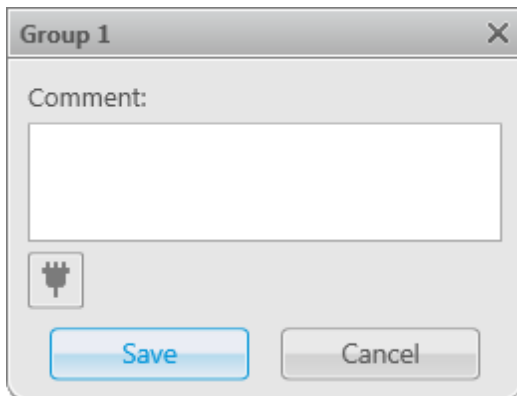
The window displays information on the control station, for example, model number, serial number, control station type, frequency range, firmware version, control station identifier. Also, it allows you to switch the control station channels (select from the list or using the arrow keys) and to adjust volume level of the selected channel.

The Properties window of the virtual control station



The window displays information on the virtual control station, for example, serial number, firmware version, control station identifier, type of network configuration. Also, it allows you to adjust volume level of the selected channel.

The Properties window of the talkgroup



**Comments** – text field for additional information.

Click the **Telemetry** button  to select telemetry command for the talkgroup.

## The Properties window of the subscriber

The **General** tab:

**IP** – IP address of the radio subscriber to identify the subscriber radio. If the **IP** field is absent, specify **CAI** and **Radio ID**.

**MDC ID** – the identifier used to identify Motorola Data Communication (MDC) messages. You cannot type more than 4 hexadecimal numbers into this field. It is used in the analog and the mixed modes.

**5 Tone ID** – the radio subscriber 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 MOTOTRBO CPS settings. To be set in the range from 0 to 9 or from A to G.

**Note:** Several IDs can be used as the radio identifier. If the radio is used on the analog channel only, just **5 Tone ID** or **MDC ID** must be filled, and the **CAI** and **Radio ID** or **IP** fields must be empty.

**Name** – the subscriber's name.

**Status** – the subscriber's status.

**Select** – click to upload the radio subscriber's image if there is any. To delete the selected image of the user, click the cross symbol on the left to **Select**.



– click the button to select the icon of the subscriber.



– click the **Telemetry** button to specify telemetry actions to the radio subscriber.

**Lone Worker** – select the check box to assign the **Lone Worker Profile** to a radio subscriber. Select from the

list the profile of the lone worker.

**Note:** You can add lone worker profiles in SmartPTT Dispatcher in the **Settings** menu under [Lone Worker Rules](#).

The **Location** tab:

**GPS** – select the check box to see the subscriber on the map. The subscriber radio must support **GPS**.

**Note:** To set up GPS for 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 subscriber.

**Note:** You can set the main time interval for receiving GPS coordinates in the subscriber **Properties** window. The minimum interval for receiving GPS coordinates is set in SmartPTT Radioserver Configurator (**Radio Network Services > GPS > Minimum location update interval**). Therefore, if the interval set in the **Properties** window is less than that set in SmartPTT Radioserver Configurator, GPS coordinates will be received at the interval set in SmartPTT Radioserver Configurator.

**with distance interval, m** – the distance interval in meters or feet after which the GPS coordinate request will be sent to the radio subscriber.

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

**on emergency** – the GPS coordinate request will be sent to the radio subscriber when the radio subscriber sends an emergency alarm.

**Indoor Tracking** – select the check box to see the subscriber 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 subscriber **Properties** window). The subscriber radio 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 subscriber

**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.

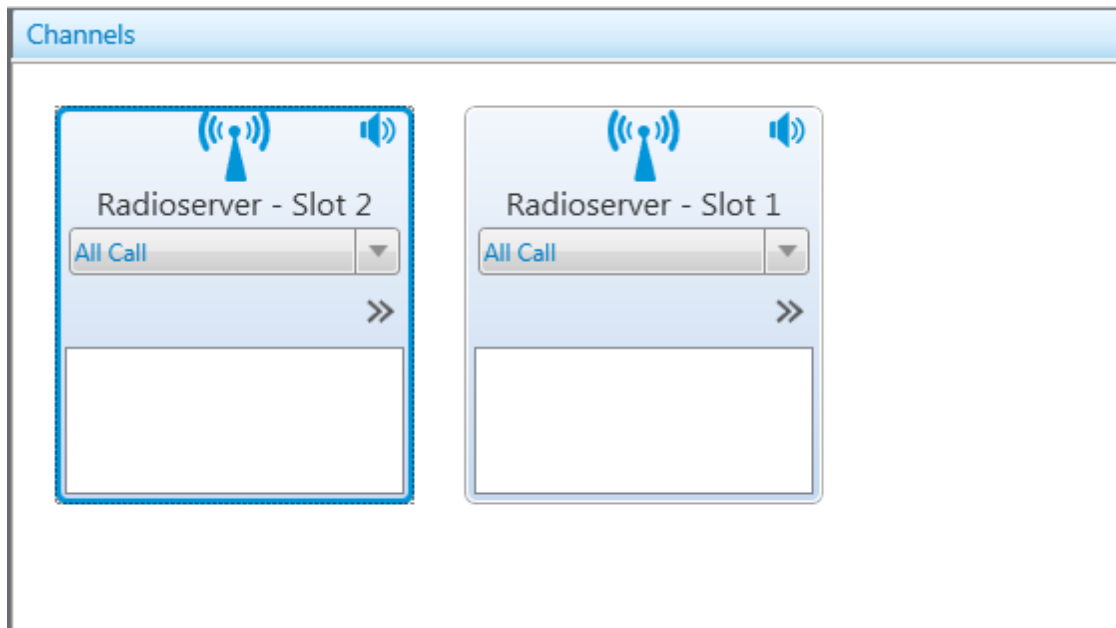
**Update Interval, s** – the time interval in seconds for location data update from special beacons, which are

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

The **Custom** tab contains subscriber's custom properties, which were added by the system administrator. If there are no any added custom properties, the **Custom** tab is absent.

## 1.4.5 Channels

The **Channels** panel allows you to see all the active control stations available in the system.



You can do the following in this panel:

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

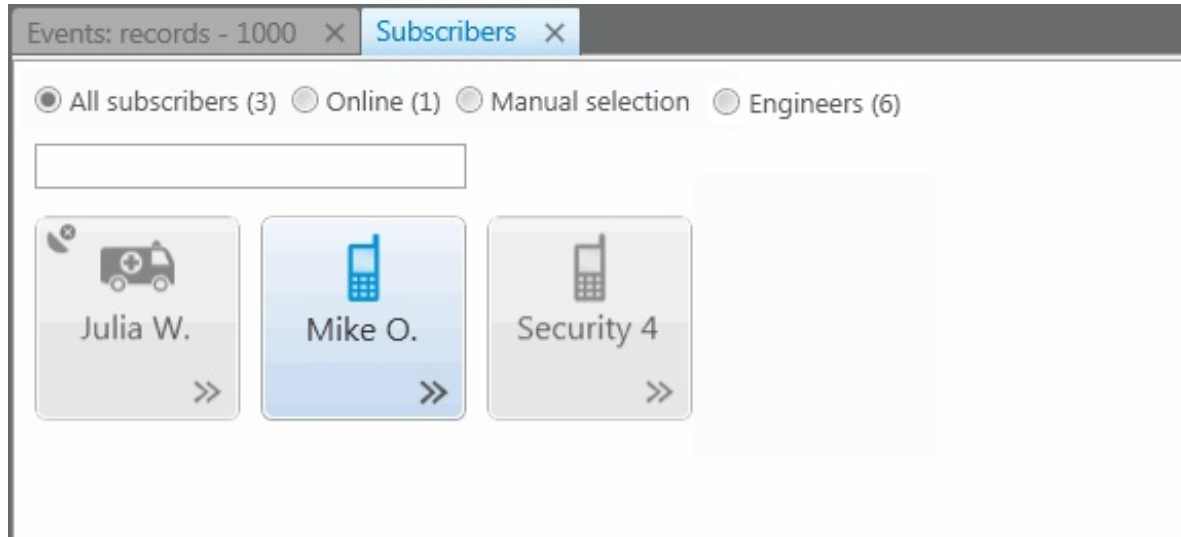
## 1.4.6 Subscribers

The **Subscribers** panel provides convenient interface to perform voice calls and subscriber property modification



by generating a list of large control buttons for radio subscribers.

To open the **Subscribers** panel, expand the **Tools** menu in the **Main Menu** bar and click **Subscribers**. At that, the **Subscribers** panel opens.



**All subscribers:** All registered radio subscribers (online and offline).

**Online:** Online radio subscribers only.

**Manual Selection:** Radio subscribers selected manually by the dispatcher. To do it, drag the radio subscriber into the panel window.

**Engineers:** Radio subscribers of the specific category, predetermined in the [Categories](#) window.

In brackets you can see the number of subscribers in each category.


To find a particular subscriber, use the search field. You can search by name or radio ID.

To make a call, click on the subscriber button, or select the subscriber and press the PTT button. The PTT settings defined in [Control Devices](#) are applied to this panel.

To open the subscriber's **Call Window**, right-click the subscriber button.

To perform actions with the subscriber, click the button .

You can distinguish between radio subscribers' 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 subscriber button shows that the dispatcher did not answer to the subscriber call. The figure next to it shows the number of missed calls.

## 1.4.7 Job Tickets

The **Job Tickets** panel allows creating special assignments for radio subscribers 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 in 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 the **Job Tickets** panel with the following sections:

**Filters:** Includes dropdowns for Job Ticket, Assigned, and Status. It also has date pickers for Created and Updated times, and buttons for Apply and Clear.

**Job Ticket List:** A table showing a list of job tickets with columns for Job Ticket, Description, Assigned, Status, Created, Updated, and Delivery Status. The table includes buttons for Add, Delete, Resend, and Get Status Update.

**Status Change Log:** A table showing a log of status changes with columns for Date/Time and Status.

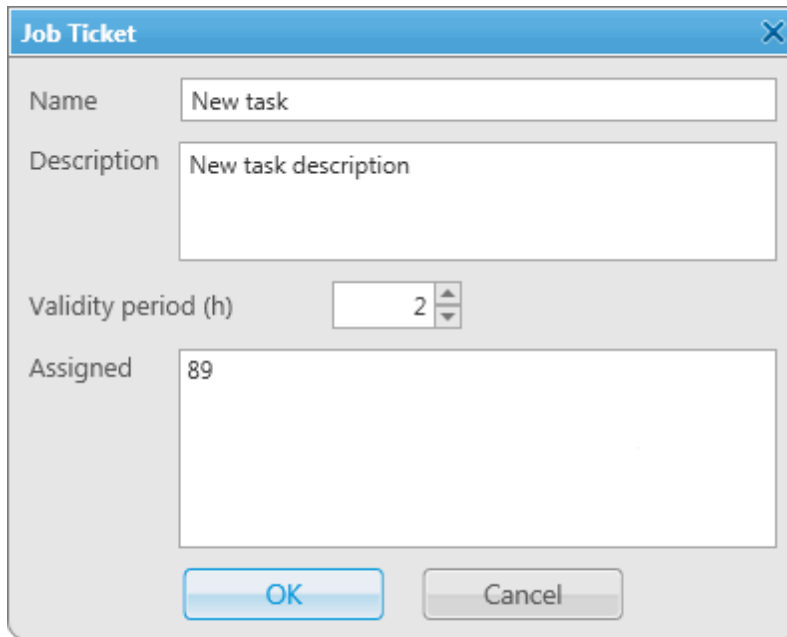
Job Ticket	Description	Assigned	Status	Created	Updated	Delivery Status
#9 Check Warehouse	Check Warehouse	12.0.0.95	Cancelled	3/29/2013 2:37:33 PM	3/29/2013 3:26:05 PM	Delivered
#10 Check Object *****	Check Object *****	12.0.0.95	In progress	3/29/2013 3:24:52 PM	3/29/2013 3:25:01 PM	Delivered
#8 Send e-mail	Send e-mail	12.0.0.95	Done	3/29/2013 2:37:14 PM	3/29/2013 3:24:00 PM	Delivered
#2 Spring certification - Documets	Prepare documents for the spring certification.	Radioserver_1 / Slot 1 / Gro...	Assigned	3/29/2013 2:01:14 PM	3/29/2013 2:38:26 PM	Sent
#3 Conference call	Arrange conference	Radioserver_1 / Slot 1 / Gro...	Assigned	3/29/2013 2:05:23 PM	3/29/2013 2:05:23 PM	Sent
#3 Conference call	Arrange conference	Radioserver_1 / Slot 1 / Gro...	Assigned	3/29/2013 2:05:23 PM	3/29/2013 2:05:23 PM	Sent
#2 Spring certification - Documets	Prepare documents for the spring certification.	Radioserver_1 / Slot 1 / Gro...	Assigned	3/29/2013 2:01:14 PM	3/29/2013 2:01:14 PM	Sent
#2 Spring certification - Documets	Prepare documents for the spring certification.	Radioserver_1 / Slot 1 / Gro...	Assigned	3/29/2013 2:01:14 PM	3/29/2013 2:01:14 PM	Sent
#1 Weekly Report Group 1	Prepare a weekly report on the results.	Radioserver_1 / Cnot 1 / Gr...	Assigned	3/29/2013 12:58:14...	3/29/2013 12:58:14...	Sent

Date/Time	Status
3/29/2013 3:26:05 PM	Cancelled
3/29/2013 3:25:51 PM	In progress
3/29/2013 3:25:44 PM	Assigned
3/29/2013 3:25:41 PM	In progress
3/29/2013 3:25:32 PM	Assigned
3/29/2013 3:25:29 PM	Cancelled
3/29/2013 3:25:21 PM	Assigned
3/29/2013 3:23:02 PM	Cancelled
3/29/2013 3:22:16 PM	Assigned
3/29/2013 2:40:09 PM	Assigned
3/29/2013 2:37:33 PM	Assigned

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

You can hide job tickets from the job list after the particular status is achieved. To do that, deselect 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. The dialog contains the following fields and controls:

- Name:** A text input field containing "New task".
- Description:** A larger text input field containing "New task description".
- Validity period (h):** A spinner control showing the value "2".
- Assigned:** A text input field containing "89".

At the bottom of the dialog, there are two buttons: "OK" (highlighted in blue) and "Cancel".

**Name** – 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 radio subscribers. 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".

**Assigned** – job tickets can be assigned to an individual radio subscriber or to a talkgroup. To do this, simply drag a subscriber or a talkgroup in this field. To remove the assigned subscribers, select the subscribers from the list and press DELETE.

After creation, the job ticket will be displayed in the job list with the default status value. When the radio subscriber 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 subscriber, who changed the job ticket status. Job tickets can be assigned to offline subscribers too. As soon as offline subscribers 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. At that, 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**. At that, the radio subscriber, to whom the job ticket was assigned, will receive a text message that the job ticket was canceled (only if **Send notification to subscriber 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 subscriber 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 pgress	<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**.

## 1.4.8 Monitoring

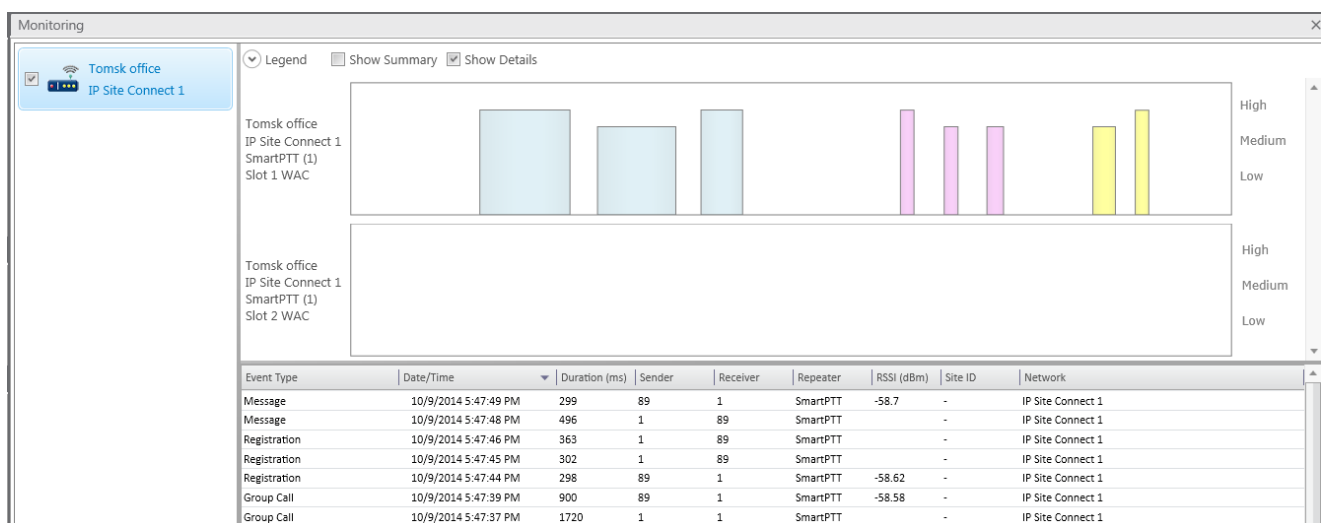
### Monitoring

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

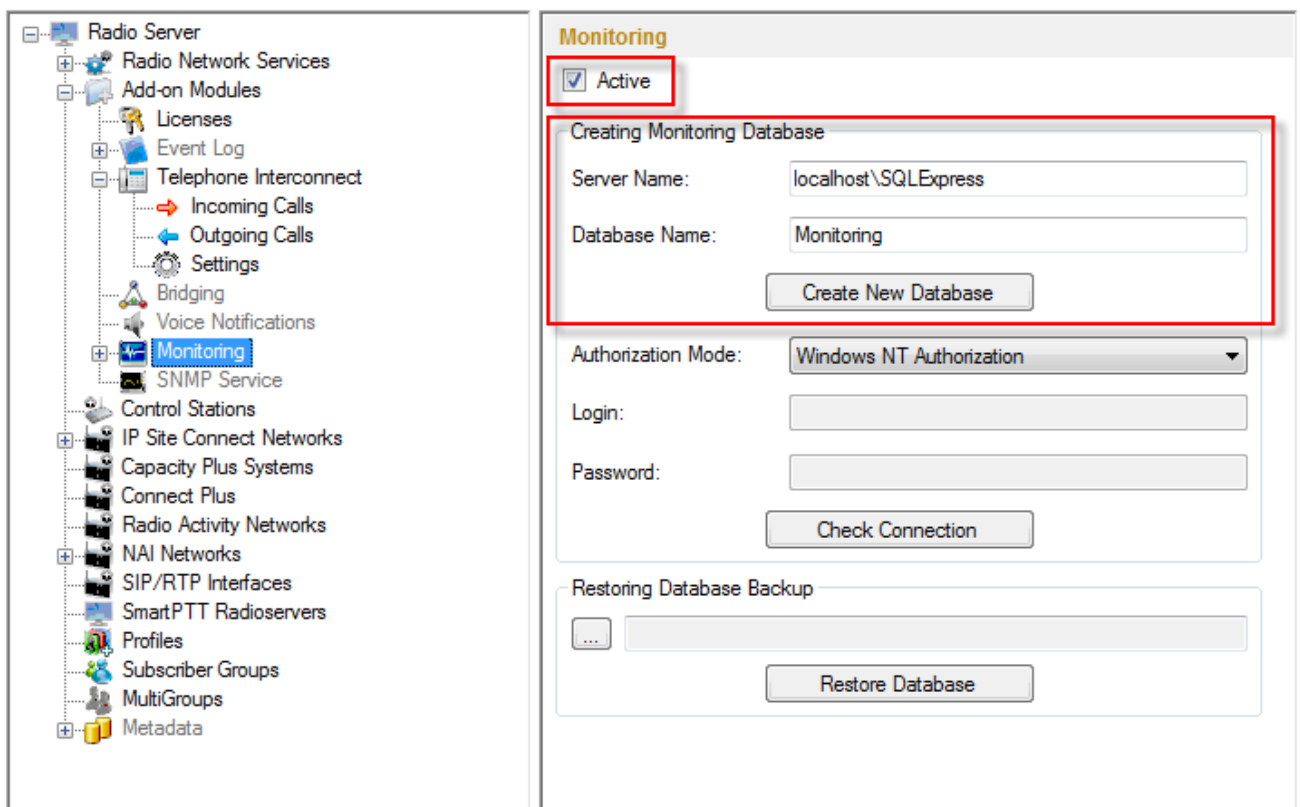
It includes four panels:

1. [Monitoring](#)
2. [Topology](#)
3. [Diagnostics](#)
4. [Event Log](#)

**Monitoring** – graphical representation of data and voice received from MOTOTRBO repeaters, which allows observing the ongoing system operation. Each logical channel has a section for displaying transmitted packets in the form of colored vertical bars. The height of the bar corresponds to the level of the received signal; and the color corresponds to the event type according to the legend. In order to see the radioserver and its network in the **Monitoring** tab, make sure that the Monitoring service is enabled for this radioserver in SmartPTT Radioserver Configurator.



To use monitoring in SmartPTT Dispatcher, you need to enable it in SmartPTT Radioserver Configurator, create a new monitoring database or connect to the existing one.



Graphical representation of data packets is displayed only for the selected network.

**Note:** The list on the left shows only active networks (IP Site Connect, Capacity Plus, Linked Capacity Plus) of SmartPTT Radioserver. If a network becomes inactive, it disappears from the list.

**Show Details** – when selected, events from different slots appear in separate blocks.

**Show Summary** – when selected, events from different slots appear in one block.

When checking both parameters, all the three blocks are displayed.

Data 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 the radios (GPS service)

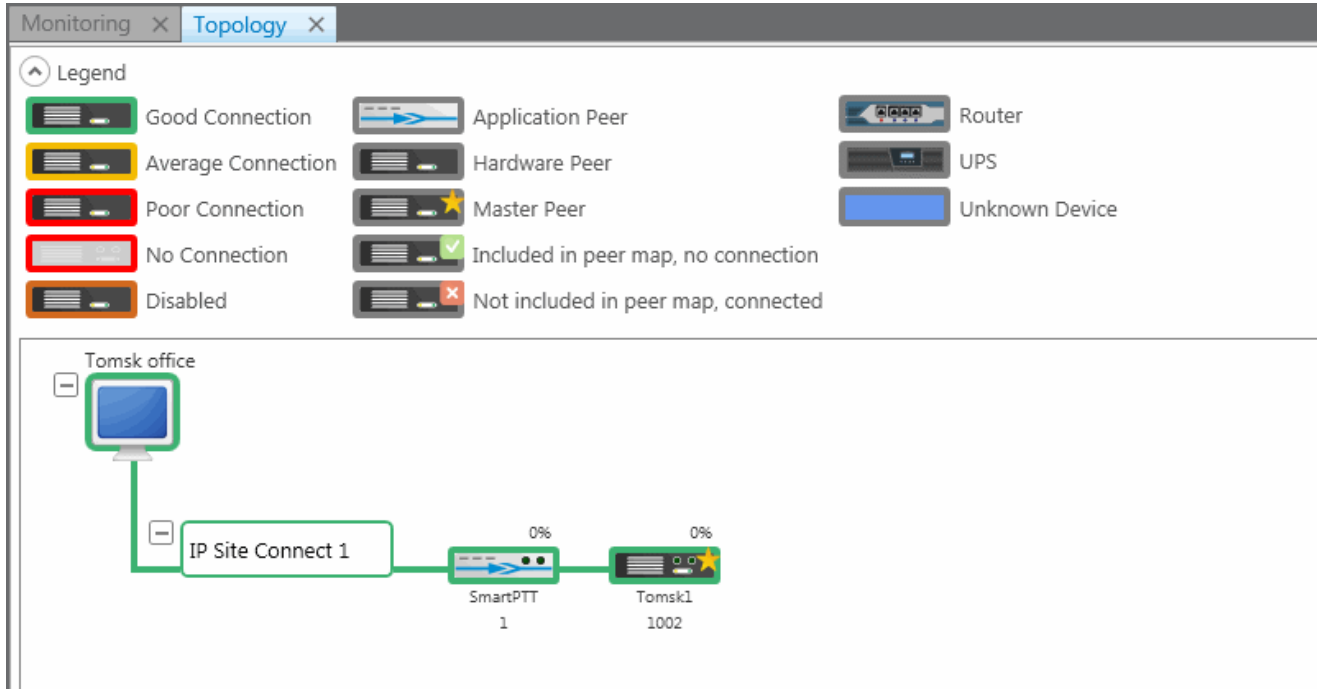
Name	Description
<b>TMS</b>	Text messages (TMS service)
<b>Telemetry</b>	Telemetry commands and signals
<b>Indoor</b>	Data from beacons showing radios' locations inside a building (i.e., <a href="#">Indoor Positioning</a> ).
<b>System</b>	System events from and to MOTOTRBO equipment (data confirmation, 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.

## Topology

**Topology** – schematic representation of active networks. A network topology is set in SmartPTT Radioserver Configurator and displayed in SmartPTT Dispatcher.


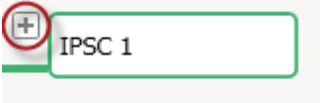






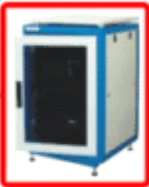
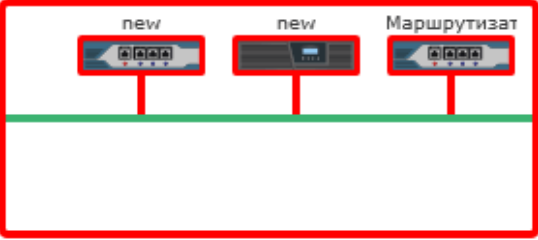





**Note:** In order to see the radioserver and its network in the **Topology** tab, make sure that the **Monitoring** service is enabled for this radioserver in SmartPTT Radioserver Configurator.

Graphical objects used in topology:

Graphical Object	Description
	Major alarm on device or no connection
	Device is connected or no alarms registered on device.
	Minor alarm is registered on device or there are more than 5 packets lost or corrupted.
	Repeater is turned off.
	Repeater is not connected. This symbol is used only for the

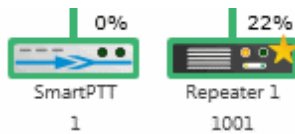


Graphical Object	Description
	repeaters added in SmartPTT Radioserver Configurator in the <b>Network Configuration</b> tab.
	SmartPTT Radioserver
	Network in folded state
	Virtual repeater (i.e., SmartPTT Radioserver), or MNIS
	Slave hardware repeater
 	Master hardware repeater Master virtual repeater
	Repeater is not connected, but it is included in the peer map.
	Repeater is connected, but it is not in the peer map.
 <p data-bbox="391 1398 464 1423"><b>Tomsk</b></p>	Location in a folded state.
	Location in an unfolded state.
	Uninterruptible power supply
	Router

Graphical Object	Description
	Unknown device (any other device)

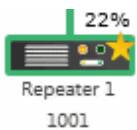
**Note:** Network configuration is set in SmartPTT Radioserver Configurator. Repeaters, which are added but not active, are marked red. If network configuration is not set in SmartPTT Radioserver Configurator, the network topology will be generated automatically based on the information received from the available network repeaters. If the radioserver is stopped, it disappears from the topology screen.

Repeater loading on both logical channels is displayed above each repeater.

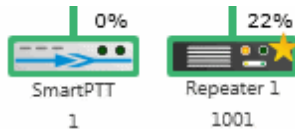


Loading grows steadily, not sharply, until the maximum value. When both logical channels are used, the maximum value is 100%, when only one logical channel is used— 50%.

A busy channel is represented by a yellow LED on the repeater.



Repeater ID is displayed under 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.

## 1. Radioserver

To fold and unfold the network, right-click on the radioserver and select **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' device. The dialog box is divided into several sections:

- Operating System:** Microsoft Windows XP Professional
- Processor Load:**
  - CPU, %: 20
  - Free Memory, Mb: 208
  - Total Memory, Mb: 2023
  - Used Memory, %: 89
- Hard Disks:**
  - Disk: C:\
  - Free, Gb: 51
  - Total, Gb: 99
  - Used, %: 48
- Network Interfaces:**
  - Network Interface: 192.168.50.2
  - Subnet Mask: 255.255.255.0
- Sensors:**

Name	Description	Value
FAN 1	Normal	1849.00 RPM
FAN 2	Normal	2025.00 RPM
FAN 3	Requested Sensor, data,...	
FAN 4	Normal	2704.00 RPM
FAN 5	Normal	1764.00 RPM
FAN 6	Requested Sensor, data,...	
CPU1 Vcore	Normal	0.97 Volts
CPU2 Vcore	Normal	1.06 Volts
CPU1 DIMM	Normal	1.52 Volts

**Operating System** – provides information on the OS used on the server.

**Processor Load** – displays current CPU load and other information about PC memory.

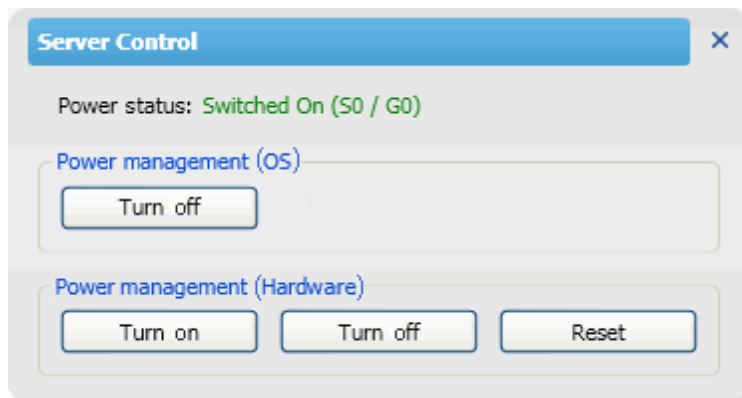
**Hard Disks** – provides information on the the available hard disks of the PC and their characteristics.

**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 users to turn off the radioserver at the OS level.

**Power Management (hardware)** – allows users 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** dropdown 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.

## 2. Repeater

To view repeater parameters and statistics, right-click on the repeater element and select **Information**.

The screenshot shows a network diagram with a Radioserver1 connected to an IP Site Connect 1. The IP Site Connect 1 is connected to two repeaters, one of which is an Eaton repeater. A red arrow points from the Eaton repeater to a 'Repeater Parameters' dialog box. The dialog box displays the following information:

**Repeater Parameters**

- Repeater: 578
- IP-address: 192.168.37.47:50000
- Model: \_SmartPTT\_
- Firmware Version: R02.00.00
- Codeplug Version: 100000
- Serial Number: 0000000000
- Voice Calls: Yes
- Data Calls: Yes

**Last Minute Statistics**

- Load Percent (%): 7
- Transmissions Started: 6
- Registration: 0
- GPS: 0
- Messages: 2
- Telemetry: 0
- Broken Packets (RX): 0
- Max. Number of Broken Contiguous Packets (RX): 0
- Number of Transmit Collision Packets (TX): 0
- Uptime: 00:01:46

Repeater parameters:

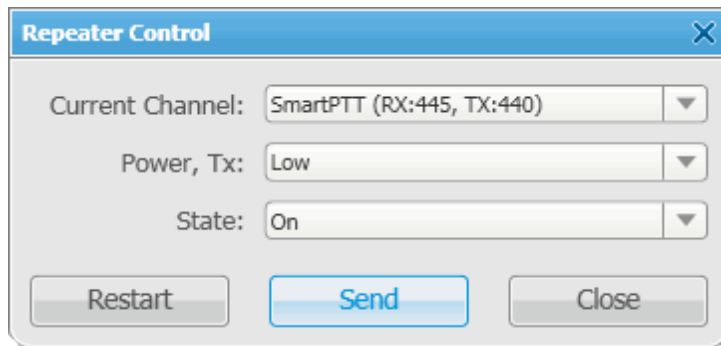
Name	Description
<b>Repeater</b>	Repeater ID
<b>IP-address</b>	Repeater IP-address
<b>Model</b>	Repeater model number
<b>Firmware Version</b>	Version of firmware used in repeater
<b>Codeplug Version</b>	Repeater parameter block version

Name	Description
<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>Channel Loading (%)</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
<b>Broken Packets (RX)</b>	Number of packets (Rx) with errors, received for the last minute
<b>Maximum Number of Broken Contiguous Packtes (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 on the repeater element and select **Control**. At that, the following window opens.



**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 Customer Programming Software (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.

**Send** – applies settings specified in the **Repeater Control** window.

**Close** – closes the **Repeater Control** window without making changes in the repeater settings.

### 3. Uninterruptible Power Supply (UPS)

To view parameters and status information of a UPS, right-click on its symbol and select **Information**.

Identification:

Name	Description
<b>Model</b>	UPS model
<b>Serial Number</b>	Device serial number
<b>Firmware</b>	Firmware version
<b>IP-address</b>	IP-address

Name	Description
<b>Network Mask</b>	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>	Eaton 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

#### 4. Router

To view parameters and other information of a router, right-click on the element and select **Information**.

**Alarms** – gives information about issues in the router operation.



## 5. 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
<b>System Name</b>	Name of the device
<b>System Description</b>	Description of the device
<b>Alarm Details</b>	Informs about issues in the device operation

## 6. Location

To change the way **Location** is displayed, right-click on the **Location** element, or click on the **Plus/Minus** icon.

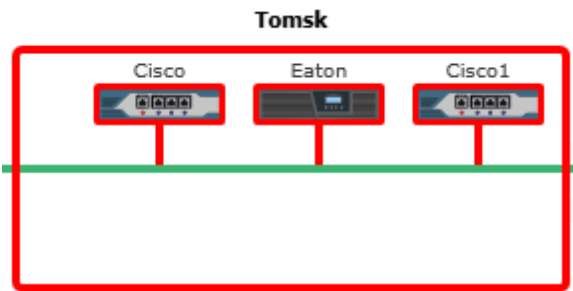
There are two display modes:

- **Folded**
- **Unfolded**

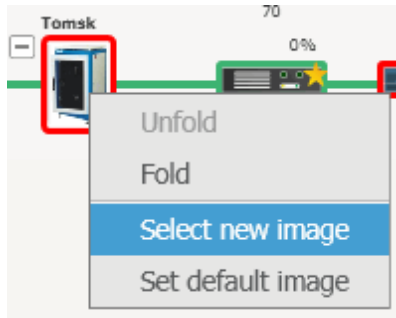
**Folded** – location is displayed as an image inside a box.



**Unfolded** – displays which devices, repeaters and routers are used in this location.



To change the default image of **Location**, right-click on the object. At that, a drop-down will appear where you can either upload your own image or set the default image.



## 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**
- Diagnostics** (with a Refresh button)
- RSSL Slot 1: -105.8950
- RSSL Slot 2: -105.8950
- Repeater statistics**
  - 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**
- Supported alarms**
  - Transmitter Failure
  - Receiver Failure
  - Over heating
  - Power Failure

To select columns to be displayed, right-click on the menu bar with the column names. At that, the following list opens.

<input checked="" type="checkbox"/> Radio Network	<input checked="" type="checkbox"/> Channel Name
<input checked="" type="checkbox"/> Location	<input checked="" type="checkbox"/> Rx Frequency
<input checked="" type="checkbox"/> Name	<input checked="" type="checkbox"/> Tx Frequency
<input checked="" type="checkbox"/> Peer ID	<input checked="" type="checkbox"/> Online
<input checked="" type="checkbox"/> IP Address	<input checked="" type="checkbox"/> Master
<input checked="" type="checkbox"/> Model	<input checked="" type="checkbox"/> Controller
<input checked="" type="checkbox"/> Firmware Version	<input checked="" type="checkbox"/> Application Peer
<input checked="" type="checkbox"/> Codeplug Version	<input checked="" type="checkbox"/> Voice Calls
<input checked="" type="checkbox"/> Serial Number	<input checked="" type="checkbox"/> Data Calls
<input checked="" type="checkbox"/> Signaling Mode	<input checked="" type="checkbox"/> Slot-1 WAC
<input checked="" type="checkbox"/> Condition	<input checked="" type="checkbox"/> Slot-2 WAC
<input checked="" type="checkbox"/> Lock	<input checked="" type="checkbox"/> Description
<input checked="" type="checkbox"/> Power Level	<input checked="" type="checkbox"/> Alarm

**Note:** By default, all columns are enabled.

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**.

## 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.

Event Log

Show Current Events

Show Logged Events 18.05.2015 15 08.06.2015 15 Radioserver All Radioservers Apply

Move column header here for grouping

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 red, pink and yellow respectively.

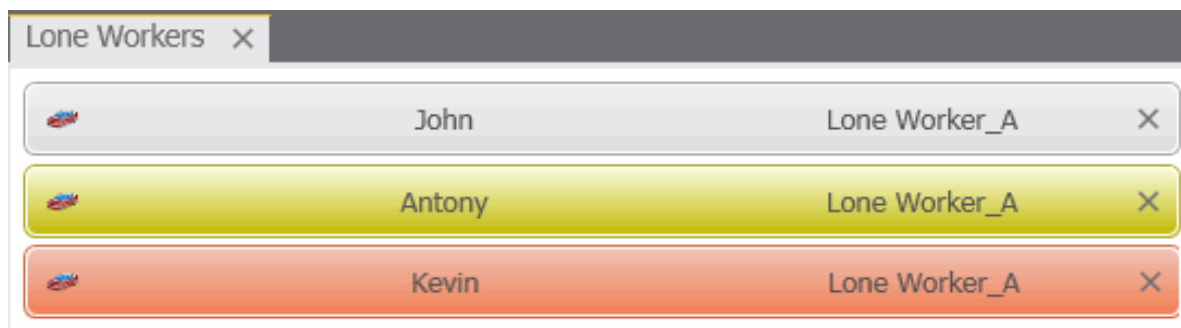
Besides reviewing current events, **Event Log** provides the ability to view saved events for the particular time period.

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 and click **Apply**.

### 1.4.9 Lone Workers

The **Lone Workers** panel displays the list of subscribers who 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**. At that, the following window opens.



The **Lone Workers** panel shows radio subscribers working in the **Lone Worker** mode marked with specific color. The color shows if the subscriber meets the requirements set for the lone worker profile the subscriber 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.

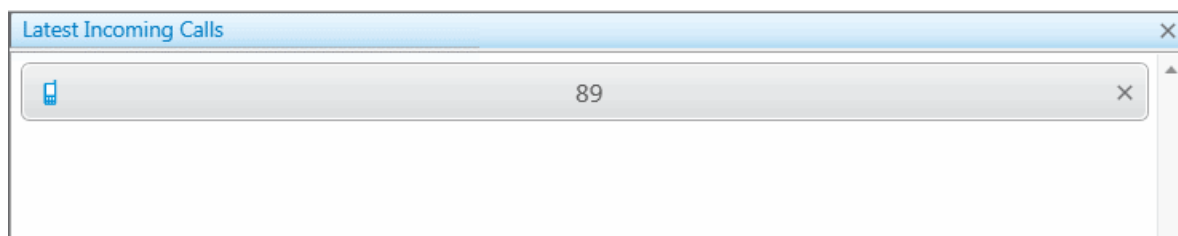
**Note:** For more information how to set rules for lone workers, please see [Lone Worker Rules](#).

To turn off the **Lone Worker** mode, click the cross button.

## 1.4.10 Latest Incoming Calls

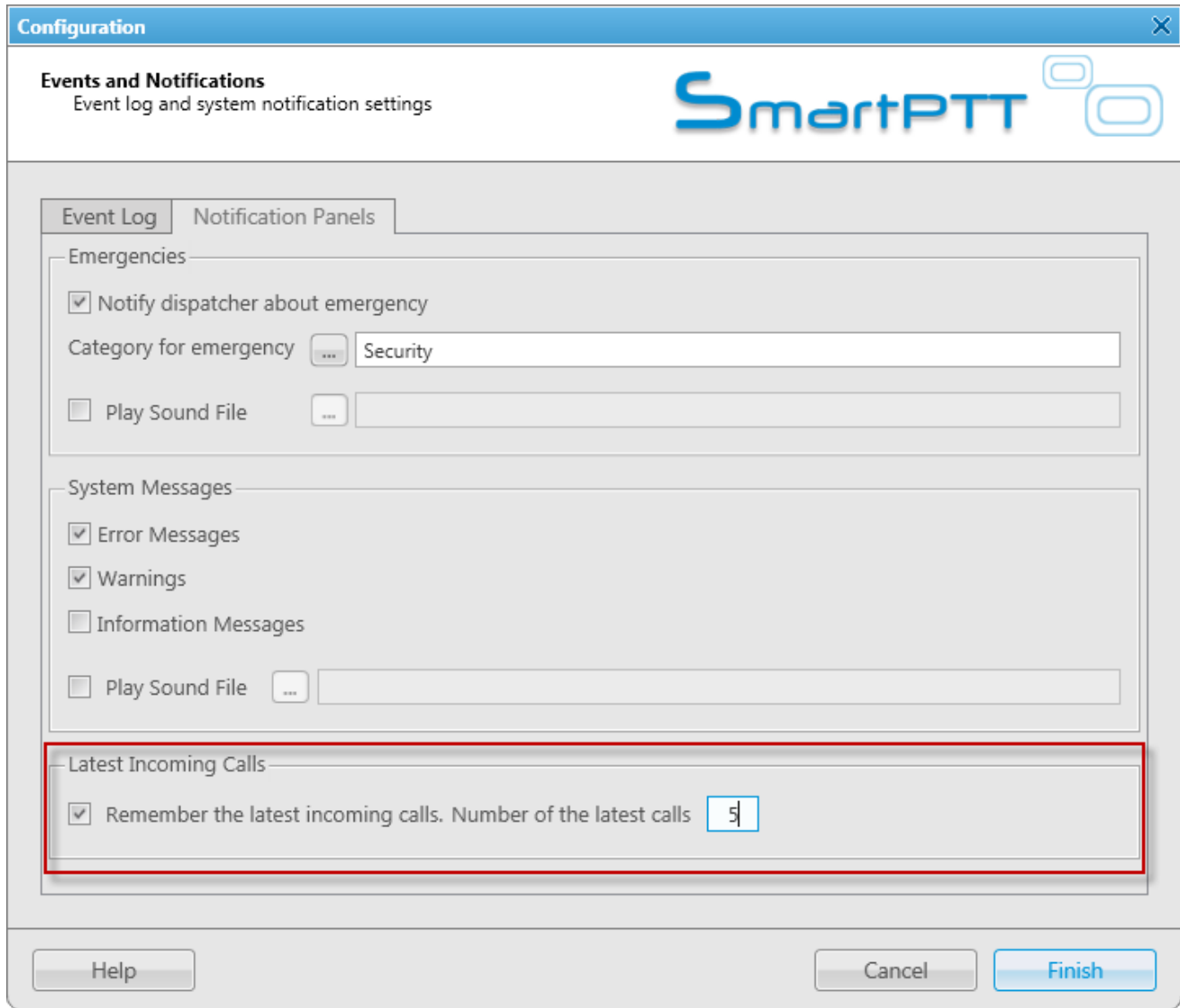
The **Latest Incoming Calls** panel displays the list of subscribers who initiated calls. The panel is used for quick access to the call windows of the subscribers.

To open the panel, expand the **Tools** menu in the **Main Menu**, and click **Latest Incoming Calls**.



Click on the subscriber record to open the **Call Window**.

To configure the **Latest Incoming Calls** panel settings, expand the **Settings** menu in the **Main Menu**, and click **Events and Notifications**.



**Remember the latest incoming calls** – allows you to save records of calls to which you did not answer.

To apply the changes, click **Finish**.

## 1.4.11 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:

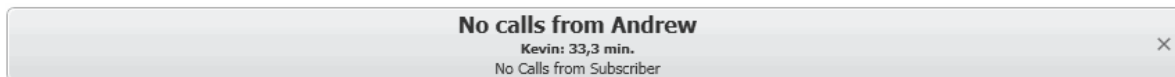
- Rules and Alerts
- GPS Rules

- 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
- Subscriber name and time
- Text of the alarm



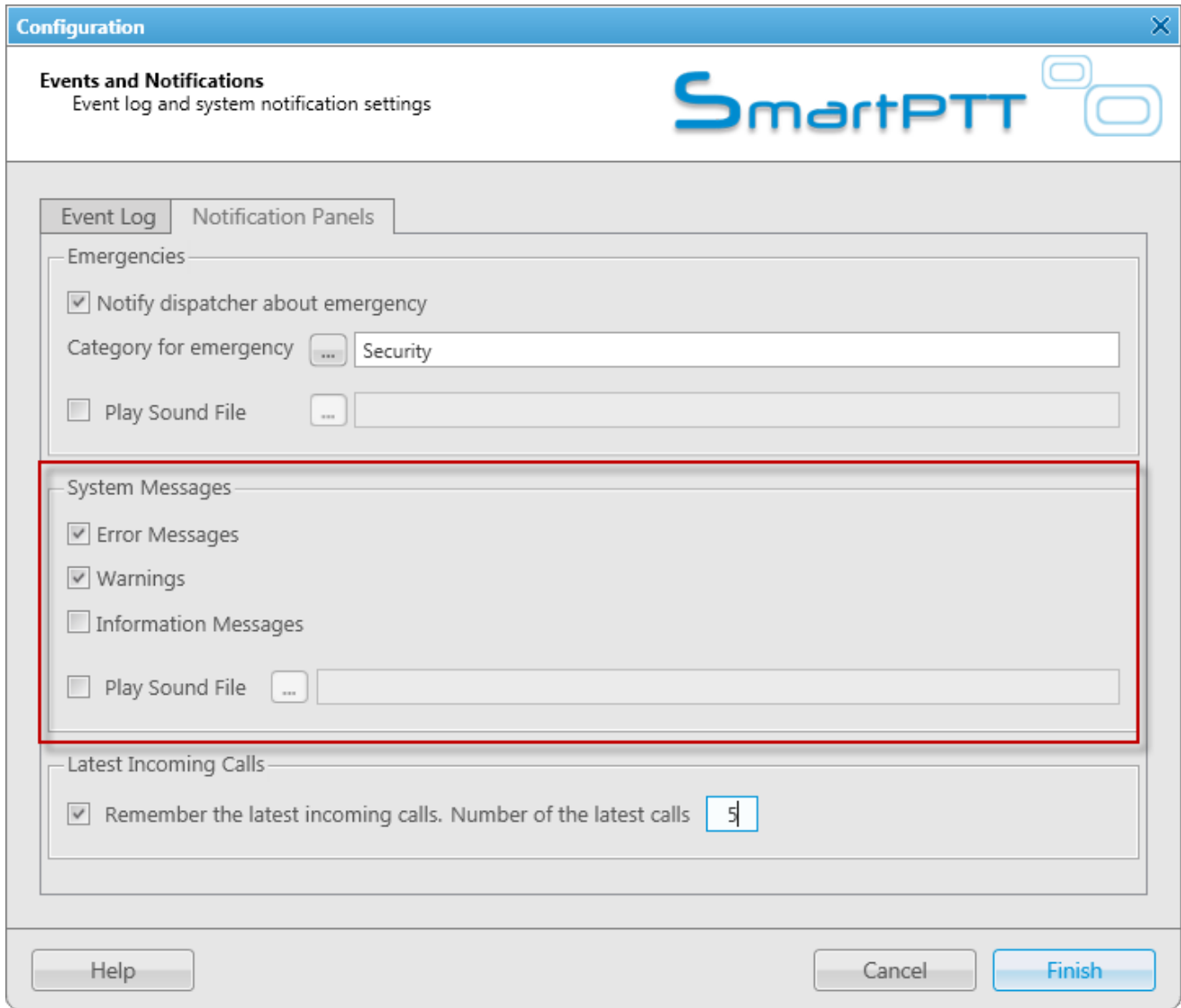
## 1.4.12 System Messages

The **System Messages** window displays notifications which inform about interaction between SmartPTT Dispatcher and SmartPTT Radioserver.

There are three notification types shown in the **System Messages** window:

- Error messages
- Warnings
- Information messages

To set up **System Messages**, expand the **Settings** menu in the **Main Menu** bar and click **Events and Notifications**. In the opened window select the **Notification Panels** tab.

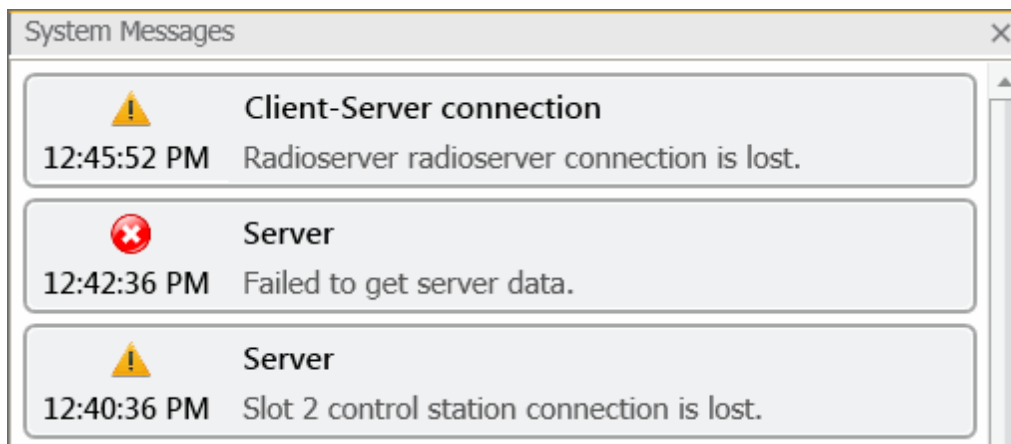


In the **System Messages** section select the check boxes next to the notification types of which the operator is to be informed.

**Note:** If none of the check boxes is selected, notifications will be registered in the background, i.e., the **System Messages** window won't open automatically. In this case, if an error is registered, an error message will appear.

To open the **System Messages** panel manually, expand the **Tools** menu in the **Main Menu** bar and click **System Messages**.








All the three message types (**Error Messages, Warnings, Information Messages**) have the following format:

1. Source of the problem:
  - a) "Client" (SmartPTT Dispatcher)
  - b) "Server" (SmartPTT Radioserver)
  - c) "Client-Server Connection" (connection between SmartPTT Dispatcher and SmartPTT Radioserver)
  - d) "Database"
2. Problem description.

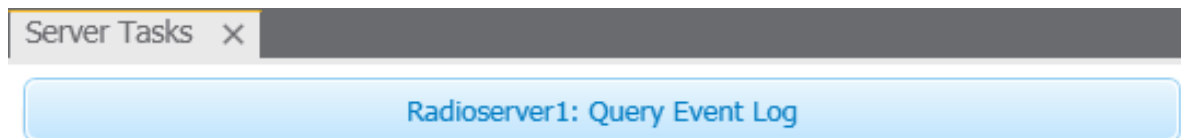
Each message can be differentiated by the following characteristic traits:

- Icons:
  -  : used for error messages;
  -  : used for warnings;
  -  : used for information messages.
- Colors of the messages:
  - Red is used for error messages.
  - Gray is used for warnings and information messages.

## 1.4.13 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.



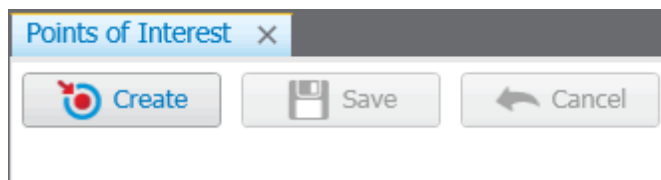
## 1.4.14 Map Tools

### Points of Interest

The **Points of Interest** panel displays all the existing points of interest. You can also create, modify or delete a point of interest from the panel.

To view points of interest (POI) to be displayed on the map, expand the **Tools** menu in the **Main Menu bar** of the SmartPTT Dispatcher window, click **Map Tools** and then **Points of Interest**.

At that, the **Points of Interest** panel opens.



In the panel window you can do the following:

- Create a new POI
- View the list of created POIs
- Hide or show POIs on the map

To create a new POI:

1. Open a map.
2. Click **Create**.
3. In the opened window type the name of the POI and upload its picture. Click **OK**.
4. Place the new POI on the map by clicking the left mouse button.
5. To save the position of the POI click **Save** in the panel window. To call off the changes, click **Cancel**.

You can also create the POI from the **Map** menu. For more information see [Maps](#).

To hide or show the POI on the map, select the check box next to the POI title.

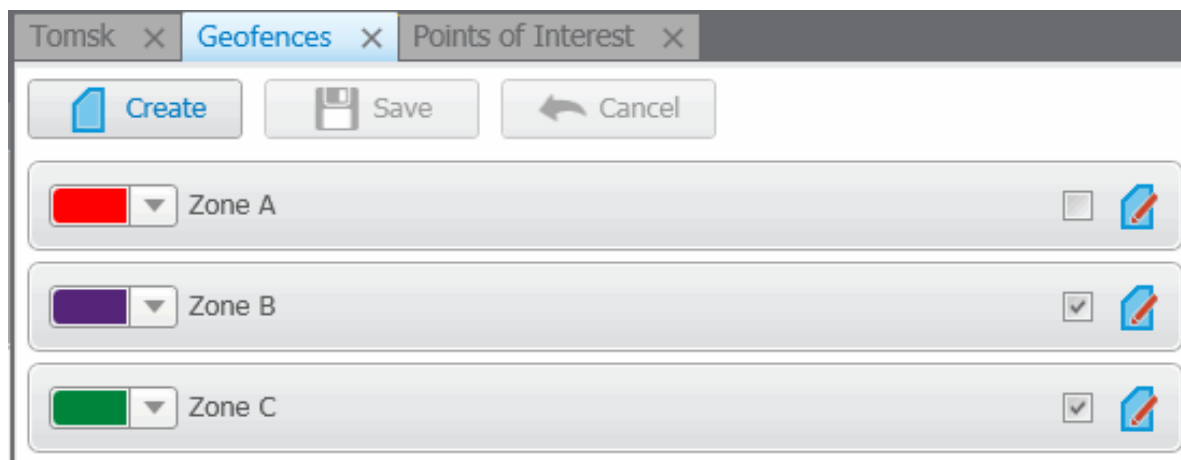
## Geofences

The **Geofences** panel is used to create, modify and display geofence on the map. Geofences help dispatchers keep an eye on subscribers. A dispatcher can define the area of the geofence on his or her own and attach special rules to it.

You can add a geofence in two ways:

1. By drawing a geofence on the map. You will learn about it in this article.
2. By specifying coordinates of the geofence. For more information see [Geofences](#).

To open the **Geofences** panel, expand the **Tools** menu in the **Main Menu** bar of the SmartPTT Dispatcher window, click **Map Tools** and then **Geofences**. At that, the following window opens up.

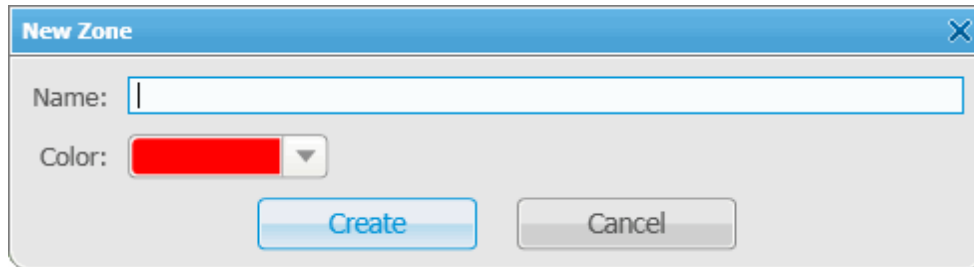


To create a new geofence:

1. Open a map.

**Note:** Geofence creation with Map Point is not supported.

2. Click **Create** in the **Geofences** panel window.
3. In the opened dialog box type the name of the geofence and select the color. Click **Create**.



4. Draw the geofence on the map with the help of mouse and the keyboard. The geofence must have at least 3 points. To undo the last added point press the **ESC** key. You can also stop drawing the geofence by double-clicking on the last point of the zone.
5. Click **Save** in the **Geofences** panel window.
6. The record about the new geofence will appear in the **Geofences** panel.
7. You can activate the geofence in this panel by selecting the check box next to the name of the geofence and edit it by clicking **Edit**. You can also change the color of the geofence.

To call off creation of the new geofence, click **Cancel**. To modify the existing geofence, click **Edit**.

To assign a rule to the geofence, go to [GPS Rules](#).

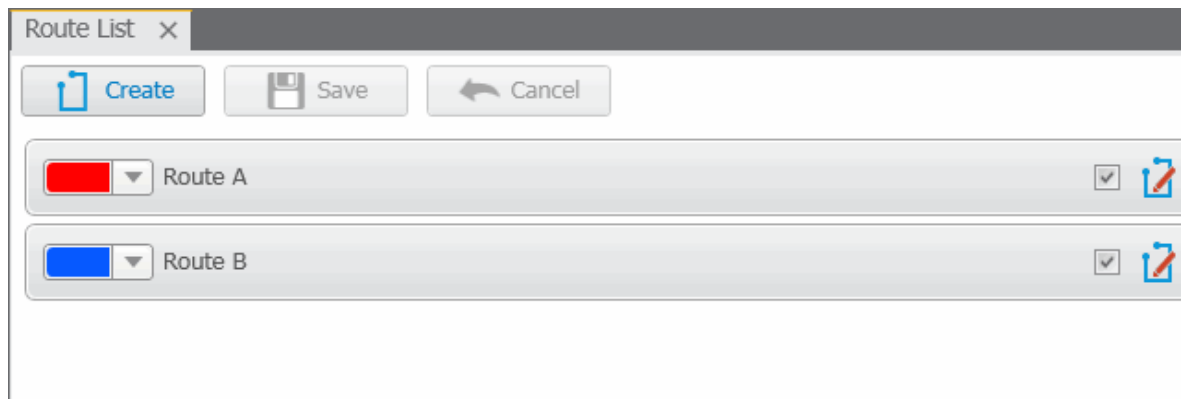
## Routes

Route is a tool of SmartPTT that significantly extends functionality of the dispatch system, especially for monitoring and controlling networks of highly mobile subscribers moving along the predefined route (for example, employees of transportation companies). Its meaning radically differs from the pre-existing concept of a "Route" as the trajectory of subscriber's movement that, from now on, is called "Track".

The route, starting with version 7.1.0 is a polyline connecting key points of the network coverage area. Subscriber location near the key points is identified by the specified radius of the route and can be summarized in the

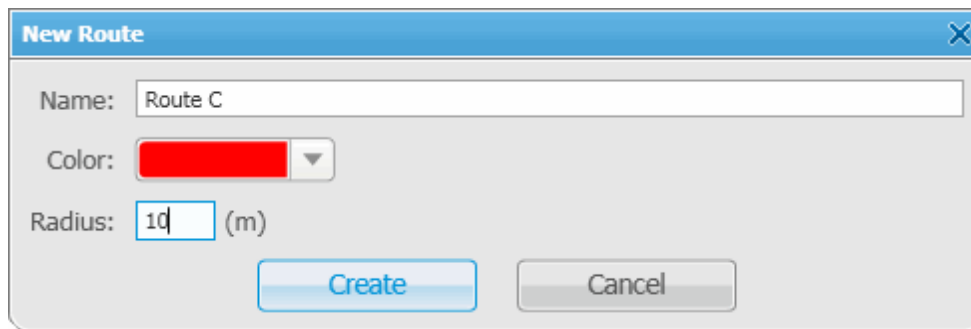
**Subscriber Locations** report.

To open the **Routes** panel, expand the **Tools** menu in the **Main Menu** bar of the SmartPTT Dispatcher window, click **Map Tools** and then **Routes**. At that, the **Routes** panel opens.



To create a new route:

1. Open the map window and click **Create**. At that, the **New Route** window opens.




2. In the field **Name** type the name of the new route.
3. Set the color of the new route.
4. In the **Radius** field enter allowed deviation from the route.
5. Click **Create**.

6. Go to the map window and draw the route.

Route points are created by clicking with the left mouse button on the map area. To create the first route point, point to the place where the route starts and left-click on it. To create next route points, point to the appropriate place on the map and left-click on it. Route points connect sequentially drawing a new route on the map. To undo the last added point, press Esc.

You can stop drawing the route by double-clicking the last point of the route.

7. To save the route, click **Save** in the **Routes** panel window. To call off the route, click **Cancel**. To modify the existing route, click the **Edit** button .

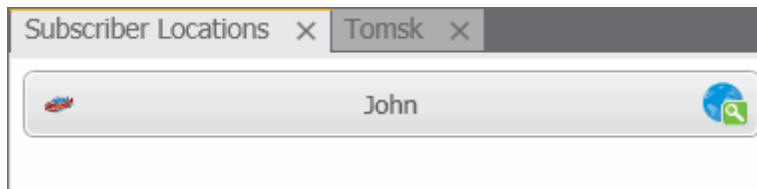
## Subscriber Location Panel


**Subscriber Location** panel shows the subscribers inside the selected area on the map.

To select area on the map, press **CTRL** and click with the left mouse button and draw the area covering subscribers.

**Note:** The **Subscriber Location** panel will be opened automatically if it is hidden at the moment of subscriber selection.

Opened **Subscriber Locations** panel.



Click  to find the subscriber on the map.

To open the **Subscriber Location** panel manually, click the **Tools** menu in the **Main Menu** bar and then open **Map Tools**.

## 1.5 Settings

The **Settings** menu allows you to configure system parameters, create special rules, which will help you manage workers, connect external third-party devices and so on:

- [Database](#) allows you to manage the system database, i.e., create new database or connect to the existing database.
- [Licenses](#) allows you to install licenses.
- [General Settings](#) allows you to tune the dispatch console, e.g., define the PTT button behavior, enable automatic system updates, select language, etc.
- [Control Devices](#) allows you to select and configure control devices to be used in SmartPTT Dispatcher, like

the mouse, touchscreen and other devices.

- [Radioservers](#) allows you to manage available radioservers, e.g., add new radioservers to be seen in the dispatcher console, assign profiles to the available radioservers.
- [Operators](#) allows you to add operators and manage their rights.
- [Statuses](#) allows you to add statuses for radio subscribers displayed in the Subscribers Management panel.
- [Event Log](#) allows you to manage the event log and the system messages.
- [Call Windows](#) allows you to configure Call Window parameters, e.g., specify the type of event that triggers the window opening.
- [Sound Settings](#) allows you to configure sound settings and set up multichannel sound.
- [Records](#) allows you to enable call recording and set up recording parameters.
- [Positioning Systems](#) allows you to configure GPS and Indoor settings.
- [Telemetry](#) allows you to configure telemetry commands to be available.
- [Categories](#) allows you to create categories.
- [Dispatchers](#) allows you to add other dispatchers and configure parameters of your own dispatcher console.
- [Telephone Interconnect](#) allows you to configure telephone settings and [Telephone Subscribers](#) allows you to create a list of telephone subscribers.
- [Job Ticket Statuses](#) allows you to add statuses for job tickets.
- [Third-Party Equipment](#) allows you to configure Tipro settings.
- [Hot Keys](#) allows you to customize keyboard shortcuts for making calls to subscribers.
- [Database Auto Backup](#) allows you to set the SmartPTT Dispatcher database auto backup.
- [Rules and Alerts](#) allows you to set up rules based on general events.
- [Positioning Rules](#) allows you to set up rules based on GPS and Indoor data.
- [Lone Worker Rules](#) allows you to create and set up rules for lone workers.
- [Subscriber Custom Properties](#) allows you to add additional properties to be displayed in subscriber Properties window.
- [Custom Consoles](#) allows you to create custom consoles with necessary elements.

## 1.5.1 Database

To connect to the database, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Database**. At that, a configuration window for database creation opens.

The screenshot shows a 'Configuration' dialog box with a blue title bar and a close button. The 'Database' section is selected, indicated by a gear icon. The 'Database server name' field contains 'localhost\SQLEXPRESS'. Below it, a note reads: 'For database server installed locally at SmartPTT Dispatcher PC enter name in the following way: Name of Computer\SQLEXPRESS (e.g., MYCOMP\SQLEXPRESS)'. The 'Authorization mode' dropdown is set to 'Windows NT Authorization'. The 'Account name' and 'Password' fields are empty. A 'Connect' button is centered below these fields. The 'Database' section below shows a message: 'Connection is established successfully!'. Below this message are two buttons: 'Create Database' and 'Restore Database'. The 'Current database' dropdown is set to 'SmartPTT'. At the bottom of the dialog are five buttons: 'Help', 'Cancel', 'Back', 'Next', and '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 window that opened enter the name of the new database and click **Save**.

**Current database** – allows you to connect to one of the created databases.

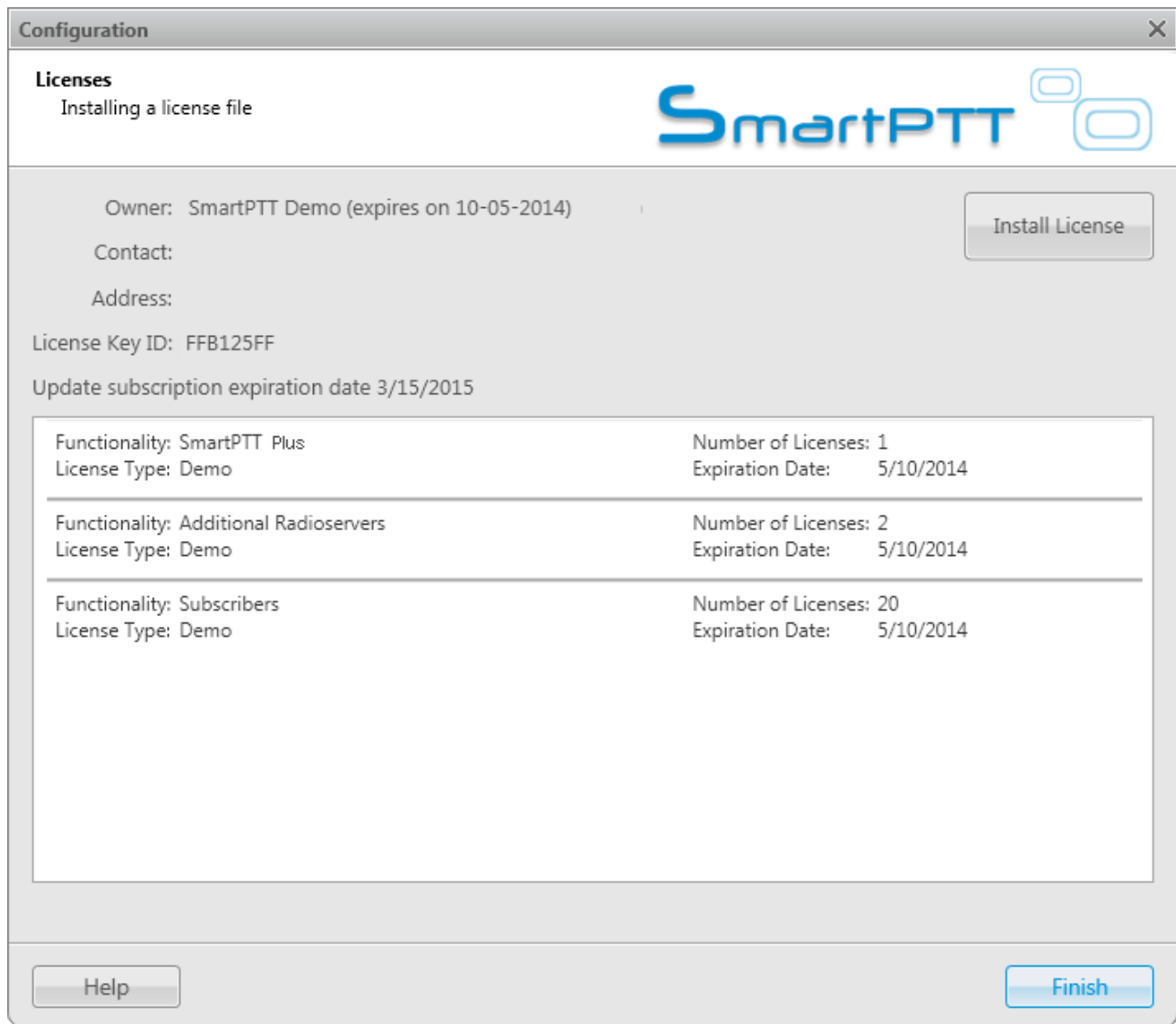
**Restore Database** – allows you to restore the current database using automatic backups. You can set up auto backups of the database in **Settings** > [Database Auto Backup](#).

To save the changes, click **Finish**. To apply the changes with the database, restart the dispatch console.

## 1.5.2 Licenses

To use the SmartPTT application you need to install licenses. 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 licenses, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Licenses**. The configuration window opens from where you can load license files which define functions available in the system.



Click **Install License** – the browse window will open. Specify the license file's location and click **Open**.

The license is installed, and the system licensing window displays information on the license type and scope of functions.

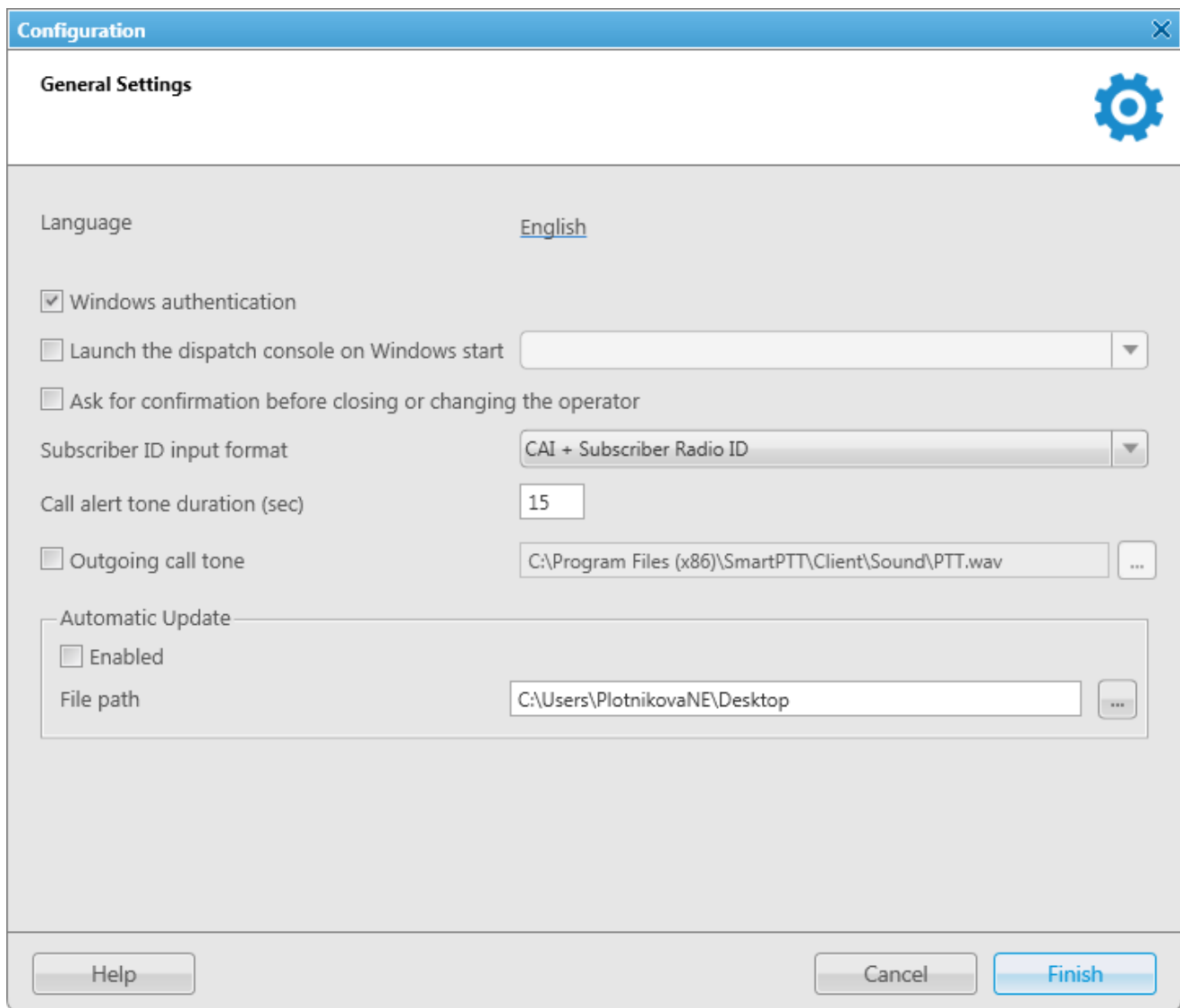
After the license is installed, the **Install License** button will change to the **Restore License** button. Clicking the **Restore License** button, you return to the previous license. After the **Licensing** window is closed, the latest displayed in the window license will be applied.

**Note:** If the radioserver and the dispatch console are installed on one and the same machine, you can install the licenses either in SmartPTT Radioserver Configurator or in SmartPTT Dispatcher. If the radioserver and the dispatcher console are installed on different PCs, you need to install the licenses in both applications.

## 1.5.3 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, expand the **Settings** menu in the **Main Menu** bar and select **General Settings**. At that, the following window will appear.



The screenshot shows a window titled "Configuration" with a close button (X) in the top right corner. The window is divided into two main sections: "General Settings" and "Automatic Update".

**General Settings** (indicated by a gear icon in the top right):

- Language: English
- Windows authentication
- Launch the dispatch console on Windows start
- Ask for confirmation before closing or changing the operator
- Subscriber ID input format: CAI + Subscriber Radio ID
- Call alert tone duration (sec): 15
- Outgoing call tone: C:\Program Files (x86)\SmartPTT\Client\Sound\PTT.wav

**Automatic Update** (indicated by a dashed box):


- Enabled
- File path: C:\Users\PlotnikovaNE\Desktop

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

**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.

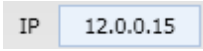
**Note:** In Windows 7, for the domain Windows user only domain Windows groups will be checked. Starting from Windows 8, for the domain Windows user all Windows groups will be checked (whether domain or local).

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. At that, 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.

**Subscriber ID input method** sets the input and display methods used for showing subscriber ID in the radio subscriber [Properties](#) window: IP address or CAI + subscriber ID.

**IP Address** – IP address is entered and displayed in the subscriber's [Properties](#) window: .

**CAI + Subscriber ID** (CAI network ID and a unique radio ID) are entered and displayed in the subscriber's

**Properties** window: .

**Call alert tone duration (s):** 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.

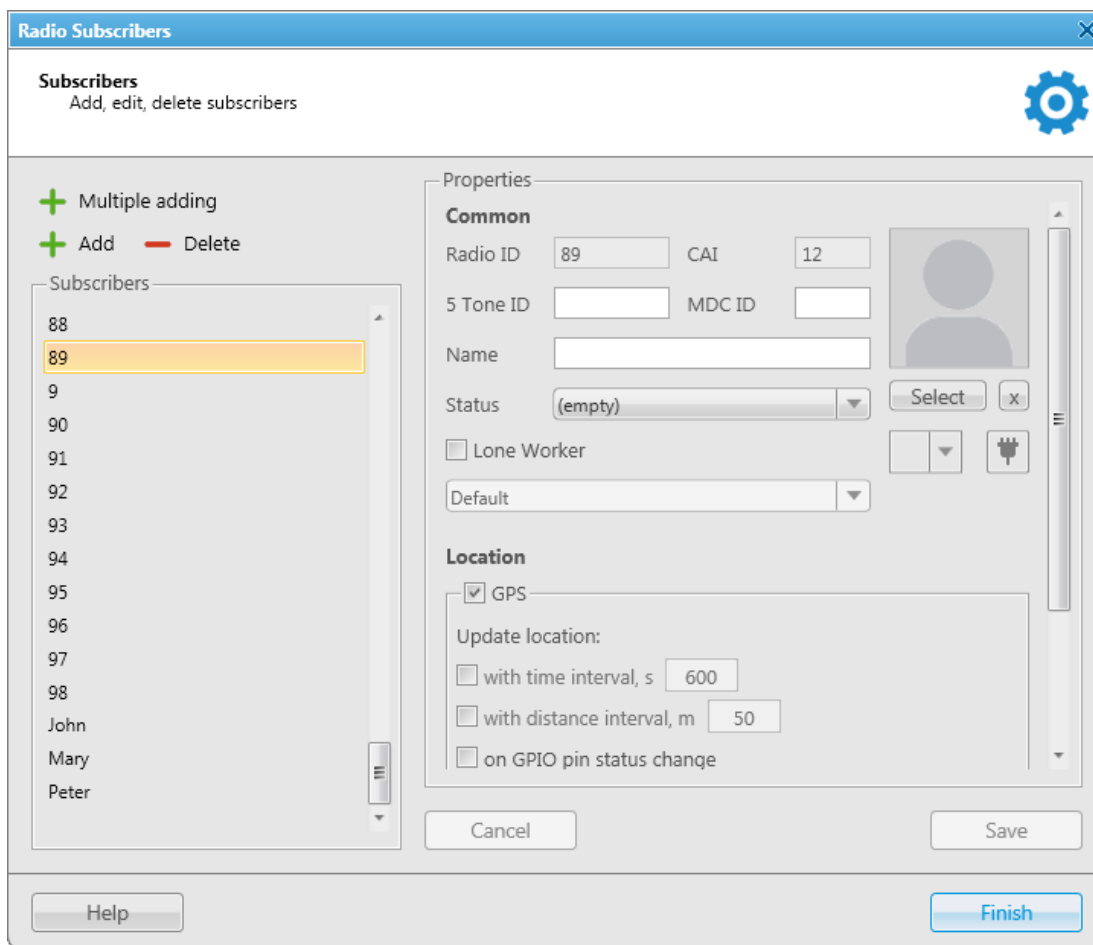
In the **File path** field specify the path to the **ClientSetup.exe** file, which you download together with SmartPTT Software Installation Package. If a new SmartPTT version is available, when you launch SmartPTT Dispatcher (or when you choose **Check for Updates** from the **Help** menu), the notification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

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

## 1.5.4 Subscribers

In the **Subscribers** window you can add one or several radio subscribers, specify and edit their properties, delete the existing radio subscriber or several radio subscribers.

To open the **Subscribers** window, click **Settings > Subscribers**.

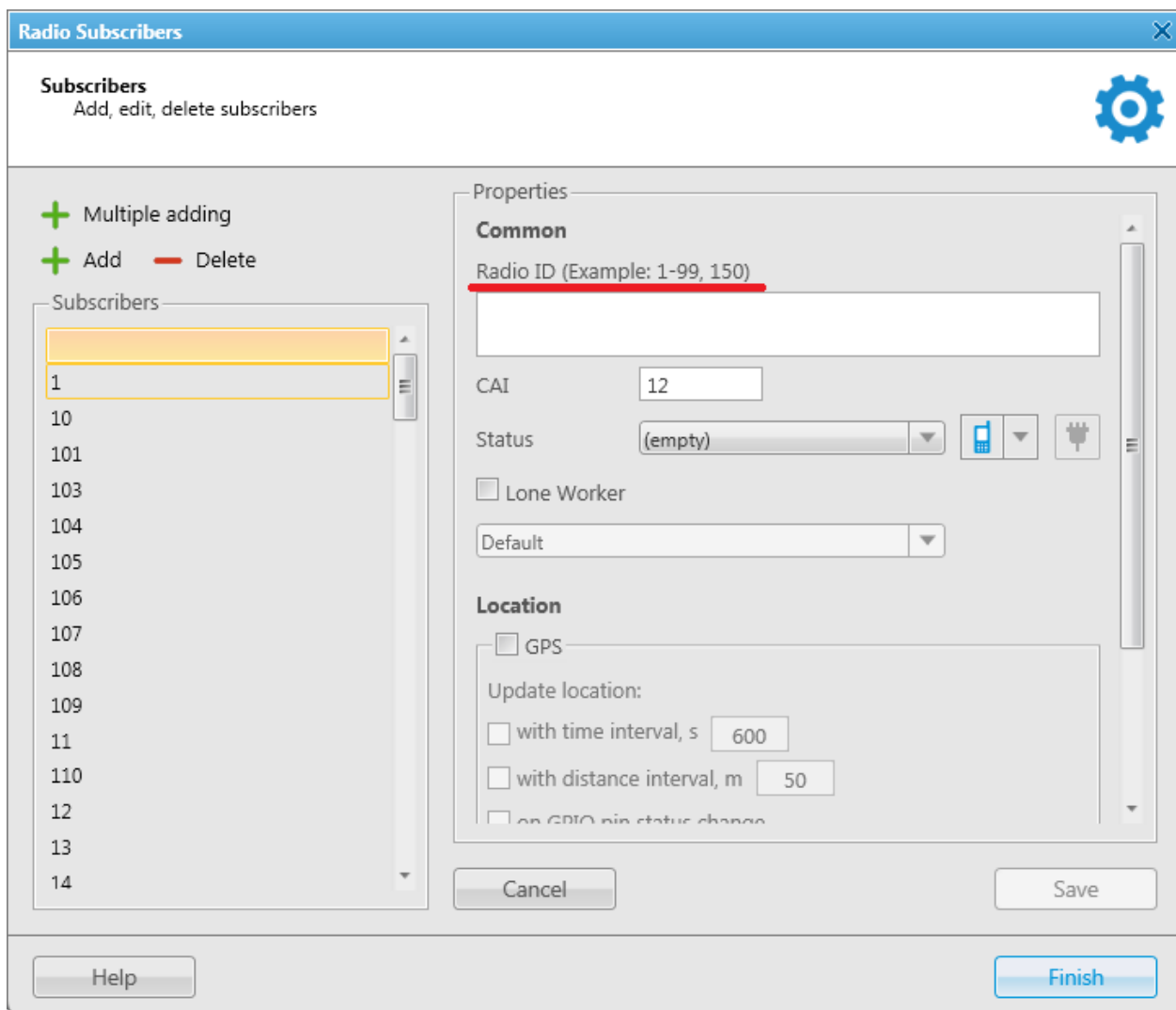


To add one radio subscriber, click **Add**, specify its [properties](#) and click **Save**.

To edit one radio subscriber, select this radio subscriber in the **Subscribers** list, change the required data in the **Properties** tab on the right and click **Save**.

To delete one radio subscriber, select this radio subscriber in the **Subscribers** list, click **Delete** and click **OK** in the **Confirmation** window that will open.

To add several radio subscribers, click **Multiple adding**. In the **Radio ID** field of the **Properties** tab on the right, input the range of the radio identifiers, that are added, or specify them separated by comma. Specify other [properties](#), common for all radio subscribers, that are added, and click **Save**.



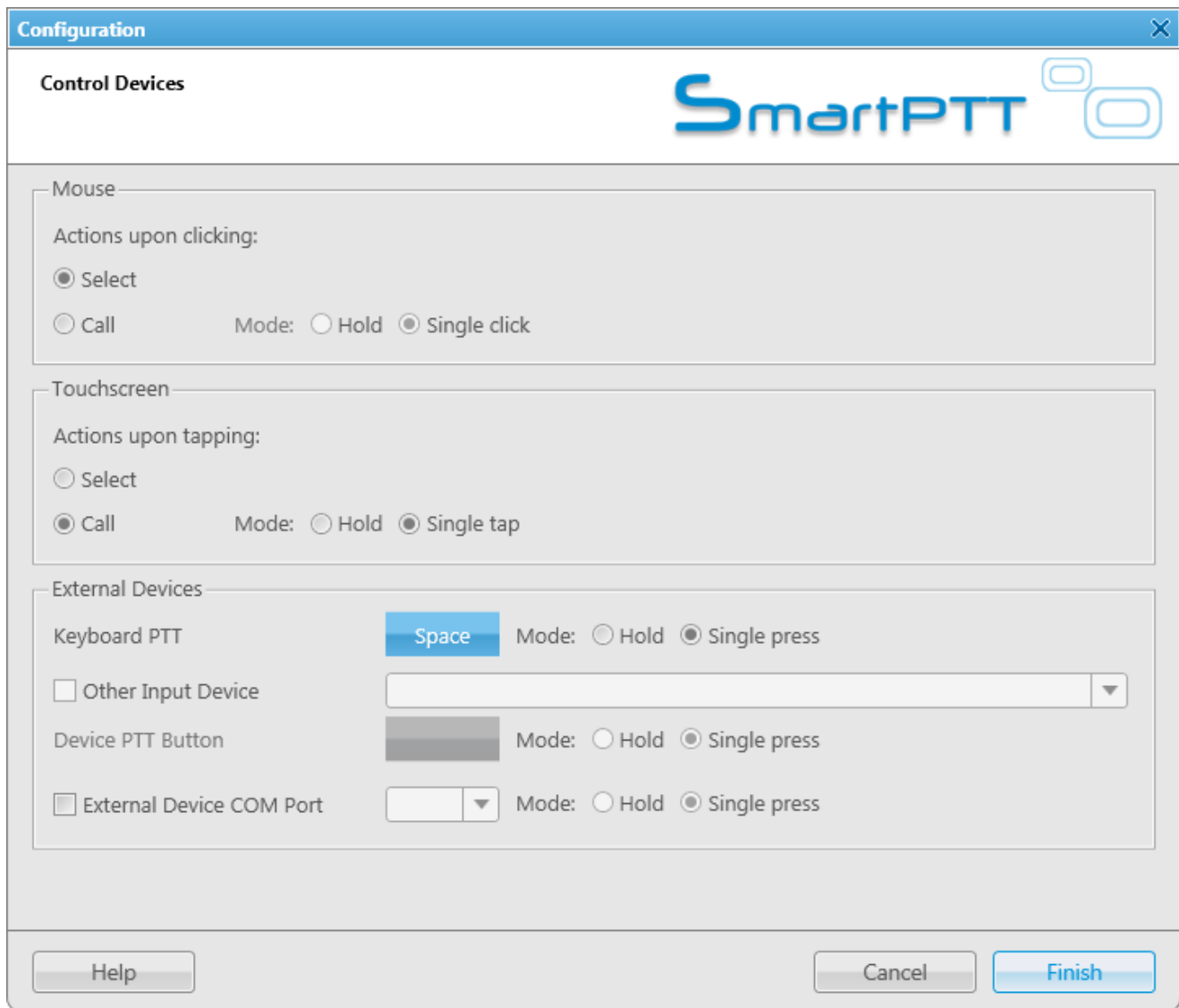
To change the properties of the group of radio subscribers, select the required radio subscribers in the **Subscribers** tab, change their [properties](#) and click **Save**.

To delete the group of radio subscribers, select the required radio subscribers in the **Subscribers** tab, click **Delete** and click **OK** in the **Confirmation** window that will open.

## 1.5.5 Control Devices

In the **Control Devices** window you can select and configure the control device to be used in SmartPTT Dispatcher. This can be a mouse, touchscreen, keyboard or other external input device.

To define the control device, expand the **Settings** menu in the **Main Menu** bar and select **Control Devices**. At that, the following window appears.




The window is divided into three group boxes, devoted to a mouse, a touchscreen, and to external devices.

Under **Mouse** and **Touchscreen** you can select the action that will be performed at clicking or tapping, and PTT mode. These settings will be applied to several panels: [Radio Fleet](#), [Subscribers](#), [Call Windows](#), [Custom Consoles](#), [Emergencies](#). The [Calls](#) panel does not support these settings—single click is applied there.

The **External Devices** group box allows you to set up the following devices:

- keyboard;
- external input USB device;
- external input device connected via COM port.

To assign PTT to a keyboard button, click on the button  next to **Keyboard PTT**, and press a keyboard button. At that, the pressed button will appear. To define the PTT mode (i.e., pressing and release), select **Hold**, or **Single press**.

To set up the PTT button on any external input device connected via USB, select **Other Input Device** and choose the required device from the list. Then, click on the blue button next to **Device PTT Button** and press any button on the device.

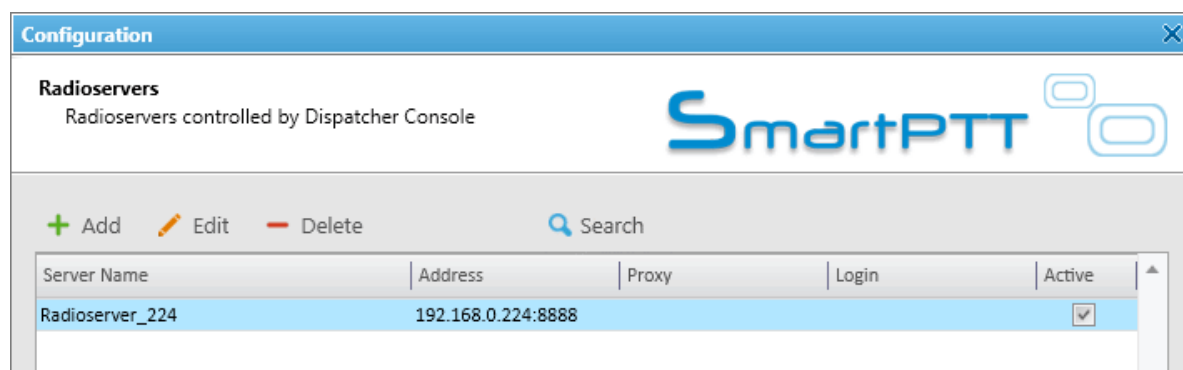
**External Device COM Port** – COM port used to connect to the external PTT device.

There are two modes available for the PTT button on external devices: **Hold** and **Single press**.

To save changes, click **Finish**.

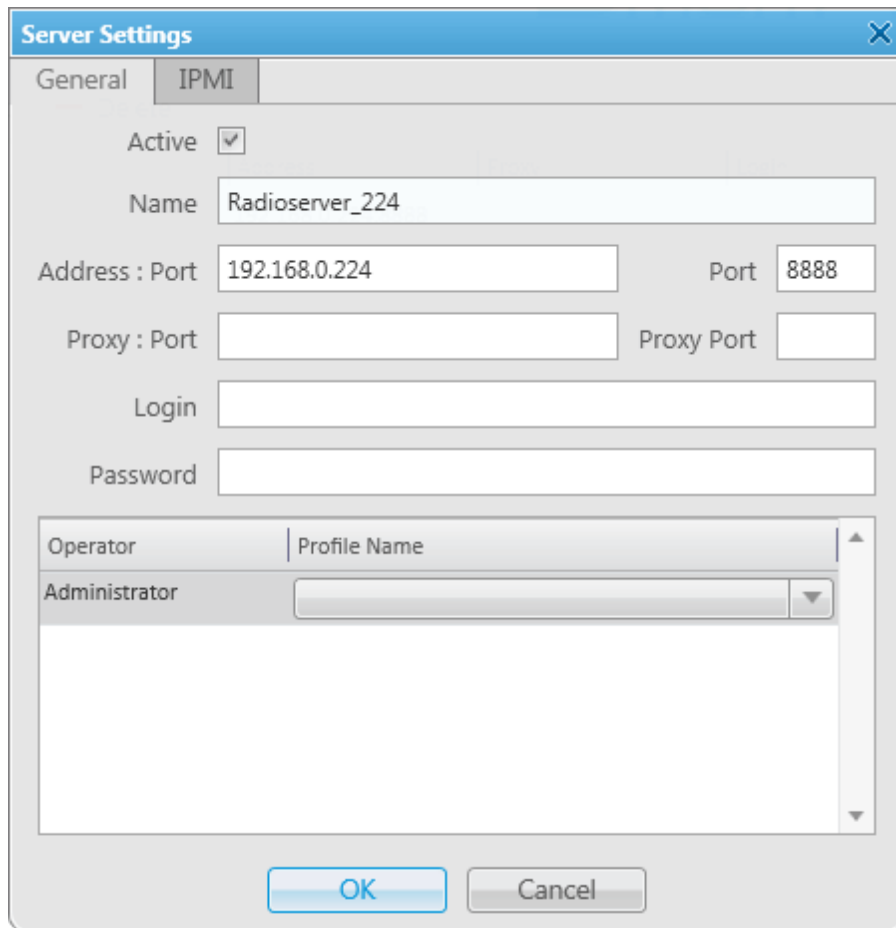
## 1.5.6 Radioservers

To connect the existing radioserver to the dispatcher console, expand the **Settings** menu in the **Main Menu** bar and click **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.



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" currently selected. The "IPMI" tab contains the following fields and controls:

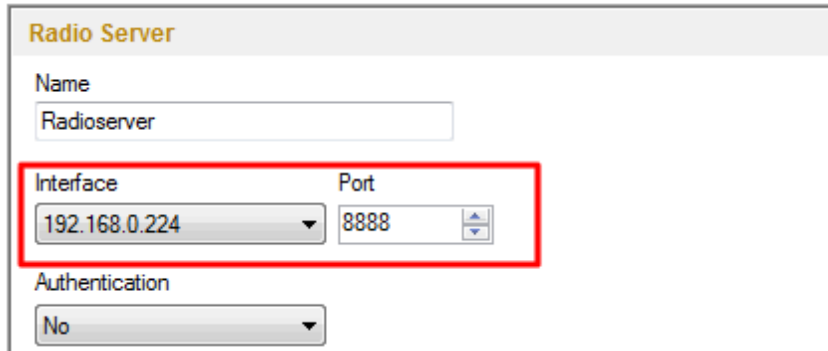
- Active:** A checked checkbox.
- Name:** A text input field containing "Radioserver\_224".
- Address : Port:** A text input field containing "192.168.0.224".
- Port:** A text input field containing "8888".
- Proxy : Port:** An empty text input field.
- Proxy Port:** An empty text input field.
- Login:** An empty text input field.
- Password:** An empty text input field.
- Operator / Profile Name:** A dropdown menu with "Administrator" selected.
- Operator List:** A scrollable list area that is currently empty.

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

In this example we use port *8888*.



The screenshot shows a configuration window titled "Radio Server". It contains several fields: "Name" with the value "Radioserver", "Interface" with the value "192.168.0.224", "Port" with the value "8888", and "Authentication" with the value "No". A red rectangular box highlights the "Interface" and "Port" fields.

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

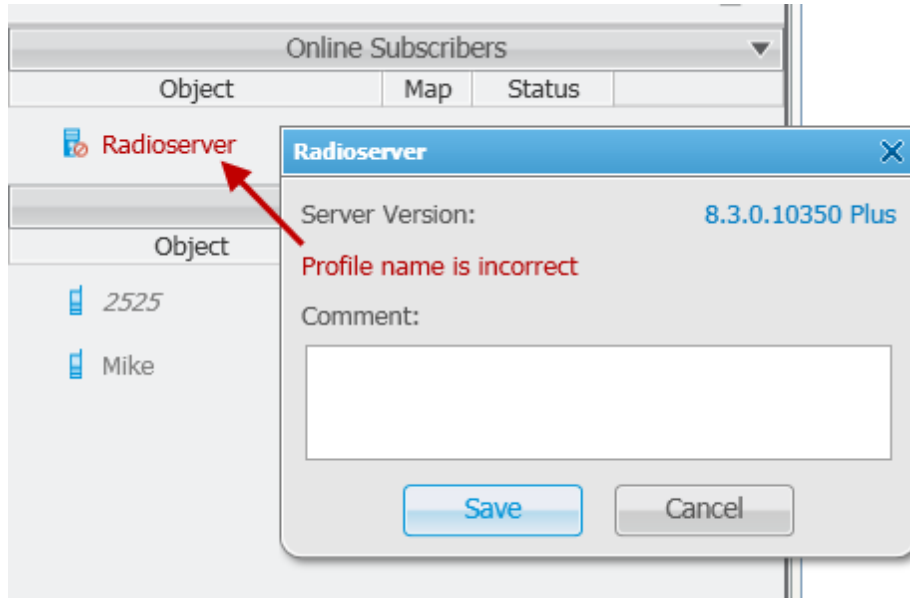
Fields **Login** and **Password** must be filled if authentication is enabled on the radioserver side. To enable authentication on the radioserver side, run SmartPTT Radioserver Configurator, click **Radioserver**, select *Windows* in the **Authentication** field. Currently, you can select only Windows 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**. At that, the new radioserver appears in the list of radioservers.

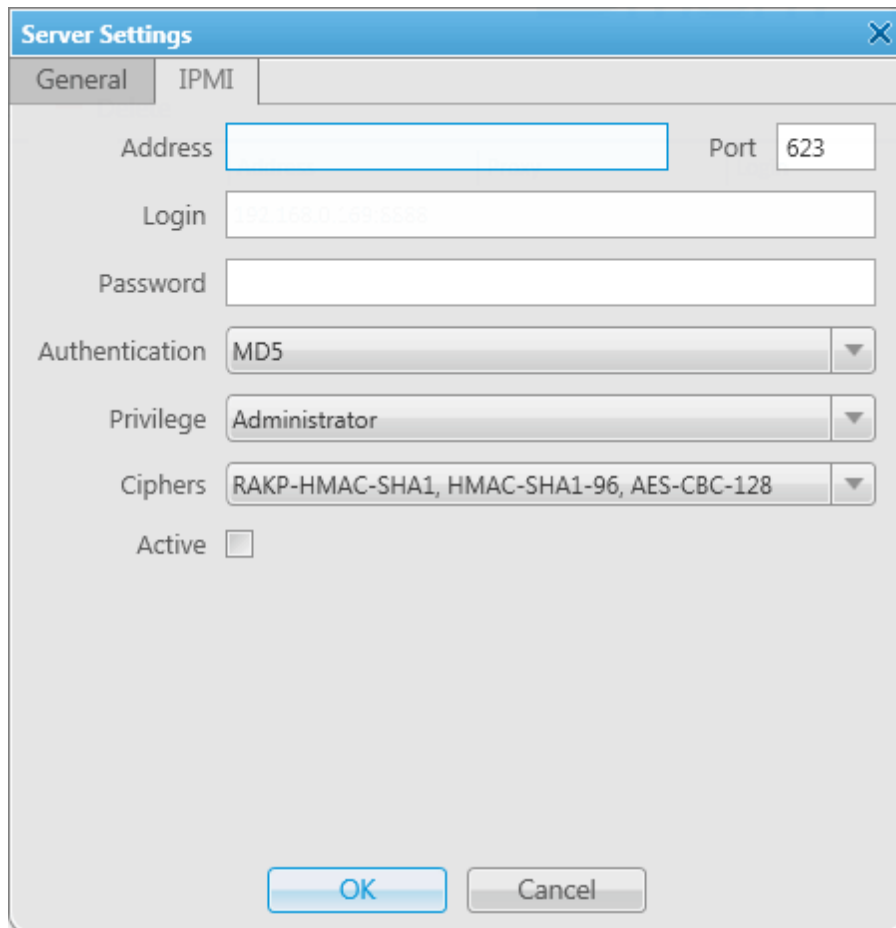
To edit the radioserver settings, select it in the list of radioservers and click **Edit**. To delete the radioserver, select it in the list of radioservers and click **Delete**. To find all the running radioservers in the network, click **Search**.

### 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" currently 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 "192.168.0.169:65535".
- 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 user has different permissions. Use Administrative 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.

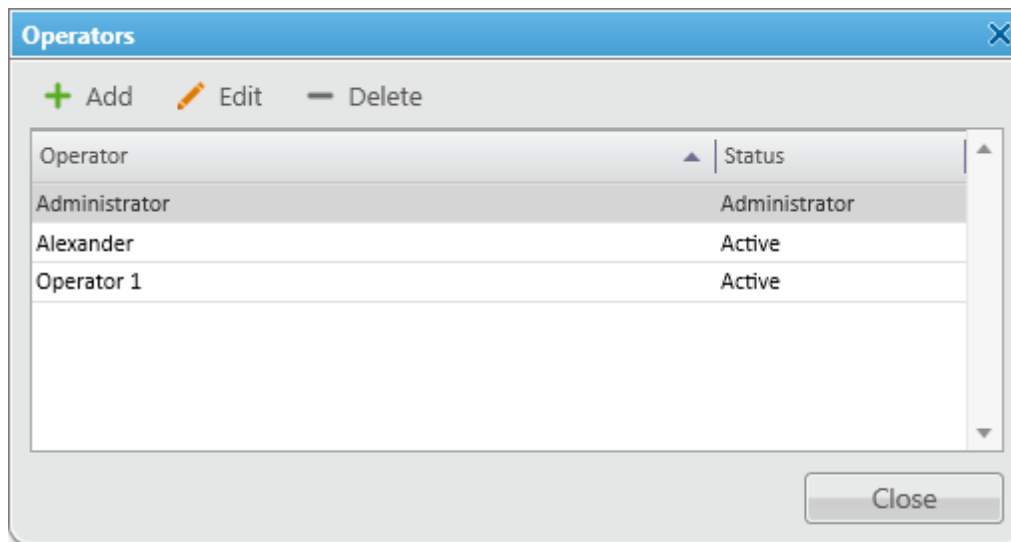
**Note:** For more information about managing the radioserver with the help of IPMI, see [Monitoring](#).

## 1.5.7 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, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Operators**.

At that, 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.

Here are some of them:

**Add/Delete subscriber units:** This permission allows the operator to add, delete subscribers and modify their properties.

**Manage unregistered subscriber units:** Select this property to allow an operator to modify unregistered subscribers in the subscriber tree.

**Attach radios to selected channel:** Allows selecting control stations which will be used to display all registered subscribers. This option is recommended to be set for Capacity Plus systems.

**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.

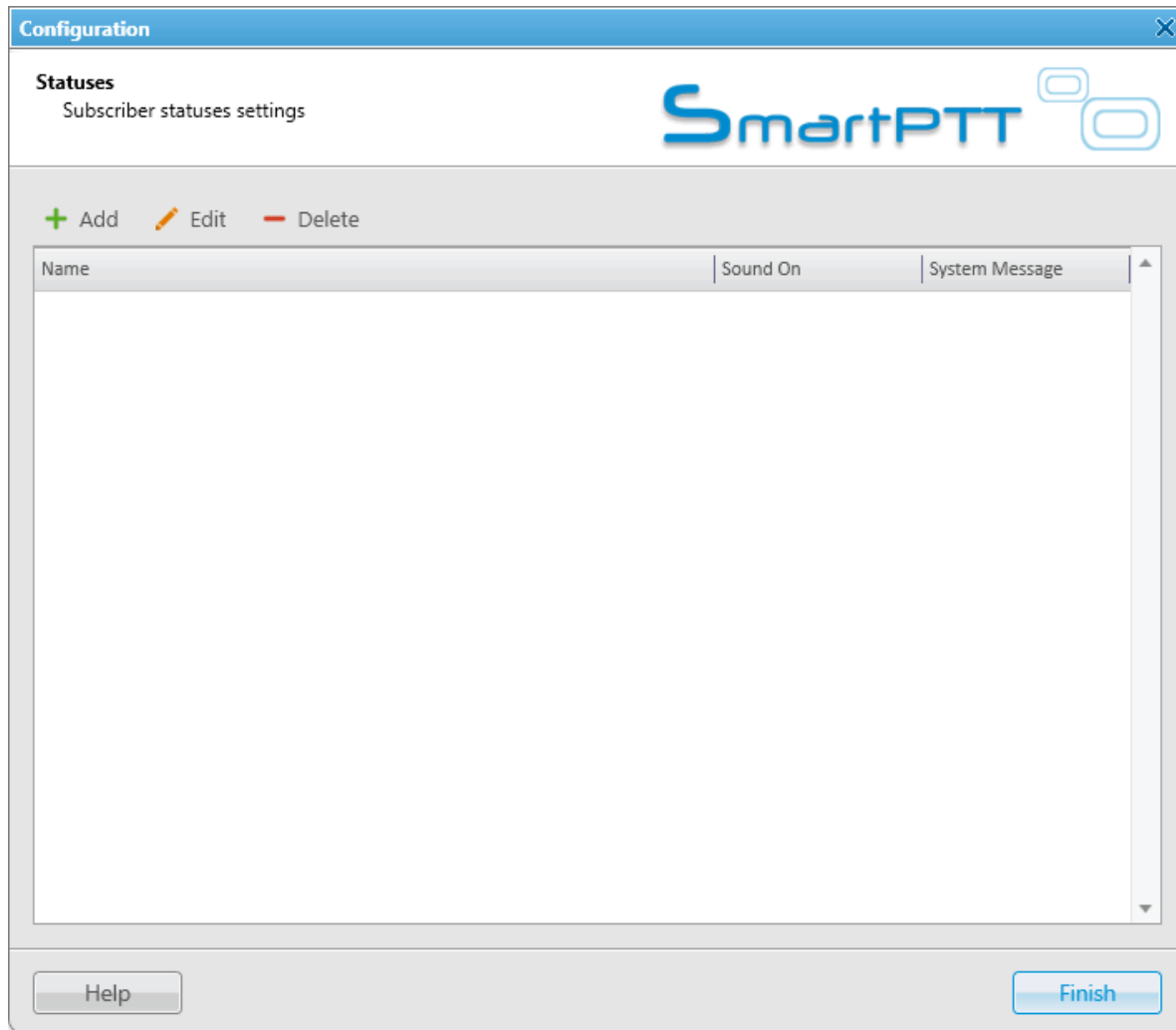


To switch operators, click  in the **Main Menu** and after the dispatch console has restarted, select a new operator.

## 1.5.8 Statuses

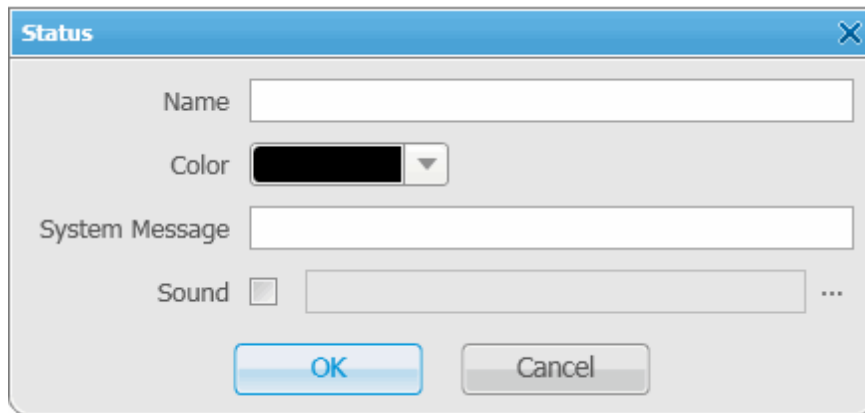
You can create statuses to assign to radio subscribers (for example, Available, On Call, In Place or Busy). Each radio subscriber can have a status showing their current state. The status is set either by the dispatcher or by the radio subscribers themselves.

To set up statuses, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Statuses**. At that, the configuration window opens.





To add a new status, click **Add** in the **Active** tab. A window for adding a new status opens.



The 'Status' dialog box has a blue title bar with a close button. It contains the following fields and controls:

- Name:** A text input field.
- Color:** A color selection dropdown menu.
- System Message:** A text input field.
- Sound:** A checkbox followed by a file selection field with a browse button (three dots).
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

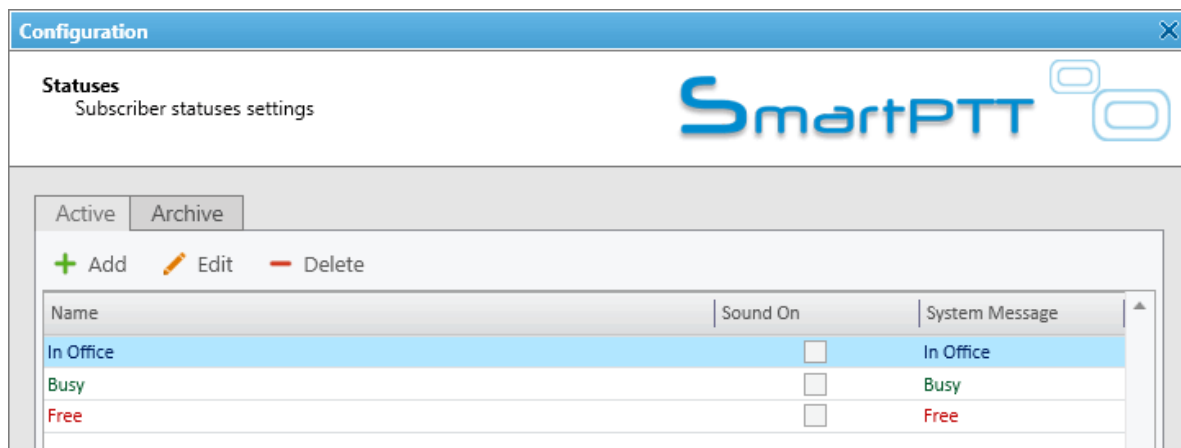
**Name** – status name to be displayed in SmartPTT Dispatcher.

**Color** – status color to be displayed in SmartPTT Dispatcher.

**System Message** – message which triggers status change, that is if a radio subscriber sends this message to the dispatcher, the subscriber receives the status.

**Sound** – audio file played back if the status is activated.

Click **OK**, and the new status is added to the list of statuses.



The 'Configuration' window shows the 'Statuses' section with the following elements:

- Statures** Subscriber statuses settings
- SmartPTT** logo
- Active** and **Archive** tabs
- + Add**, **Edit**, and **Delete** buttons
- A table with columns: Name, Sound On, System Message

Name	Sound On	System Message
In Office	<input type="checkbox"/>	In Office
Busy	<input type="checkbox"/>	Busy
Free	<input type="checkbox"/>	Free

To edit the existing status, select it in the list of active statuses (the **Active** tab) and click **Edit**.

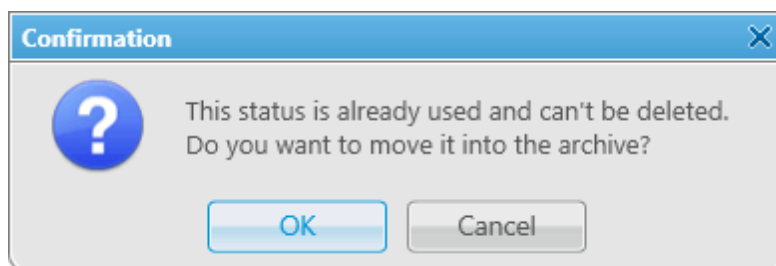
To delete the status, select it in the list of active statuses and click **Delete**. You can delete a status only if it was never assigned to a subscriber. If the status is currently assigned to a subscriber or used to be assigned, it can't be deleted. But, it can be moved to an archive. Characteristics of the archive statuses are:

- They can't be assigned to radio subscribers.
- They can't be used in the alert rule definitions. However, the archive status remains valid as an alert rule criteria for a particular rule, if it was selected as such before being moved to the archive.
- They are displayed in the event log entries.
- They can be restored from the archive.

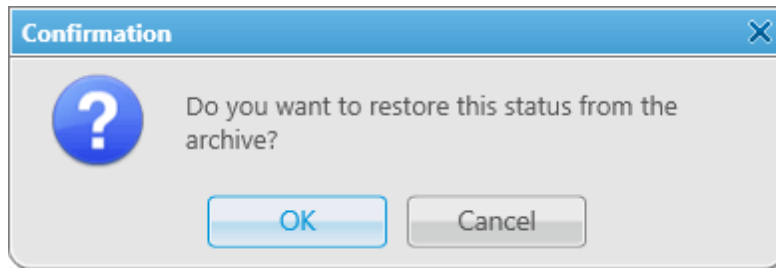
To see the list of archive statuses, open the **Archive** tab of the **Statuses** window.



To move the status to the archive, select the status from the active status list, click **Delete** and click **OK** in the opened dialog box to confirm the action.



In order to restore the status from the archive, select the status from the archive list, click **Restore** and then click **OK** in the opened dialog box to confirm the action.

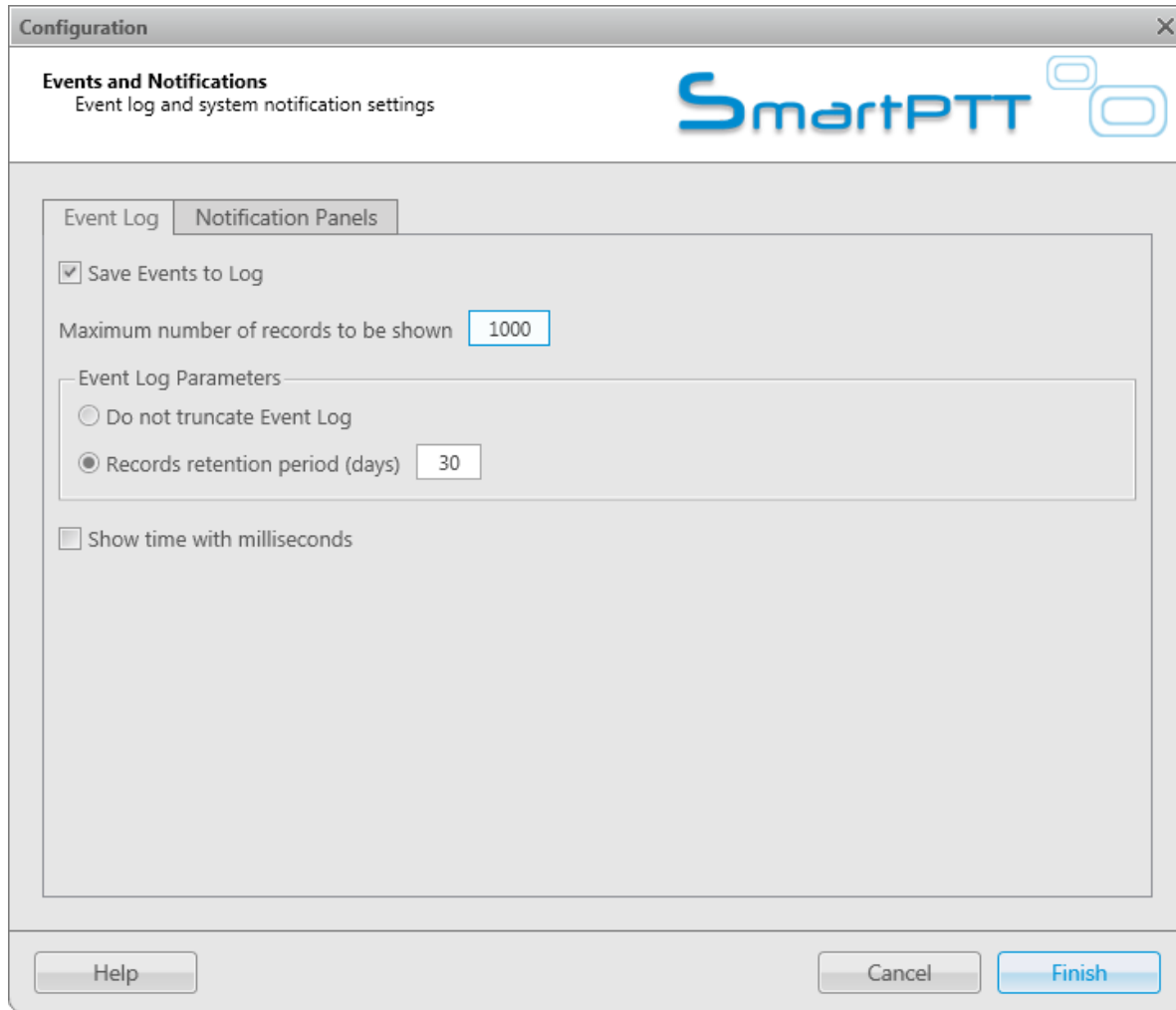


## 1.5.9 Events and Notifications

The **Events and Notifications** window provides the following settings:

- Event log settings
- Settings for the **Emergencies** panel
- System message settings

To manage the event log, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Events and Notifications**:



**Save Events to Log** – when the check box is selected, events data is saved in the SmartPTT Dispatcher database.

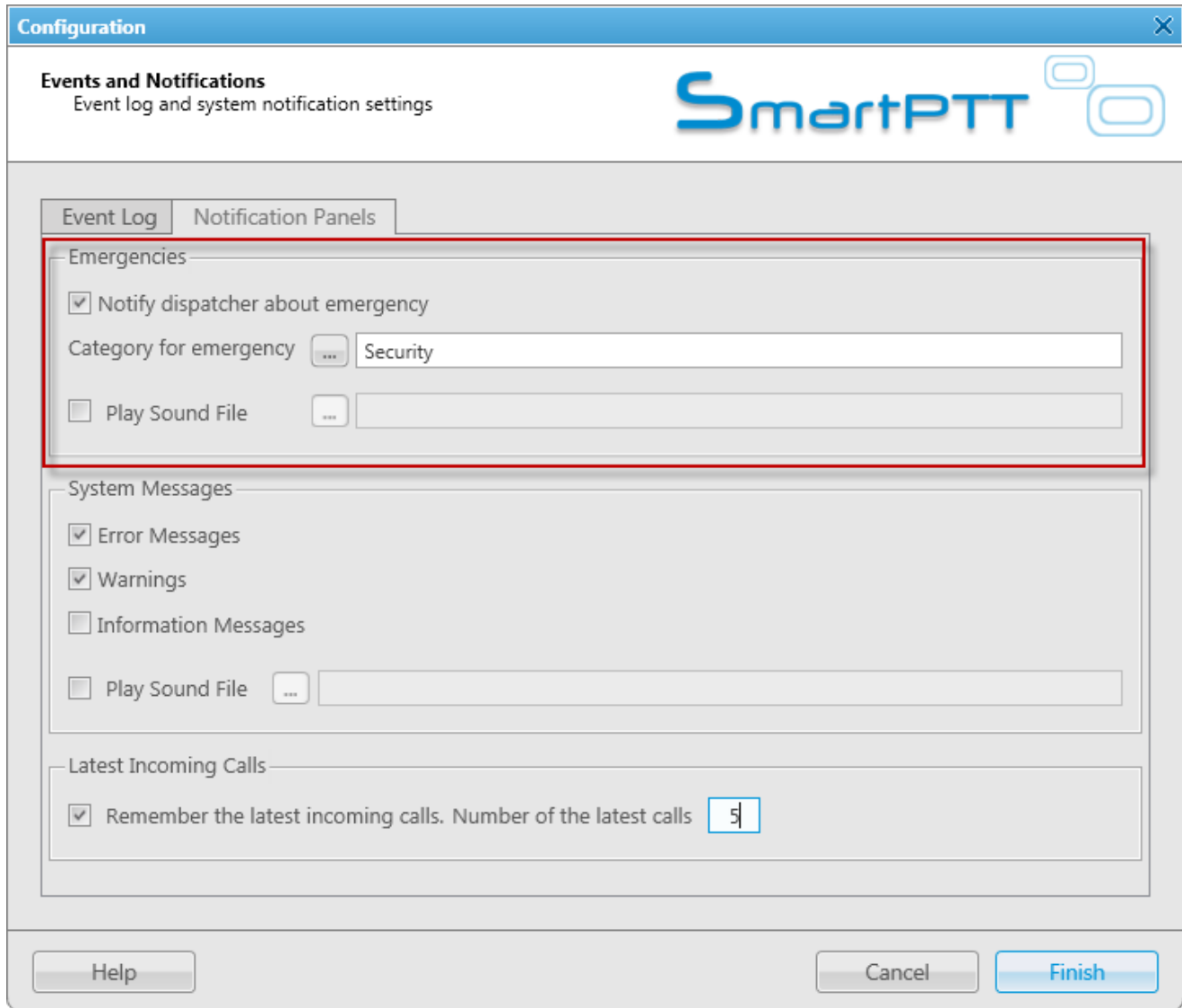
**Maximum number of records to be shown** – sets the number of records to be displayed in the log.

**Event Log Parameters** – an area to configure cleaning settings for the event log.

**Show time with milliseconds** – sets time format to display milliseconds.

To save changes, click on **Finish**.

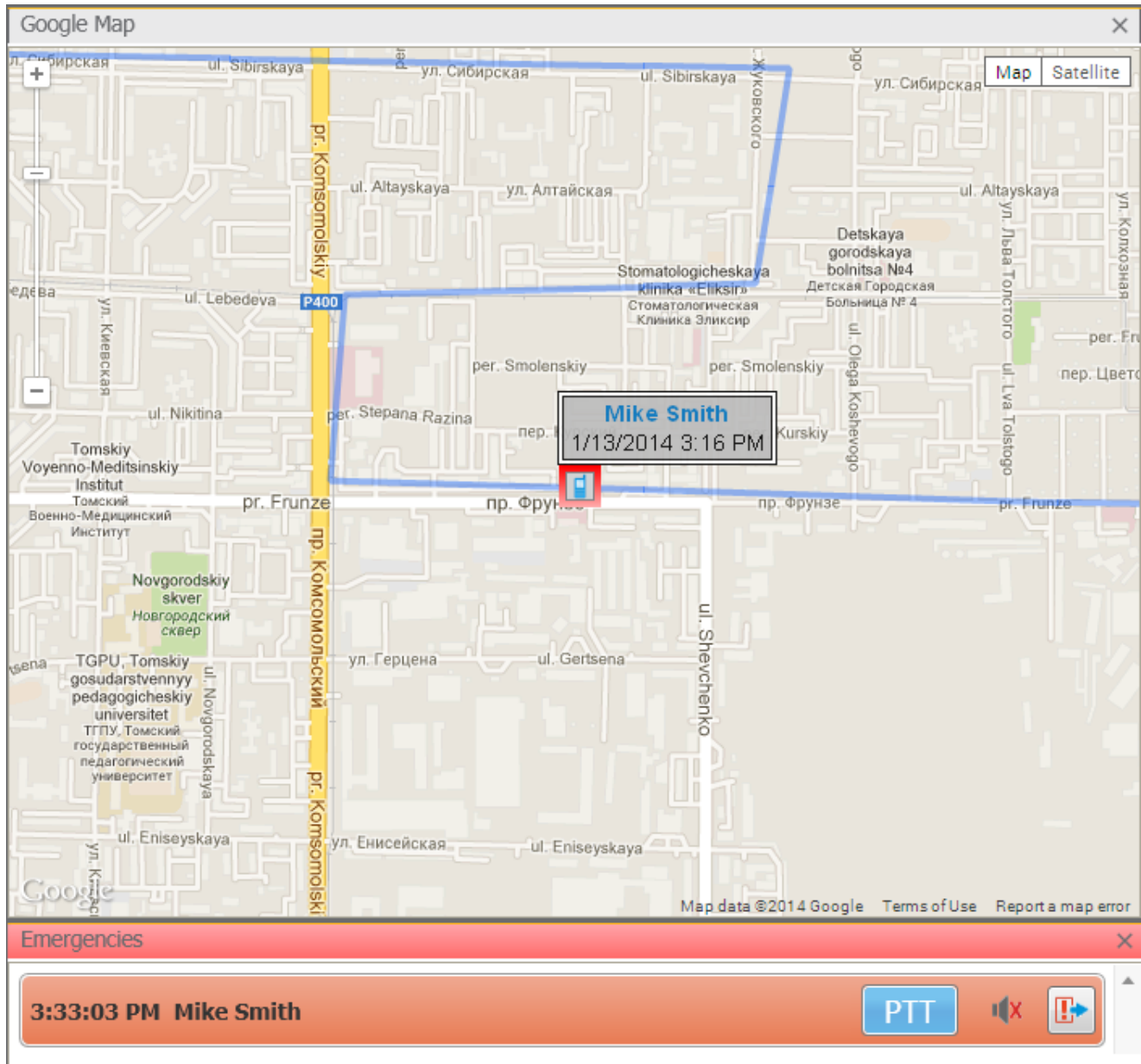
To set parameters for the **Emergencies** panel, click on the **Notification Panels** tab.





**Notify dispatcher about emergency** – if enabled, when receiving an emergency signal from a radio subscriber, the system will open the **Emergencies** panel, play the sound file, if specified, and will open the map to display the radio sending the emergency signal. The radio location on the map is based on the latest GPS data.

**Category for emergency** – select a category, which will be responsible for resolving the emergency issue. If the category is selected, it will also appear on the map.

If enabled, the **Emergencies** panel opens automatically, when the system receives the emergency signal:



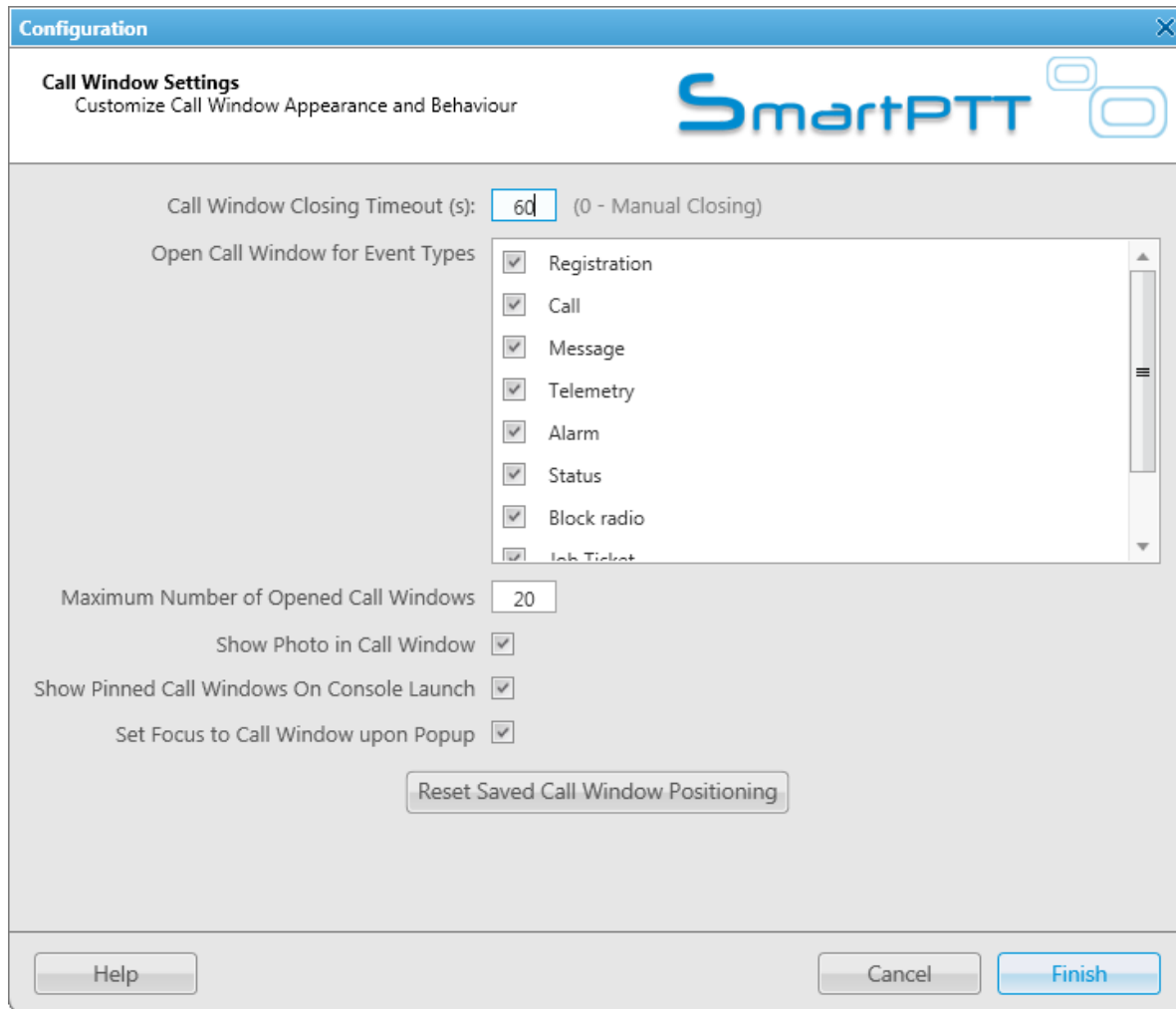
From the **Emergencies** panel the dispatcher can do the following:

- Make a group call. The talkgroup is set in the radio parameters in MOTOTRBO CPS.
- Turn off the sound alert by clicking .
- Mark the issue as resolved by clicking . At that, the **Emergencies** panel gets closed.

To set parameters for the system messages, see [System Messages](#).

## 1.5.10 Call Windows

To configure the parameters of the **Call Window**, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Call Windows**. At that, the configuration window opens where you can configure the appearance and functions of the **Call Window**.



**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** won't 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, Lone Worker, 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 subscriber's photo 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.

## 1.5.11 Sound

**Warning!** For proper operation, make sure that you have a working microphone. If not, you won't be able to make or answer calls.

To set audio device settings and VoIP parameters, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Sound Settings**. At that, the configuration window opens up.

The **Sound Settings** window includes:

1. **General Settings** tab
2. **Audio Output Devices** tab
3. **Other Settings** tab



The **General Settings** tab:

The screenshot shows the 'Configuration' window for SmartPTT, specifically the 'Sound Settings' section. The window has a blue title bar with the text 'Configuration' and a close button. Below the title bar, the text 'Sound Settings' and 'Audio devices and VoIP settings' is displayed. The SmartPTT logo is in the top right corner. The main content area is divided into three tabs: 'General Settings' (selected), 'Audio Output Devices', and 'Other Settings'. Under 'General Settings', there are three sections: 'Audio Input', 'Audio Output', and 'VoIP Parameters'. The 'Audio Input' section includes a 'Device' dropdown menu set to 'Microphone (2- USB audio CODEC)', an 'Input Line' dropdown menu set to 'Audio', and a 'Noise Reduction' dropdown menu set to 'Disabled'. Below these are three buttons: 'Record', 'Check', and 'Save'. The 'Audio Output' section includes a 'Device' dropdown menu set to 'Default' and a 'Check' button. The 'VoIP Parameters' section includes a 'Codec' dropdown menu set to 'CCITT u-Law', a 'Codec Format' dropdown menu set to '8000 Hz, 20 ms, 64 (86) kbps', and a 'VoIP Port' text input field containing '18501'. At the bottom of the window are three buttons: 'Help', 'Cancel', and 'Finish'.

**Audio Input** – audio device to which the microphone is connected. It is recommended to select the audio input device explicitly.

**Input Line** – audio mixer line used to connect a microphone.

**Noise Reduction** – allows making dispatcher sound clearer by reducing noises. You can choose several levels starting from 6 to 18 dB. If voice and noise levels are the same or close, do not enable noise reduction.

**Audio Input Test** – allows checking quality of microphone performance. To test your microphone performance, click **Record** and then talk into the microphone. Stop recording by clicking **Stop**, which appears instead of **Record**. To listen to what you have just recorded, click **Check**. You can also save the recording in MP3 format by

clicking **Save**.

**Audio Output** – audio device to which headsets or speakers are connected. To check quality of the audio output device performance, click **Check**. At that, you will hear a sound. To stop the sound, click **Stop**.

**Codec** – audio stream compression method.

**Bitrate** – audio stream sampling frequency.

**VoIP Port** – audio stream receive port.

Specifications of the codec format **8000 Hz, 20 ms, 64 (86) kbps**:

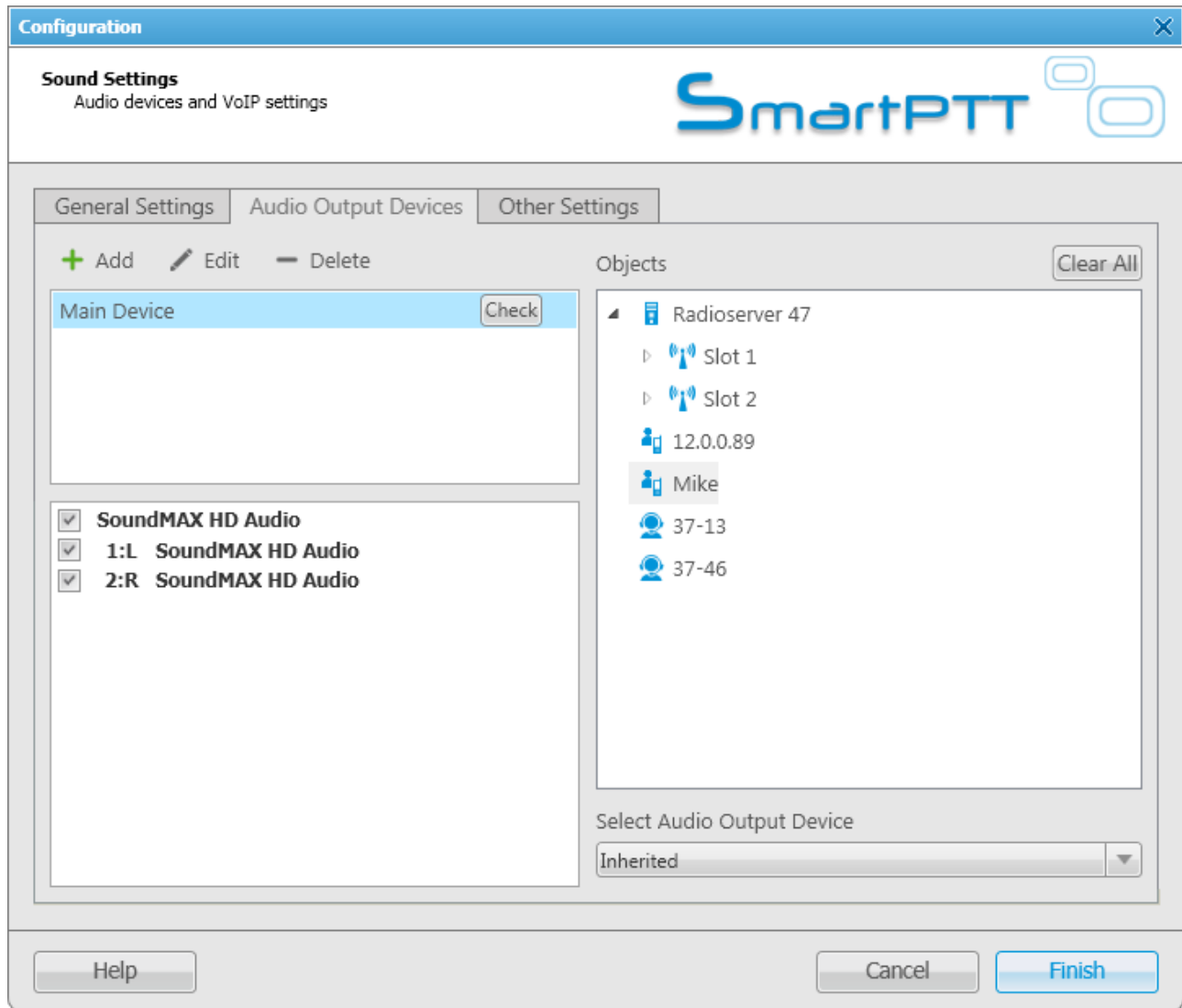
**8000 Hz** – the sampling rate

**20 ms** – the frame size

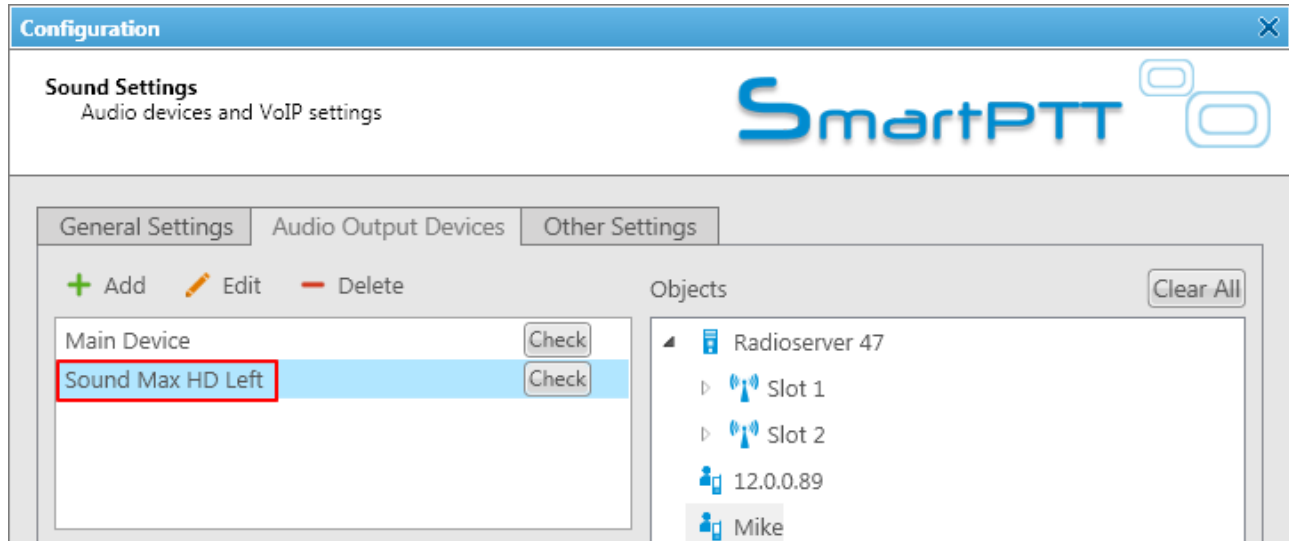
**64 kbps** – the voice data bit rate

**86 kbps** – a full bit rate (required network bandwidth)

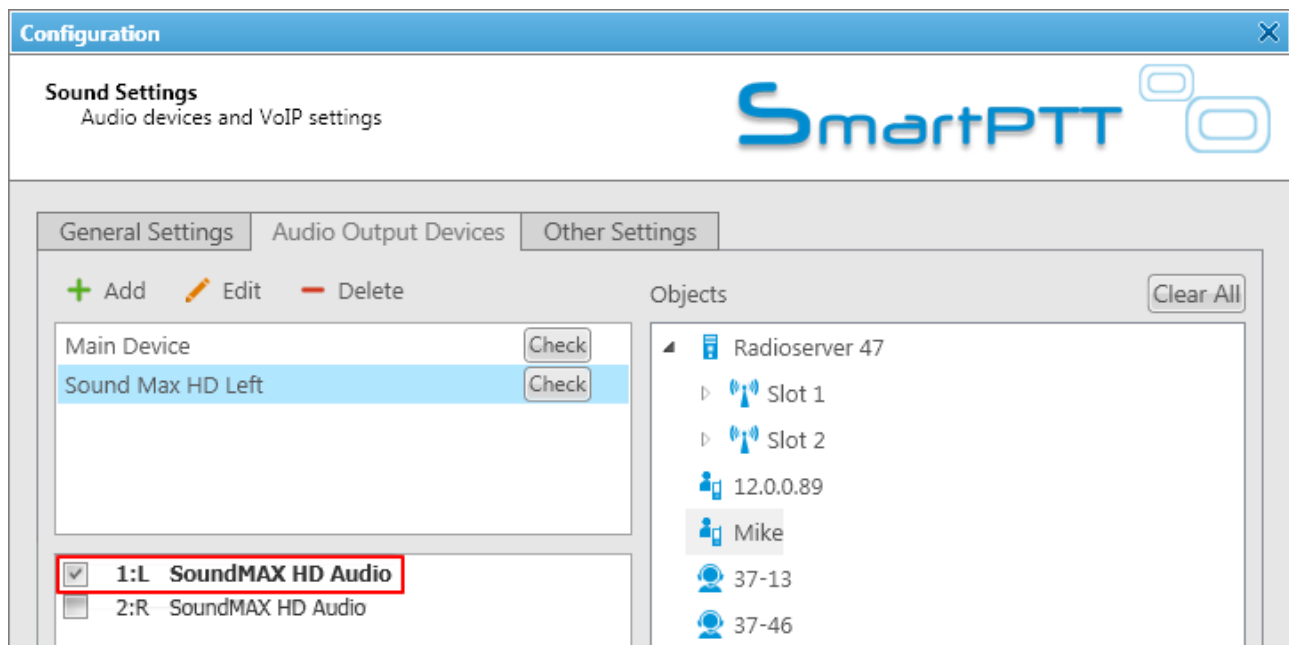
Starting from version 8.3, dispatch console allows you to set up different audio output devices, including multiple channels, for different subscribers, talkgroups, slots, etc. E. g., you can listen to radio subscribers on the headset, and the external dispatcher on the speakers. To do that, open the **Audio Output Devices** tab.



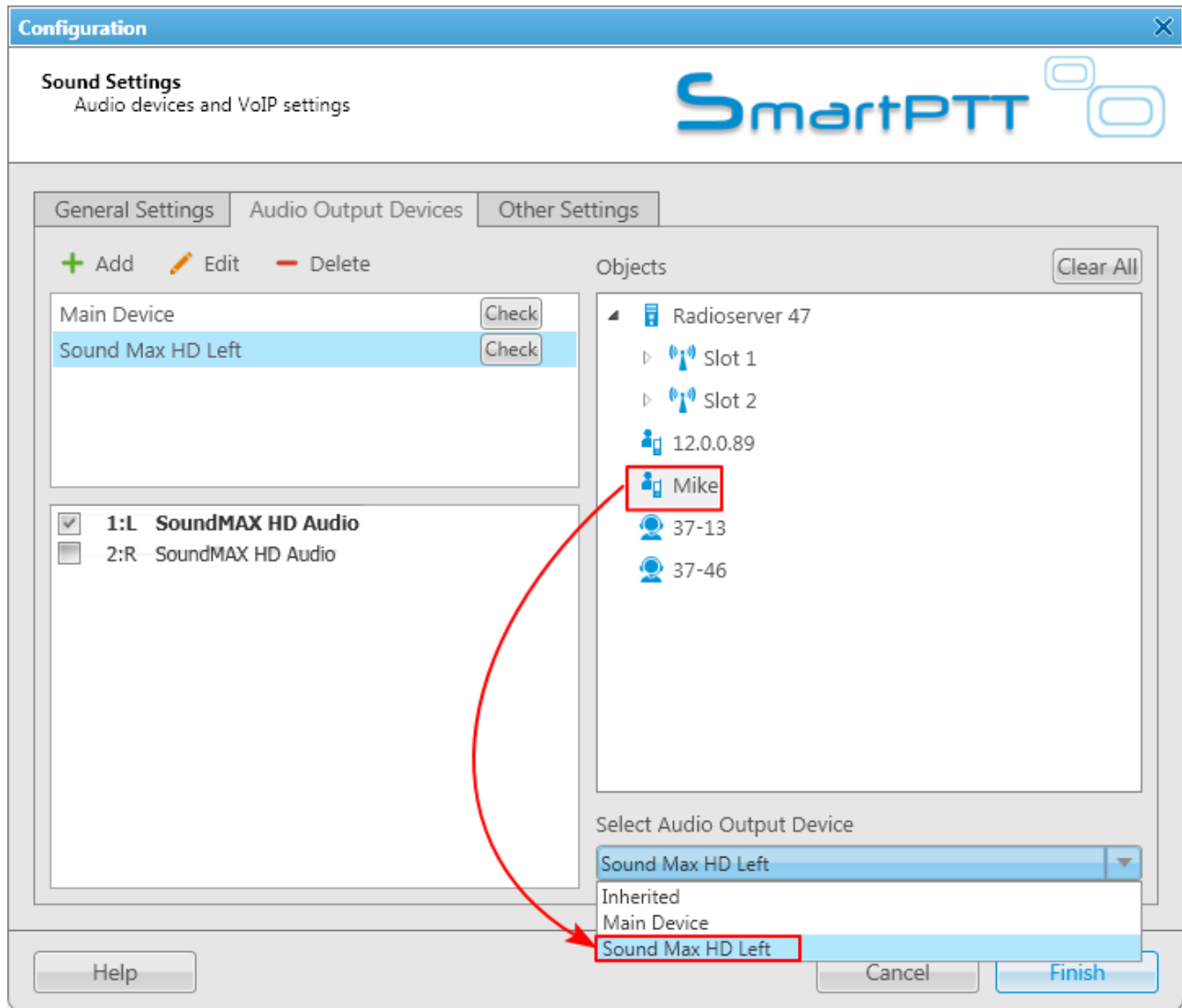
1. Add audio output devices in the first box on the left. These are not real output devices and are used only in dispatch console. To do that click on **Add**. A new record will appear on the list. Change its name, if necessary, by clicking **Edit**, and then select it.



2. In the list below, select the real devices or device channels which will correspond to the added output device.

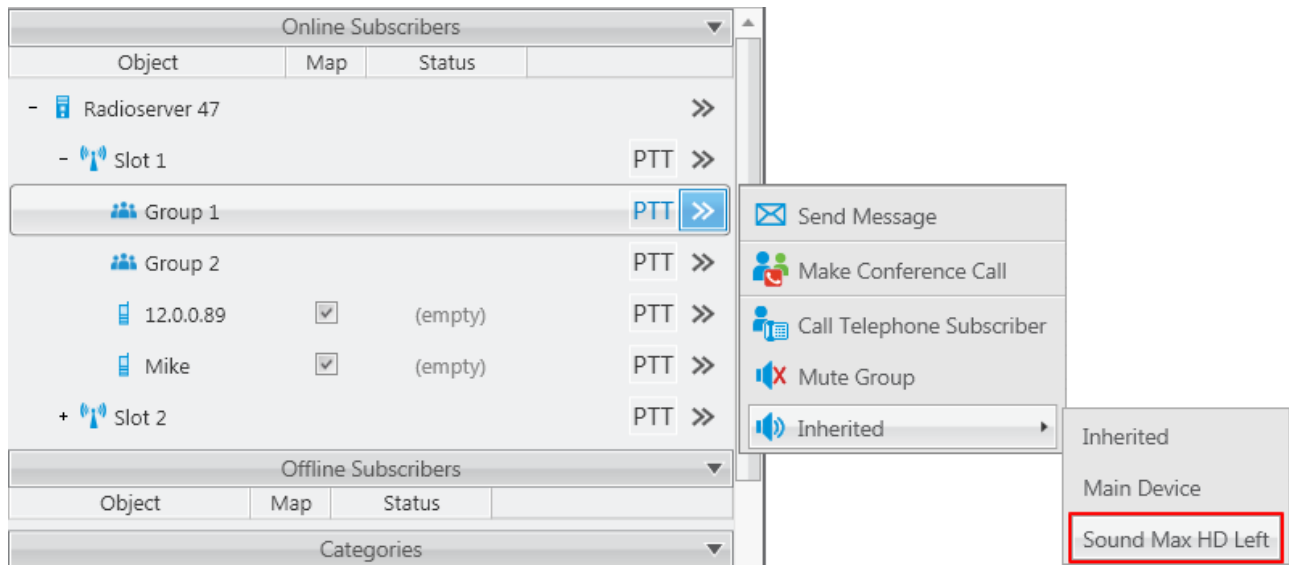


3. In the **Objects** list select the network object, for which you want to set up the new audio device or channel. And in the **Select Audio Output Device** dropdown list select the created output device. Thus, you assign the audio output device or channel to a network object.

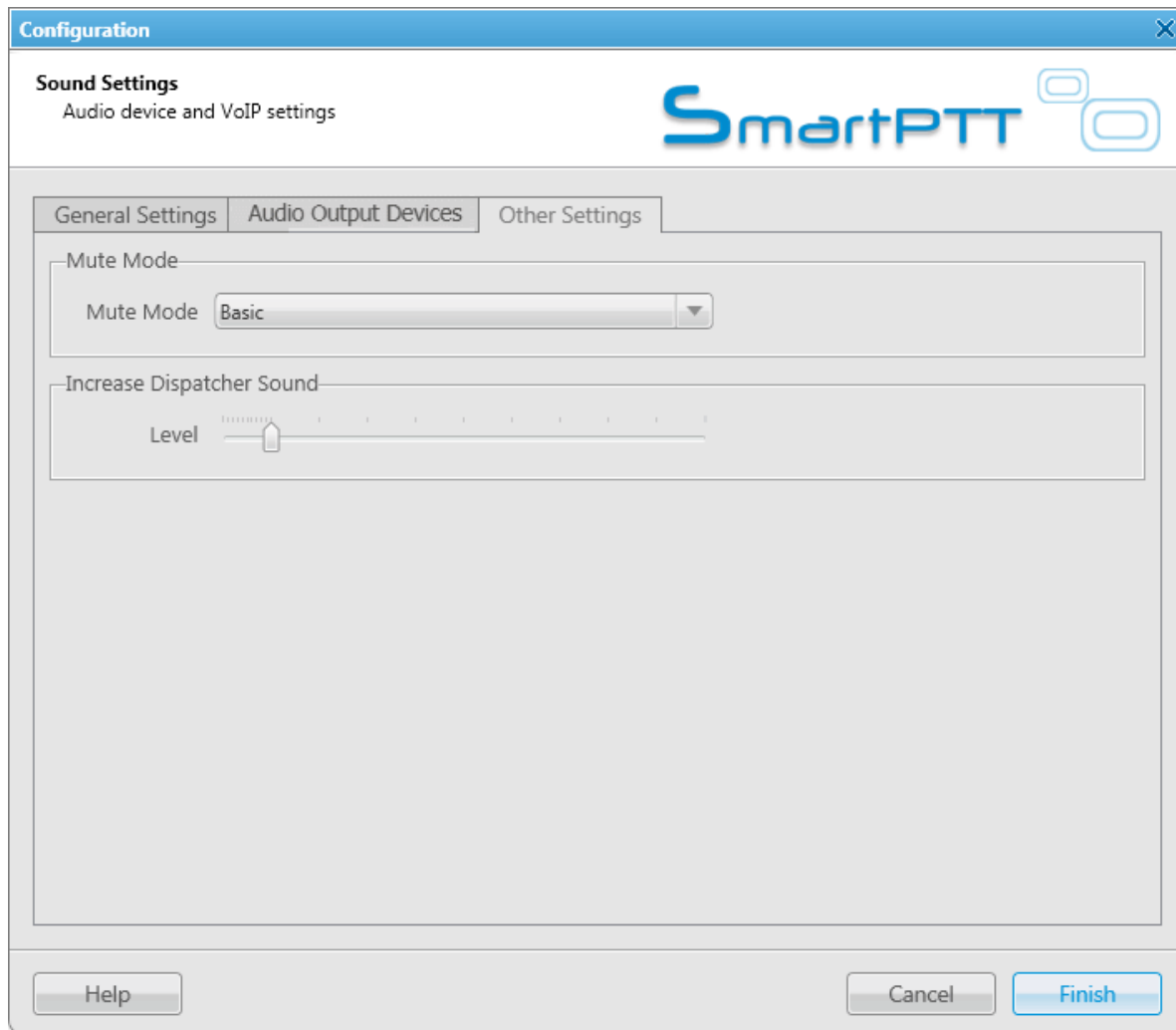


**Note:** Select **Inherited** if you don't want to set the audio output device explicitly. In this case the object will use the audio output device which is assigned to the parent object.


To assign another device to an object, you can do it in its **Action List** in the **Subscriber Panels**.




The **Other Settings** tab:



**Mute Mode** – provides options for muting.

**Basic** – in this mode when you click  to mute the control station, the system will work in a standard way, that is you will hear nothing from the control station.

**Advanced** – in this mode when you click  to mute the control station, the system will work differently. You will still be able to hear private incoming calls, calls initiated on the dispatcher side or calls answered by the dispatcher.

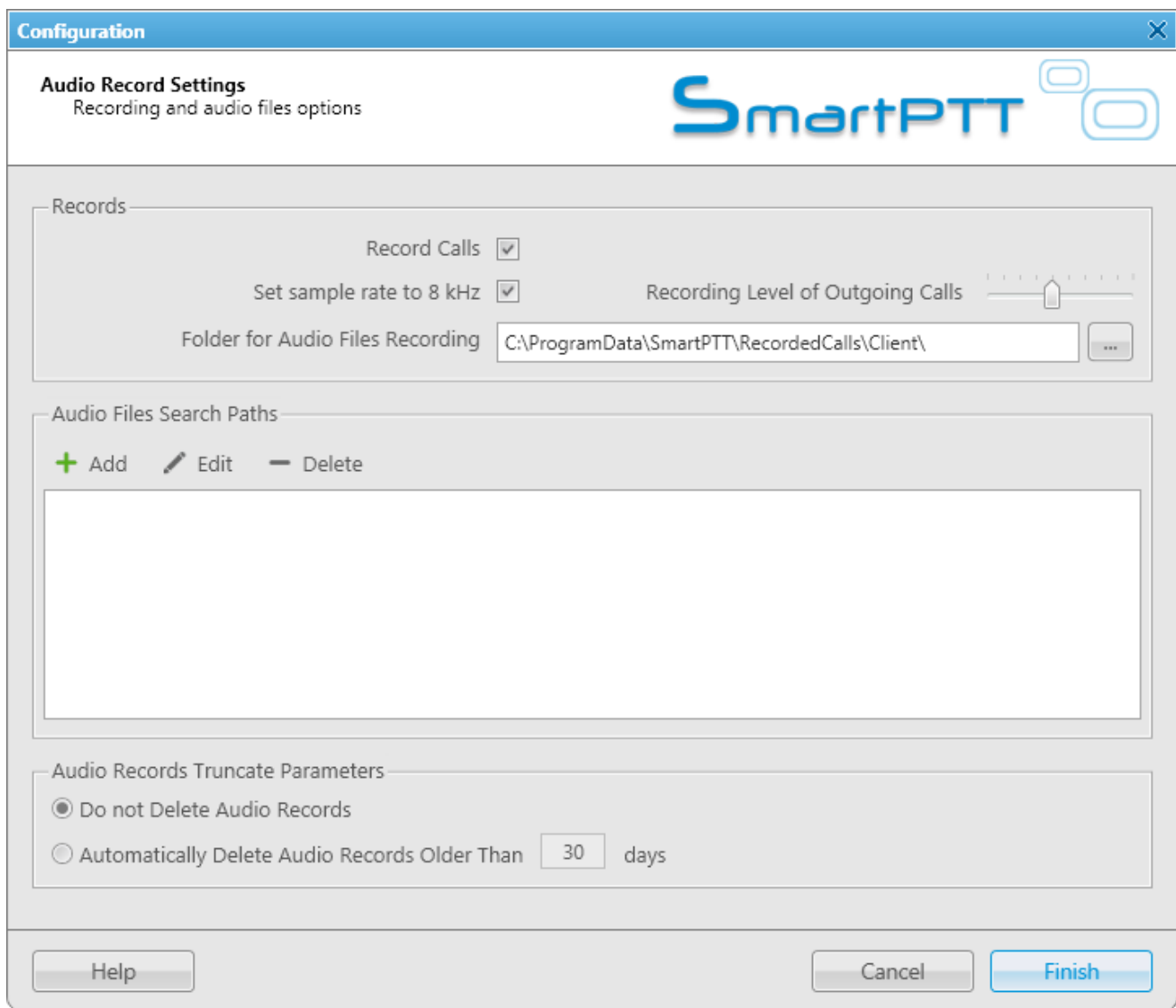
**Increase Dispatcher Sound** – allows user to adjust the volume level of the dispatcher outgoing call on the receiving radio (to increase or decrease by the value of selected **Level** coefficient).

Unlike the microphone volume settings in the equalizer window, the microphone volume change applies to all

devices. **Increase Dispatcher Sound** regards only the radio receiving a dispatcher call.

## 1.5.12 Records

To set audio record settings, expand the **Settings** menu in the **Main Menu** of the SmartPTT Dispatcher window and click **Record Settings**. The **Audio Record Settings** window opens.



**Record Calls** – select this option to record all the incoming and outgoing calls.

**Set sample rate to 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 Level of Outgoing Calls** – increase or decrease the sound volume for recording outgoing calls.

**Recording Quality (kbps)** – sets sound quality for audio files.



**Folder for Audio Files Recording** – sets the path to the folder with recorded audio files.

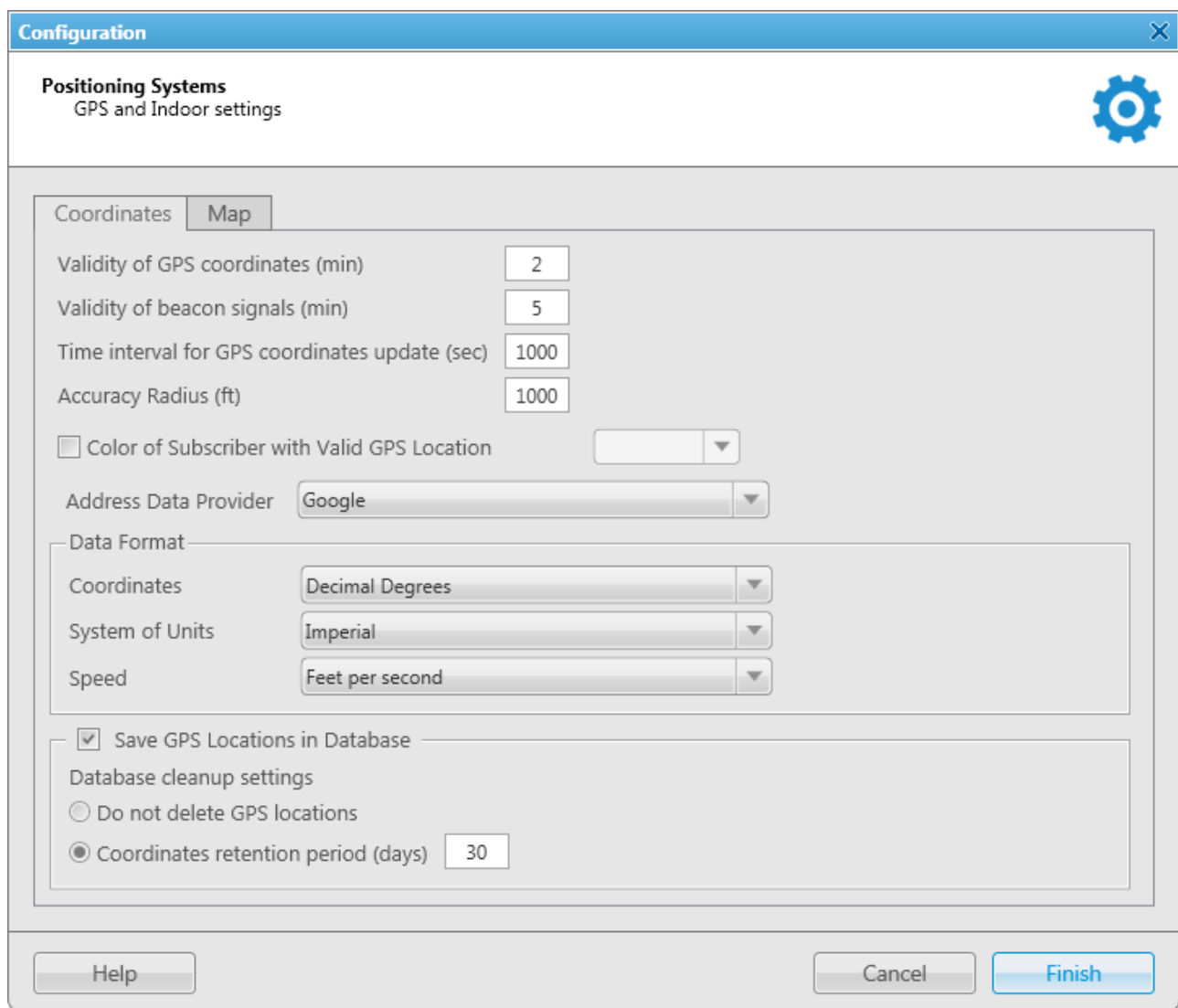
**Audio Files Search Paths** – sets paths to additional folders for recorded audio files.

**Note:** After changing the folder path where audio files are stored, the former path is automatically added to the audio files search path field.

**Audio Records Truncate Parameters** – sets audio record cleaning parameters.

## 1.5.13 Positioning Systems

To define GPS or Indoor settings, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Positioning Systems**. The **Positioning Systems** window will open.



The screenshot shows the 'Configuration' window for 'Positioning Systems' (GPS and Indoor settings). The window has a blue title bar with a close button. The main content area is divided into sections:

- Coordinates** (selected) and **Map** tabs.
- Validity of GPS coordinates (min): 2
- Validity of beacon signals (min): 5
- Time interval for GPS coordinates update (sec): 1000
- Accuracy Radius (ft): 1000
- Color of Subscriber with Valid GPS Location (dropdown menu)
- Address Data Provider: Google (dropdown menu)
- Data Format** section:
  - Coordinates: Decimal Degrees (dropdown menu)
  - System of Units: Imperial (dropdown menu)
  - Speed: Feet per second (dropdown menu)
- Save GPS Locations in Database
  - Database cleanup settings:
    - Do not delete GPS locations
    - Coordinates retention period (days): 30

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

The **Coordinates** tab 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 subscriber's 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 subscriber's label is removed from the building plan.

**Time interval for GPS coordinates update:** It sets the default time interval for updating radio's location data. The value set in this parameter will be applied to all unregistered radio subscribers, and will be displayed in the **Properties** window of a radio subscriber 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 Subscriber with Valid GPS Location:** It sets the color which will be used for a radio subscriber's 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 subscriber's current GPS-coordinates.

**Data Format:** It defines the format of location data to display in the subscriber **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.

**Speed Format:** It allows you to select the format of a radio subscriber's speed.

**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.

**Save GPS Locations in Database:** It defines if GPS coordinates received from subscribers will be stored in the database.

**Database cleanup settings:** It defines the scheme of deleting coordinates from the database.

The **Map** tab contains the following parameters.

**Show Subscriber's Information for Map Label:** It defines what information will be shown on a map label of a radio subscriber.

**Size of Subscriber's Map Label:** It sets the size of a subscriber's map label.

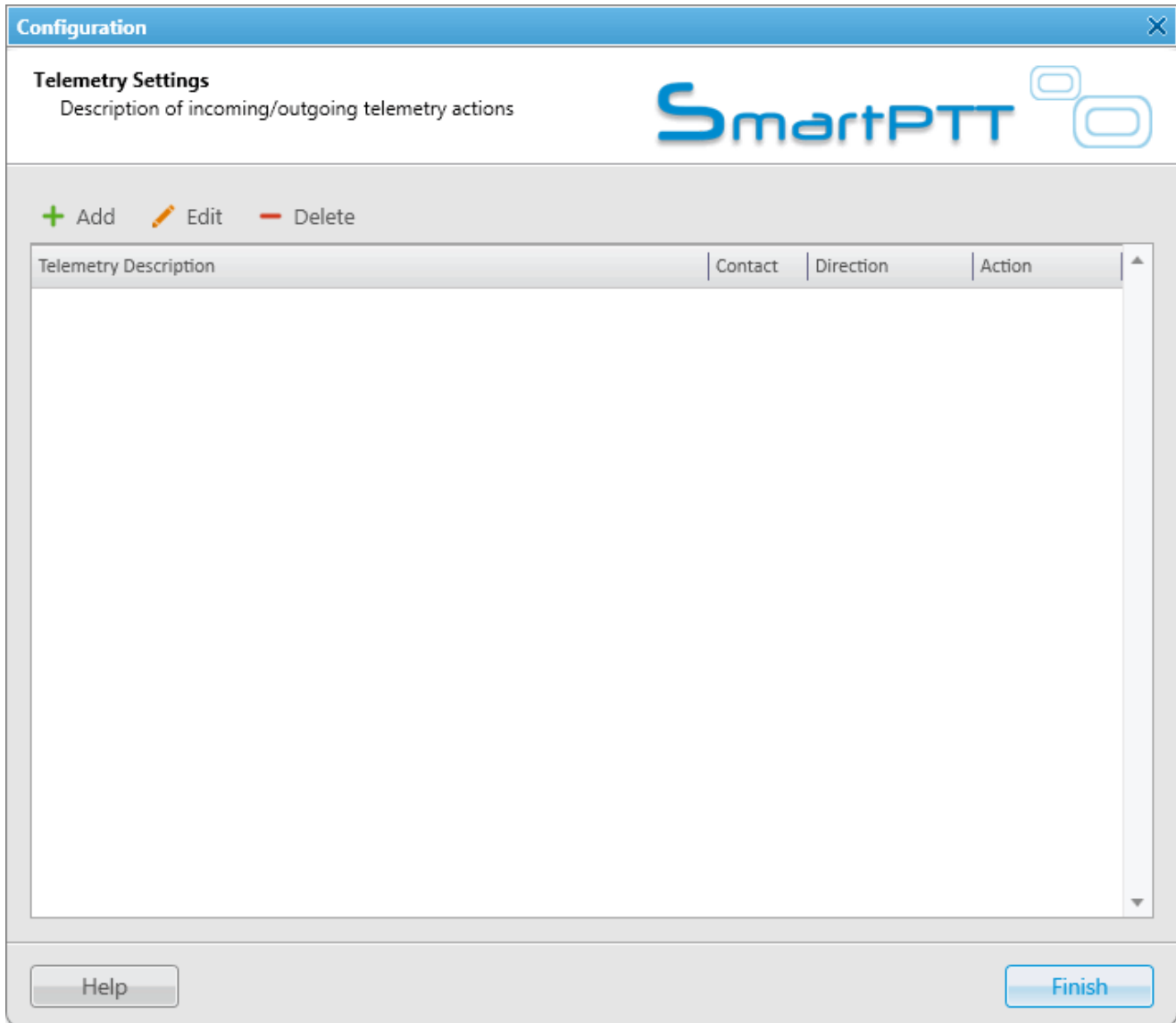
**Hide subscribers with outdated locations:** Select the check box to hide map labels for subscribers with outdated GPS locations. GPS location becomes outdated if it was not updated during the period set in the

**Validity of GPS coordinates** field.

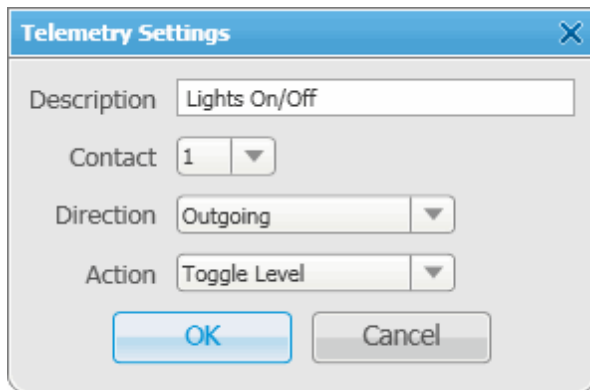
**Hide offline subscribers:** Select the check box to hide a map label when a subscriber goes offline.

## 1.5.14 Telemetry

To set up actions based on incoming/outgoing telemetry commands, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Telemetry**. At that, a configuration window is displayed.



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 the Radio Subscriber

You can select telemetry settings in the subscriber's **Properties** window.

**Note:** Only registered subscribers can be assigned to a telemetry command. For not registered subscribers the

**Telemetry** button will be unavailable.

**Properties: 89**

General | **Location**

CAI: 12 | Radio ID: 155

MDC ID: | 5 Tone ID: |

Name: 89

Status: (empty)

Lone Worker

Telemetry | ault

Save | Cancel

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

**Telemetry for - 89**

Description	Select
Door is closed (Incoming, 3, High Level)	<input checked="" type="checkbox"/>
Door is opened (Incoming, 3, Low Level)	<input checked="" type="checkbox"/>
Lights on/off (Outgoing, 4, Toggle Level)	<input checked="" type="checkbox"/>
Signal (Outgoing, 5, Impulse)	<input checked="" type="checkbox"/>

Update GPIO pins' status

Interval, s: 600

GPIO Pin 1  2  3  4  5

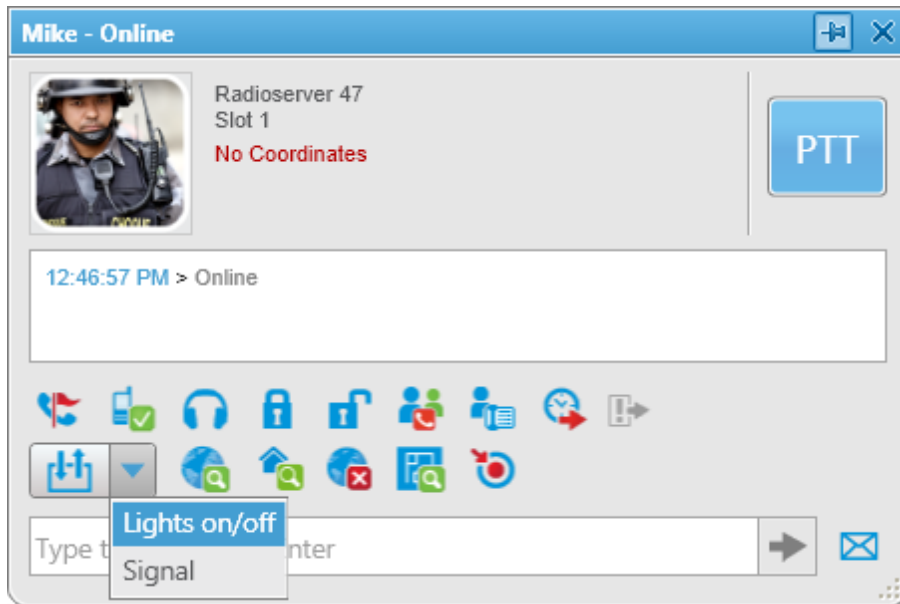
OK | Cancel


Select the required command to make it available in the **Call Window** of the radio subscriber and in the custom consoles. Also, it allows you to set automatic status updates of the GPIO pins. To receive status updates of the

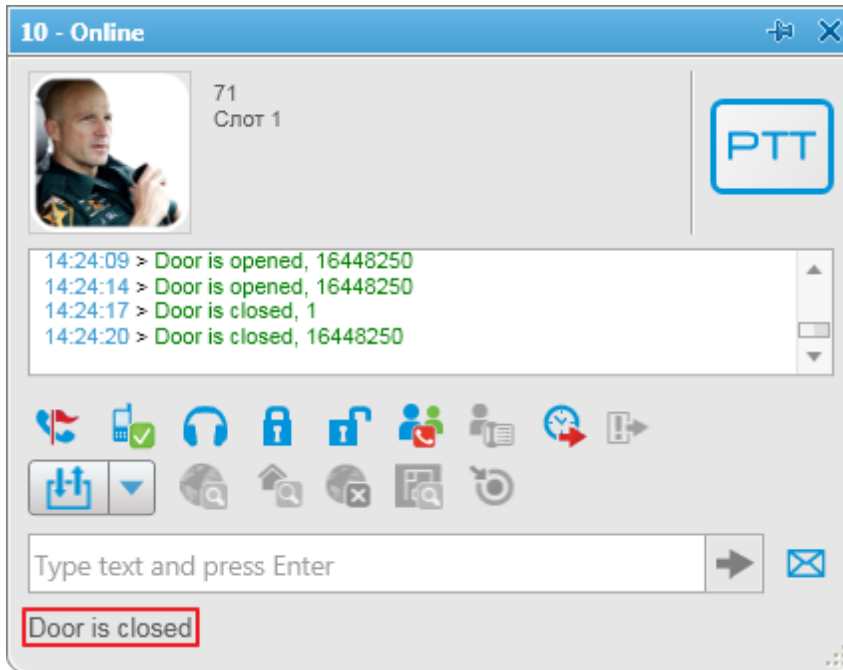
GPIO pins automatically, select the required GPIO pins in the **Update GPIO pins' status** area and set the update interval in seconds.

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

Then you can run the telemetry command from the subscriber's **Call Window**.



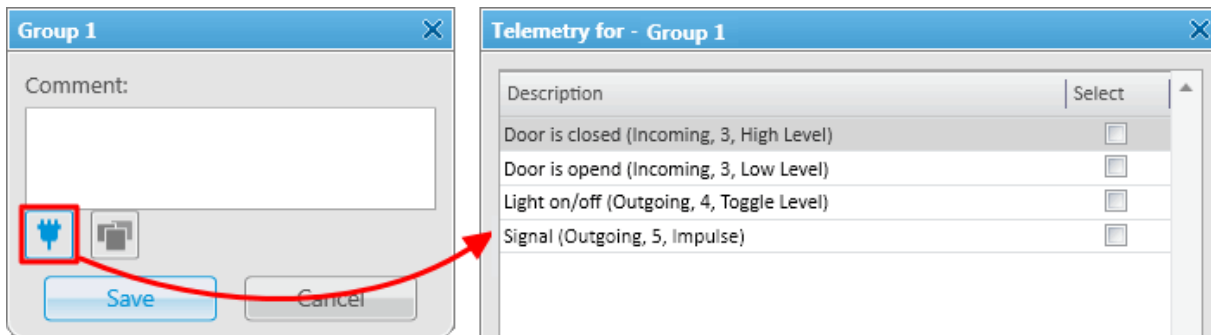
To receive the current telemetry status, click . The updated status will be displayed in **Call Window** of the radio subscriber.



## How to Assign Telemetry to the Talkgroup of Radio Subscribers

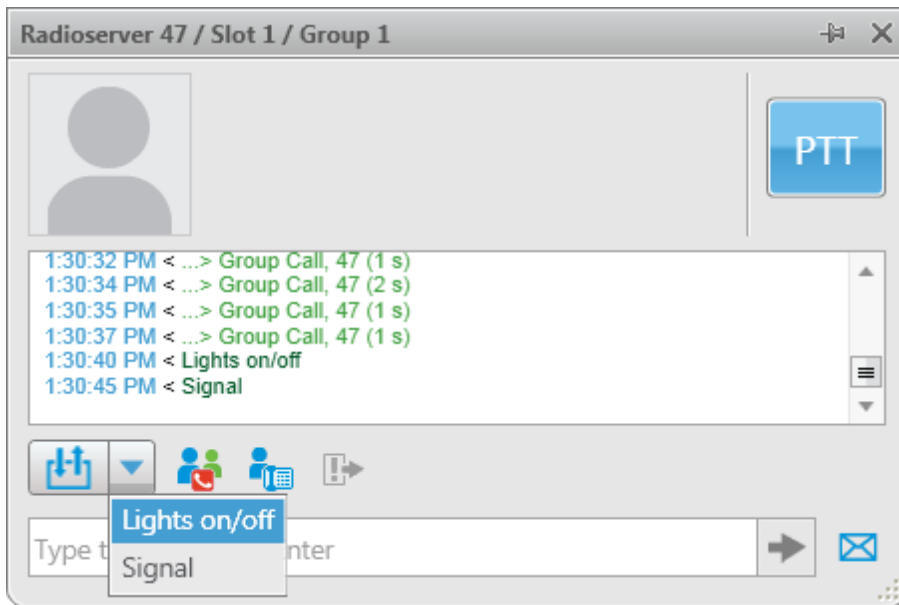
You can select telemetry settings in the **Properties** window of the talkgroup.

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



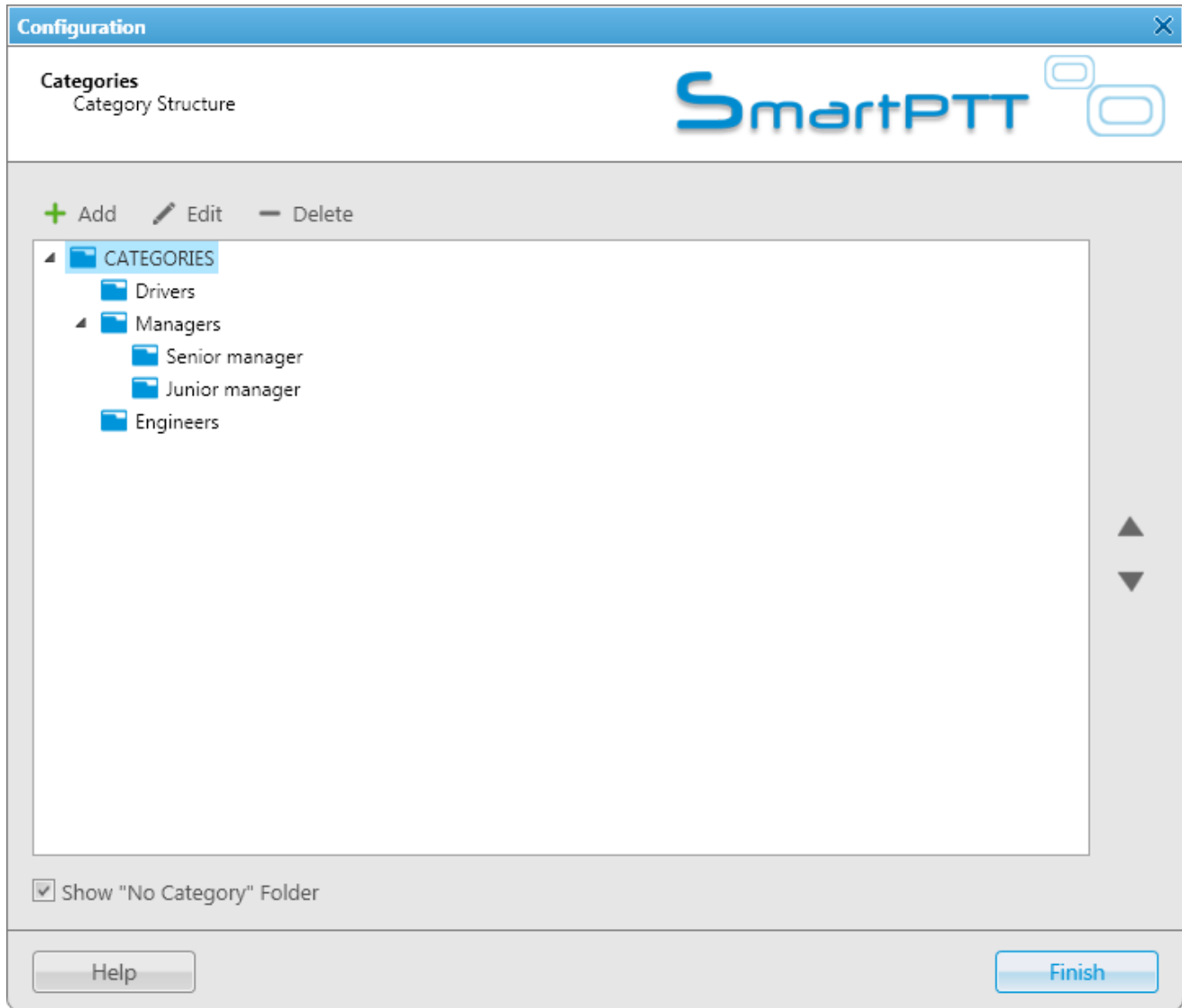


Then you can run the telemetry command from the talkgroup's **Call Window**.

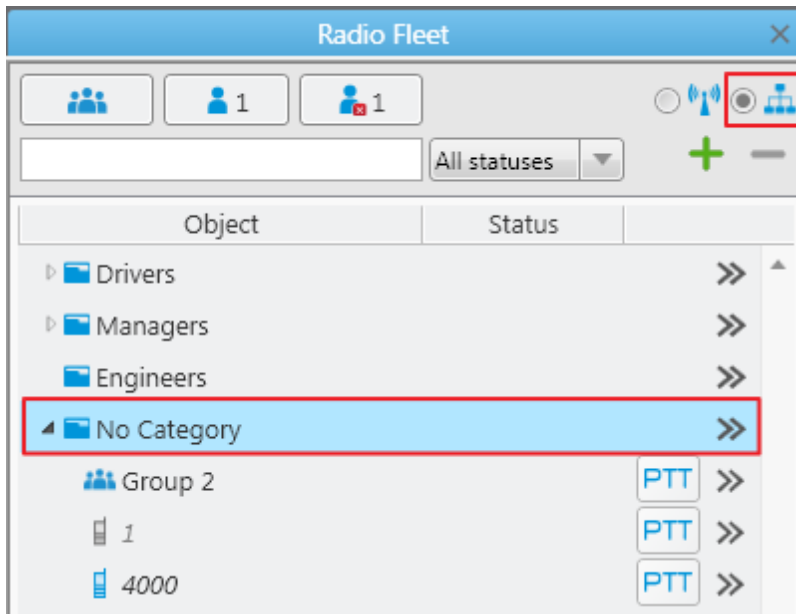


## 1.5.15 Categories

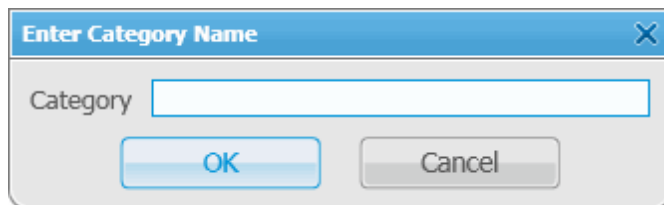
To create a category structure, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Categories**. The configuration window for setting up the category structure opens.



**Show "No Category" Folder** – displays a list of all online subscribers (radio subscribers, talkgroups) in the **No Category** folder of the **Radio Fleet** panel (filter by category), without reference to categories.



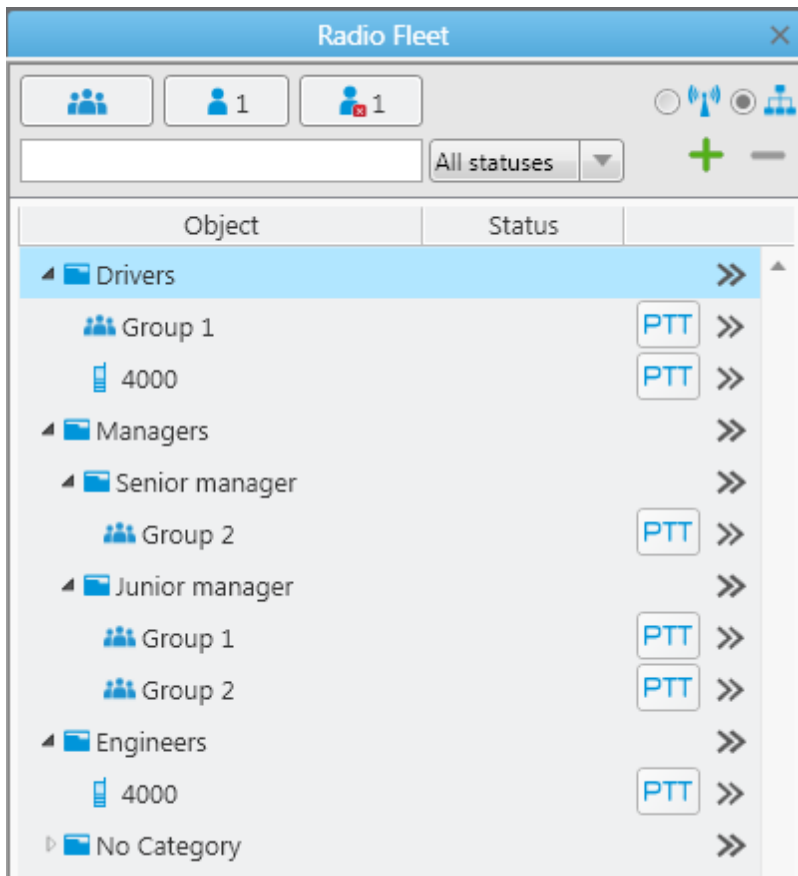
To create a new category, click **Add** in the **Categories** window.



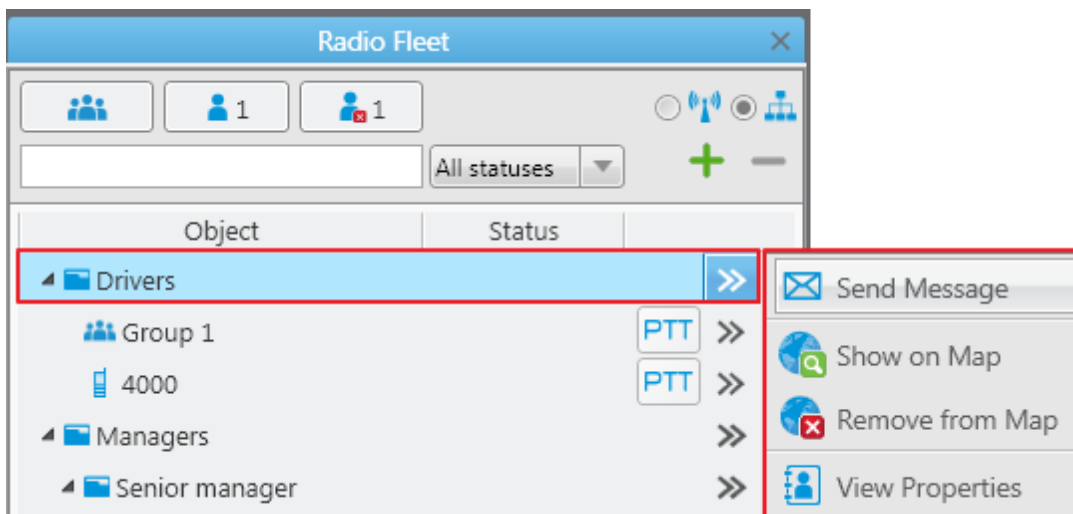
To edit the existing category name, select it in the list and click **Edit**. To remove a category, select it in the list and click **Delete**.

To move categories inside a parent category, use arrow button on the right. To move the categories between levels, click on a category, hold the left mouse button and drag it to a new position.

The categories are displayed in the **Radio Fleet** panel (filter by category  is selected).



Click the button  next to the category name to apply actions to all the subscribers from the category.

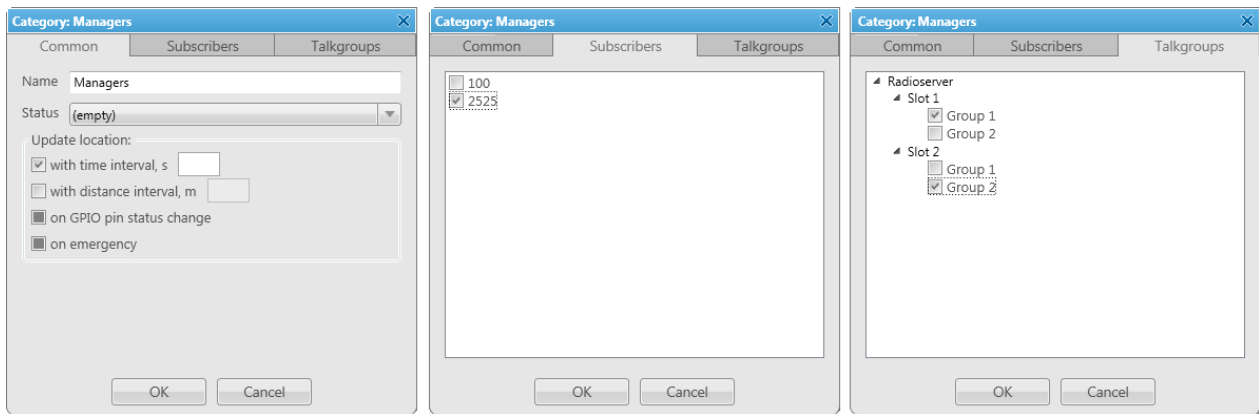


**Send Message** – opens the window for sending messages.

**Show on Map** – displays all subscribers from this category on the map, if it is opened.

**Remove from Map** – removes all subscribers of this category from the map, if it is opened.

**View Properties** – opens the window of properties of the category. Also you can right-click on the category name in order to open this window.



The **Category** window consists of three tabs: **Common**, **Subscribers**, **Talkgroups**.

The **Common** tab:

**Name** – the category name.

**Status** – the general status of all subscribers in the category. If the status of at least one subscriber in the category is changed, the category's general status becomes undefined.

**Update location** – the group of the general GPS-monitoring settings of all subscribers in the category. The parameters of the general GPS-monitoring settings can have three possible states:

- Checked . Shows that the parameter is set for all subscribers in the category.
- Unchecked . Shows that the parameter is not set for all subscribers in the category.
- Mixed choice . Shows that the parameter is set for some subscribers in the category.

The parameters of the general GPS-monitoring settings are unavailable, if all subscribers in the category have GPS disabled in the [Properties](#) window (the **Locations** tab).

The **Subscribers** tab contains the list of all subscribers in the system. In order to assign a subscriber to the category, select the appropriate check box in the list of subscribers. Only registered subscribers can be assigned to a category. Not registered subscribers will be in italics on this list, and you won't be able to select them.

The **Talkgroups** tab contains the list of all talkgroups in the system. In order to assign a group to the category, select the appropriate check box in the list of talkgroups.

**Note:** Radio subscribers and talkgroups can be assigned to a category. However, the actions applied to the category members will be addressed only to radio subscribers.

## 1.5.16 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 do the following:

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

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

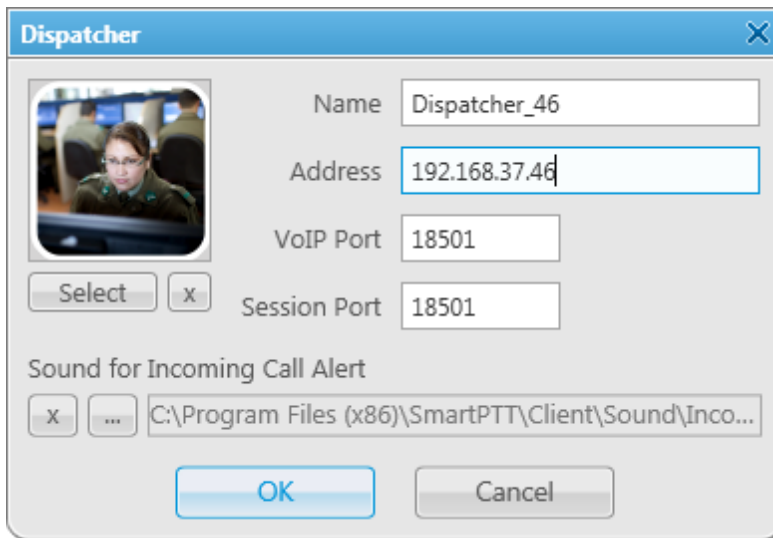
**VoIP Port** — UDP port of this dispatcher's PC for voice transmission. The default value is *18501*.

**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 person at a computer workstation. Below the image are two buttons: "Select" and "x". To the right of the image, there are four text input fields: "Name" with the value "Dispatcher\_46", "Address" with the value "192.168.37.46", "VoIP Port" with the value "18501", and "Session Port" with the value "18501". Below these fields is a section titled "Sound for Incoming Call Alert" with a button "x" and a file path "C:\Program Files (x86)\SmartPTT\Client\Sound\Inco...". At the bottom of the dialog are two buttons: "OK" and "Cancel".

**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**. At that, a new dispatcher is added to the list of dispatchers.

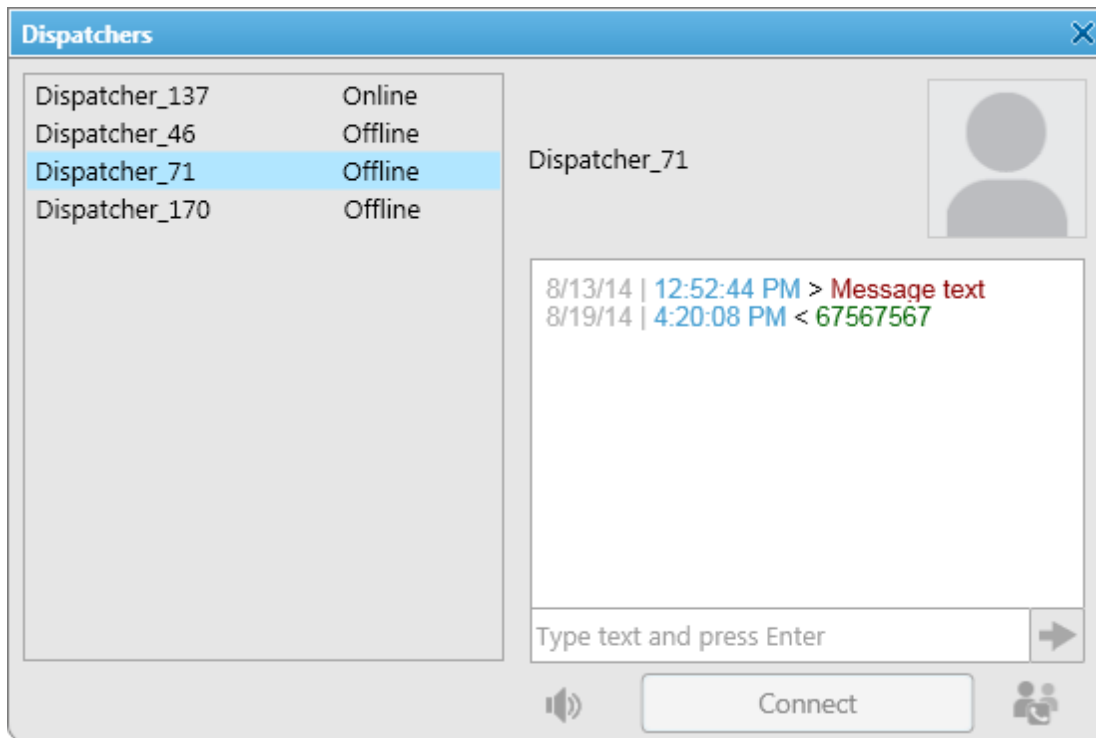
To edit dispatcher settings, select it in the list of dispatchers and click **Edit**.

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 . At that, the following window opens.



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.


*Ringin*g – calling to the dispatcher to establish voice communication.


*Call* – voice communication is established.

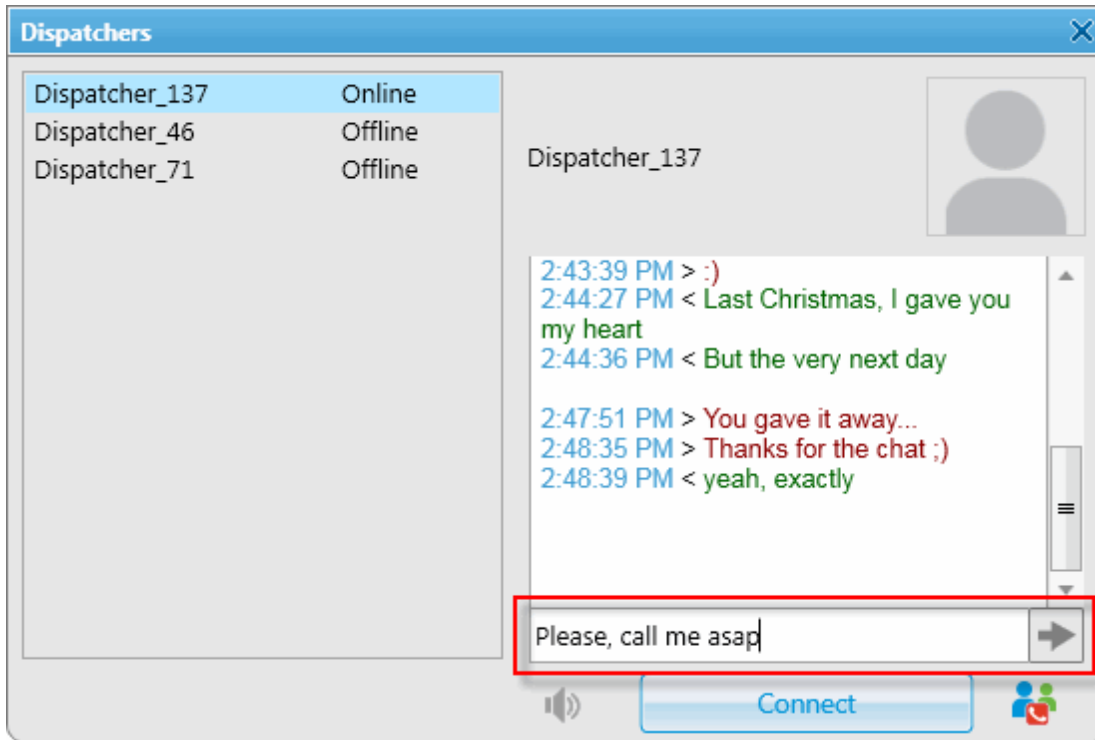
To call a dispatcher, select it from the list, and click **Connect**. To end the call, click **Disconnect** (this button appears as soon as you have started communication).



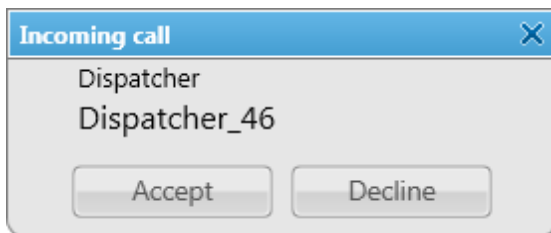
To add online dispatchers to a conference call, click .

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

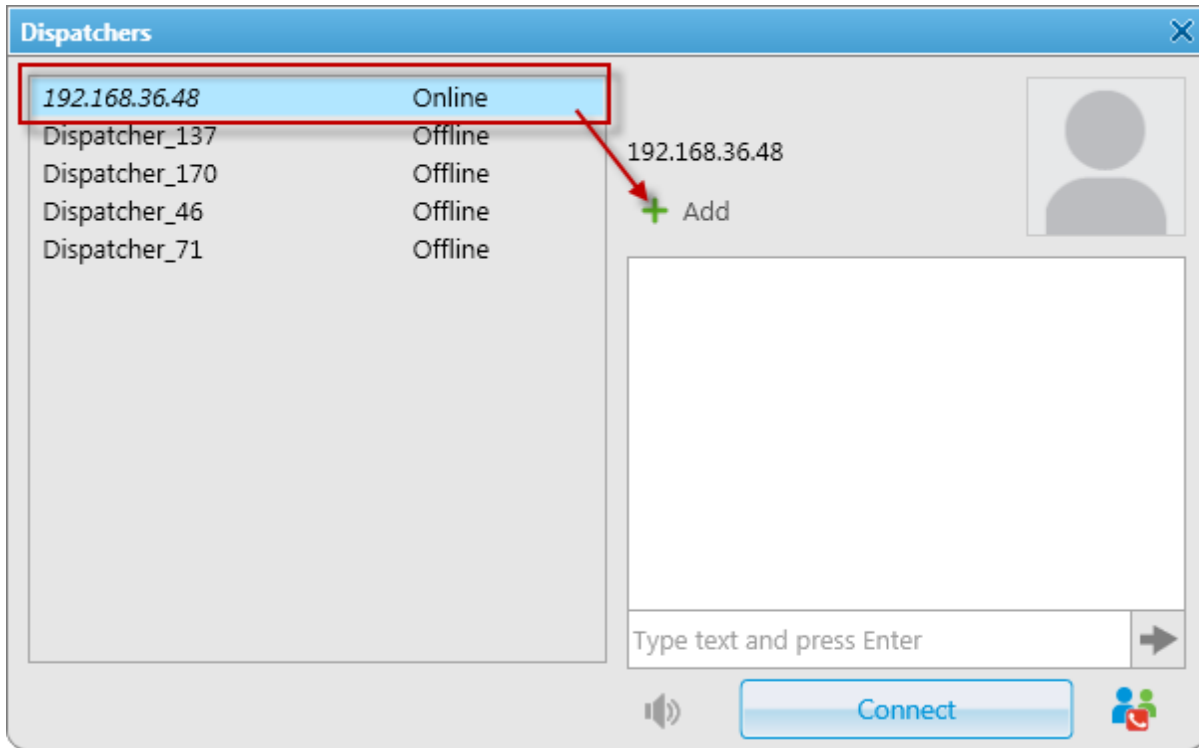
To send a message to the selected dispatcher, enter the text of the message and click .



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

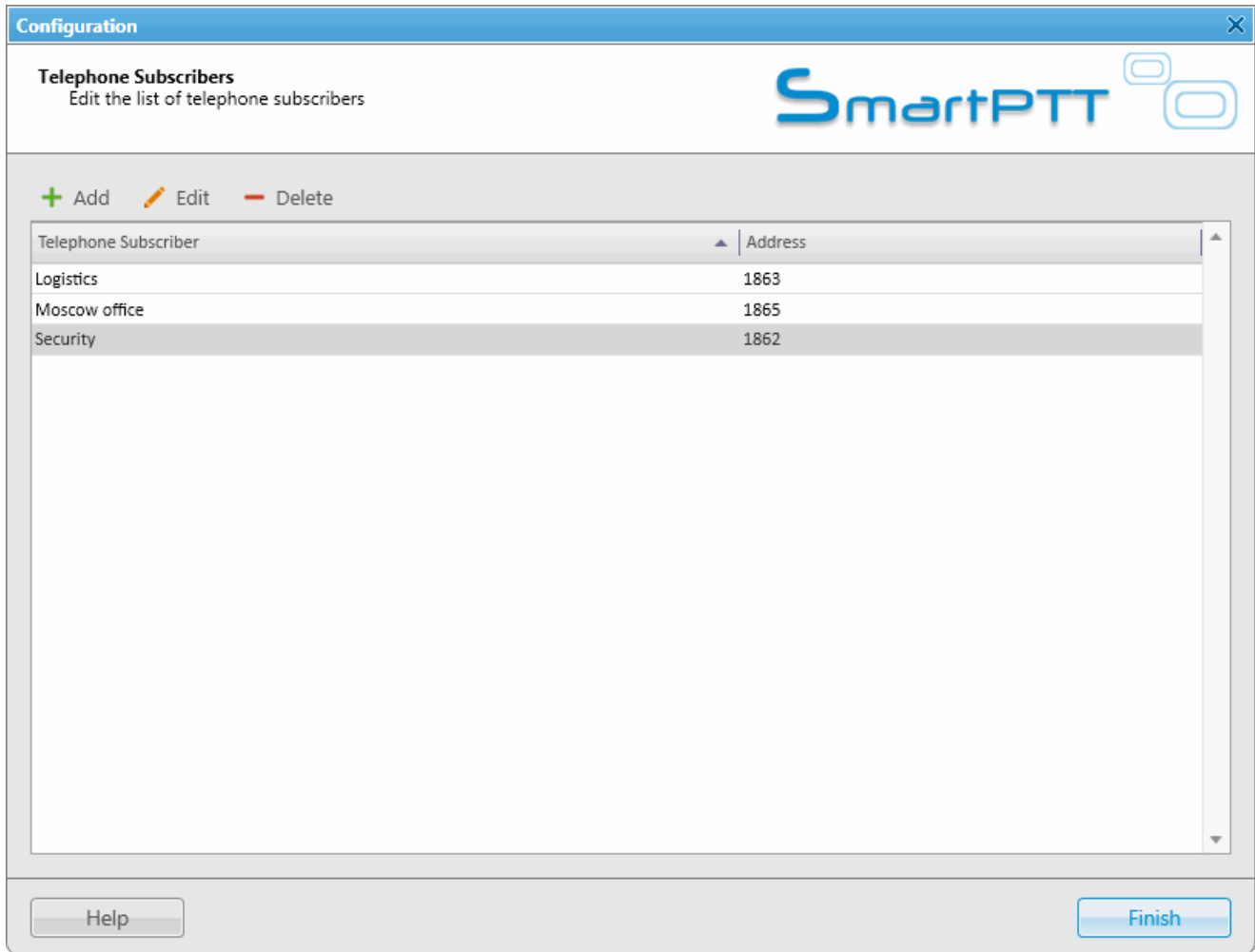


If the incoming call is made by the dispatcher not on the list you will see its IP address in the **Incoming call** window. You can add the unregistered dispatcher in the **Dispatcher** window by clicking on the **Add** button.



## 1.5.17 Telephone Subscribers

To view the list of registered telephone subscriber, expand the **Settings** menu in the **Main Menu** and click **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**. At that, the following window opens.

**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.

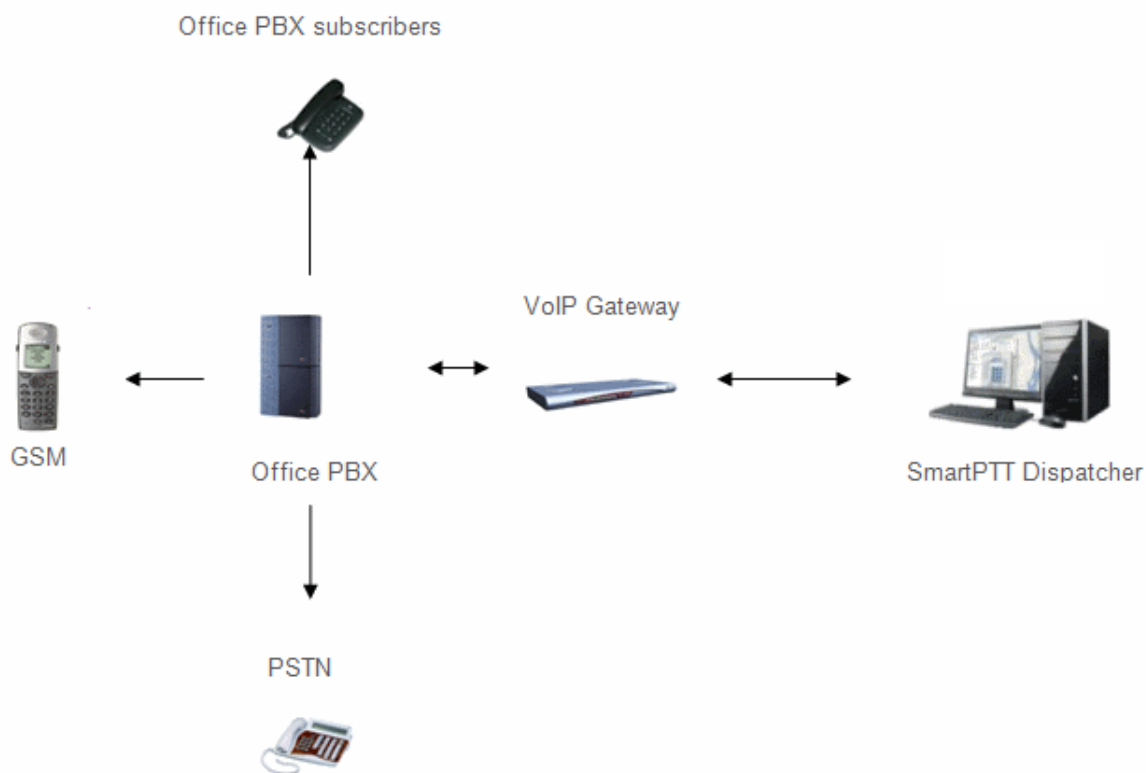
## 1.5.18 Telephone Interconnect

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 radio subscribers.

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.

### 1. 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.

### 2. 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.

### 3. 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.

### 4. 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.



## Telephone Interconnect Configuration

To configure connection parameters with telephone subscribers, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Telephone Interconnect**.

The **Telephone Interconnect** window includes:

1. General settings
2. Codec settings
3. SIP Trunk Authentication
4. SIP accounts

### General Settings

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

#### 1. Dispatcher Settings

**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 *18700–18748*.

**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).

## 2. VoIP Gateway Default Settings

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.

### 3. 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).

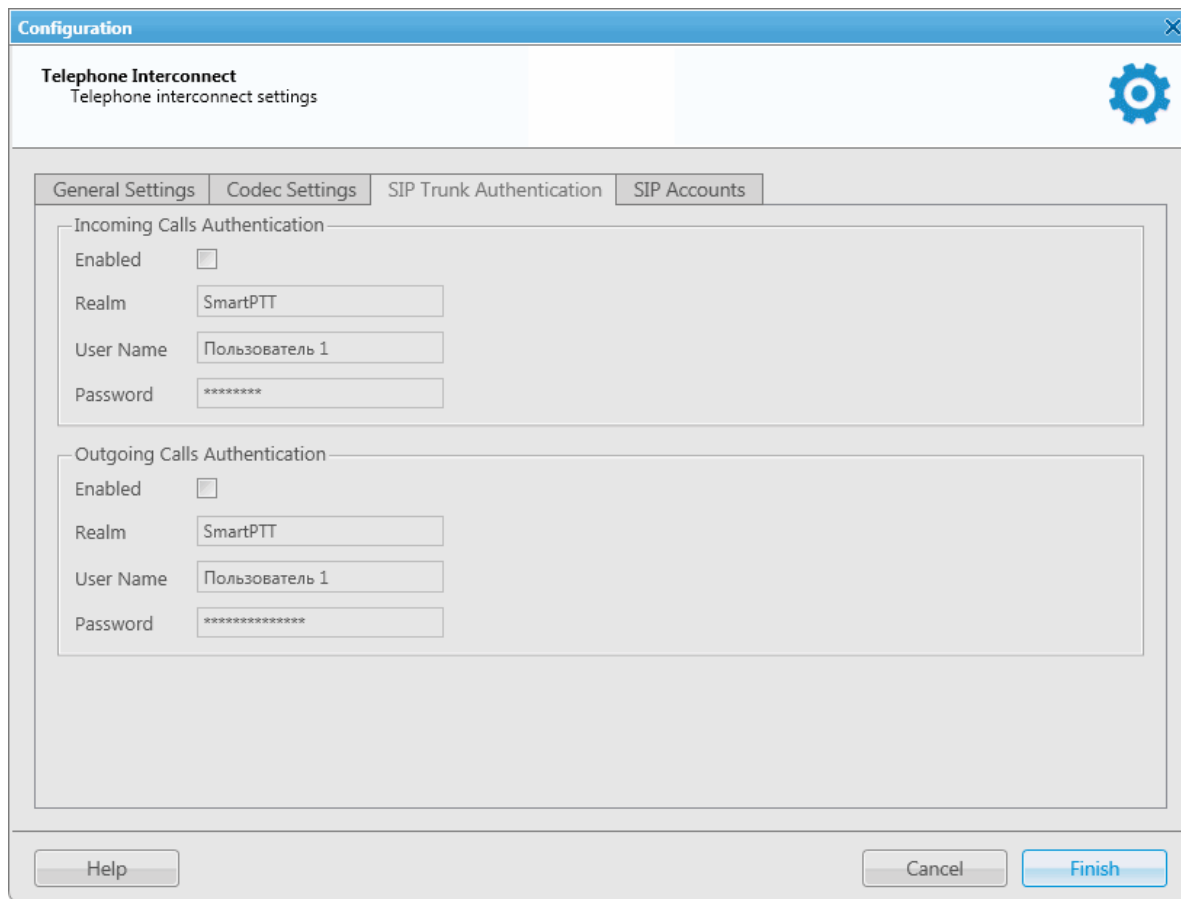
### Codec Settings

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 и 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 sub-header "Telephone Interconnect" and the text "Telephone interconnect settings". A gear icon is in the top right corner. Below the header are four tabs: "General Settings", "Codec Settings", "SIP Trunk Authentication" (which is selected), and "SIP Accounts". The "SIP Trunk Authentication" tab contains two sections: "Incoming Calls Authentication" and "Outgoing Calls Authentication". Each section has an "Enabled" checkbox (unchecked), a "Realm" text box (containing "SmartPTT"), a "User Name" text box (containing "Пользователь 1"), and a "Password" text box (containing asterisks). At the bottom of the window 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 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

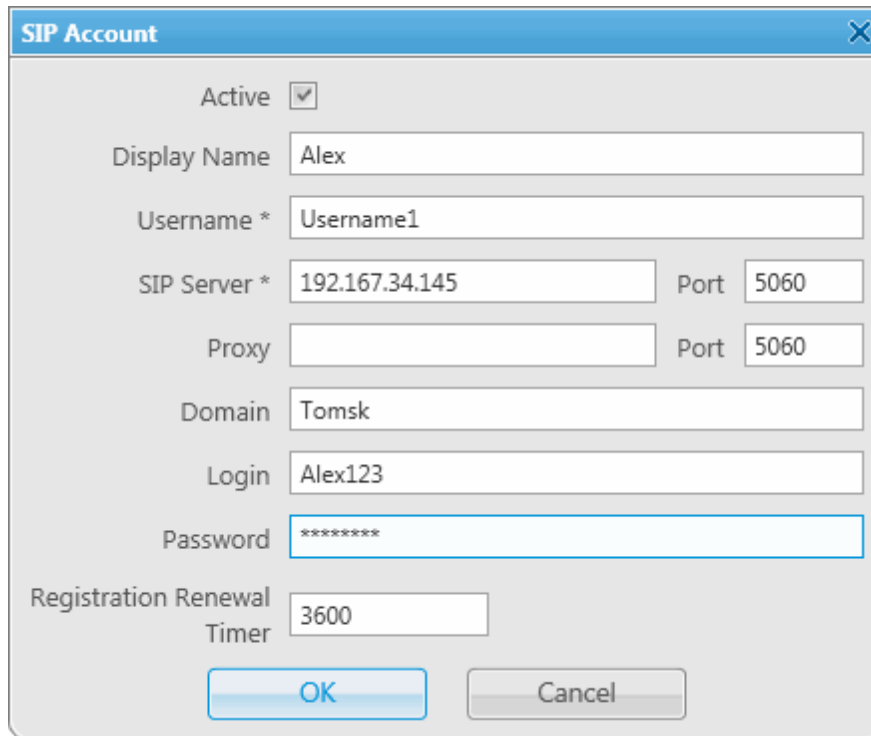
If SmartPTT Dispatcher IP address varies, there must be a mechanism for determining its current value. In order to do this, SIP registration can be used, allowing the dispatcher to inform SIP server of its actual IP address.

For 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**. At that, the following window opens.



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 input field containing "Alex".
- Username \***: A text input field containing "Username1".
- SIP Server \***: A text input field containing "192.167.34.145".
- Port**: A text input field containing "5060".
- Proxy**: A text input field (empty).
- Port**: A text input field containing "5060".
- Domain**: A text input field containing "Tomsk".
- Login**: A text input field containing "Alex123".
- Password**: A text input field containing "\*\*\*\*\*".
- Registration Renewal Timer**: A text input field containing "3600".
- 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 SIP server account authentication.

**Login** – login for SIP server 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.

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:

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 window. Each window is titled 'Dispatcher 1', 'Dispatcher 2', and 'Dispatcher 3' respectively. The fields are as follows:

- Dispatcher 1:** Active (checked), Display Name: 105, Username: 105, SIP Server: 192.168.0.140 (Port 5070), Proxy: (empty) (Port 5060), Domain: 3CXPhoneSystem, Login: 105, Password: \*\*\*\*\* (masked), Registration Renewal Timer: 3600.
- Dispatcher 2:** Active (checked), Display Name: 106, Username: 106, SIP Server: 192.168.0.140 (Port 5070), Proxy: (empty) (Port 5060), Domain: 3CXPhoneSystem, Login: 106, Password: \*\*\*\*\* (masked), Registration Renewal Timer: 3600.
- Dispatcher 3:** Active (checked), Display Name: 107, Username: 107, SIP Server: 192.168.0.140 (Port 5070), Proxy: (empty) (Port 5060), Domain: 3CXPhoneSystem, Login: 107, Password: \*\*\*\*\* (masked), Registration Renewal Timer: 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).

The image shows two side-by-side screenshots of the 'Telephone Subscriber' configuration window. The left window is titled 'Dispatcher 1' and the right window is titled 'Telephone Subscriber'. The fields are as follows:

- Dispatcher 1 (Left):** 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.
- Telephone Subscriber (Right):** 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.

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



SIP accounts tab; add subscribers *105* and *106* in the **List of Subscribers** tab).

**Dispatcher 2**

**Telephone Subscriber**

Subscriber: 105

SIP-Address:

Automatic (default gateway and prefix)

Number: \_\_\_\_\_

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

Outgoing: sip:105@192.168.0.140:5070

Incoming: sip:105@192.168.0.140:5070

Enable SIP Account    106@192.168.0.140:5070

OK Cancel

**Telephone Subscriber**

Subscriber: 107

SIP-Address:

Automatic (default gateway and prefix)

Number: \_\_\_\_\_

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

Outgoing: sip:107@192.168.0.140:5070

Incoming: sip:107@192.168.0.140:5070

Enable SIP Account    106@192.168.0.140:5070

OK Cancel

**Dispatcher 3**

**Telephone Subscriber**

Subscriber: 105

SIP-Address:

Automatic (default gateway and prefix)

Number: \_\_\_\_\_

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

Outgoing: sip:105@192.168.0.140:5070

Incoming: sip:105@192.168.0.140:5070

Enable SIP Account    107@192.168.0.140:5070

OK Cancel

**Telephone Subscriber**

Subscriber: 107

SIP-Address:

Automatic (default gateway and prefix)

Number: \_\_\_\_\_

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

Outgoing: sip:106@192.168.0.140:5070

Incoming: sip:106@192.168.0.140:5070


Enable SIP Account    107@192.168.0.140:5070

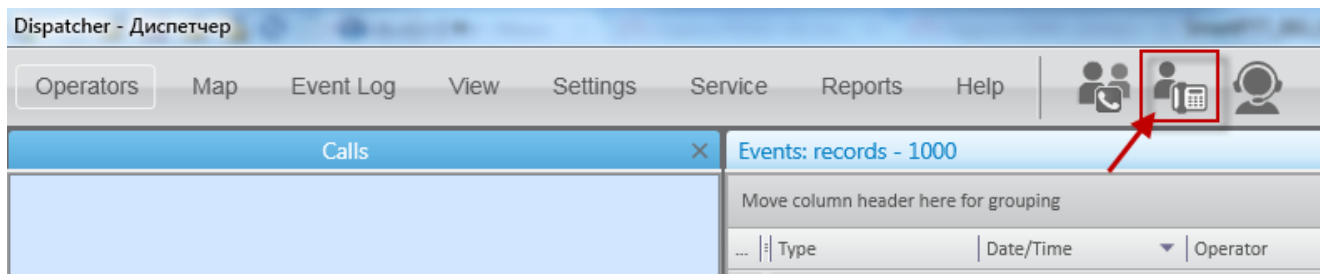
OK Cancel

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

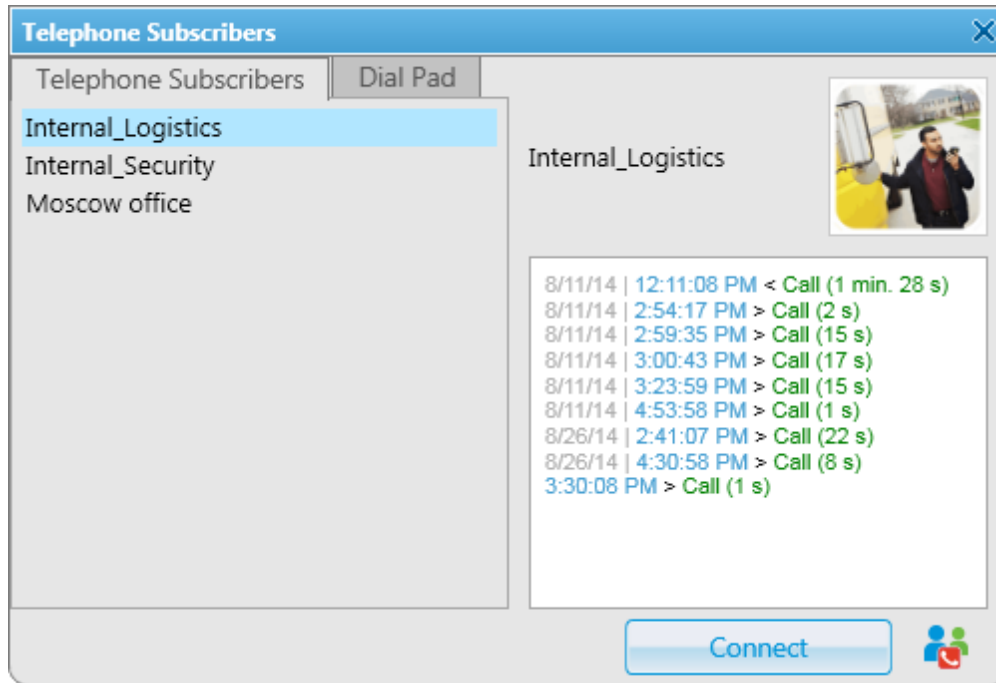
### How to Call a Telephone Subscriber




To call the telephone subscriber from the dispatch console, click the button :



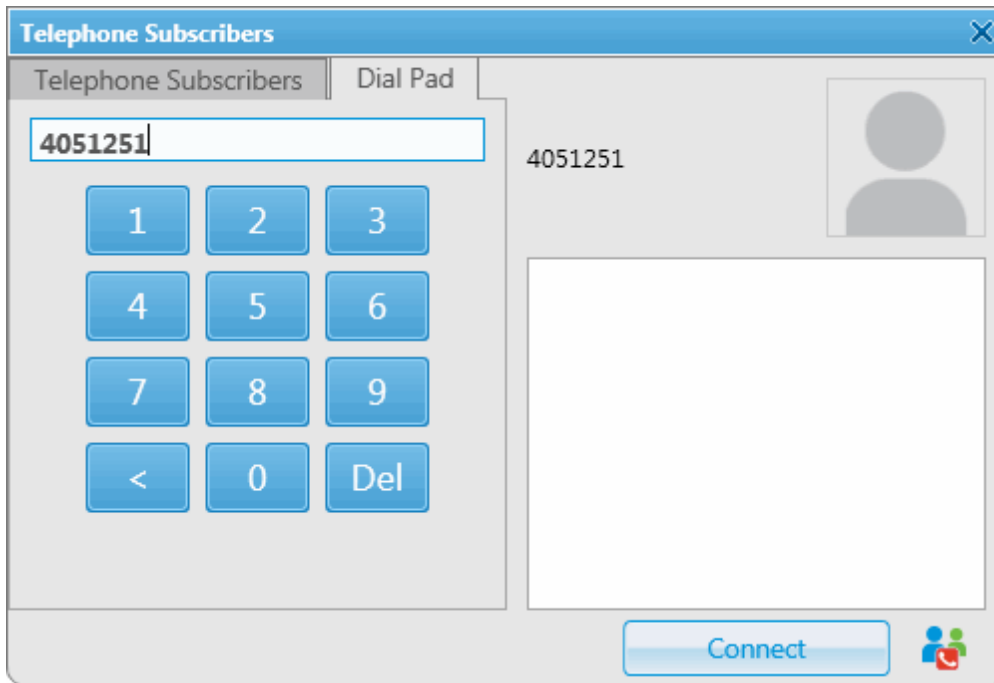
At that you will see the following window:



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).

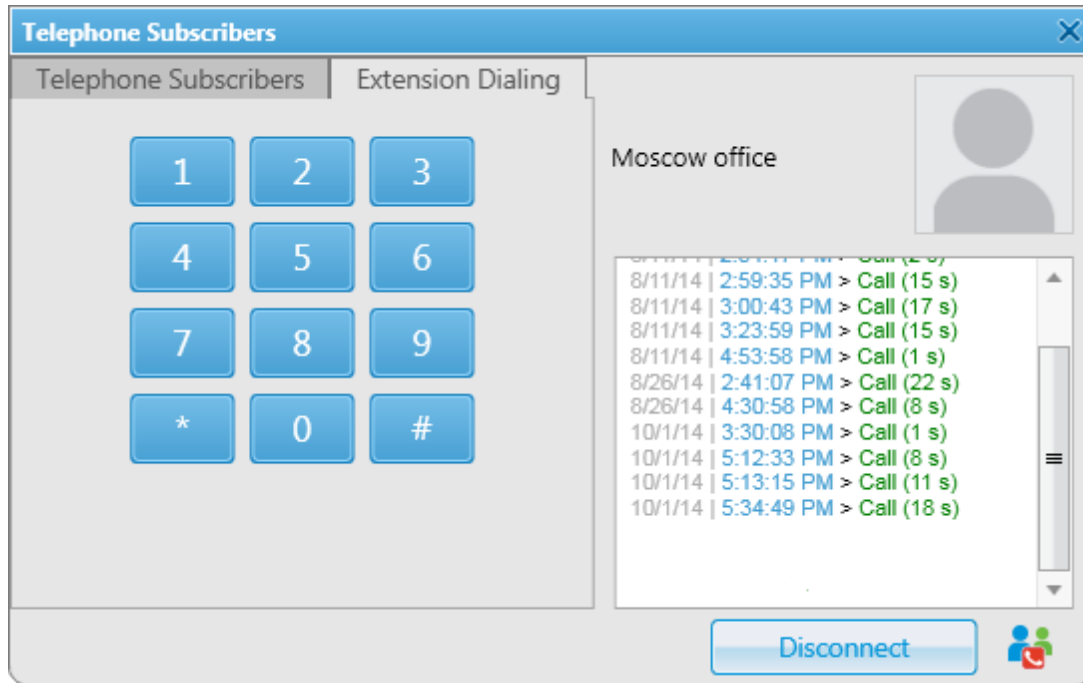
 is used for running a conference call with the selected telephone subscriber. For more information about this function see [Conference Calls](#).

To make a call to a telephone subscriber 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**.

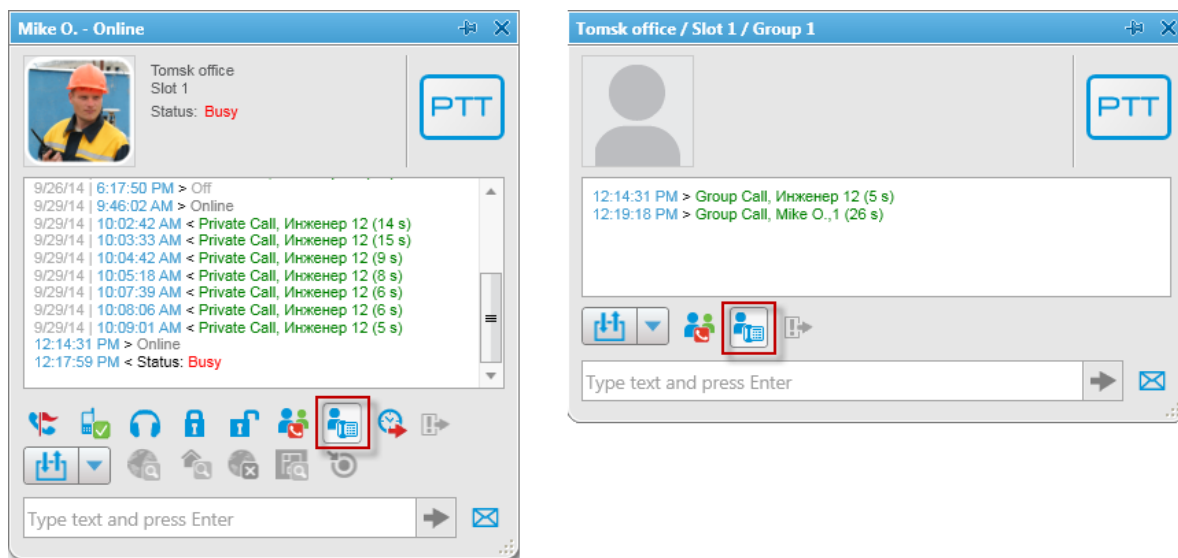


2. In this tab, dial \* to turn on DTMF mode (not obligatory, depends on the telephone parameters).

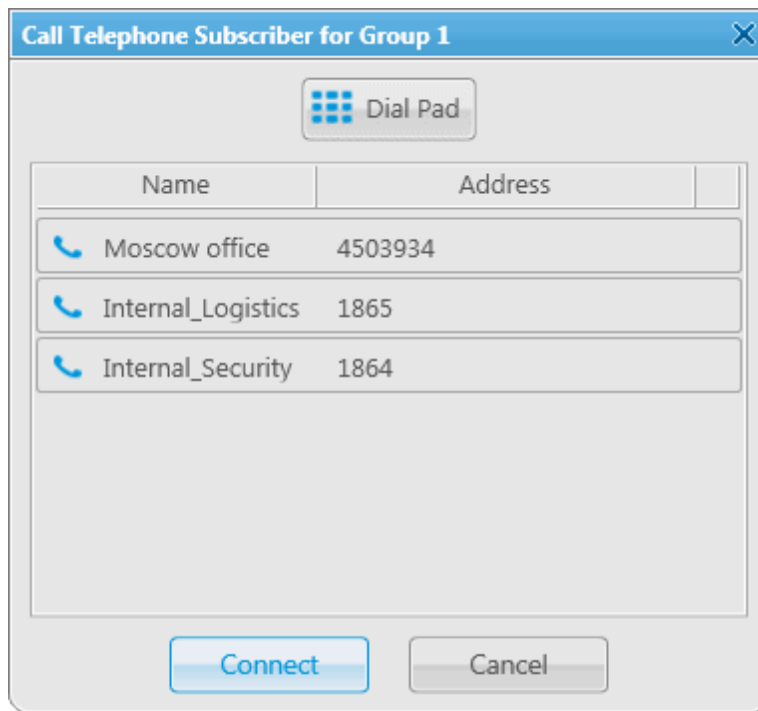
3. Dial the extension number and then #.

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

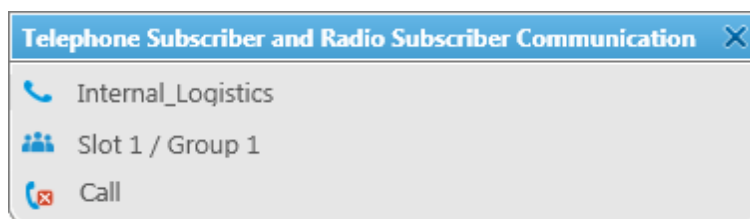


You can also use **Action List**, where you can select **Call Telephone Subscriber**. At that the following window will open.



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. Should the radio subscriber make a 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 radio subscriber presses the PTT button before this tone, an incorrect phone call will be initiated.

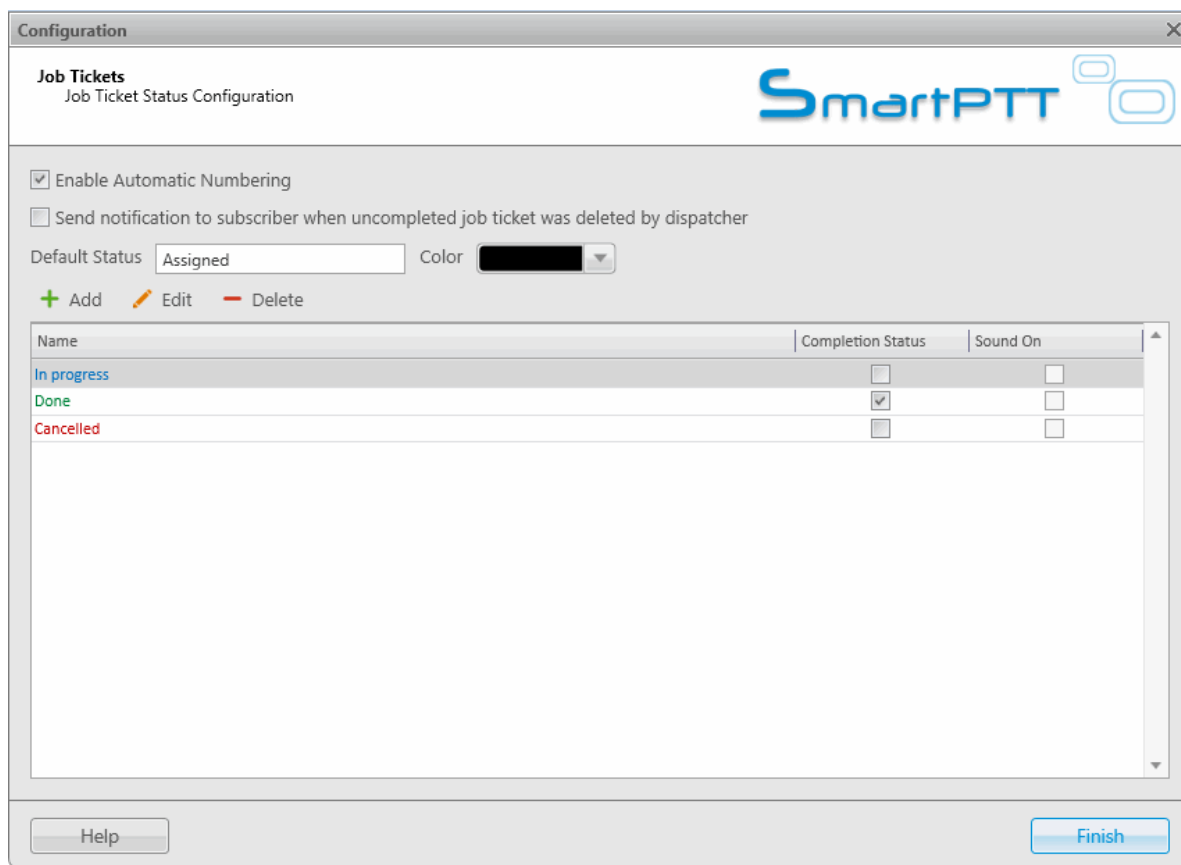


- initiates reconnection to the telephone subscriber.

## 1.5.19 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, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Job Ticket Statuses**. At that, the following window opens.



**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.

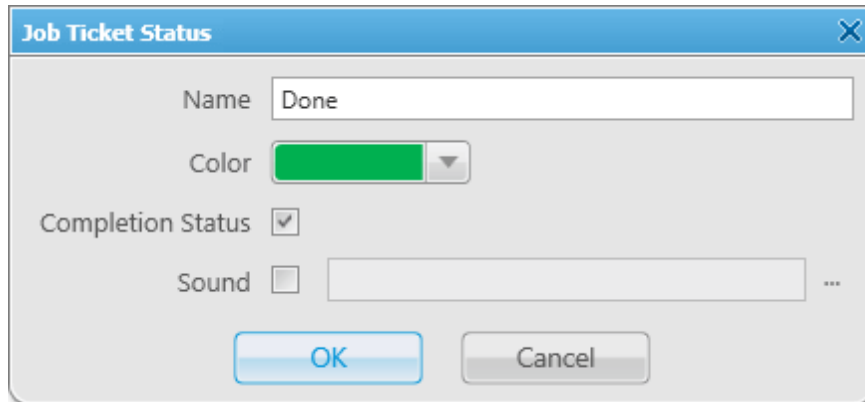
**Send notification to subscriber when uncompleted job ticket was deleted by dispatcher** – if this option is

enabled, a radio subscriber 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 radio subscriber 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 dialog box titled "Job Ticket Status" contains the following fields and controls:

- Name:** A text input field containing the word "Done".
- Color:** A color selection dropdown menu currently showing a green color.
- Completion Status:** A checkbox that is checked.
- Sound:** A checkbox that is unchecked, followed by a text input field and an ellipsis button "...".
- Buttons:** "OK" and "Cancel" buttons at the bottom.

**Name** – name of the status.

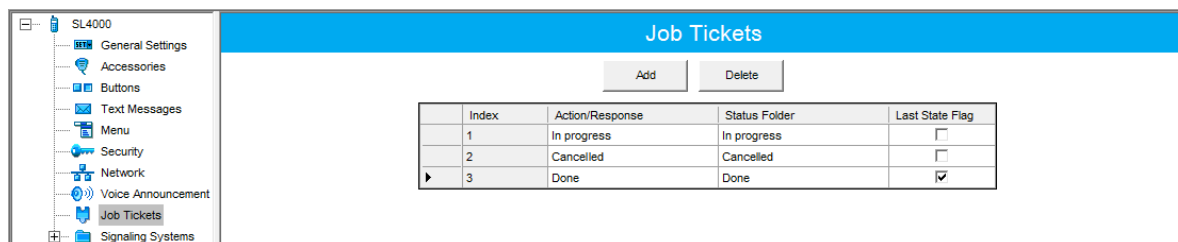
**Color** – color of the status, which will be used in the job ticket table.

**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.



The "Job Tickets" configuration window shows a table of job ticket statuses. The table has four columns: Index, Action/Response, Status Folder, and Last State Flag. There are three rows of data. Above the table are "Add" and "Delete" buttons.

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.



## 1.5.20 Third-Party Equipment

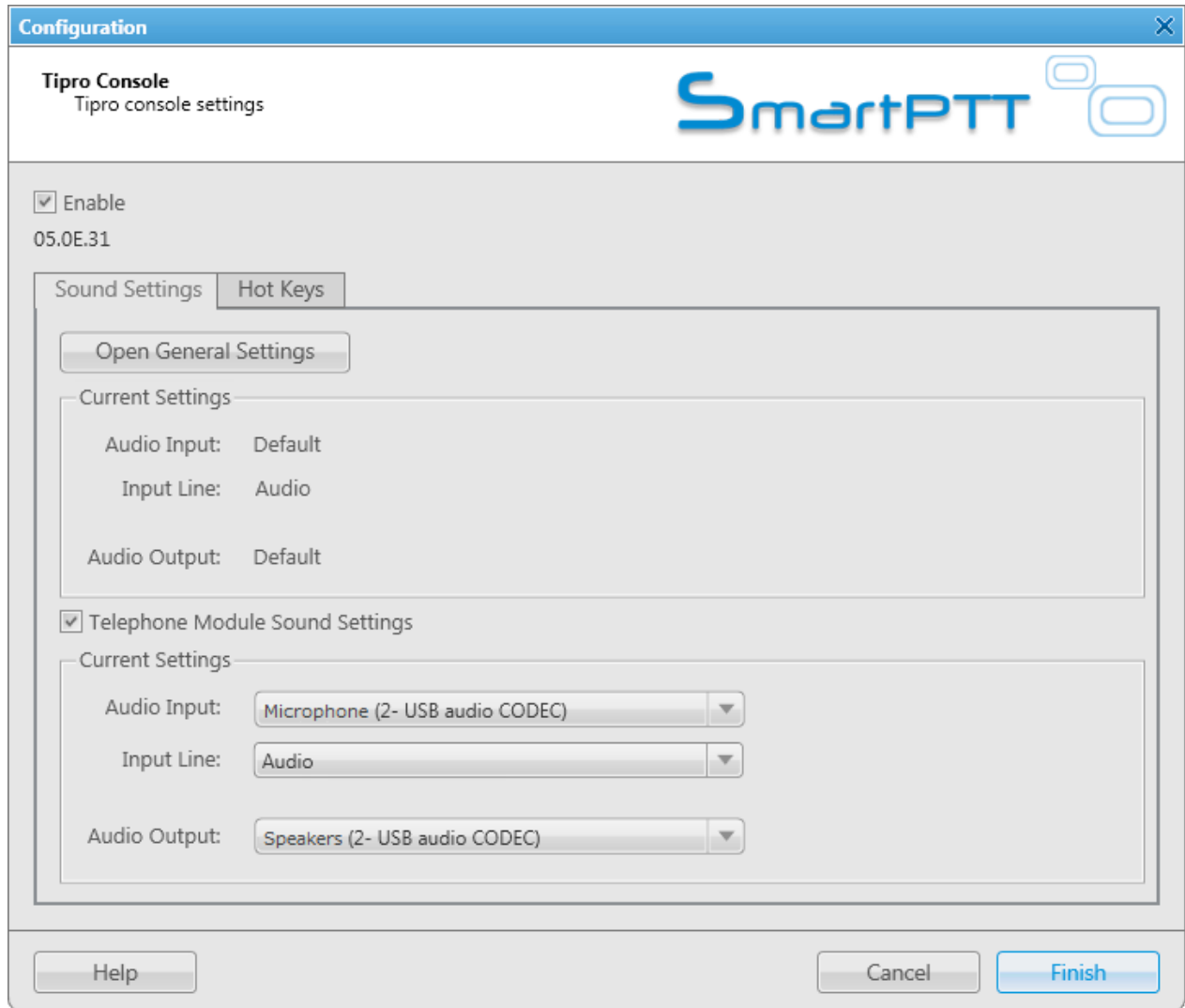
SmartPTT system supports third-party equipment e.g., Tipro modular console with BeFREE touchcomputer or without it.

To make the console work with SmartPTT system, take the following 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.
5. Configure SmartPTT Dispatcher settings connected to Tipro support.

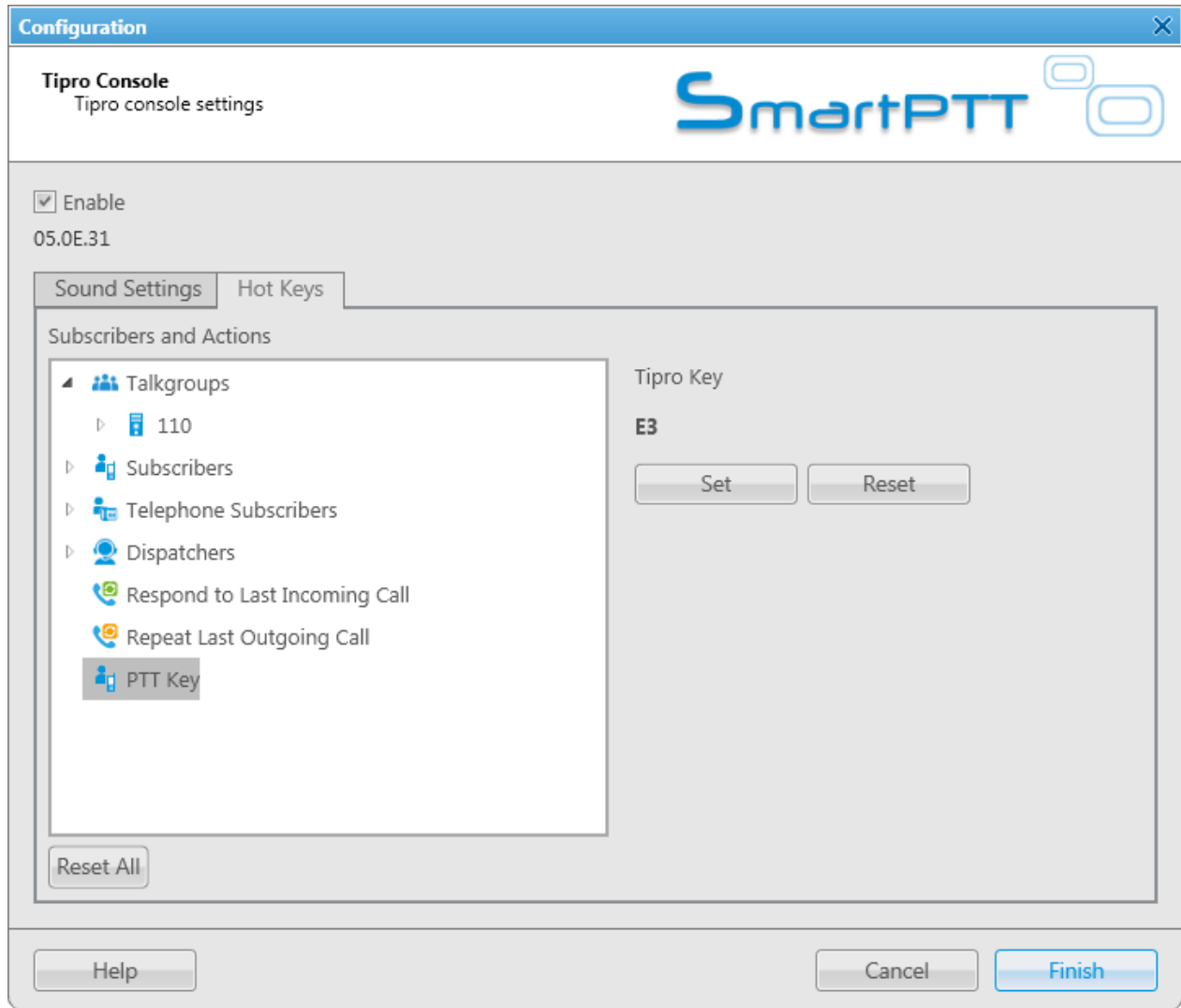
The SmartPTT Dispatcher configuration includes the following steps:

1. Open SmartPTT Dispatcher.
2. Enable Tipro console. On the **Settings** menu select **Third-Party Equipment** and then select **Tipro Console**. In the opened window, select **Enable**.



At that, the version of the main Tipro module appears, and the settings become enabled. If device can't be found, the settings are disabled.

3. Set up sound settings. You can go to the **Sound Settings** by clicking on **Open General Settings** to change the current sound settings. You can also configure sound settings for the telephone module. This is necessary only for Tipro modular console with BeFREE touchcomputer.
4. Add hot keys. To do that, open the **Hot Keys** tab.



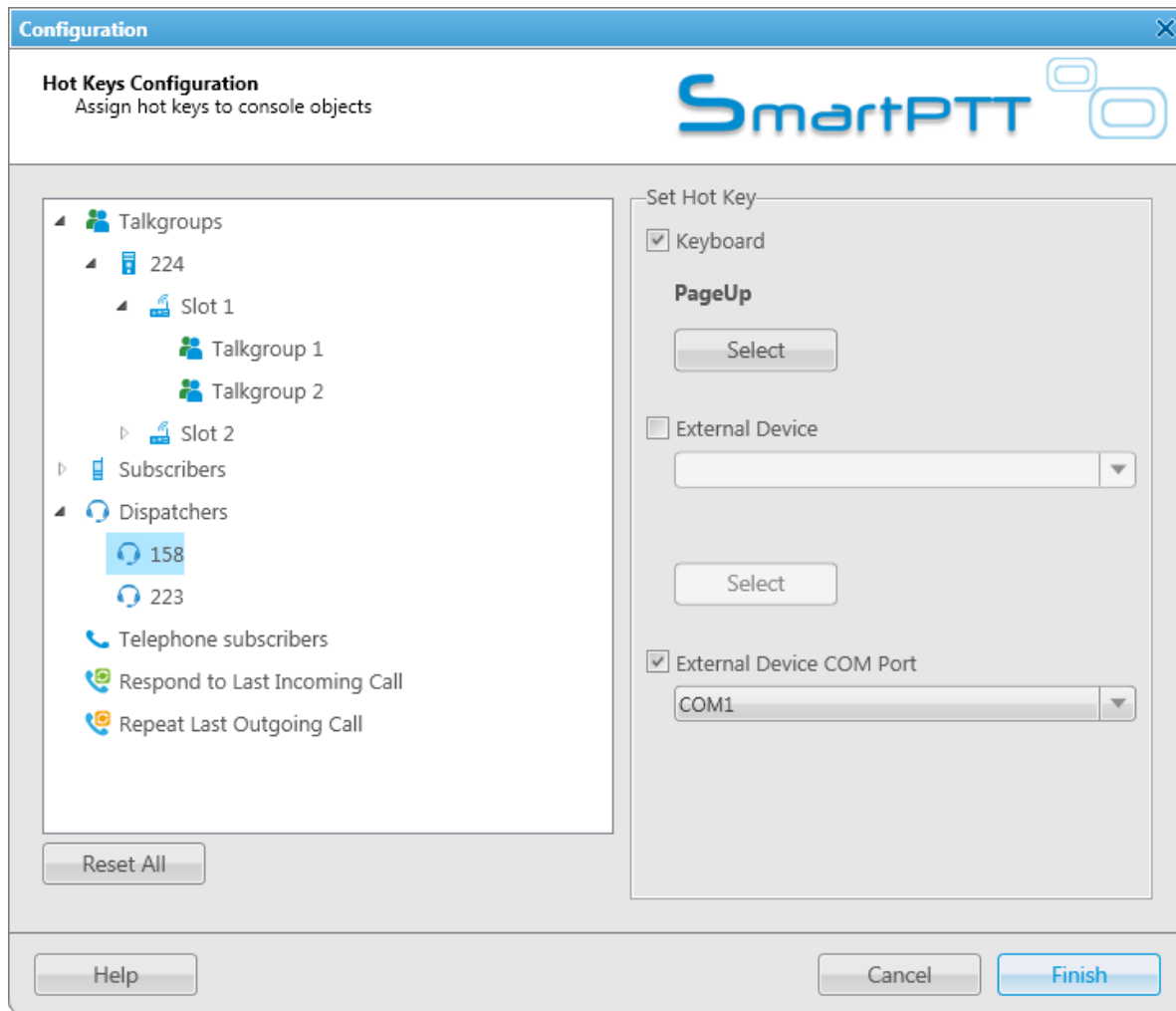
In the **Subscribers and Action** box select the subscriber, subscriber group, dispatcher or action, to which you want to assign a Tipro key. Then click on **Set** and press the required Tipro key. To save changes, click on **Finish**. To get back to previous settings, click **Cancel**.

**Reset All** – removes all assigned hot keys.

## 1.5.21 Hot Keys

SmartPTT Dispatcher implements the ability to make a call to subscribers (radio subscriber, talkgroups, all call, telephone subscriber, external dispatcher) by clicking on a predetermined keyboard key, its combination or a button of the external input device. Also, dispatcher can repeat the last outgoing call or respond to the last incoming call by pressing the hot keys. In the Capacity Max systems dispatcher can also decline the incoming call or end the call during the hang time by pressing the corresponding hot key.

In order to set up hot keys for system subscribers, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Hot Keys**.

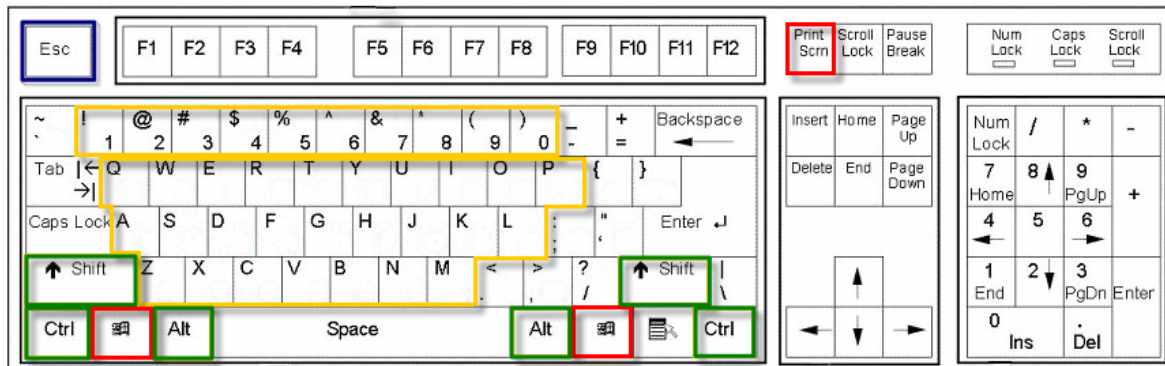


The window contains a list of subscribers available for the hot key assignment – radio subscribers, talkgroups, telephone subscribers, external dispatchers, last called and last active subscribers. To assign a hot key to the subscriber, select the subscriber from the list, then select the hot key type.

**Keyboard** – select the field to assign to the subscriber a keyboard key or a key combination as the PTT button.

Click **Select**, then press the keyboard key or the key combination.

Not all keyboard keys can be used as hot keys. Here is the keyboard scheme. It shows which keyboard keys can be used and which cannot.



1. The keyboard keys marked red cannot be used as hot keys separately or in combination.
2. The keyboard keys marked yellow cannot be used as hot keys separately, only in combination with the **Ctrl**, **Alt** or **Shift** keys. The **Shift** key can be used only in combination of three keys, for example, **Shift+Alt+F**.
3. The **Esc** key can be used only in combination with **Shift** (**Shift+Esc**).
4. All other keyboard keys can be used as hot keys either separately or in combination with the **Ctrl**, **Alt** or **Shift** keys. The **Shift** key can be used in combination of two or three keys, for example, **Shift+Delete**, **Shift+Alt+Enter**.

**Note:** Hot keys support two work modes: holding and single press. The active mode is defined in [Contol Devices](#).

The screenshot shows the 'Configuration' window for SmartPTT. The title bar reads 'Configuration' with a close button. The main title is 'Control Devices' with the SmartPTT logo. The window is divided into three sections: Mouse, Touchscreen, and External Devices.

- Mouse:** 'Actions upon clicking:' with radio buttons for 'Select', 'Call', 'Hold', and 'Single click'. 'Call' and 'Single click' are selected.
- Touchscreen:** 'Actions upon tapping:' with radio buttons for 'Select', 'Call', 'Hold', and 'Single tap'. 'Call' and 'Single tap' are selected.
- External Devices:**
  - PTT Key:** A blue button labeled 'Space' is selected. To its right, 'Call Mode:' has radio buttons for 'Hold' and 'Press 1 time', with 'Press 1 time' selected. This area is highlighted with a red box.
  - Other Input Device:** A checkbox is unchecked, followed by an empty dropdown menu.
  - Device PTT Button:** A grey button is selected. To its right, 'Call Mode:' has radio buttons for 'Hold' and 'Press 1 time', with 'Press 1 time' selected.
  - External Device COM Port:** A checkbox is unchecked, followed by an empty dropdown menu. To its right, 'Call Mode:' has radio buttons for 'Hold' and 'Press 1 time', with 'Press 1 time' selected.

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

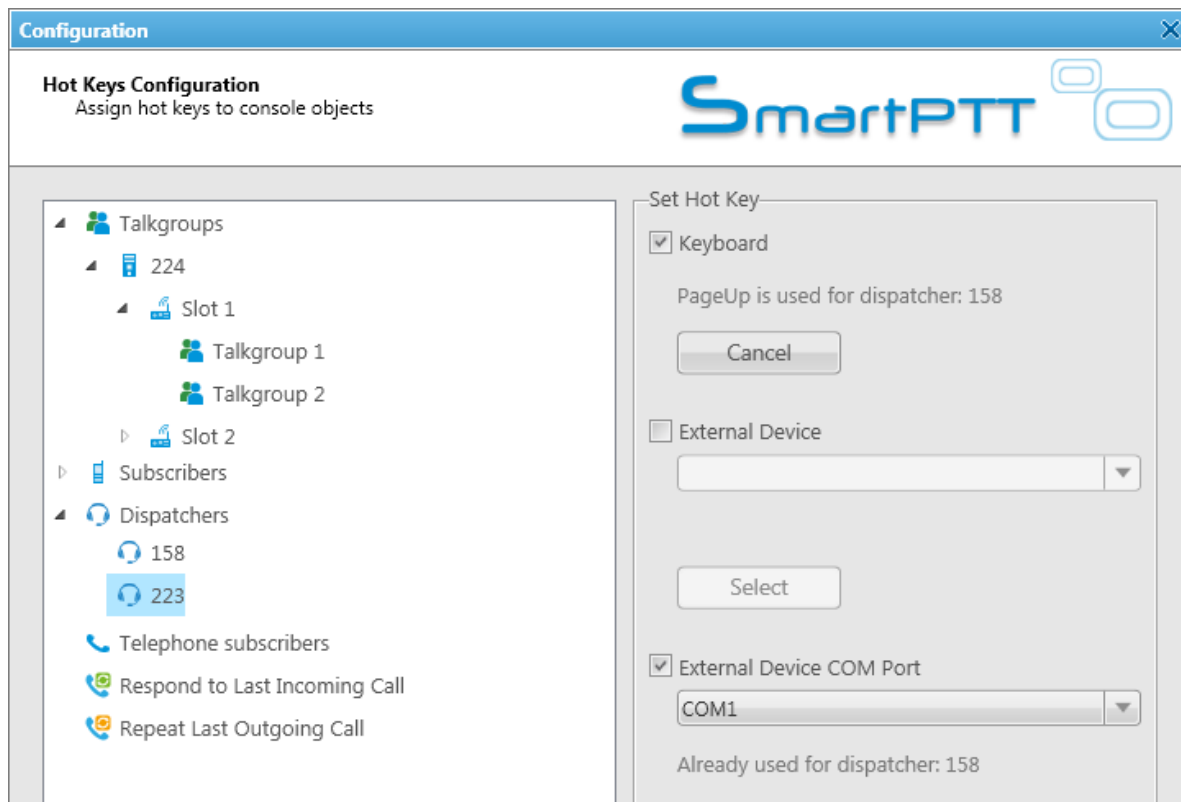
**External Device** – select the field to assign to the subscriber a key of the external input device connected via USB as the PTT button. Select the external device from the list of available, click the **Select** button, then press the key of the external device.

**External Device COM Port** – select the field to assign to the subscriber a key of the external PTT pedal connected via COM port as the PTT button. Select the COM port of the PTT pedal from the list of available.

There is only one mode available for the PTT button on external devices – hold to enable.

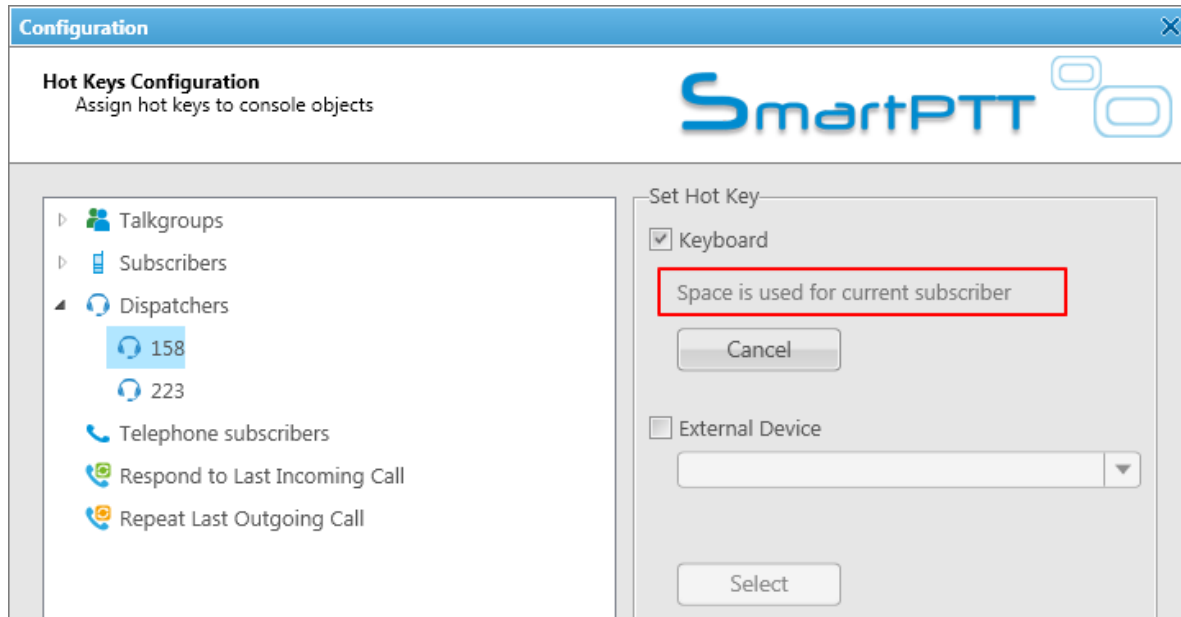
To remove the previously defined hot key for the subscriber, disable the appropriate check box. To reset the assigned hot keys for all subscribers, click **Reset All**.

If a designated keyboard key or button of an external input device is already in use, the message appears in the window:



A keyboard key or a key of the external input device which is already in use as the **PTT** button for a current subscriber cannot be used as a PTT button for the selected subscriber.

**Note:** The **PTT** button used for a call to a current subscriber means that you use this button to call any subscriber of SmartPTT Dispatcher.



**Note:** If the hot key that you set matches the **PTT** button for the current subscriber, the hot key settings will be discarded.

Click **Finish** to apply the settings. To get back to the previous settings, click **Cancel**.

## 1.5.22 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.



In order to set up automatic backup parameters, expand the **Settings** menu in the **Main Menu** bar of SmartPTT Dispatcher and click **Database Auto Backup**.

The screenshot shows the 'Configuration' dialog box for 'Database Auto Backup Settings'. The window title is 'Configuration' and it features the SmartPTT logo in the top right corner. The main content area is titled 'Database Auto Backup Settings' and 'Auto Backup Parameter Settings'. It contains the following elements:

- A checked checkbox for 'Allow Database Auto Backup'.
- A 'Backup Folder' section with a text box containing 'C:\Auto Backup' and a browse button ('...').
- A 'Backup Settings' section with three radio buttons: 'Daily', 'Weekly', and 'Monthly' (which is selected). To the right of the 'Monthly' radio button are two spinners: 'Day of month' set to '1' and 'Interval (month)' set to '1'. Below these is a 'Time' spinner set to '9:00'.
- A 'Backup Period' section with 'Start Date' set to '13.04.2015' and 'End Date' set to '14.04.2015'. There are also radio buttons for 'No End Date' (selected) and another 'End Date' option.

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

**Allow Database Auto Backup** – select the check box to enable the ability to create SmartPTT Dispatcher current database backups in the automatic mode.

**Backup Folder** — full path to the file for saving the database backup.

**Backup Settings** — schedule for creating the current database backup:

- **Daily** — every fixed day at the specified time (for example, every day, every third day at 9:00 a.m.).
- **Weekly** — every fixed day of the week at the specified time (for example, every Monday, Wednesday and Friday at 11:00 p.m., or every Monday at 11:00 p.m. and Friday at 11:00 a.m.).
- **Monthly** — once a month on the fixed day of the selected month and at the specified time.

**Backup Period** — allows you to set time period when automatic database backup is to be made according to the

selected backup settings.

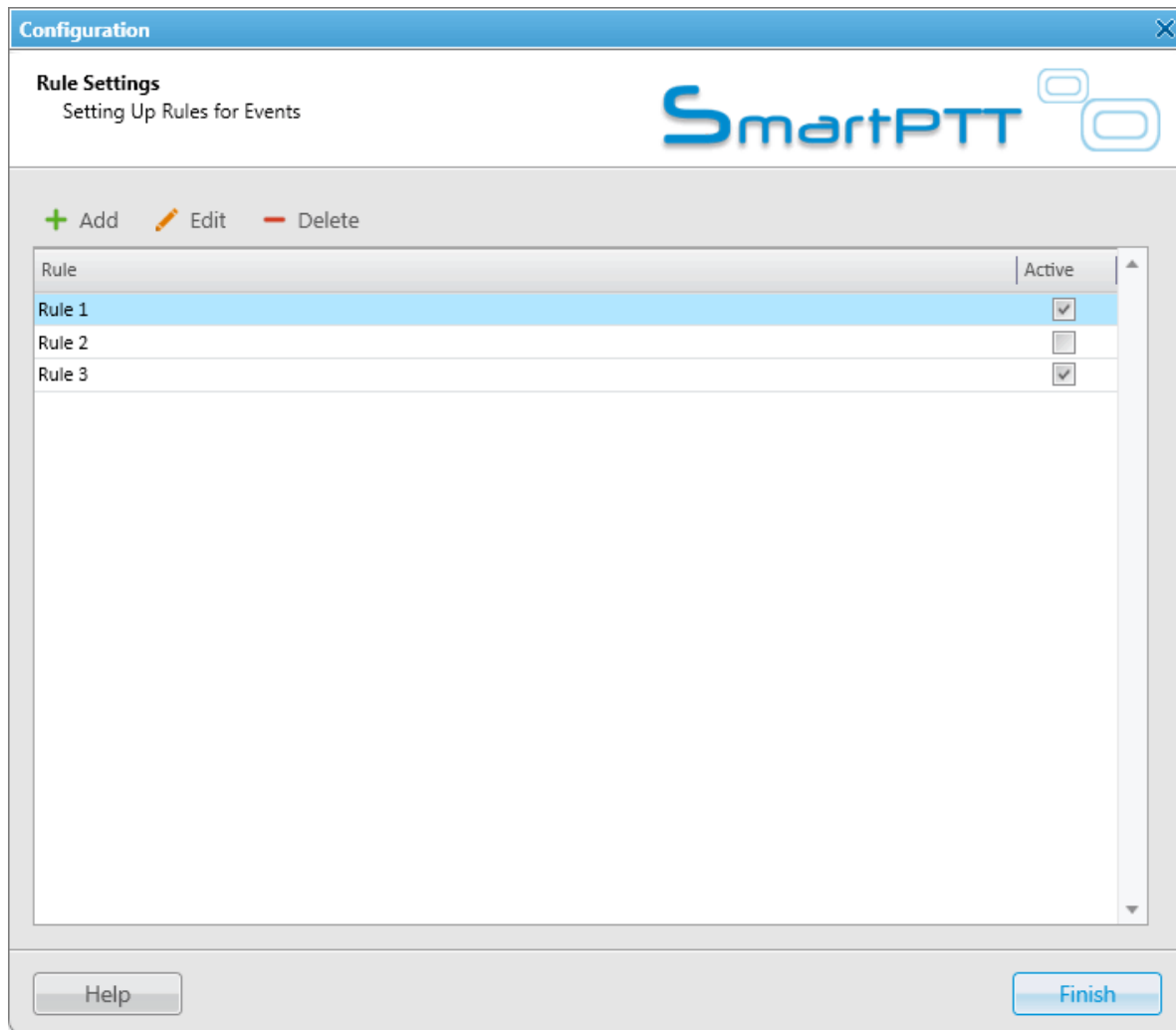
**Note:** The number of stored backup files in the same folder is limited to 3. Otherwise, when creating a new copy, the old files are deleted.

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

## 1.5.23 Rules and Alerts

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 radio subscriber status, etc.

To set rules, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Rules and Alerts**. The configuration window opens up.



To add a new rule, click **Add**. The window with rule settings opens up.

**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, Equals	Incoming, Outgoing
<b>Event Type</b>	No, Equals, Not Equals	Registration, Call, Message, Telemetry, Alarm, Status, Block Radio, Job Ticket, Lone Worker

<b>Date/Time</b>	No, In Interval	Time interval
<b>Additional Information</b>	No, Equals, Contains	Type event additional information, e. g. text messages, titles and description of tasks, talkers from a group call.
<b>Not Read</b>	No, Equals	Read, Not Read
<b>Operator</b>	No, Equals, Not Equals	Operator from list of operators
<b>Radioserver</b>	No, Equals, Contains	Radioserver name
<b>Control Station</b>	No, Equals, Contains	Control station name
<b>Subscriber</b>	No, Equals, Not Equals	Subscriber from the list of subscribers
<b>Talkgroup</b>	No, Equals, Contains	Talkgroup name
<b>Status</b>	No, Equals, Not Equals	Status from the list of statuses
<b>Duration</b>	No, Equals, Not Equals, Greater, Greater than or Equal, Less, Less than or Equal, In Interval	Duration in seconds
<b>Connection Type</b>	No, Equals, Not Equals	Connection types used in SmartPTT: <ul style="list-style-type: none"> <li>• DMR – over-the-air connection made via repeaters and control stations;</li> <li>• PBX – telephone connection</li> <li>• IP – Dispatcher-Dispatcher connection.</li> </ul>
<b>Repeater IP</b>	No, Equals, Not Equals	Available repeaters' IP addresses
<b>Receiver</b>	No, Equals, Not Equals	Subscriber from the list of subscribers
<b>Record</b>	No, Equals	Available audio records

**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:

1. Alerts addressed to the initiator
2. Alerts addressed to the dispatcher
3. Alerts addressed to the radio subscriber
4. Other

**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.

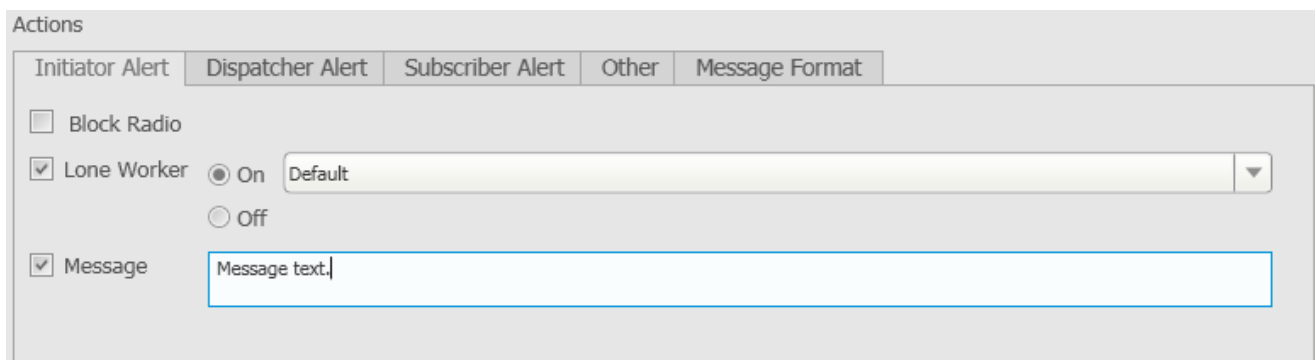
The **Message Format** tab allows you to set the format of the alert messages.

To save the rule, click **OK**. At that, 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 software interface titled "Actions" with five tabs: "Initiator Alert", "Dispatcher Alert", "Subscriber Alert", "Other", and "Message Format". The "Initiator Alert" tab is selected. It contains three main settings:

- Block Radio
- Lone Worker: Includes radio buttons for "On" (selected) and "Off", and a dropdown menu currently set to "Default".
- Message: Includes a text input field containing "Message text.".

**Block Radio** – if selected, the radio that triggered the rule, will be blocked.

**Lone Worker** – if selected and **On** clicked, the lone worker profile will be set to the radio that triggered the rule. If

**Off** is clicked, the lone worker mode of the radio 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 subscriber who initiated triggering of the rule. You can specify message format settings in the [Message Format](#) tab.

## Dispatcher Alert

Open the **Dispatcher Alert** tab.

The screenshot shows the 'Actions' configuration window with the 'Dispatcher Alert' tab selected. The window contains several options and fields:

- Play Sound: A checkbox that is checked, with a file path field set to 'C:\Program Files\SmartPTT\Client\Sound\Alert.wav'.
- Show on Map: A checkbox that is checked.
- Alert: An unchecked checkbox, with an 'Alert Caption' text field to its right.
- Alert Text: A text field below the 'Alert Caption' field.
- Set Subscriber Status: A checked checkbox, with a dropdown menu set to 'On site'.

**Play Sound** – select .wav audio file to play.

**Show on Map** – if selected, the radio that triggered the rule will be shown on the map.

**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 Subscriber Status** – the subscriber is assigned the predefined status. It is selected from the **Statuses** list (see [Statuses](#)).

## Subscriber Alert

Open the **Subscriber Alert** tab.

The screenshot shows the 'Actions' configuration window with the 'Subscriber Alert' tab selected. The window contains several options and fields:

- Send Message: A checked checkbox.
- radio subscribers: A radio button that is unselected.
- talkgroups: A selected radio button, with a dropdown menu to its right.
- categories: A radio button that is unselected.
- Message: A text field containing the text 'Alert!'.

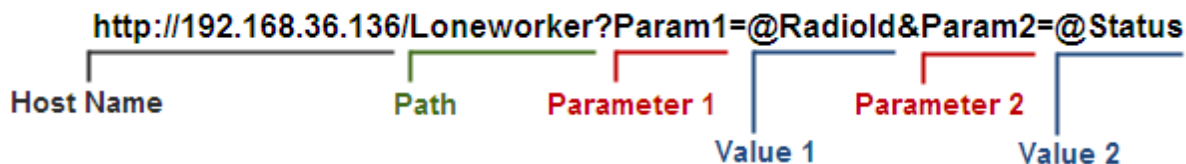
**Send Message** – a text message is sent to the selected subscribers, talkgroups or categories. You can specify format settings of text messages in the [Message Format](#) tab of the **Actions** area.

## 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:



**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 radio subscribers, defined in the message recipient list in the **Subscriber Alert** or **Other** tab.

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

**Event Information:**

**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 subscriber time zone in Coordinated Universal Time (UTC).

**Coordinates** – if selected, the subscriber's coordinates are displayed in the message. These are the latest coordinates stored in the database.

**Subscriber Information:**

**Subscriber ID** – if selected, the ID of the subscriber, who has triggered the rule, will be added to the text message.

**Subscriber Name** – if selected, the name of the subscriber, who has triggered the rule, will be added to the text message.

## 1.5.24 Positioning Rules

You can set response rules for GPS and Indoor events registered in SmartPTT system. GPS events include receiving or not receiving subscriber's 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 subscriber statuses, etc.

To set up a positioning rule, expand the **Settings** menu in the main menu and click **Positioning Rules**.

**Configuration**

**Positioning Rules**  
Configuration of special rules based on GPS and Indoor events

SmartPTT

+ Add   Edit   - Delete

Rule	GPS/Indoor	Type	Active
Indoor rule	Indoor	Zone/Route Leaving	<input checked="" type="checkbox"/>
GPS rule	GPS	No Movement	<input checked="" type="checkbox"/>

Help   Finish

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.

**Type** – rule types:

- **Stop control** – this rule type checks if a radio subscriber is moving, i.e. the subscriber's coordinates or Indoor positioning data constantly change with time.
- **Location data received** – this rule type checks the appearance of the radio subscriber's coordinates after a predefined period of time when there were no coordinates.
- **No location data** – this rule type checks if there are no radio subscriber coordinates for a period longer than the 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 subscriber has entered the zone or the route, i.e. the subscriber's previous 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 subscriber 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 subscribers in geofences / on routes** – this rule type checks the number of radio subscribers in the selected geofences or on selected routes.

The table lists the criteria used in positioning rules.

Attribute	Value
<b>All subscribers</b> <b>Select Subscribers / Select Categories</b>	Select all subscribers, or some subscribers, or categories, to whom the rule will be applied.
<b>Time period with no motion detected</b>	Time interval during which the radio subscriber can stay at one place (min)
<b>Time period before receiving location data</b>	Period of time after which the subscriber's coordinates are received again (min)
<b>Time period with no location data received</b>	Period of time during which there are no subscriber's coordinates (min)
<b>Geofences and Routes</b>	Select geofences or routes to follow in the rule.
<b>Speeding</b>	If speeding is registered, the rule is executed.  <u>Note.</u> 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.
<b>Number of subscribers in geofences / on routes</b>	The number of radio subscribers 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

Attribute	Value
	only once.
<b>Notify about new location</b>	If the subscriber starts moving, and before that the subscriber 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 a series of actions:

1. Actions addressed to the initiator
2. Alerts addressed to the dispatcher
3. Alerts addressed to the radio subscriber
4. Other

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.

Actions

Initiator Alert | Dispatcher Alert | Subscriber Alert | Other | Message Format

Block Radio

Lone Worker  On Default  Off

Message

**Block Radio** – if selected, the radio that triggered the rule, will be blocked.

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

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

**Man Down** – if selected and **On** is clicked, the Man Down mode will be set to the radio that triggered the rule. If

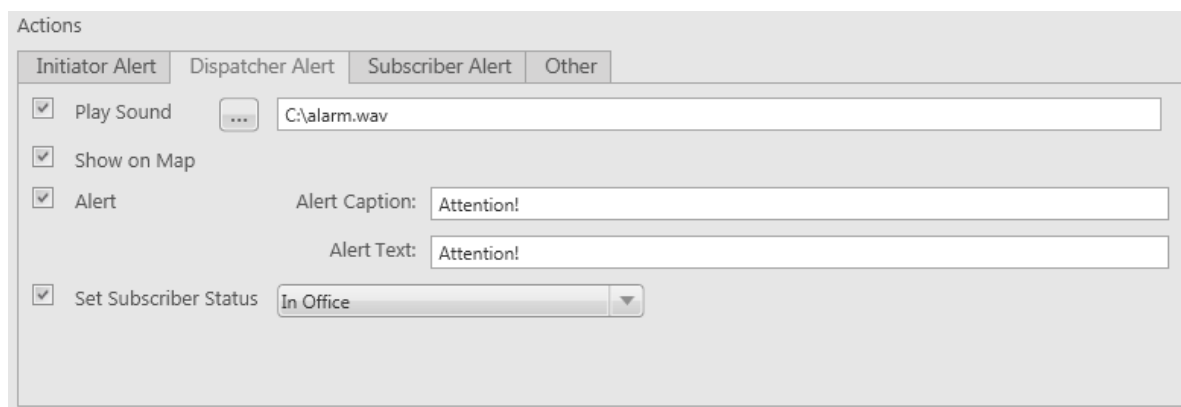
**Off** is clicked, the Man Down mode of the radio will be deactivated.

**Note:** Make sure that the radio subscriber unit has the built-in activated option board. To set up the Man Down feature for the generic option board using SmartPTT Man Down firmware, contact our technical support (<http://support.smartptt.com/hc/en-us>). To set up the Man Down feature for the specific option boards or for the generic option board using Tallysman Sprite™ TW251, see the corresponding manufacturer's documentation.

**Message** – a text message is sent to the subscriber who initiated triggering of the rule.

## Dispatcher Alert

Open the **Dispatcher Alert** tab.



The screenshot shows the 'Actions' configuration window for a Dispatcher Alert. It features four tabs: 'Initiator Alert', 'Dispatcher Alert' (which is selected), 'Subscriber Alert', and 'Other'. Below the tabs, there are several configuration options, each with a checked checkbox:

- Play Sound:** A file path 'C:\alarm.wav' is entered in the text field next to a browse button (...).
- Show on Map:** A simple checkbox option.
- Alert:** Two text fields are present: 'Alert Caption:' with the value 'Attention!' and 'Alert Text:' with the value 'Attention!'.
- Set Subscriber Status:** A dropdown menu is set to 'In Office'.

**Play Sound** – select .wav audio file to play back.

**Show on Map** – location of the subscriber 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 Subscriber Status** – the subscriber is assigned the specified status. It is selected from the list of statuses.

## Subscriber Alert

Open the **Subscriber Alert** tab.

Actions

Initiator Alert Dispatcher Alert **Subscriber Alert** Other

Send Message

radio subscribers

talkgroups

categories

Message: Alert!

**Send Message** – a text message is sent to the selected subscribers, talkgroups or categories.

## Other

Open the **Other** tab.

Actions

Initiator Alert Dispatcher Alert Subscriber Alert **Other**

HTTP Request: http://192.168.36.136/loneworker?Param1=@RadioId&Param2=@Statu:

E-mail

Radioserver: Tomsk office

E-mail: info@smartptt.com

Message: Attention! Rule 1 activated

SMS

Radioserver: Tomsk office

Phone Numbers: +792312345678

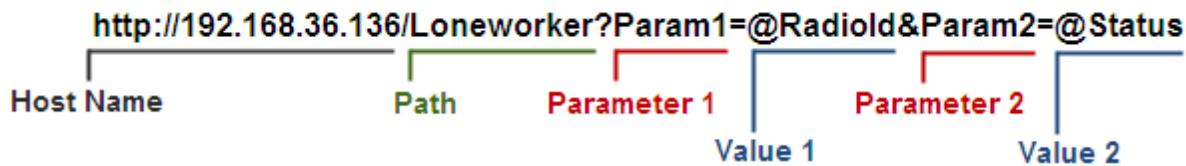
Message: Attention! Rule 1 activated

OK Cancel

**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**.

## 1.5.25 Lone Worker Rules

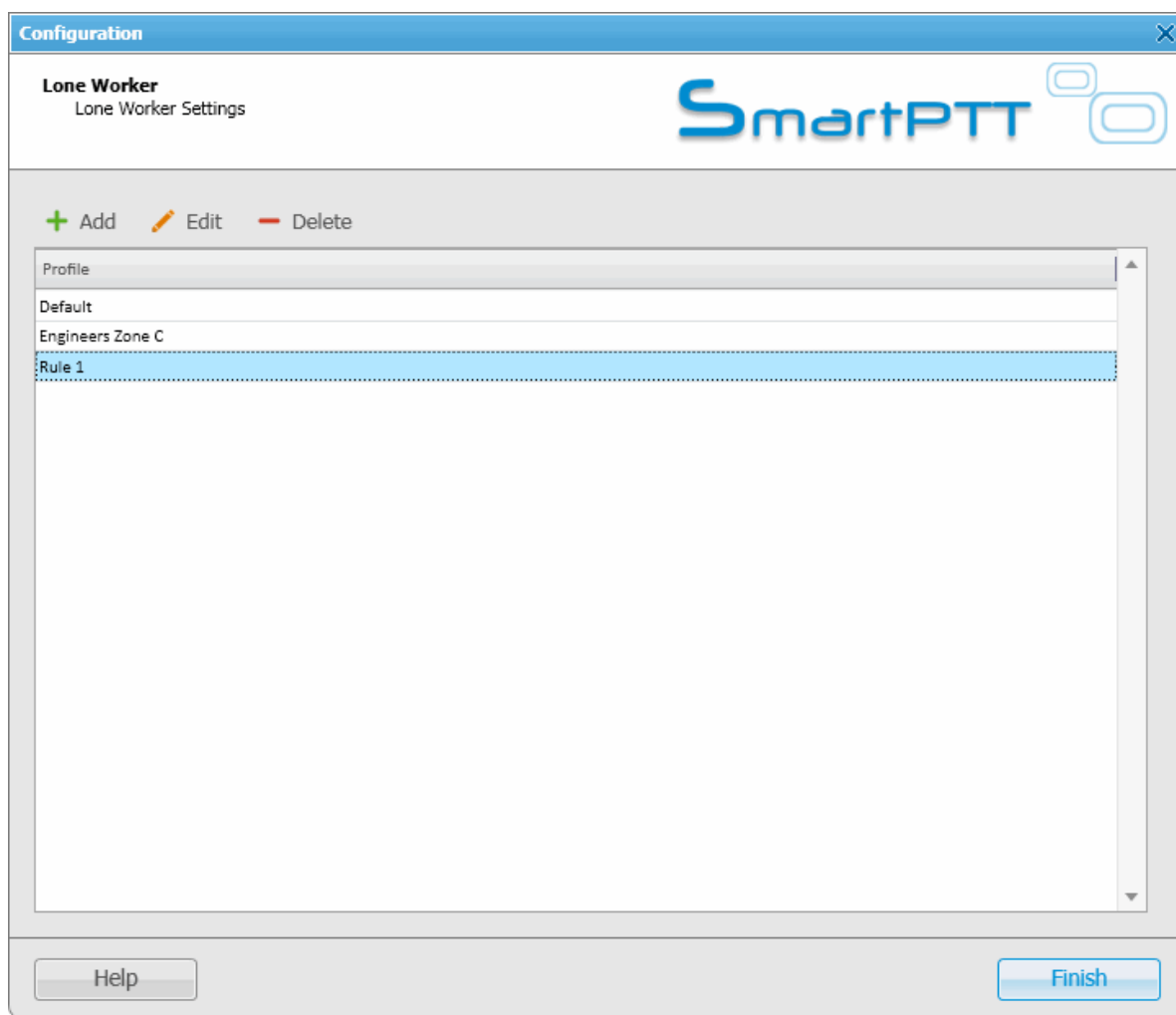
SmartPTT Dispatcher supports the Lone Worker mode for radio subscribers.

When a subscriber is set to the Lone Worker mode, SmartPTT automatically tracks the following conditions:

- Absence of calls from the subscriber during specified period of time.
- Absence of GPS coordinates from the subscriber during specified period of time.
- Immobility of the subscriber 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, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Lone Worker Rules**. At that, 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 subscriber.

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 opens.

**Profile Settings**

Name:

Conditions

General

No calls (min)

No location data received (min)

No change in location data (min)

Subscriber Alert

Text Message

Audio Message

Call Alert

Actions

Actions delay (min)

Initiator Alert | **Dispatcher Alert** | Subscriber Alert | Other

Block Radio

Lone Worker  On

Off

Message

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 subscriber to make a voice call. If the subscriber 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 subscriber to send GPS data. If the subscriber radio does not send its GPS 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 subscriber is moving (deviations in range of 5 meters are ignored). If the subscriber does not move during the specified time period, the corresponding actions are executed.

The **Subscriber Alert** area:

**Text Message** – when the event specified in one of the filters occurs, the text message is sent to the lone worker.

**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 **Start** 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.

**Alert Timer** – specifies the time period for a subscriber to make a call, to send GPS coordinates or to move after **Subscriber Alert** took place.

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

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

1. Actions addressed to the initiator
2. Alerts addressed to the dispatcher
3. Alerts addressed to the radio subscriber
4. Other

To save the rule, click **OK**. At that, 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.

**Block Radio** – if selected, the radio that triggered the rule, will be blocked.

**Lone Worker** – if selected and **On** is clicked, the lone worker profile will be set to the radio that triggered the rule.

If **Off** is clicked, the lone worker mode of the radio 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 subscriber who triggered the rule.

## Dispatcher Alert

Open the **Dispatcher Alert** tab.

**Play Sound** – select .wav audio file to play in SmartPTT Dispatcher.

**Show on Map** – subscriber 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 Subscriber Status** – the subscriber is assigned the specified status. It is selected from the list of statuses.

## Subscriber Alert

Open the **Subscriber Alert** tab.

The screenshot shows the 'Actions' dialog with the 'Subscriber Alert' tab selected. The 'Send Message' checkbox is checked. Under the 'radio subscribers' section, the 'talkgroups' radio button is selected, and a text box contains the text 'Group 1 [Slot 2 | 71] Group 2 [Slot 1 | 71]'. The 'Message' field contains the text 'Alert!'.

**Send Message** – a text message is sent to the selected subscribers, talkgroups or categories.

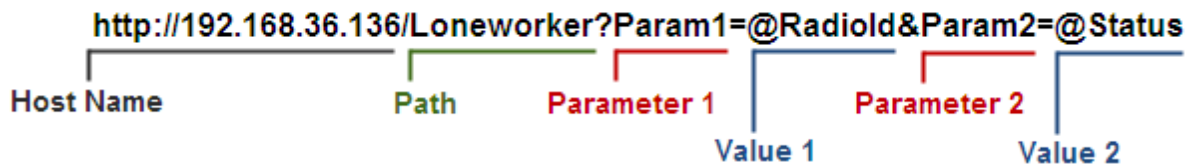
## Other

Open the **Other** tab.

The screenshot shows the 'Actions' dialog with the 'Other' tab selected. The 'HTTP Request', 'E-mail', and 'SMS' checkboxes are checked. The 'HTTP Request' field contains the URL 'http://192.168.36.136/loneworker?Param1=@RadioId&Param2=@Status:'. The 'E-mail' section has 'Radioserver' set to 'Tomsk office' and 'E-mail' set to 'info@smartptt.com', with a message field containing 'Attention! Rule 1 activated'. The 'SMS' section has 'Radioserver' set to 'Tomsk office' and 'Phone Numbers' set to '+792312345678', with a message field containing 'Attention! Rule 1 activated'. 'OK' and 'Cancel' buttons are at the bottom.

**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 checked, 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 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>`.

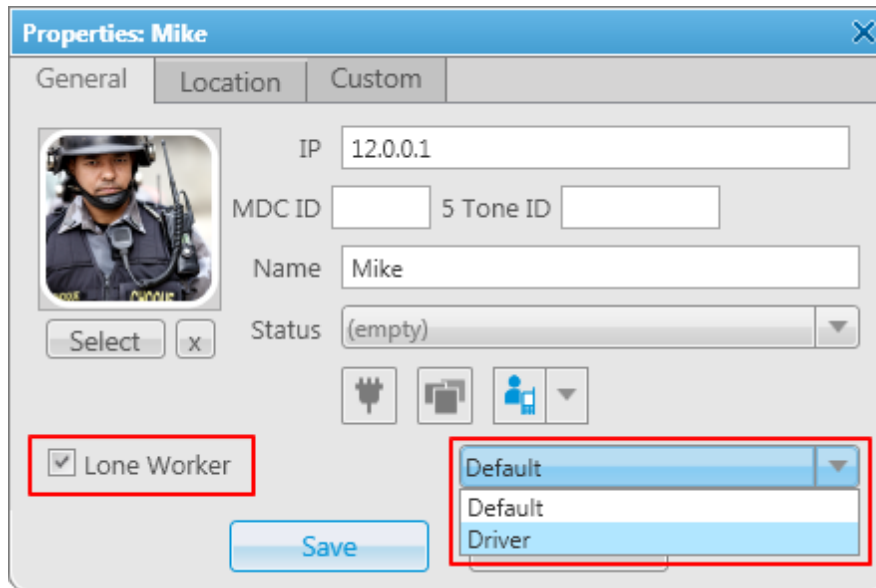
**Message** – text of the message.

**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 the radio subscriber

To assign the created lone worker profile to a radio subscriber, open the **Properties** window of the subscriber.

In the opened window select the **Lone Worker** check box, and in the drop-down list select the created profile.



The screenshot shows the 'Properties: Mike' window with the 'General' tab selected. The window contains the following fields and controls:

- IP: 12.0.0.1
- MDC ID: [empty]
- 5 Tone ID: [empty]
- Name: Mike
- Status: (empty)
- Buttons: Select, x
- Icons: [USB], [Printer], [Person]
- Check box:  Lone Worker
- Dropdown menu: Default (selected), Default, Driver
- Save button

To remove the profile from the subscriber, clear the **Lone Worker** check box.

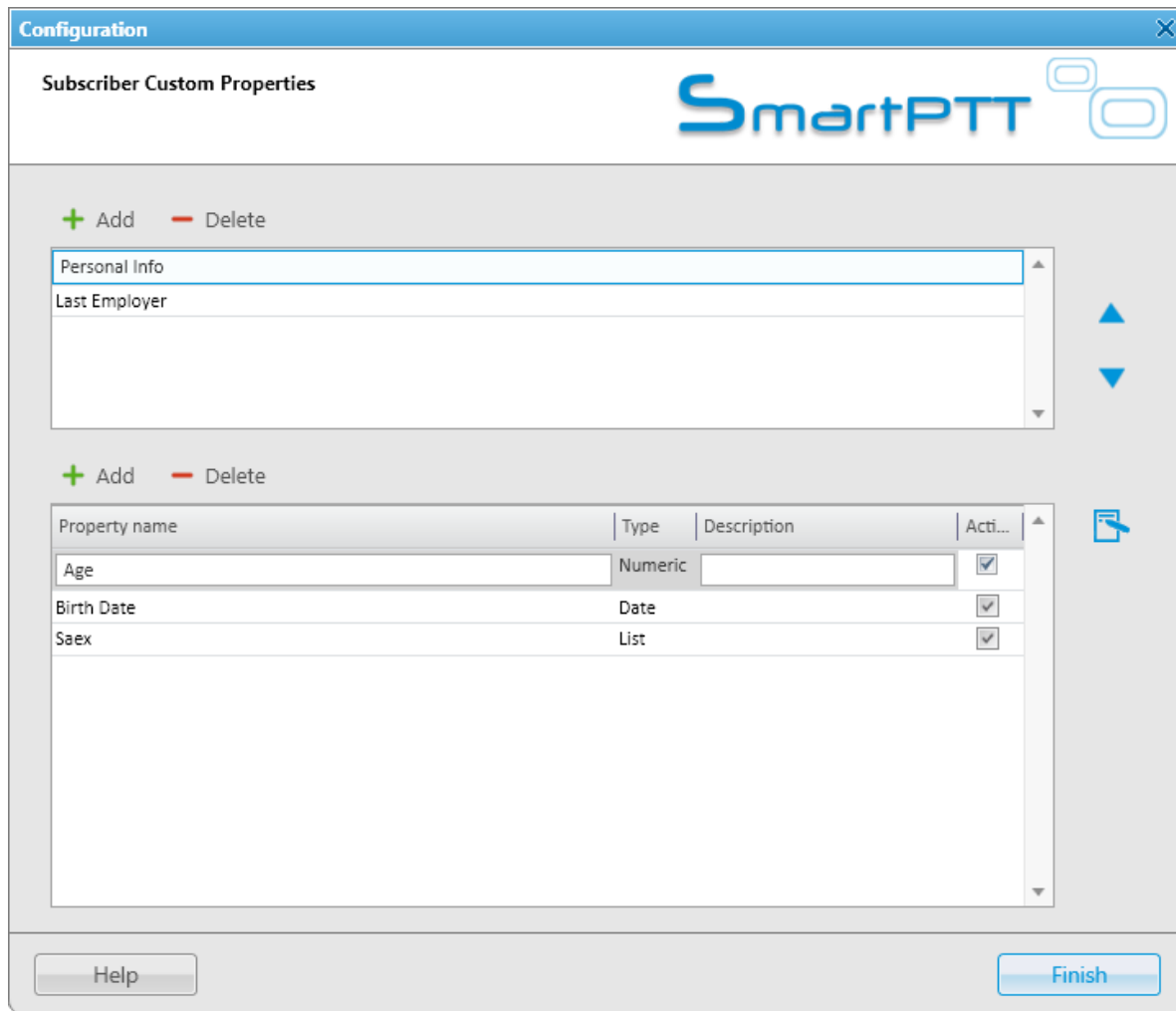
### 1.5.26 Subscriber Custom Properties

SmartPTT Dispatcher provides the ability to add custom properties of a subscriber, which can be used for giving additional information about the radio subscriber. Subscriber Custom Properties have the following four types:

1. Text
2. Numeric
3. Date
4. List



To create custom properties expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Subscriber Custom Properties**. At that, the **Subscriber Custom Properties** window opens.



The top list contains subscriber custom property groups.

To add the subscriber 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).

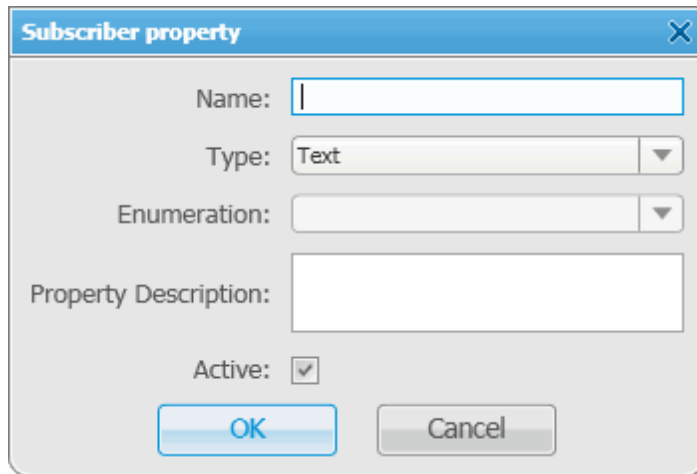
**Description** – text description added by the user when creating a property.

**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.

At that, the **Subscriber property** window opens.



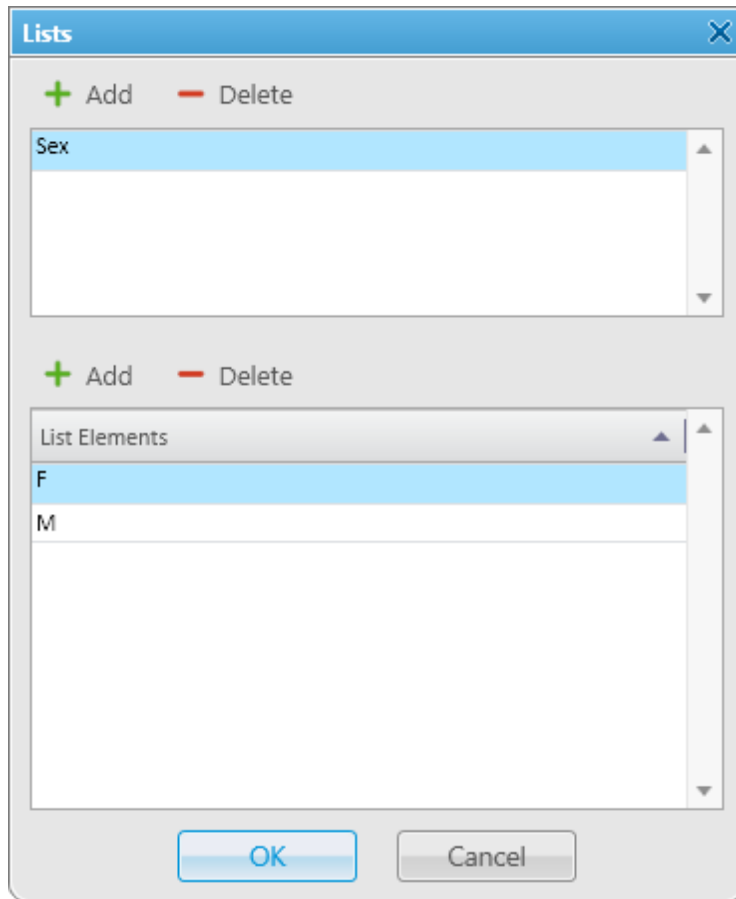
The image shows a dialog box titled "Subscriber property" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Name:** A text input field.
- Type:** A dropdown menu currently showing "Text".
- Enumeration:** A dropdown menu.
- Property Description:** A larger text input area.
- 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 . At that, the window opens:



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.

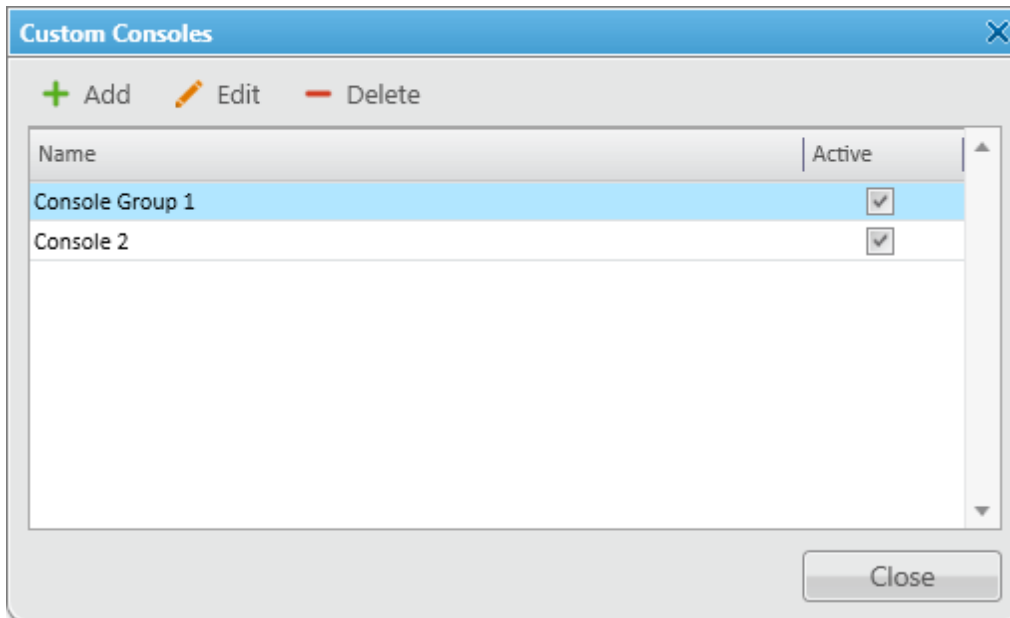
To view the active custom properties go to the subscriber **Properties** window, **Custom** tab.

Properties: Mike		
General	Location	Custom
[-] Personal Info		
Age		
Birth Date	6/11/1983	15
Saex		
[-] Last Employer		
Last Employer	n/a	

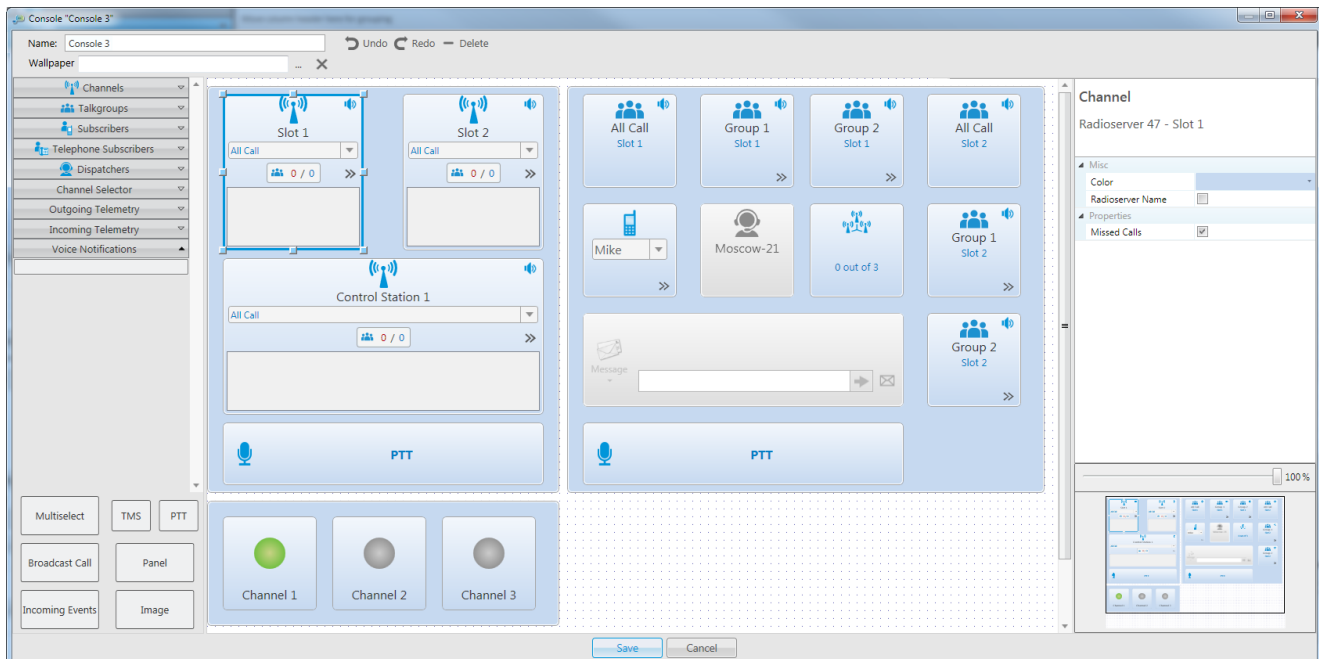
## 1.5.27 Custom Consoles

**Custom Console** is a tool that provides the dispatcher with custom workplace. Custom consoles are visual panels containing various elements, e.g. radio subscribers, 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.

To create and set up a custom console, expand the **Settings** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Custom Consoles**. At that, the **Custom Consoles** window opens.



To add a new console, click **Add**. At that, the console editor will open.



**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,

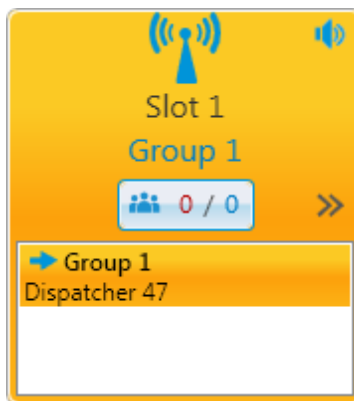
JPG, PNG.

There are more than 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 subscriber, the counter is set to zero.

By clicking the button, the window with details appears.



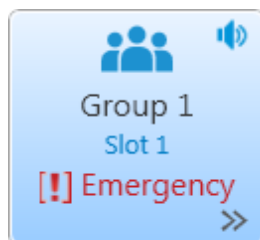
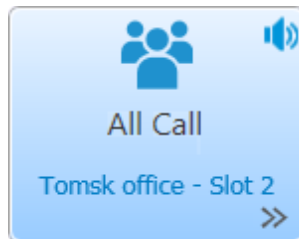
**Missed (Dispatcher)** – filters only private calls not answered by the dispatcher.

**Missed (All)** – filters private and group calls not answered by the dispatcher.


**All** – removes all filters and shows all available talkgroups and radio subscribers and their call statistics.

**Clear All** – sets all counters to zero.


#### Talkgroup



The **Talkgroup** 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 .

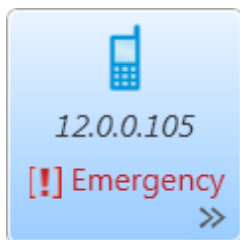
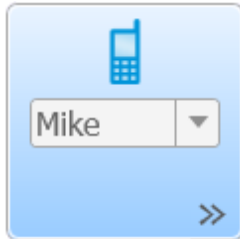
Also, the element displays that the radio subscriber enters emergency mode (the **Emergency** label), when the Emergency button of the radio is

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.


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.


### Subscriber



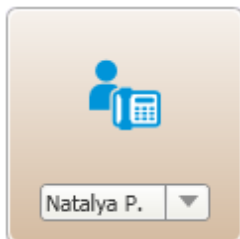
The **Subscriber** element is used for making private voice calls and shows the state of the current call. By right-clicking on the element you can open the subscriber's **Call Window** to perform other actions on the subscriber. You can assign the element to different subscribers from the drop-down list. To enable this option, select the **Allow Changes** check box in the **Properties** section.

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

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

 – the icon on the subscriber element shows that the dispatcher did not answer to the subscriber call. The figure next to it shows the number of missed calls.

### Telephone Subscriber



The **Telephone Subscriber** element is used for making calls to telephone subscribers. Double-clicking on 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.

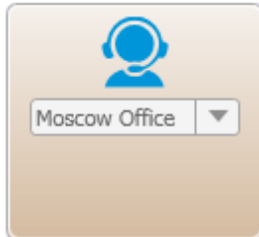
You can assign the element to different telephone subscribers from the drop-down list. To enable this option, select the **Allow Changes** check box



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



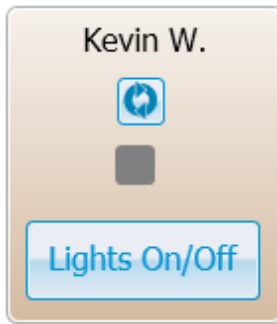
The **Channel Selector** element allows the dispatcher to switch from one channel of the control station to another.

**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).

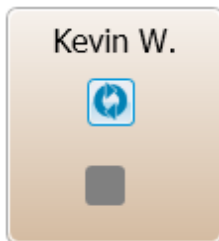
To configure this functionality in SmartPTT Dispatcher, add the **Channel Selector** element into the console designer work space. One element can be assigned to one channel. To allow switching between channels, you should add the required number of elements.

## Outgoing Telemetry



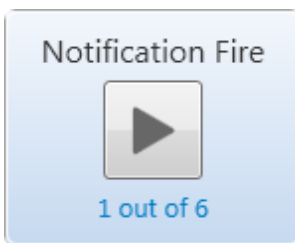
The **Outgoing Telemetry** element is used for sending telemetry commands to the radio subscriber. You can assign only one telemetry command per element. Before assigning the telemetry command to the element, add it to the telemetry list of commands and to the radio subscriber. Apart from sending commands,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

## Incoming Telemetry



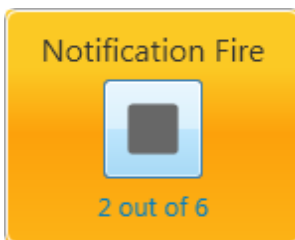
The **Incoming Telemetry** element is used for receiving the current status of the selected pin. You can also see the time of the last status update.

## 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.

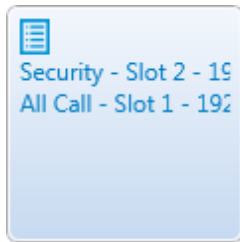
Otherwise, only the voice notification name will be displayed.


## Multiselect




The **Multiselect** element is used to make a simultaneous call to several radio objects (talkgroups and radio subscribers) 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. At that, 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** list, and click **OK**.

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

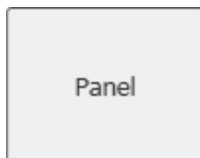
To edit the **Multiselect** list, click the **Edit list** button  in the opened custom console.

#### Broadcast Call

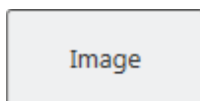


The **Broadcast Call** element is used for making group calls or an All Call within all the channels of the dispatch console simultaneously. Select the required talkgroup or All Call ID in the **Talkgroup ID** field of the **Properties** section. When such a call is initiated, SmartPTT Dispatcher tries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

#### Panel

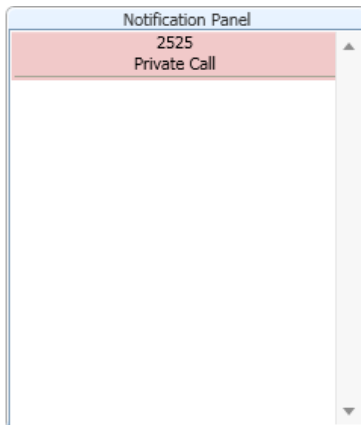


The **Panel** element is used for uniting several elements. The panel can have its own color, size and placement. All inside elements of one panel are moved together with the panel.



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.

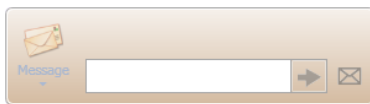
## Incoming Events



The **Incoming Events** informs about incoming messages, call alerts and missed private calls to SmartPTT Dispatcher from radio subscribers.

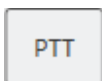
Double-click the record in the panel to open the subscriber's Call Window.

## TMS





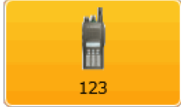
The **TMS** element is used for sending short text messages to all subscribers or talkgroups situated in one panel with the **TMS** element. To do this, just enter the text of the message or select a template, and send it. If the **TMS** element is placed outside a panel, it will send private messages.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


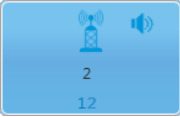
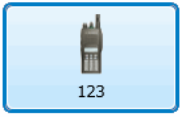
## PTT



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 subscribers 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 subscribers differs depending on the status.

Element	Description
 Alexander	Gray – the subscriber is offline or outside the network coverage
 123	Gray blue – the subscriber is online
 123	Light yellow – the operator is trying to make an outgoing call Yellow – all outgoing radio calls

	<p>Light green – exists in the Capacity Max systems only and determines the incoming call attempt to SmartPTT Dispatcher</p> <p>Green – all incoming radio calls or the radio is being monitored</p>
	<p>Blue – none of the parties transmit or receive voice. The subscriber can answer the call by pressing the PTT button within hang time. In the Capacity Max systems the dispatcher can end the call during the hang time by right clicking the console element.</p> <p>After the hang time expires, the subscriber initiates a new call by pressing the PTT button. The calling subscriber is the subscriber linked with the PTT button by default.</p>
	<p>Blue frame – the subscriber is selected</p>

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

## 1.6 Service

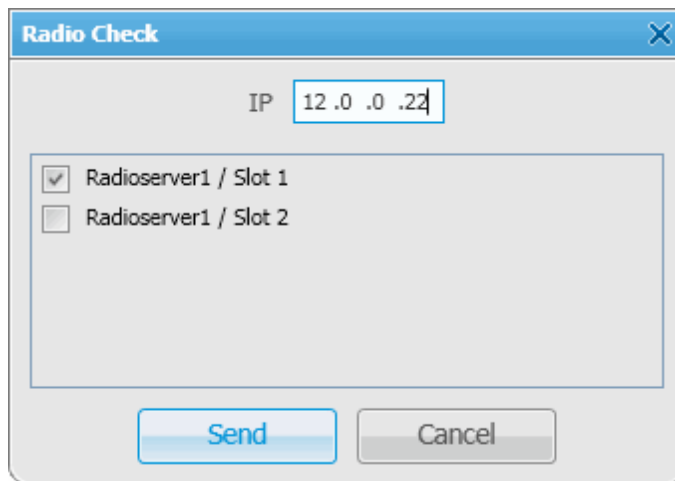
The **Service** menu allows you to carry out secondary functions, namely:

- [Radio Check](#) allows you to send the radio check command to radio subscribers.
- [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 SmartPTT File Transfer.
- [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 Subscribers](#) allows you to save the list of registered radio subscribers in XML or XLS formats.
- [Import Radio Subscribers](#) allows you to import previously exported list of radio subscribers.
- [Upload to KML](#) allows you to export current geographical position of radio subscribers in KML format.
- [Import Connect Plus Logs](#) allows you to import data from the Connect Plus network.
- [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.

## 1.6.1 Radio Check

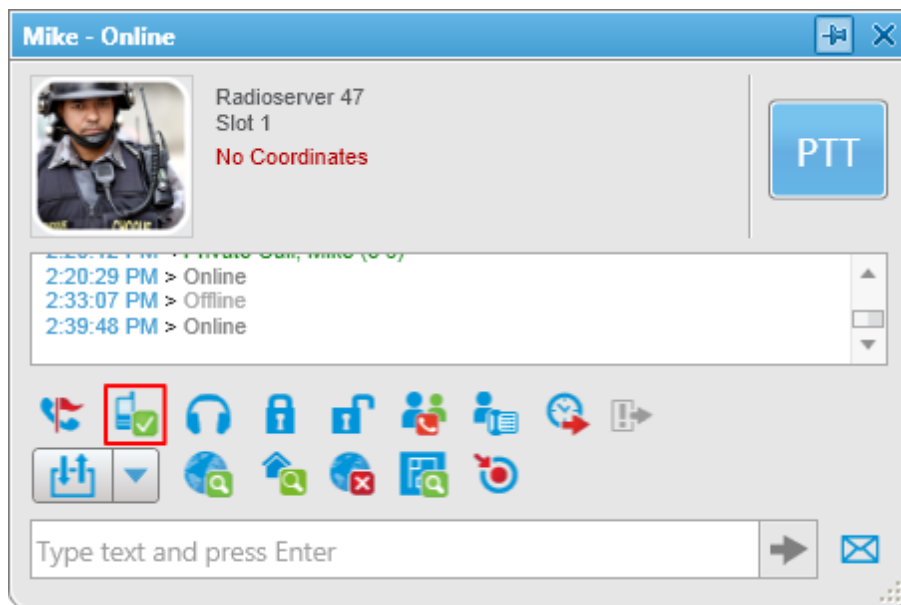
The **Radio Check** function can be executed on the selected control stations available to the dispatcher. The result of the **Radio Check** is displayed in the subscriber **Call Window**. It can be: "Subscriber is available" or "Subscriber is unavailable".

To do **Radio Check**, expand the **Service** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Radio Check**. At that, the **Radio Check** window opens.

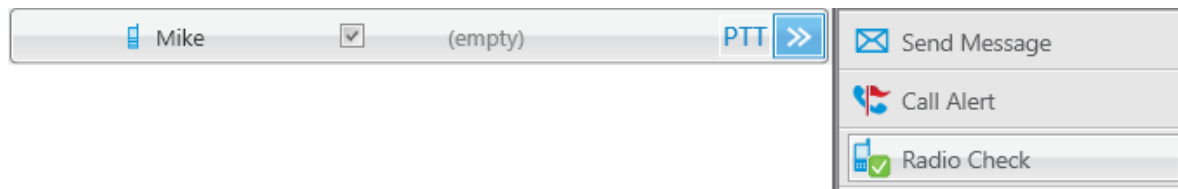


Specify the **IP** of the subscriber radio. Select control stations which should be used to check the subscriber availability and click **Send**.

Alternatively, **Radio Check** can be done from the **Call Window** or the **Actions List**.



In the **Actions List**:

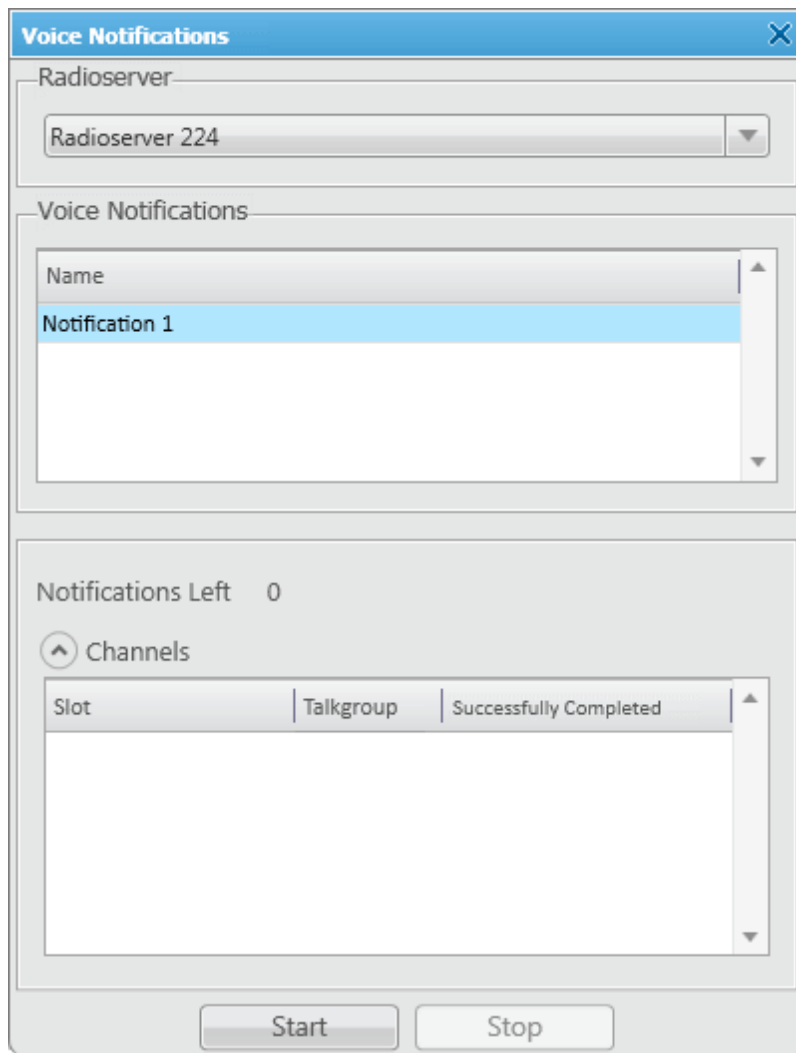


## 1.6.2 Voice Notifications

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**. At that, the **Voice Notifications** window will open.



**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**.

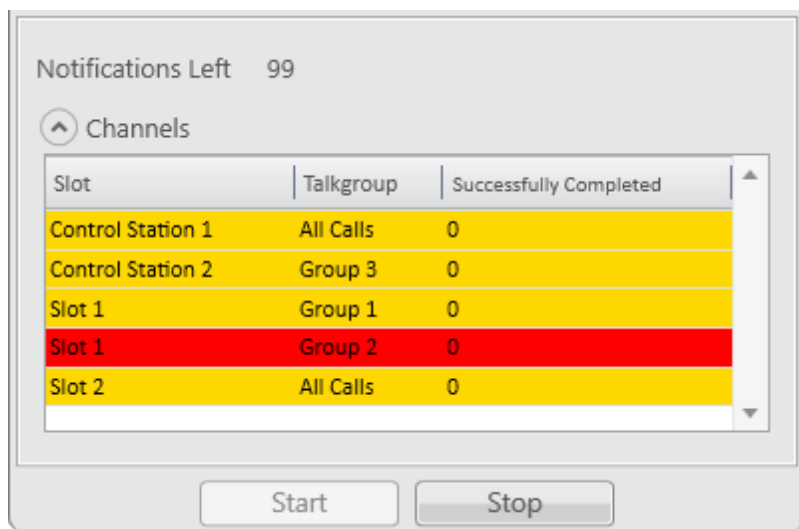
**Note:** To play a voice notification, you can use the **Voice Notification** element, added to the [custom console](#).



**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.

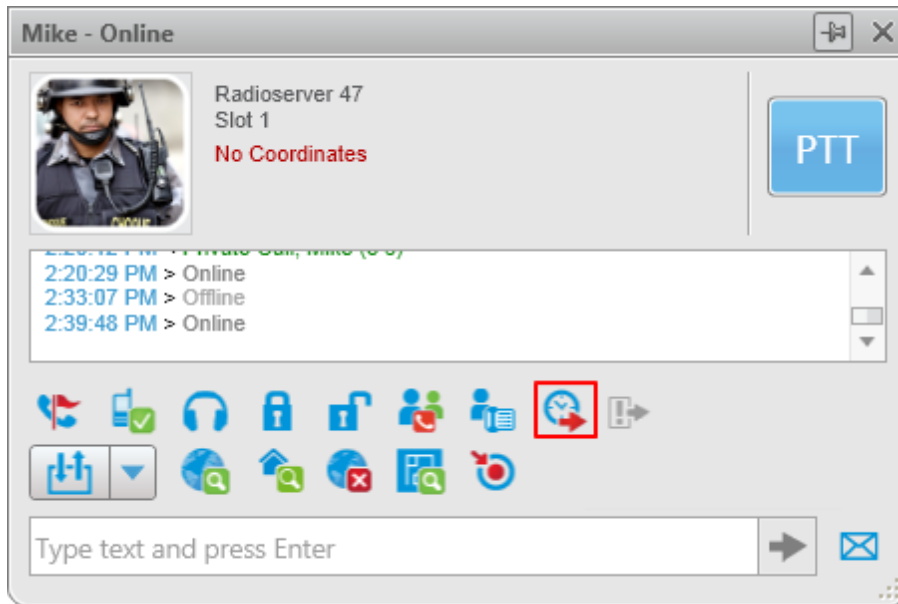


## 1.6.3 Deferred Actions

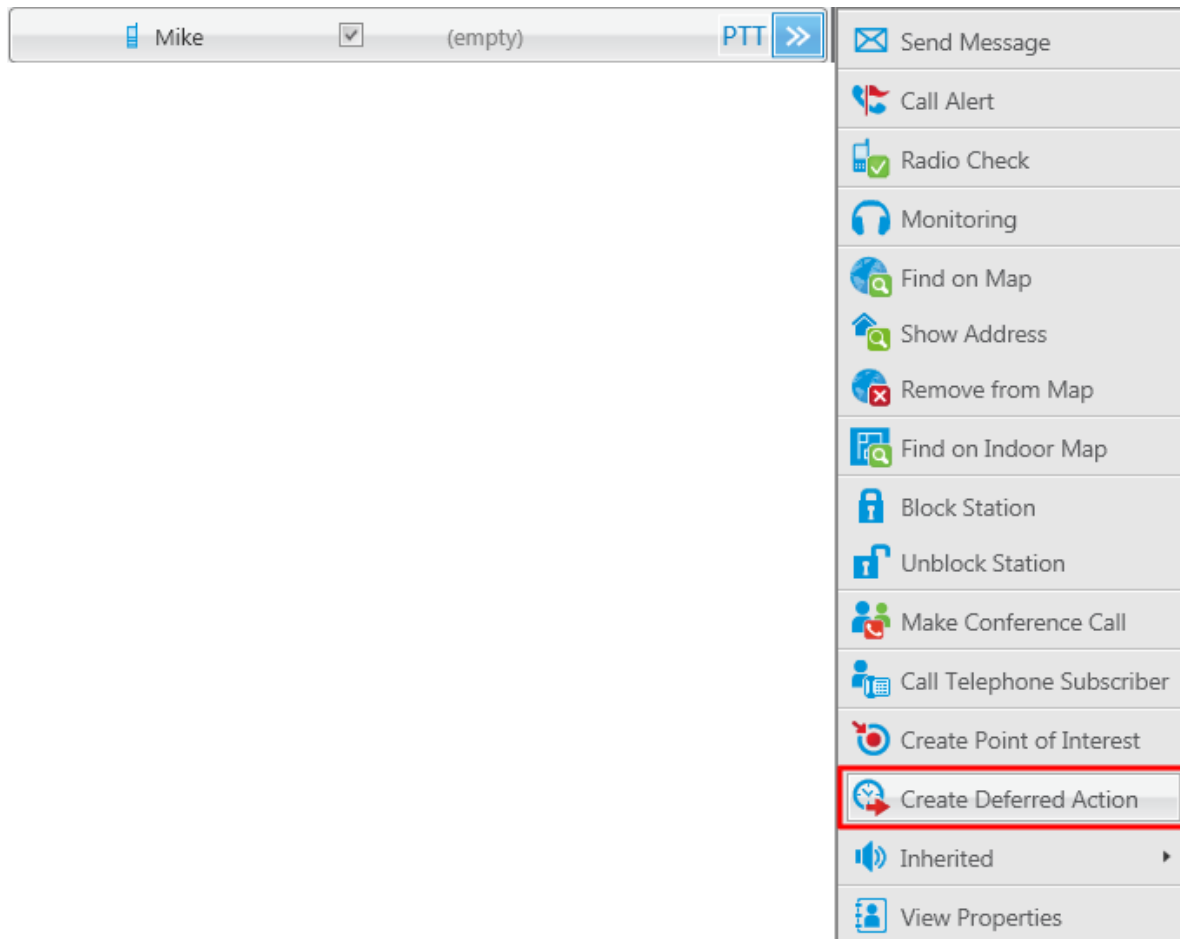
SmartPTT Dispatcher allows creating deferred actions. In this version these are audio and text messages, which are to be delivered to a radio subscriber even if the radio subscriber is offline at the moment of message transmission. As soon as the radio subscriber becomes available, the message is sent to the addressee. If the radio subscriber is online at the moment of message transmission, the message is delivered at once.

**Note:** Dispatcher can create, edit or view deferred actions only if the **Create Deferred Actions** permission is selected. For more information see the [Operators](#) section.

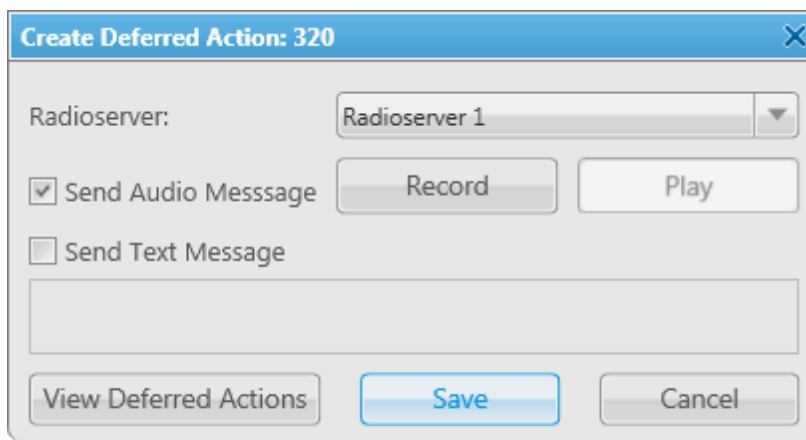
To create a deferred action open the **Actions List** or the **Call Window** and select **Create Deferred Action**. The radio subscriber can be either online or offline.



Or in the **Actions List**:



At that, the following window opens.



**Radioserver:** A list of all the available radioservers, where a deferred action can be created. The drop-down list contains radioservers with the status “Active” only (see **Radioservers** in the **Settings** menu in the **Main Menu**

bar).

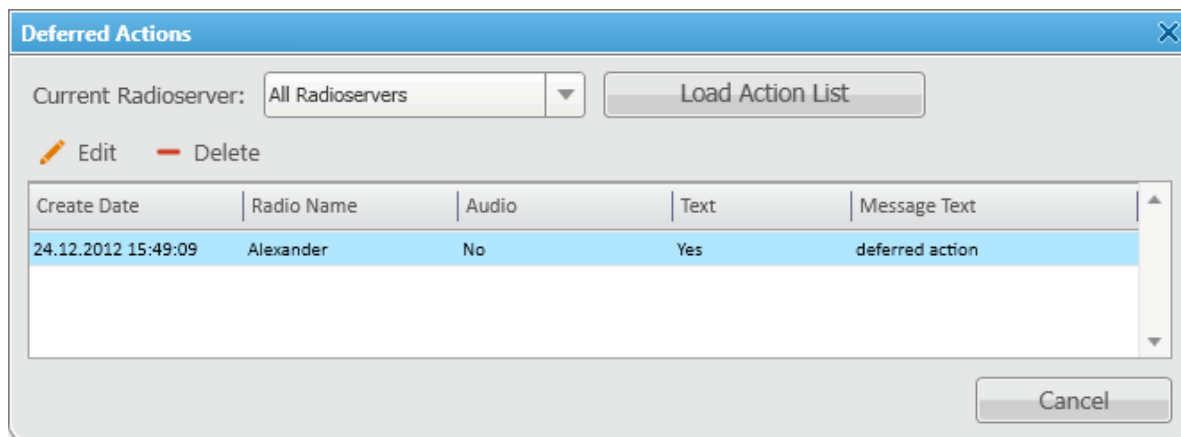
**Send Audio Message:** Allows you to create an audio message. To record a message make sure the **Send Audio Message** check box is selected. Then click **Record**. After you have recorded the message, click **Stop**.

To replay the recording, click **Play**. To stop the playback, click **Stop**.

**Note:** The buttons **Record** and **Play** are unavailable if **Send Audio Message** is not selected.

**Send Text Message:** Allows you to create a text message.

**View Deferred Actions:** Opens the list of the deferred actions which were not sent yet.



**Deferred Actions:** Allows checking the list of audio and text messages which are to be sent. As soon as the message is sent to the radio subscriber, it is removed from the list.

**Current Radioserver:** Allows selecting the radioserver whose list of deferred actions is to be viewed. The drop-down list contains only registered radioservers (see **Settings > Radioservers**). If the radioserver is registered but not running, it won't be on the drop-down list.

**Load Action List:** Loads the list of deferred messages per selected radioserver.

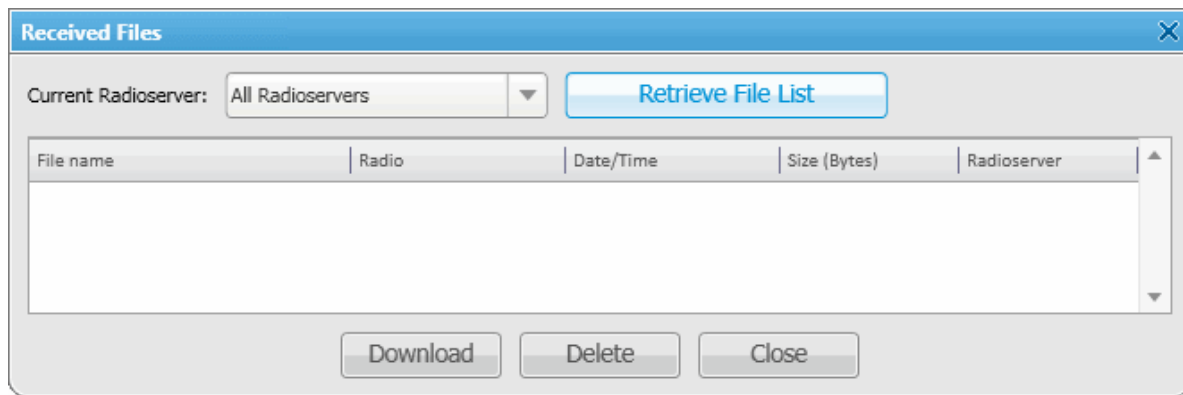
**Delete:** Deletes the selected message.

**Edit:** Allows making changes in the selected message.

## 1.6.4 Received Files

SmartPTT Dispatcher provides the ability to view files sent from radio stations with the help of a free application SmartPTT File Transfer.

To view the files received from radio stations, expand the **Service** menu in the **Main Menu** bar and click **Received Files**. At that, the following window opens.



**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.

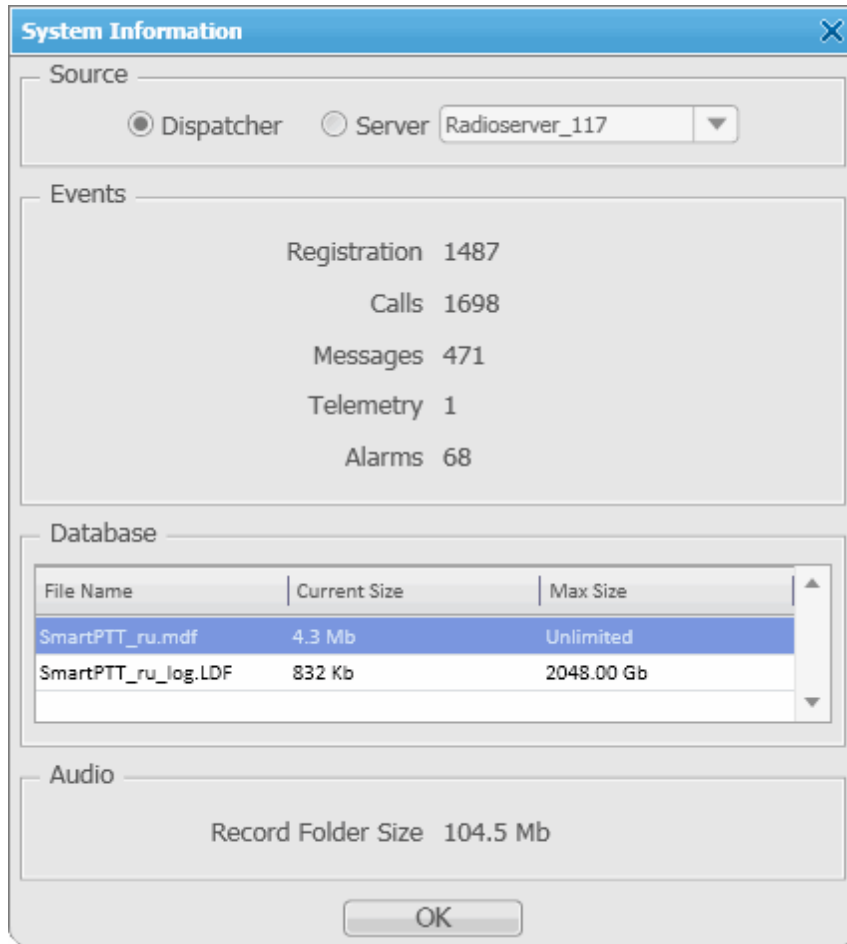
## 1.6.5 System Information

In the **System Information** window the dispatcher can see:

1. The total number of events taking place either on the dispatcher console or on the radioserver.
2. Database file size and free space.
3. Size of the record folder.

To open the **System Information** window, expand the **Service** menu in the **Main Menu** bar of SmartPTT Dispatcher.

Click **View System Information**. At that, the following window opens.




## 1.6.6 Export Radio Subscribers

SmartPTT Dispatcher provides the ability to export subscriber list from one SmartPTT Dispatcher and then to import it into another. Only registered radio subscribers can be exported.

To export the list of radio subscribers, expand the **Service** menu in the **Main Menu** bar and click **Export Radio Subscribers**. At that, the following window opens.



In the **Format** area select the format in which you want to export the subscriber list. To select the file for export, click . Supported file formats: XLS, XML and CSV. Then click **OK**. At that, the file with the exported data will open.

The example of the exported file in XLS format:

### Export Radio Subscribers

ID	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
-586612724	12.0.9.221	12	2525	2525	True	3	\abonent\icons\001_image.ico	True	True	2	False	False	600	True	6	True	456	True	True
1677721612	12.0.0.100	12	100	100	True			True	False		True	True	600	True	600	False	100	False	False

The example of the exported file in XML format:

**Export Radio Subscribers**

ID	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
-586612724	12.0.9.221	12	2525	2525	Yes	3	\abonent\icons\001_image.ico	Yes	Yes	2	No	No	600	Yes	6	Yes	456	Yes	Yes
1677721612	12.0.0.100	12	100	100	Yes			Yes	No		Yes	Yes	600	Yes	600	No	100	No	No

**ID** — automatically generated ID of the radio subscriber.

**IP Address** – radio subscriber IP address.

**Network ID** – network ID which is specified in MOTOTRBO Customer Programming Software (see parameter **CAI Network**).

**Radio ID** – unique identifier of the radio unit.

**Name** – radio subscriber name specified in the subscriber's **Properties** window in SmartPTT Dispatcher.

**GPS** – shows whether the radio supports GPS.

**MDC ID** – radio ID in the analog data channel.

**Icon** – path to the icon selected per subscriber. If a radio subscriber has a default icon, the corresponding field in

the export file is empty.

**Show on map** – shows whether the subscriber's location is visible on the map.

**Lone Worker** – shows whether the subscriber is in the "lone worker" mode.

**Select 5 ID** – shows the 5 Tone identifier of the subscriber.

**Indoor Support** – shows whether the subscriber 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 subscriber.

**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 subscriber.

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

**GPS on emergency** – shows if the GPS coordinate request will be sent to the radio subscriber when the radio subscriber sends an emergency alarm.

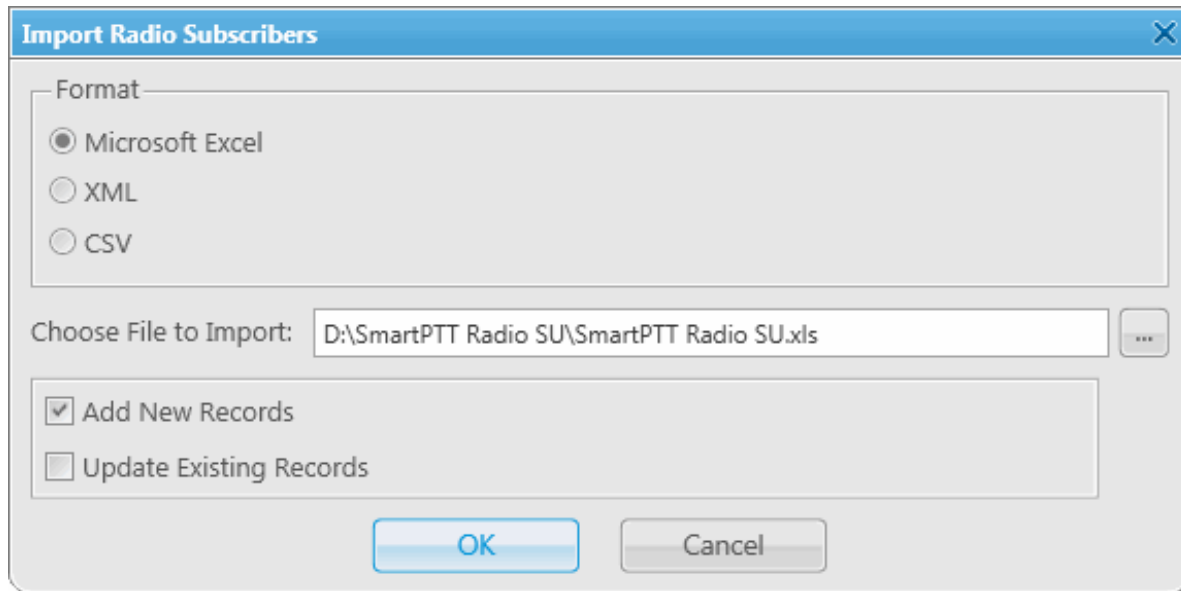
**Note:** The following properties of the subscriber in exported files may have two possible values: "True" or "False" in XLS and CSV files; "Yes" or "No" in XML files: **GPS**, **Show on map**, **Lone Worker**, **Indoor Support**, **Indoor Request**, **GPS update with time interval**, **GPS update with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


## 1.6.7 Import Radio Subscribers

SmartPTT Dispatcher provides the ability to import subscribers (in XLS, XML and CSV) from one SmartPTT Dispatcher to another.



To import the list of radio subscribers, expand the **Service** menu in the **Main Menu** bar and click **Import Radio Subscribers**. At that, the following window opens.



In the **Format** area select the format in which you want to import the subscriber 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 subscribers (not existing in SmartPTT Dispatcher) will be added to the list of subscribers.

**Update Existing Records** – when the check box is selected, at importing, the existing data on the subscribers in SmartPTT Dispatcher is replaced with the data from the imported file.

**Note:** It is possible to select both import options at a time. At that, 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.

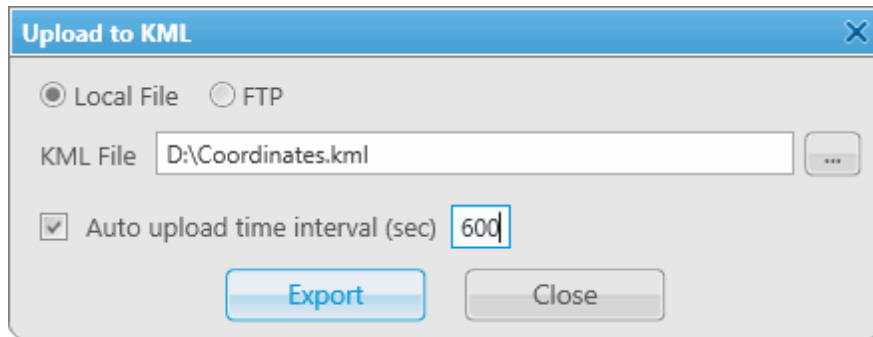
The formats of the importing files should match the formats of the exported files.

## 1.6.8 Upload to KML

SmartPTT Dispatcher supports export of the current subscribers' coordinates in KML format. This format is used

in Google Maps/Google Earth systems.

To save subscriber coordinates in KML file format, expand the **Service** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Upload to KML**. At that, the following window opens.



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

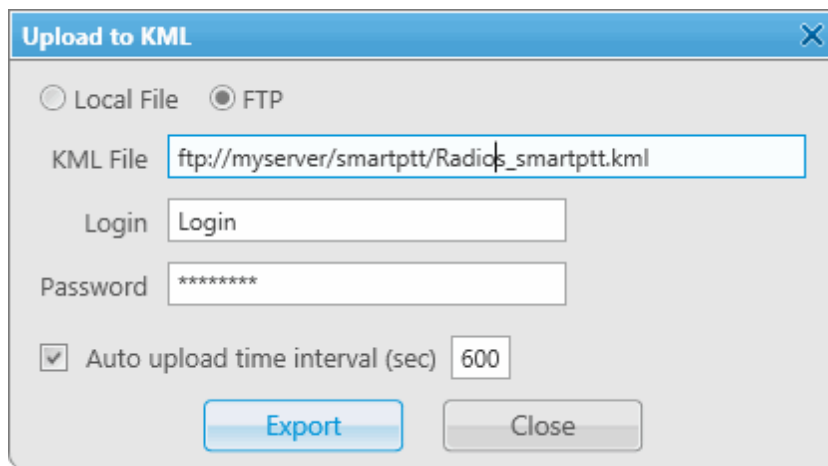
Click **Local File** to keep the uploaded KML file locally.

**KML File** – specify the destination folder and the name of the KML file with the subscriber coordinates.

You can also set up automatic upload. Simply, 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 subscriber 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 subscribers' coordinates

To view subscriber coordinates from the FTP file:

1. Open the website <http://www.google.com>.
2. Click on **Maps** (the page <http://maps.google.com/maps?hl=en&tab=w> 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 subscriber coordinates from the local file in Google Earth:

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 subscriber coordinates in KML format and click **Open**.

## How to configure subscribers' 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](http://myserver/smartptt/Radios_smartptt.kml)).

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

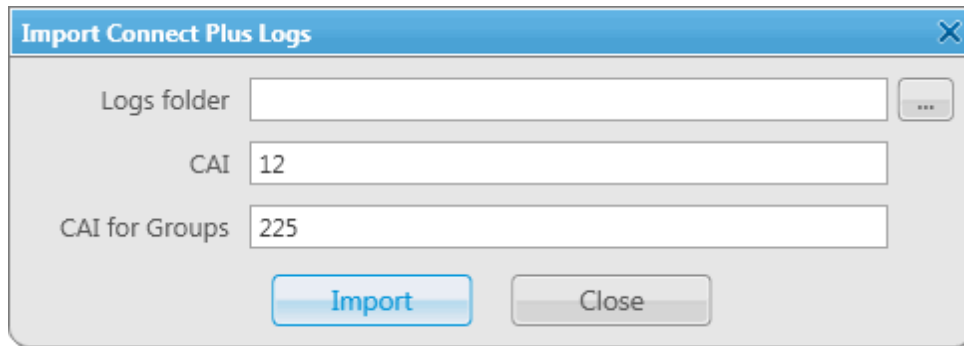
5. Click the **Refresh** tab, select the **Periodically** option and set an update interval.
6. Click **OK**: SmartPTT subscribers should now be displayed in Google Earth.
7. To open the added KML file automatically the next time Google Earth is run, you should save the temporary place mark "Subscribers (SmartPTT)" to **My Places** list. To do this please select the menu command **File/Save/Save to My Places** or press **CTRL+SHIFT+S**.

## 1.6.9 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 opens.

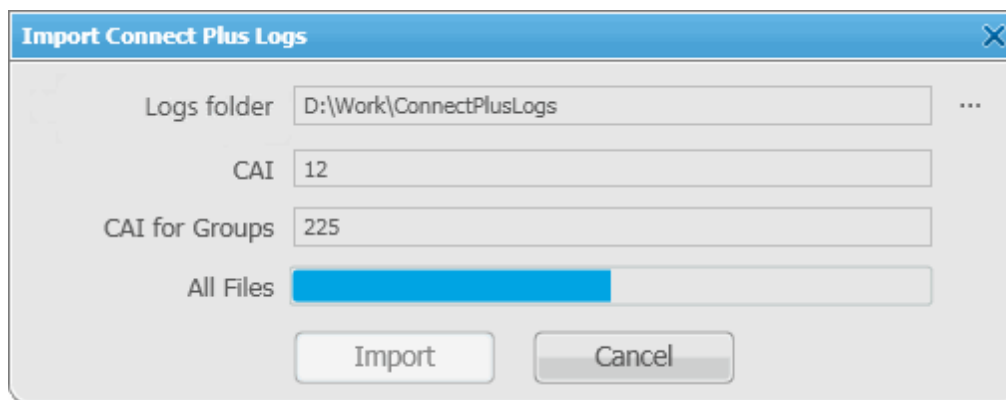


**Logs File** – specifies the path to the folder where Connect Plus log file is stored.

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

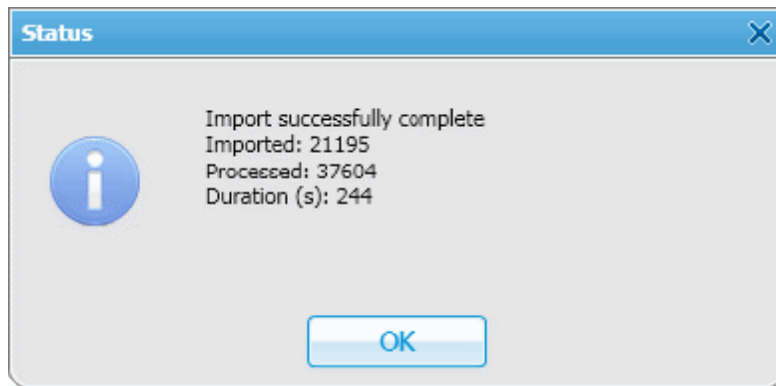
**CAI for Groups** – the identifier of the group's CAI-Network. It's recommended to use the default value 225. It is set in the range from 225 to 239.

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



**All Files** – displays the total download progress.

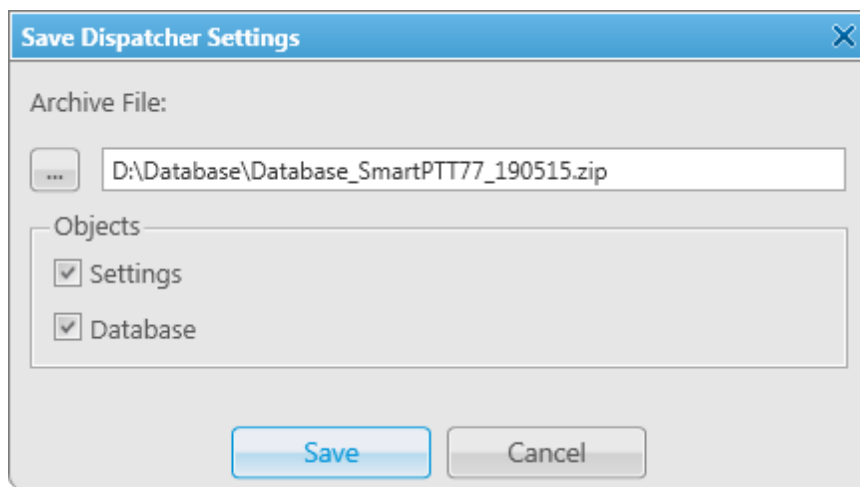
When **Connect Plus Log** file is imported, you will see the following notification window.



## 1.6.10 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. These includes: opened panels, the application interface language and other settings.

To save current settings or database, open the **Service** menu and select **Save Dispatcher Settings**. At that, the following window opens up:



**Objects** – define what you want to save. You can select both, if needed.

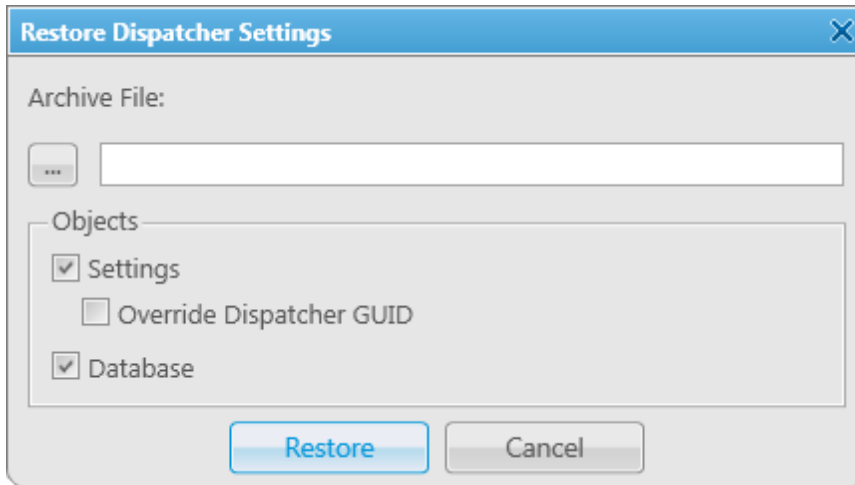
**Archive File** – specify the path to the folder where you need the archive to be saved.

To save the selected objects, click **Save**. To quit the window without saving, click **Cancel**.

To restore the saved settings and database, see [Restore Dispatcher Settings](#).

## 1.6.11 Restore Dispatcher Settings

To restore the saved dispatch console settings or database (see how to save the dispatch console settings [here](#)), open the **Service** menu and select **Restore Dispatcher Settings**. At that, the following window will open:



**Archive File** – specify the path to the archive folder.

**Objects** – define what you want to restore. You can select more than one option.

**Override Dispatcher GUID** – if selected, SmartPTT Dispatcher globally unique ID is replaced with the imported value. After importing, there are two dispatch consoles with identical GUID's. If check box is not selected, SmartPTT Dispatcher globally unique ID is left unchanged. After importing, there are two dispatch consoles with same configuration settings, but different globally unique ID's.

To restore the selected objects, click **Restore**. To quit the window, click **Cancel**. To apply the restored settings, restart the application.

## 1.7 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.
- [Subscriber Location Report](#) is a special report that displays GPS coordinates of the selected radio subscribers.
- [Online Subscribers](#) report gives you a list of registered and non-registered subscribers online.
- [Lone Workers](#) report gives you the information about events that occur when the radio is in the Lone

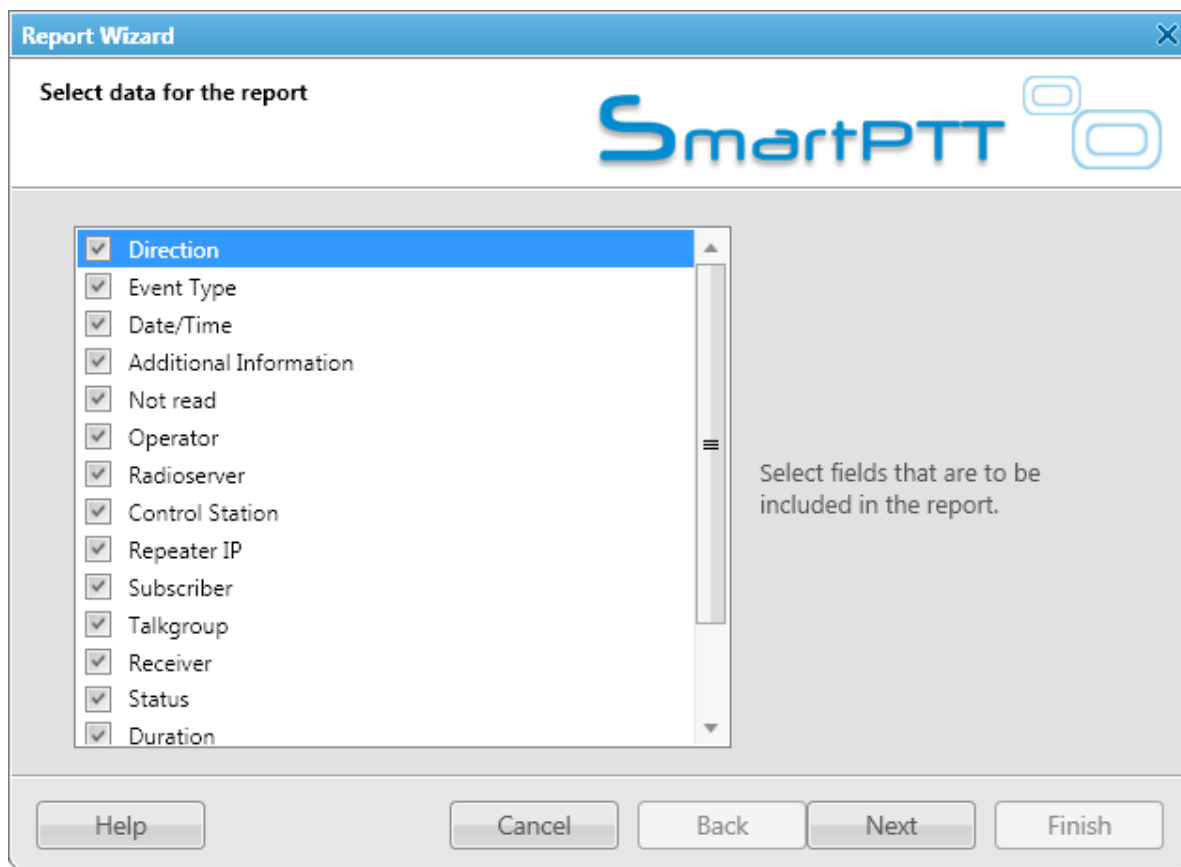
Worker mode.

## 1.7.1 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**. At that, the **Report Wizard** window opens.

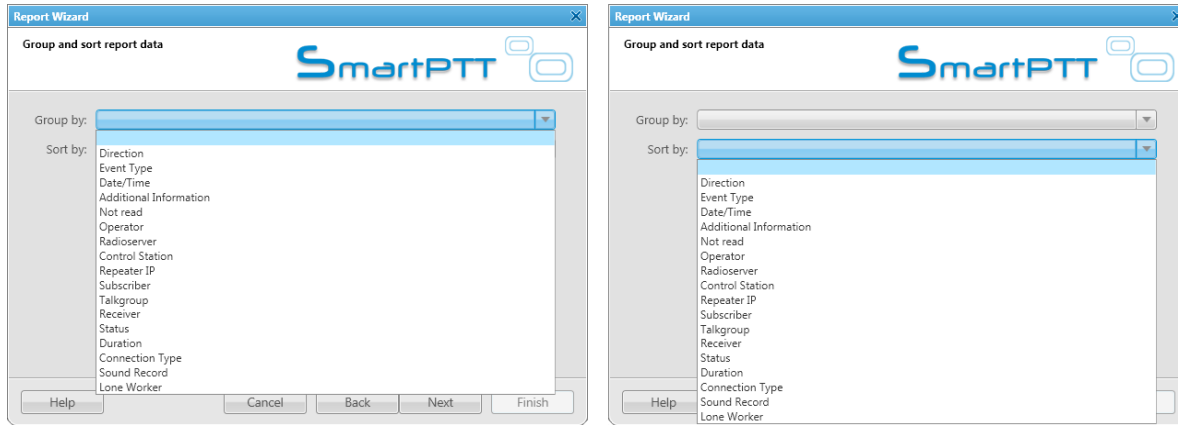
1. In the window that opened select the data source of the future report. You can select between the database of the dispatch console and the database of the radioserver. To be able to select the radioserver's database, make sure that the radioserver is up and running.
2. Select fields which you want to include in the report and click **Next**.



3. Define the structure of the report – its grouping and sorting.

**Note:** If both fields are not specified, the report will be grouped and sorted by default.

When ready, click **Next**.



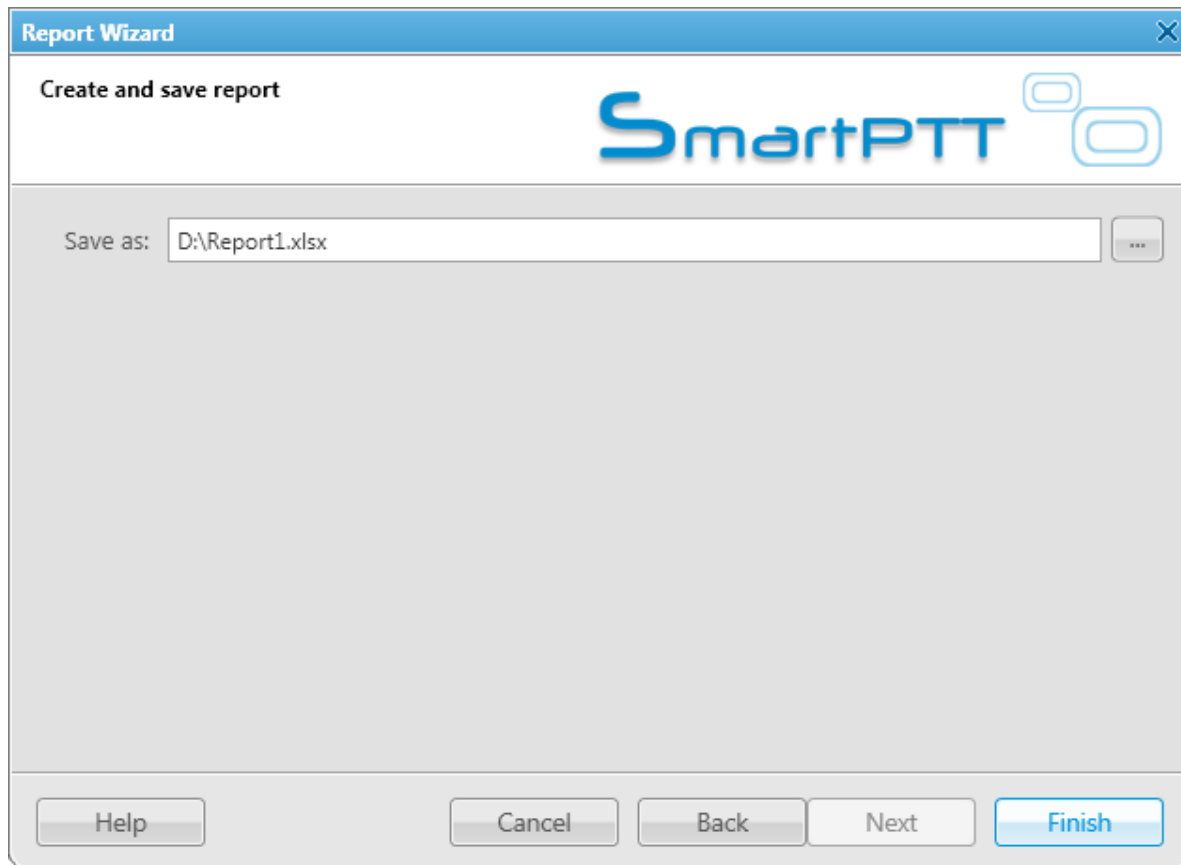
4. Filter the report by values. Click **Next** to continue.



5. Specify the file name of the report. To complete the process, click **Finish**. The report can be saved in HTML,



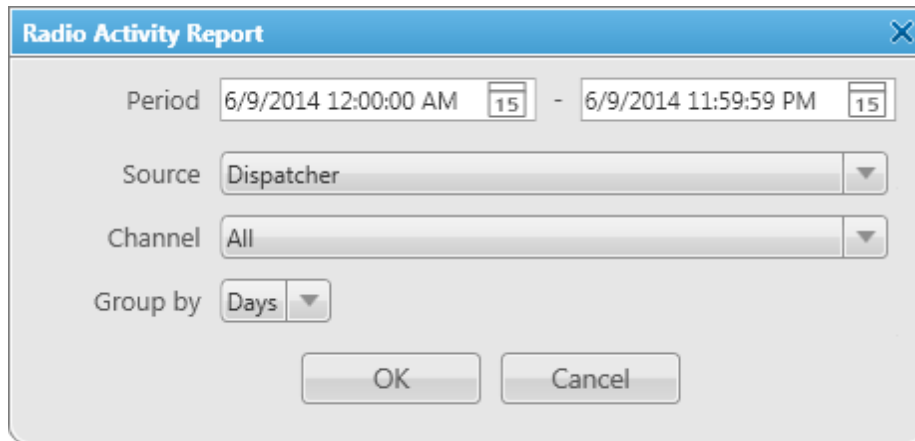
MHT, XLS, XLSX, CSV, and TXT formats.



## 1.7.2 Radio Activity

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 opens.

The image shows a dialog box titled "Radio Activity Report" with a close button (X) in the top right corner. The dialog contains four input fields: "Period" with a date range of "6/9/2014 12:00:00 AM" to "6/9/2014 11:59:59 PM" and a "15" minute interval; "Source" set to "Dispatcher"; "Channel" set to "All"; and "Group by" set to "Days". At the bottom, there are "OK" and "Cancel" buttons.

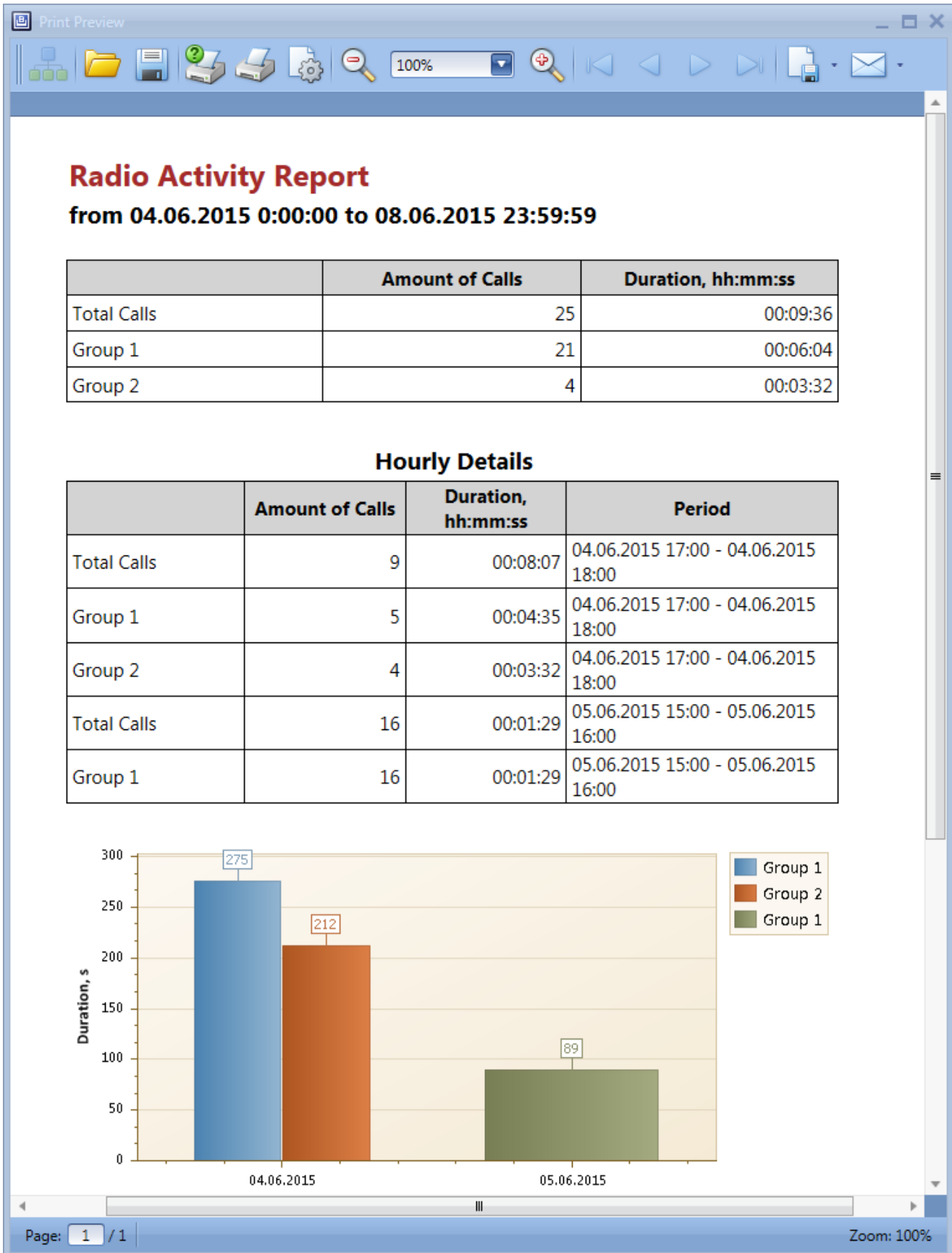
**Period** – defines the time frame for the report data.

**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.

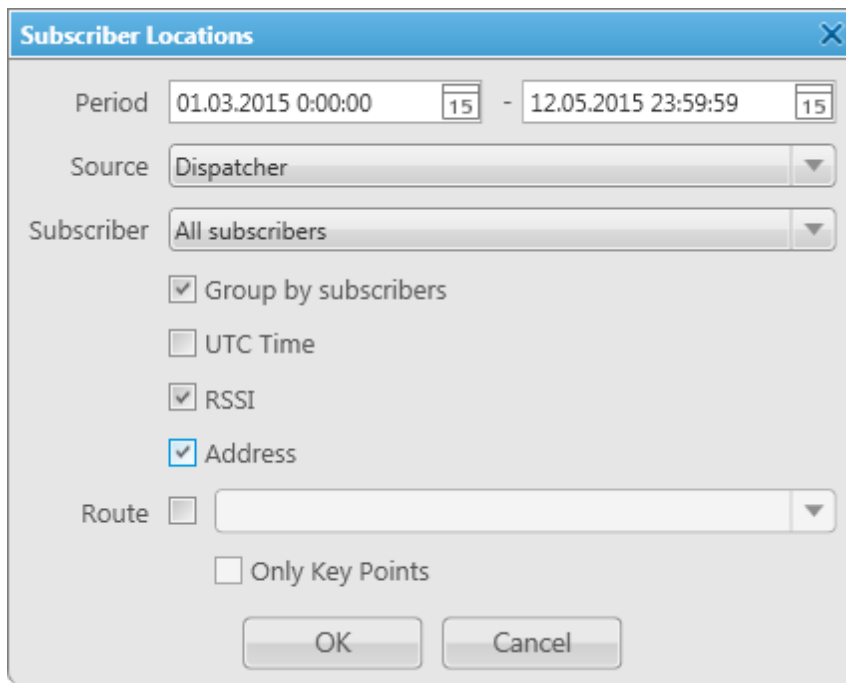
The report can be saved in PDF, HTML, MHT, RTF, XLS, XLSX, CSV, TXT, Image or XPS formats.



## 1.7.3 Subscriber Locations

SmartPTT Dispatcher allows creating a report on subscriber's 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 **Subscriber Locations**. At that, the **Subscriber Locations** window will open.



The screenshot shows the 'Subscriber Locations' dialog box. It features a title bar with the text 'Subscriber Locations' and a close button. The main area contains several controls: a 'Period' field with two date-time pickers showing '01.03.2015 0:00:00' and '12.05.2015 23:59:59'; a 'Source' dropdown menu set to 'Dispatcher'; a 'Subscriber' dropdown menu set to 'All subscribers'; four checkboxes: 'Group by subscribers' (checked), 'UTC Time' (unchecked), 'RSSI' (checked), and 'Address' (checked); a 'Route' dropdown menu (empty); and an 'Only Key Points' checkbox (unchecked). 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.

**Subscriber** – defines subscriber for whom the report is to be generated. The list of subscribers is taken from the current database. When *All* is selected, the report will be generated for all subscribers which have GPS coordinates in the database.

**Group by subscribers** – groups data in the report by radio subscribers.

**UTC Time** – if selected, the report time will be converted to UTC format. If **UTC Time** is not selected, the local time of the radioserver PC will be shown in the **Subscriber Locations** report.

**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 **Subscriber 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.

**Subscriber Location Report**  
from 01.03.2015 0:00:00 to 12.05.2015 23:59:59

Date	Subscriber	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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev 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 Brat'yev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>
04.03.2015	4000	56,47899	85,06810	0,07	105,63	-58,57	<a href="#">ulitsa Brat'yev Tronovykh, Nauka, Tomskaya oblast', Russia, 634055</a>

Page: 1 / 9      Zoom: 100%

In order to set up the format of **Latitude**, **Longitude**, **Speed** and **Precision** columns of the **Subscriber Location Report**, see [Positioning Systems](#), the **GPS** tab, in SmartPTT Dispatcher.

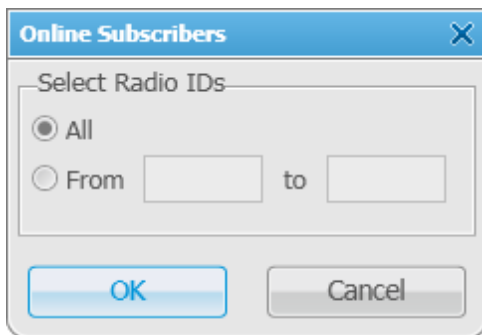
**Note:** The Universal Transverse Mercator Coordinate System format is not applicable to this report. If it is

selected, **Latitude** and **Longitude** are displayed in Decimal degrees format.

## 1.7.4 Online Subscribers

SmartPTT allows exporting online subscribers (registered and not registered) in no time by means of the **Online Subscribers** report.

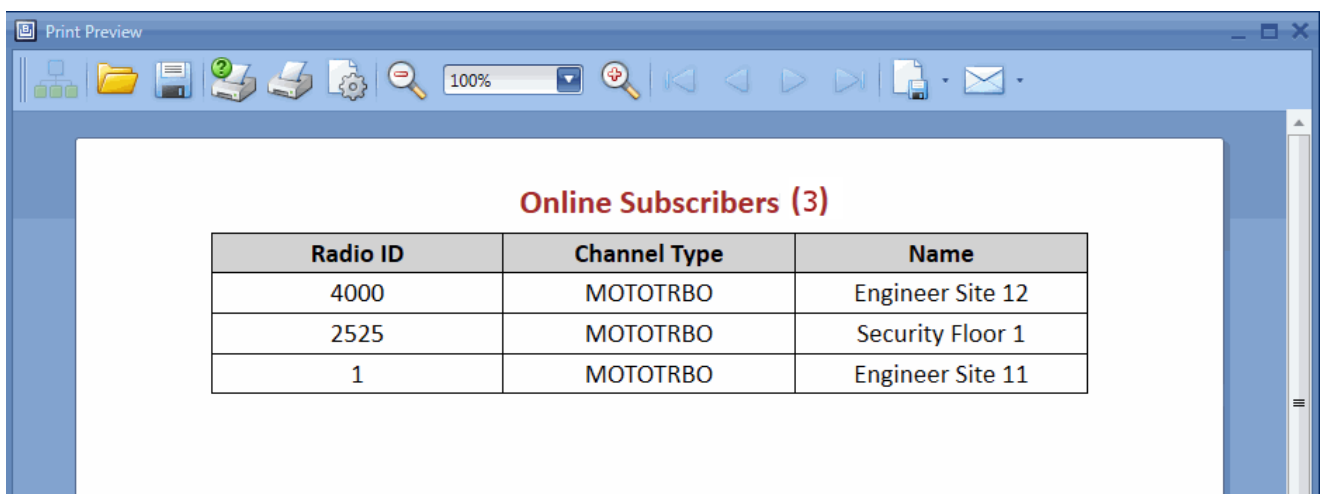
To create the report, expand the **Reports** menu in the **Main Menu** bar of the SmartPTT Dispatcher window and click **Online Subscribers**. At that, the following window opens.



**All** – select this radio button to include all registered and not registered online subscribers in the report.

**From ... to ...** – select this radio button to limit the number of subscribers in the report.

Click **OK**. At that, 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.

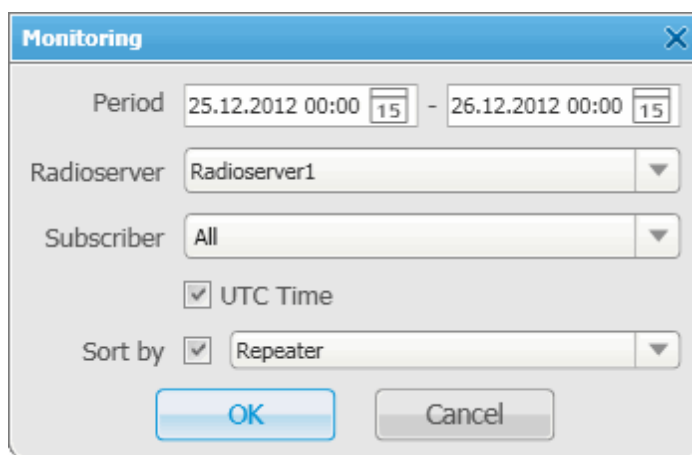


## 1.7.5 Monitoring Report

**Monitoring Report** is a report based on the data collected during monitoring and filtered by different criteria. The 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.

**Note:** Before building a report, make sure the radioserver is up and running.

To create the report, expand the **Reports** menu in the **Main Menu** bar and under **Monitoring** select **Report**. At that, 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 showing "25.12.2012 00:00" and "26.12.2012 00:00", each with a "15" minute spinner.
- Radioserver:** A dropdown menu with "Radioserver1" selected.
- Subscriber:** A dropdown menu with "All" selected.
- UTC Time:** A checked checkbox.
- Sort by:** A dropdown menu with "Repeater" selected and a checked checkbox to its left.
- 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.

**Subscriber** – selects the subscriber for whom the report is to be generated. If you select **All**, the report will be generated for all registered subscribers.

**UTC Time** – if **UTC Time** is selected, the report time will be converted to UTC format. If **UTC Time** is not selected, the local time of the radioserver PC will be shown in the report.

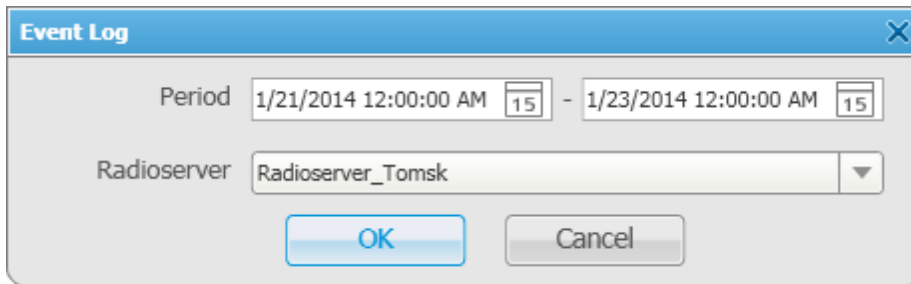
**Sort By** – you can select the column by which you want to sort the report data: network, repeater, slot, protocol, sender, receiver, duration, RSSI.

## 1.7.6 Monitoring Log

**Monitoring Log** shows information about available devices in the system (e.g., repeaters, routers, uninterruptible power supplies) and alarms registered on these devices.

**Note:** Before building a report, make sure the radioserver is up and running.

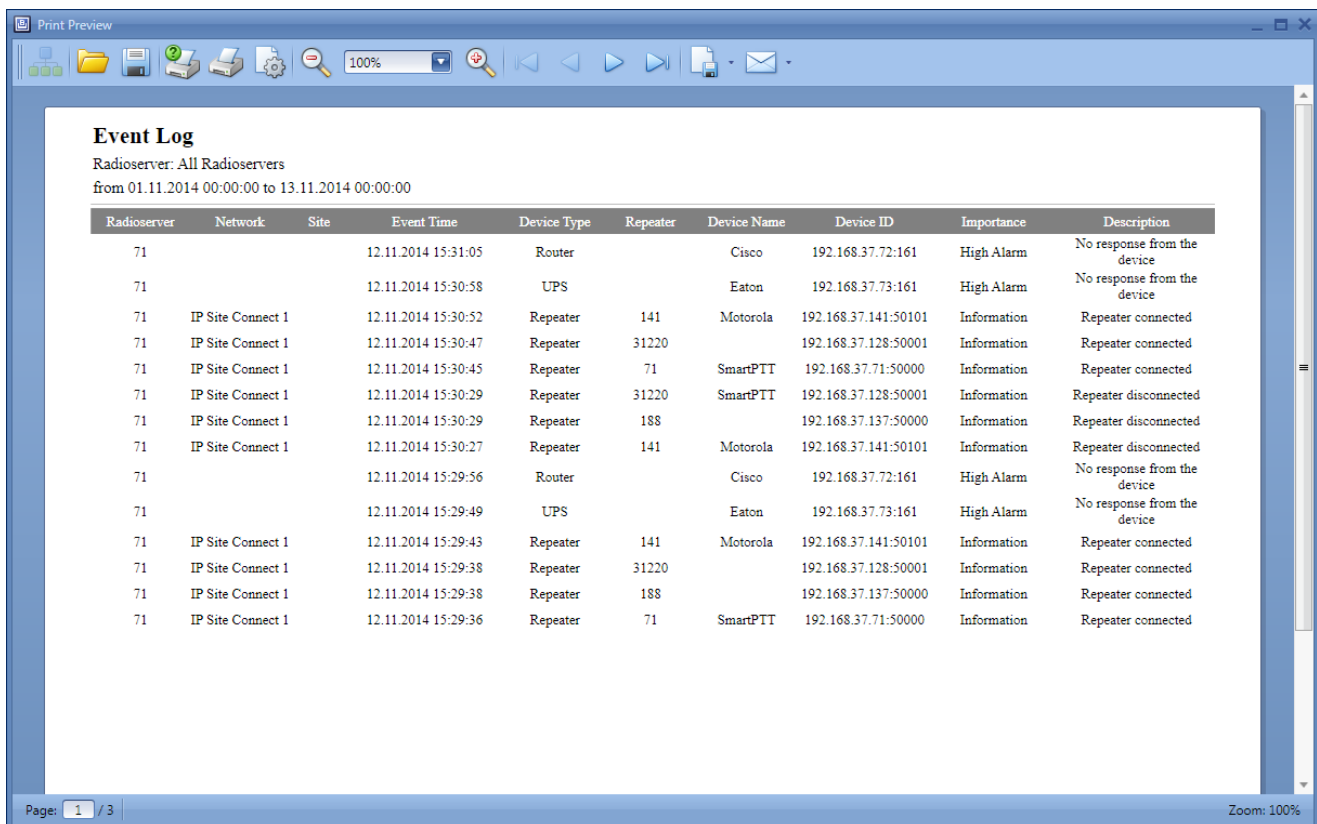
To create the report, expand the **Reports** menu in the **Main Menu** bar and under **Monitoring** select **Log**. At that, the following window opens.



**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:

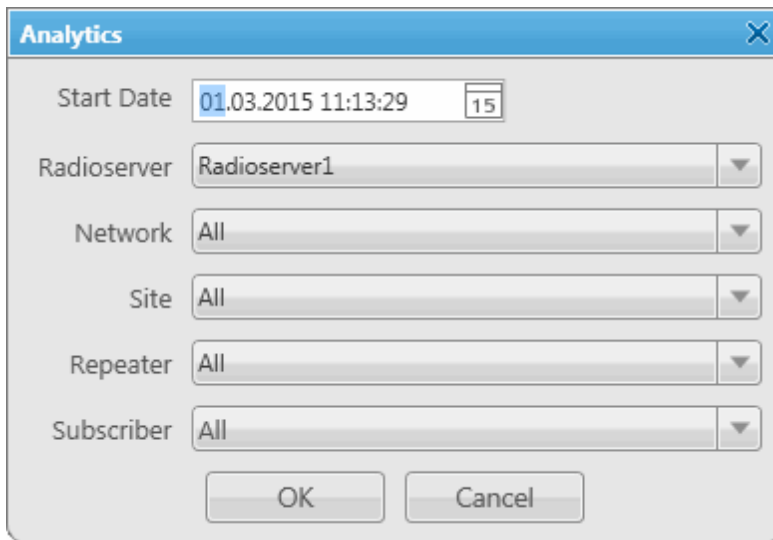




## 1.7.7 Monitoring Analytics

**Monitoring Analytics** 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**. At that, the following window opens.



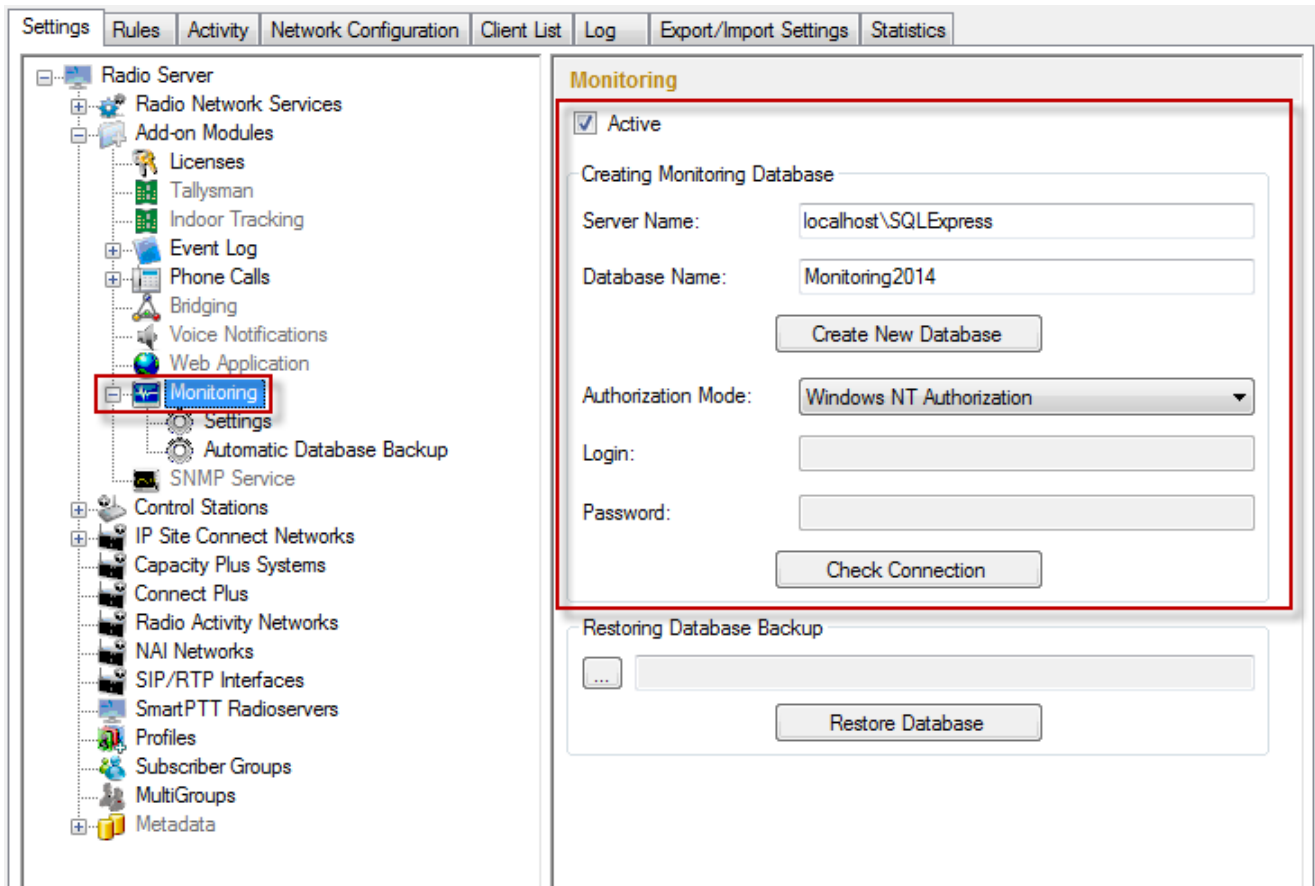
The screenshot shows a dialog box titled "Analytics" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Start Date:** A text input field containing "01.03.2015 11:13:29" and a calendar icon to its right.
- Radioserver:** A dropdown menu with "Radioserver1" selected.
- Network:** A dropdown menu with "All" selected.
- Site:** A dropdown menu with "All" selected.
- Repeater:** A dropdown menu with "All" selected.
- Subscriber:** A dropdown menu with "All" selected.
- 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. Make sure that

**Monitoring** is enabled and the monitoring database is connected in SmartPTT Radioserver Configurator.



**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.

**Subscriber** – select the subscriber for whom the report is to be built. You can build a report on all subscribers from the drop-down list.

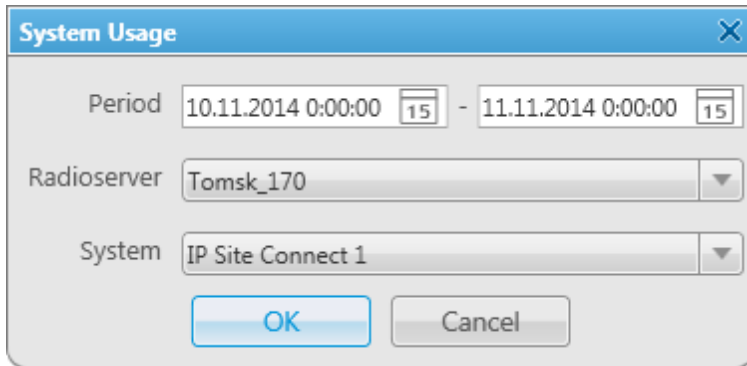
Report sample:



**Export** – allows you to save the report in HTML format for further use.

### 1.7.8 System Usage

The **System Usage** report provides information on the system load, operation time of the system, downtimes, and other information. To build the report, expand the **Reports** menu in the **Main Menu** bar and under **Monitoring** select **System Usage**. At that, the following window opens.

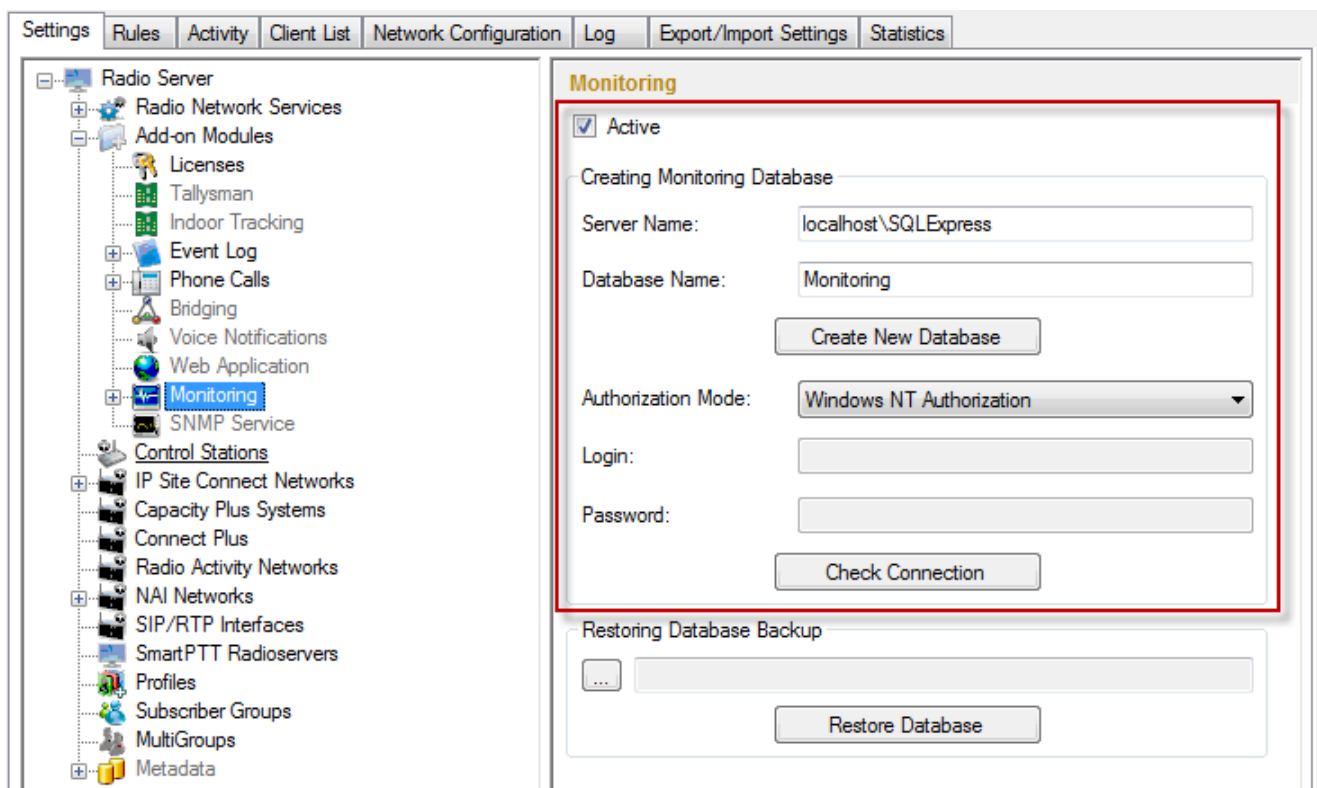


The 'System Usage' dialog box contains the following fields and buttons:

- Period:** 10.11.2014 0:00:00 [15] - 11.11.2014 0:00:00 [15]
- Radioserver:** Tomsk\_170
- System:** IP Site Connect 1
- Buttons:** OK, Cancel

**Period** – defines the time frame of the report.

**Radioserver** – select the available radioserver whose database will be used as a data source. To build a report you need to enable **Monitoring** in SmartPTT Radioserver Configurator and create a new monitoring database, or connect to the existing one.



The screenshot shows the 'Monitoring' configuration window in the SmartPTT Radioserver Configurator. The left sidebar lists various system components, with 'Monitoring' selected. The main panel is titled 'Monitoring' and contains the following settings:

- Active
- Creating Monitoring Database**
  - Server Name: localhost\SQLExpress
  - Database Name: Monitoring
  - Buttons: Create New Database
- Authorization Mode: Windows NT Authorization
- Login: [Empty field]
- Password: [Empty field]
- Buttons: Check Connection
- Restoring Database Backup**
  - Buttons: [Browse], Restore Database

**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.

**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 Subscribers	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
<b>System Total</b>	<b>6</b>	<b>3</b>	<b>0:23:52</b>	<b>9:26:35</b>

**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>
<b>System Total</b>	<b>1</b>	<b>0:01:07,54</b>
	<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

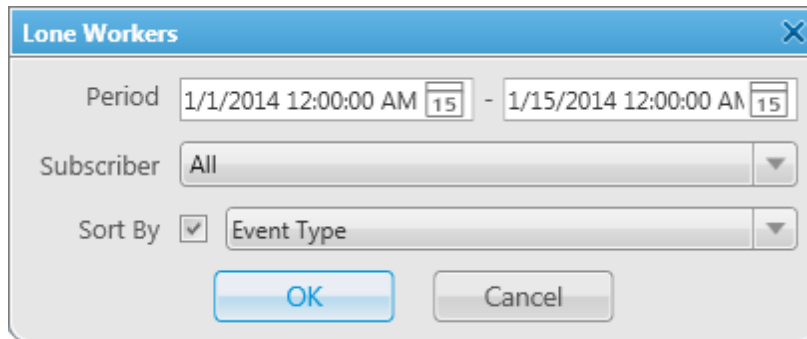
\* Sites  
 \* Repeaters  
 \* Locations  
 \* Radioservers

\* Radio subscribers  
 \* Talkgroups  
 \* Virtual slots

### 1.7.9 Lone Workers

The **Lone Workers** report provides information about the radio subscriber events when the radio 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 opens.



**Period** – defines the time frame for the report data.

**Subscriber** – defines the subscriber for whom the report is to be generated. The list of subscribers 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, subscriber, 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.

Lone Workers												
Direction	Event Type	Date/Time	Additional Information	Operator	Radioserver	Control Station	Subscriber	Talkgroup	Status	Duration	Repeater IP	Receiver
Incoming	Call	6/12/2014 12:24:52 PM	Mike	Dispatcher 47	Radioserver 47	Slot 1	Mike	Group 1	Group Call	5		Group 1
Incoming	Message	6/12/2014 12:25:47 PM	157 9 25	Dispatcher 47	Radioserver 47	Slot 1	Mike	Group 1	Message accepted			Group 1
Incoming	Call	6/12/2014 12:26:04 PM	Mike	Dispatcher 47	Radioserver 47	Slot 1	Mike	Group 2	Group Call	5		Group 2
Incoming	Call	6/12/2014 12:26:26 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		All Call	2		All Call
Incoming	Call	6/12/2014 12:26:28 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		All Call	2		All Call
Incoming	Call	6/12/2014 12:26:31 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		All Call	2		All Call
Incoming	Call	6/12/2014 12:28:22 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		Subscriber is available			
Incoming	Call	6/12/2014 12:28:37 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		Monitoring	15		12.0.0.47
Incoming	Call	6/12/2014 12:29:25 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		Private Call	5		12.0.0.47
Incoming	Call	6/12/2014 12:29:31 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		Private Call	18		12.0.0.47
Outgoing	Message	6/12/2014 12:31:51 PM	Where are you?	Dispatcher 47	Radioserver 47	Slot 1	Mike		Message delivered			Mike
Outgoing	Call	6/12/2014 12:27:40 PM		Dispatcher 47	Radioserver 47	Slot 1	Mike		Private Call	7		Mike
Outgoing	Message	6/12/2014 12:28:08 PM	ok	Dispatcher 47	Radioserver 47	Slot 1	Mike		Message delivered			Mike

## 1.8 User Interface Layout

The **UI Layout Settings** button  in the **Main Menu** bar contains two features:

- Locking the layout of the user interface of the dispatch console (for more information see [Lock UI Layout](#))
- Customization of the layout of the user interface of the dispatch console:

When working with SmartPTT Dispatcher the operator opens many different windows. Some of them are used very often. Usually, at every launch of the application all the windows are closed and the operator needs to spend considerable time to configure the main area. This is quite inconvenient and time-consuming. In order to avoid this, the operator can save his/her windows configuration at the end of the work day, prior to the application shutdown, and restore the configuration the next day. There can be more than one window configuration and the operator can switch between them. To save the current layout of the application user interface for future use, select **Set UI Layout**, and then click **Add**. Enter the name of the user interface layout. To restore the selected user interface layout, click **Apply**. To delete the saved user interface layout, click **Delete**.

There are two default window configurations, which can't be deleted:

- Calls and Event log. It opens [Calls](#), [Radio Fleet](#), [Sound Spectrum](#) and [Event Log](#).
- Calls, Channels and Event log. It opens [Calls](#), [Radio Fleet](#), [Sound Spectrum](#), [Channels](#) and [Event Log](#).

### 1.8.1 Lock UI Layout

Locking user interface layout feature is available only for Administrator account and allows blocking any dispatch console layout changes for operators. It allows administrator to do specific console customization and prevent ordinary dispatchers from opening and closing windows and panels.

In order to fix panel positioning, click  and then select **Lock UI Layout**.

When this mode is enabled, the dispatcher can't do the following actions:

- Opening and closing panels. Automatic pop-up panels, such as **Notifications** and **System messages**, do not open either.
- Changing panel location (see [Changing Layout](#)).
- Switching user interface layouts.

- Changing the size of the opened panels.
- Changing the content of the [Radio Fleet](#) panel.

**Note:** If the **Event Log** is opened when the user interface layout is locked, all the features designed for the **Event Log** management are available to the dispatcher.

## 1.9 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 and group calls dynamically;
- break the barrier of 15 repeaters per IP Site Connect;
- have calls bridged with only a short voice delay (from 60 ms), when joining IP Site Connect systems.

Radio network configurations supporting bridging:

1. NAI networks
2. 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 networks with other network types is not supported yet. Any other data exchange between Connect Plus and other networks is not supported yet.
3. SIP/RTP interfaces
4. External SmartPTT radioservers
5. Digital conventional channels. Private calls or data can't be bridged in networks based on control stations.
6. 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:

1. Routes
2. Route Groups
3. 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.

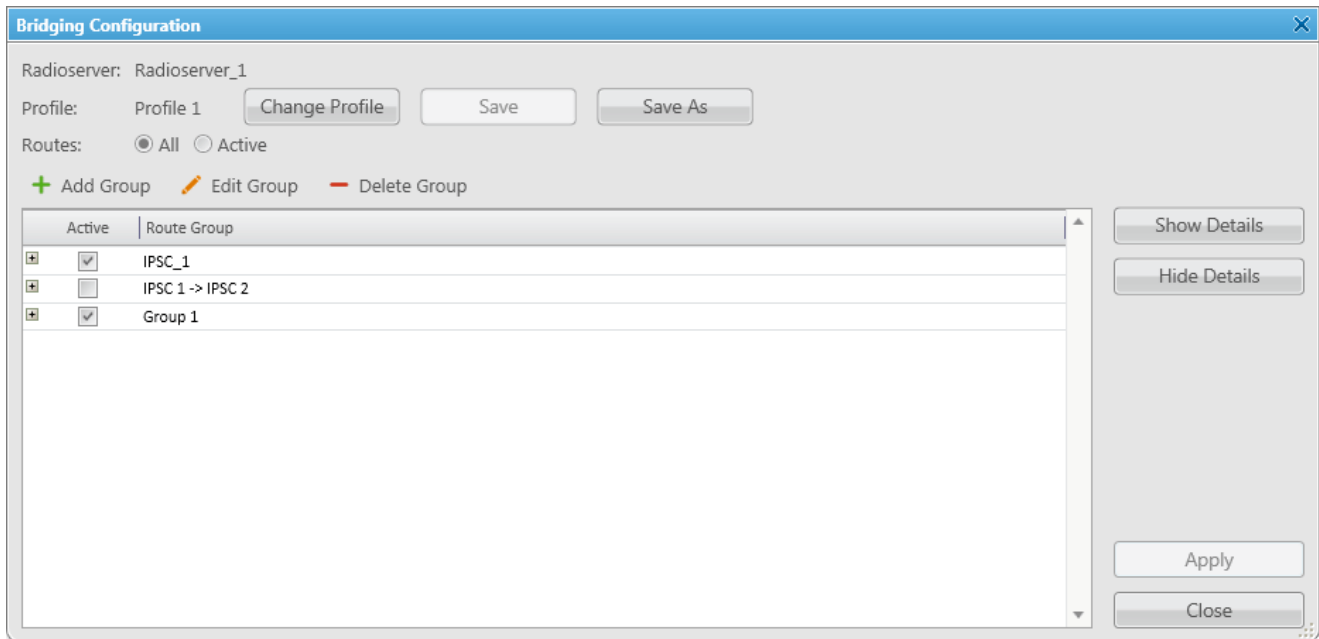
**Route Group** – group which unites several routes. It was designed to provide a neat look to profiles. Route groups can be easily activated and deactivated, which will either make routes inside route groups usable or not usable.

**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**.



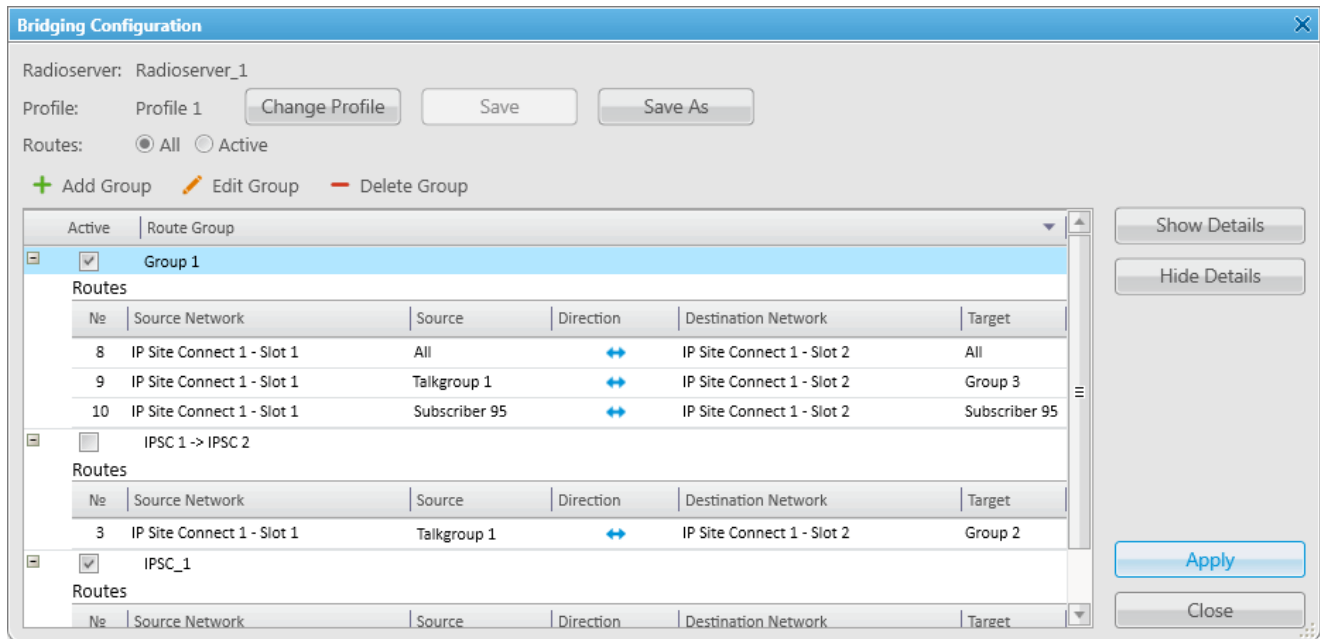
At that, the **Bridging Configuration** window opens.



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.

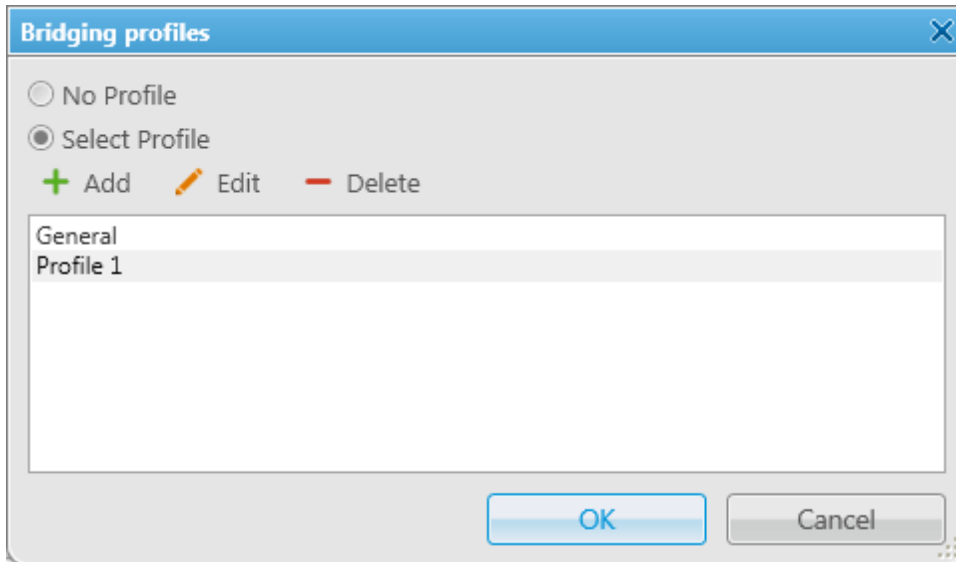
The buttons **Change Profile**, **Save**, **Save As** allow you to create a new profile or edit the existing one.

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

## 1. Profiles

Profiles are used for quick switching between predefined bridging tables.

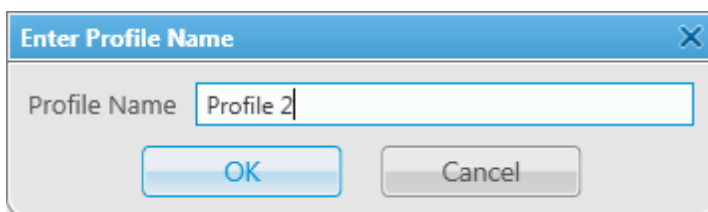
To add, modify or delete a profile, click **Change Profile** in the **Bridging Configuration** window.



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.

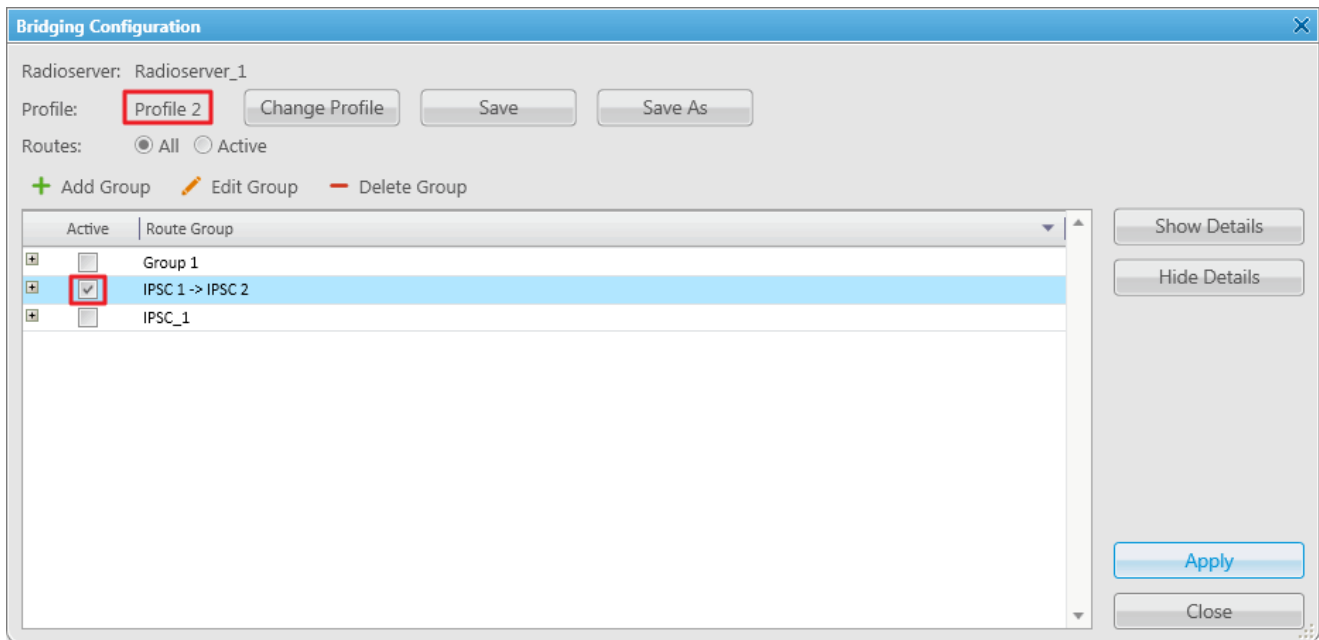
If **Select Profile** is enabled, the profile list is available for editing and route groups can be assigned to the selected profile.

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

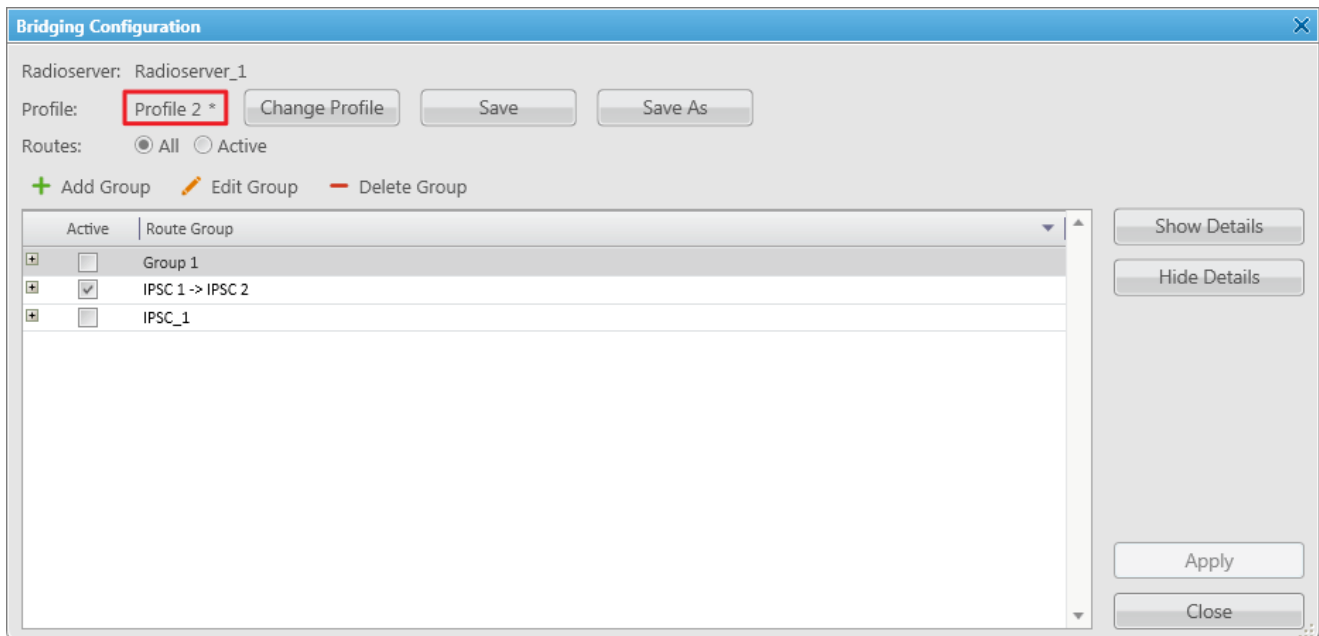


Left-click on the profile name in the **Bridging Profiles** window and click **OK**.

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

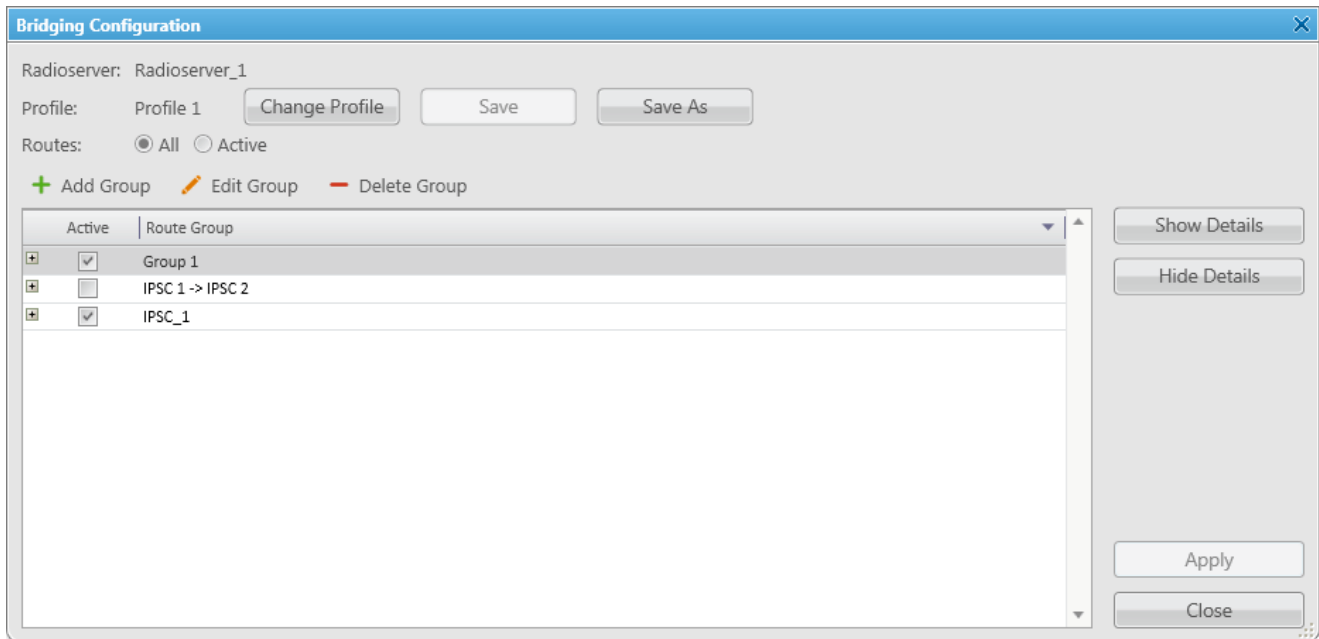


As you finished editing the profile settings, click **Apply** to activate the current profile settings. At that, the asterisk character ("\*") appears in front of the profile name.



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.

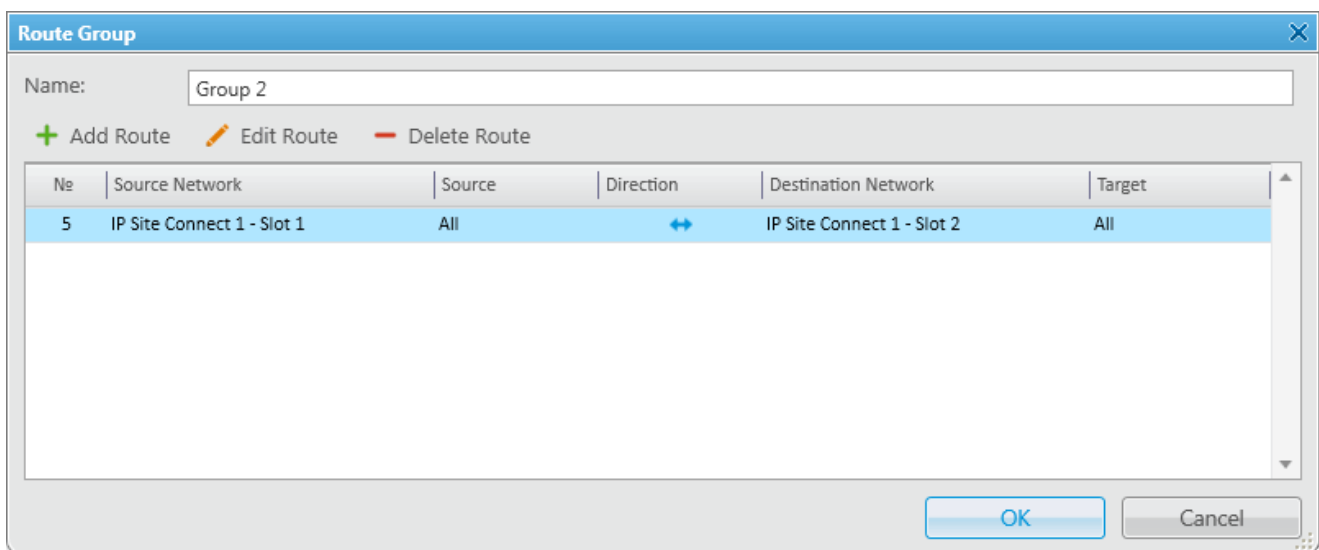


**Save As** allows you to save a copy of the current profile with a new name.

## 2. 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. At that, 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.

### 2.1. 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).

## 2.2. 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**.

The screenshot shows a 'Route' configuration window. At the top, the title bar reads 'Route' with a close button. Below the title bar, the 'Route Number' is set to '3'. The 'Source Control Station' is 'IP Site Connect 1 - Slot 1', the 'Route Type' is 'Talkgroup', and the 'Destination Control Station' is 'IP Site Connect 1 - Slot 2'. The 'Source' field contains '1', the 'Direction' is set to bidirectional, and the 'Target' field contains '2'. There are two checkboxes labeled 'Process Routed Calls' and two buttons labeled 'OK' and 'Cancel'.

### 2.3. Configuring "Subscriber" Route Type

**Note:** This route type is not supported in SmartPTT Basic, since private calls can't be bridged in control station networks.

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

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

The screenshot shows a 'Route' dialog box with the following fields and values:

- Route Number: 3
- Source Control Station: IP Site Connect 1 - Slot 1
- Route Type: Subscriber
- 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: Unchecked (checkbox)

#### 2.4. Configuring "Dynamic" Route Type

**Note:** This route type is not supported in SmartPTT Basic, since private calls can't be bridged in control station networks.

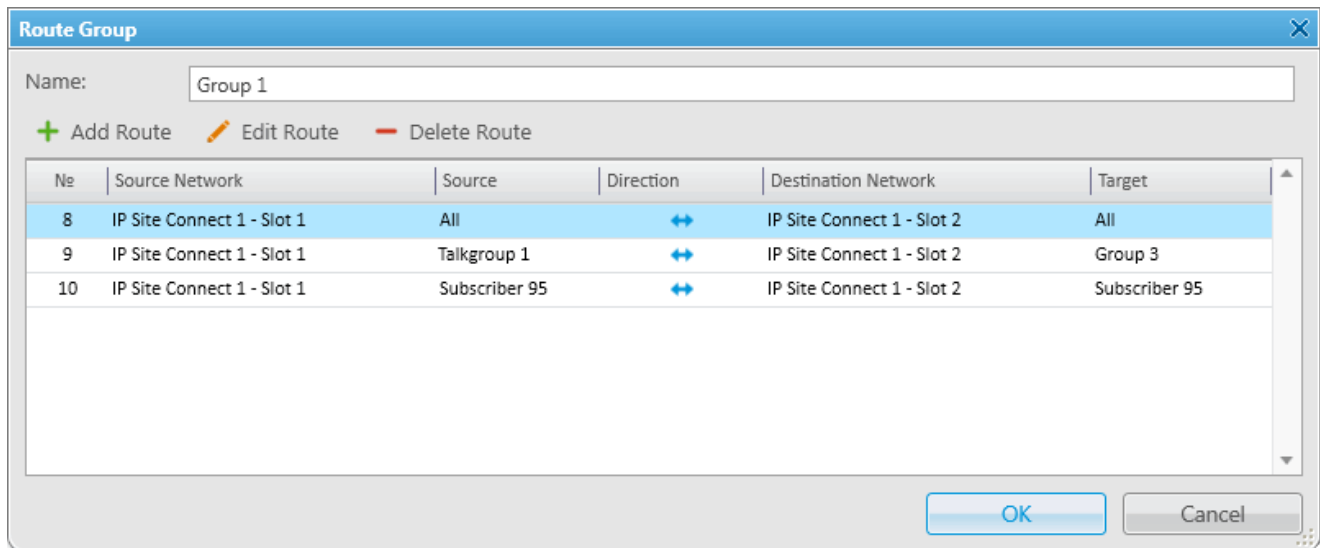
To patch private voice calls or text messages of the subscribers from the **Subscriber Groups**, select **Dynamic** in the **Route Type** field.

The screenshot shows a 'Route' dialog box with the following fields and values:

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

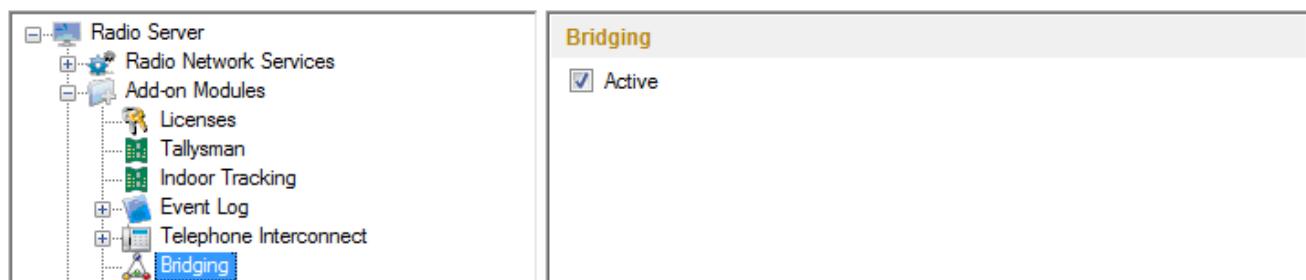
In the **Subscriber Group** select a group, which was added in **Subscriber Group** of SmartPTT Radioserver Configurator.

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**, **Subscriber**).



## Activating Bridging Service

To make bridging active go to SmartPTT Radioserver Configurator, select **Bridging** in the tree and select the **Active** check box. Save the settings and restart the radioserver to apply the changes.




## 1.10 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. At that, all the participants of the conference call can hear and talk to each other.

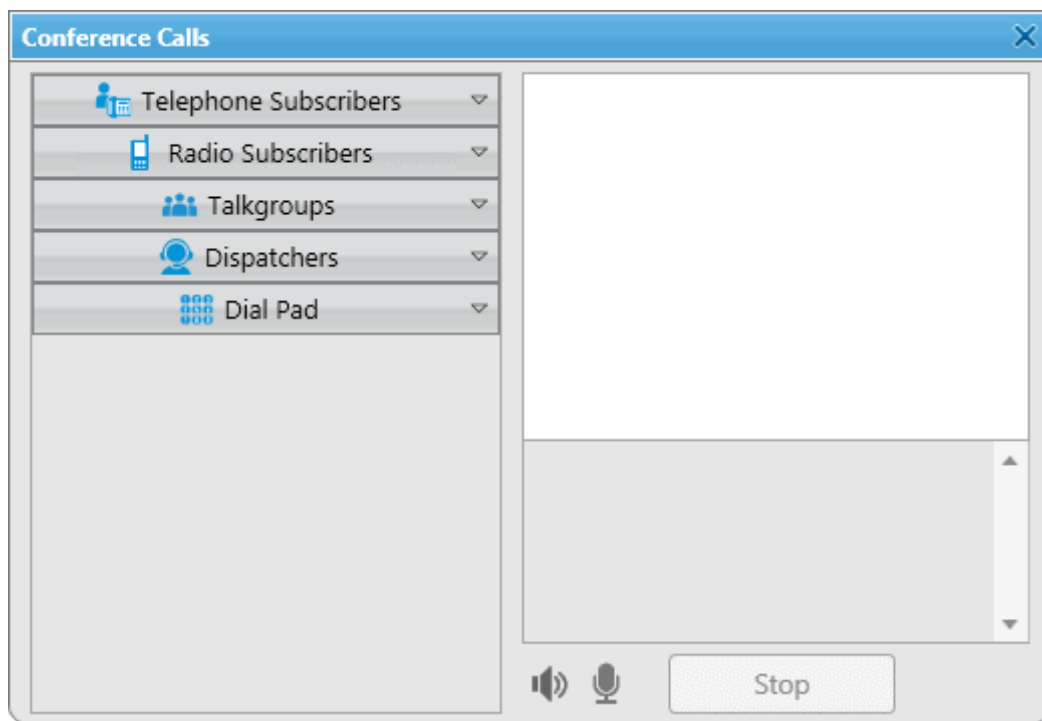
SmartPTT Dispatcher allows the dispatcher to organize conference calls and to connect the following subscriber types:

- Telephone subscribers
- Other dispatchers using SmartPTT Dispatcher
- Radio subscribers
- 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.

At that, the **Conference Call** window will appear.




To add a subscriber to the conference call, unfold the the necessary section and double-click on the subscriber, or use drag-and-drop.



The button  turns off the sound of the conference call. At that, 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.

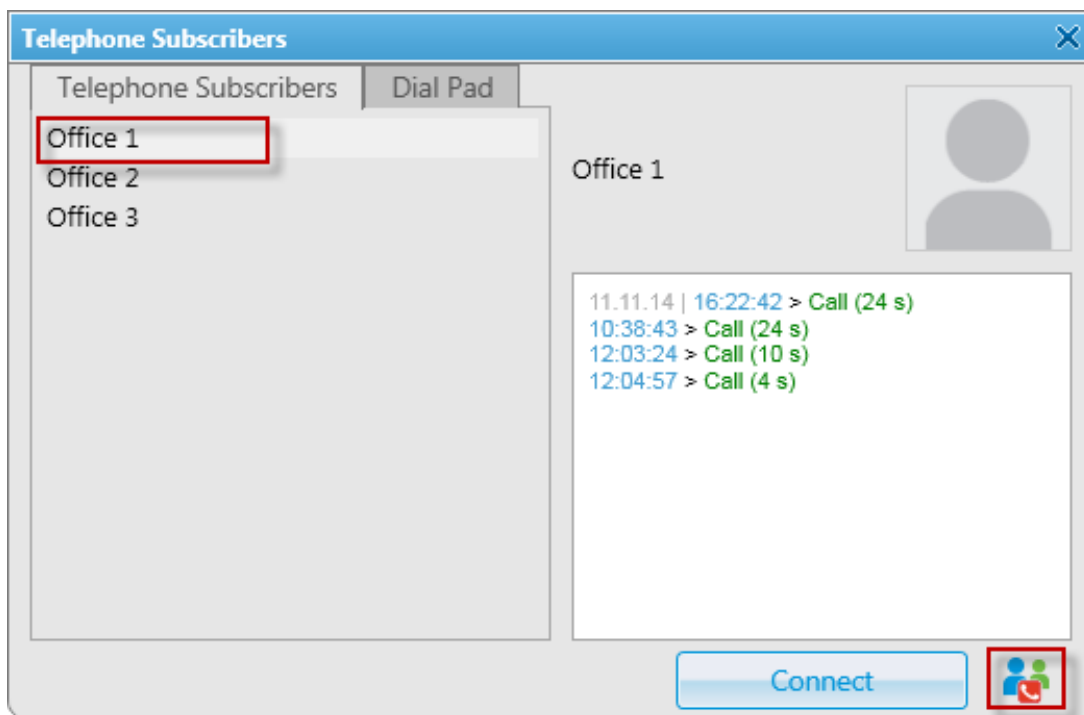
**Stop:** Click the button to end the current conference call. Should the radio subscriber make a call right after the conference call, it is necessary for him or her to wait for a special tone notifying about the end of the call. If the radio subscriber presses the PTT button before this tone, an incorrect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

Starting from version 8.6 you can hold conference calls with radio 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**).

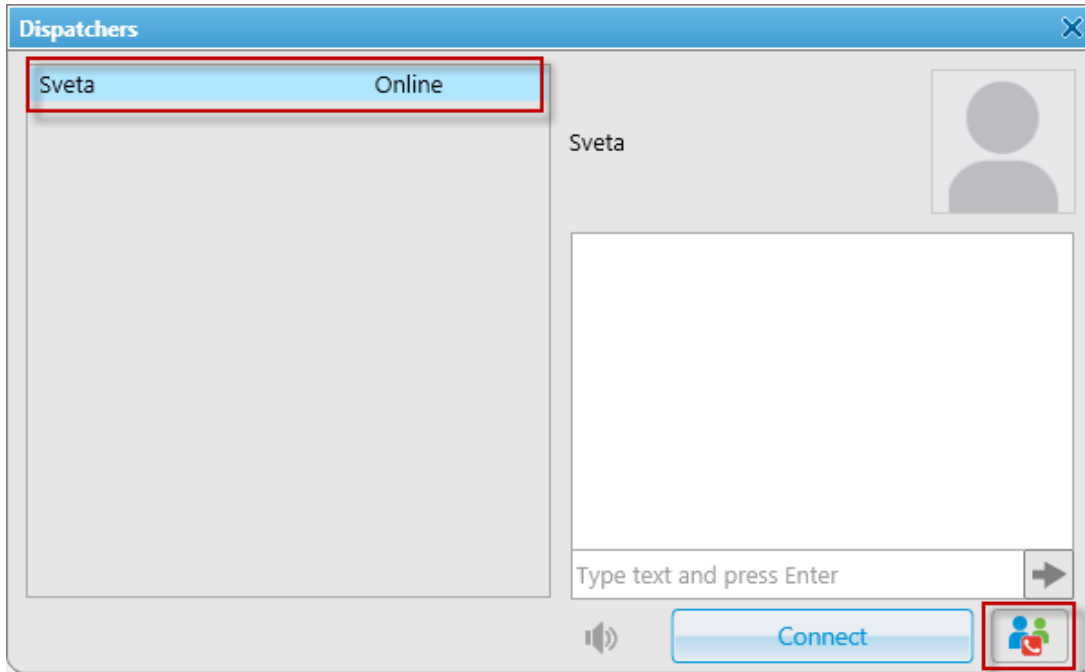
To finish the ongoing conference call with one of the participants, click the button  next to the participant.

There is another way how to organize a conference call.

1. In order to invite an external dispatcher or a telephone subscriber, click the buttons  or  respectively. In the windows that opened select a dispatcher or a telephone subscriber, and click 

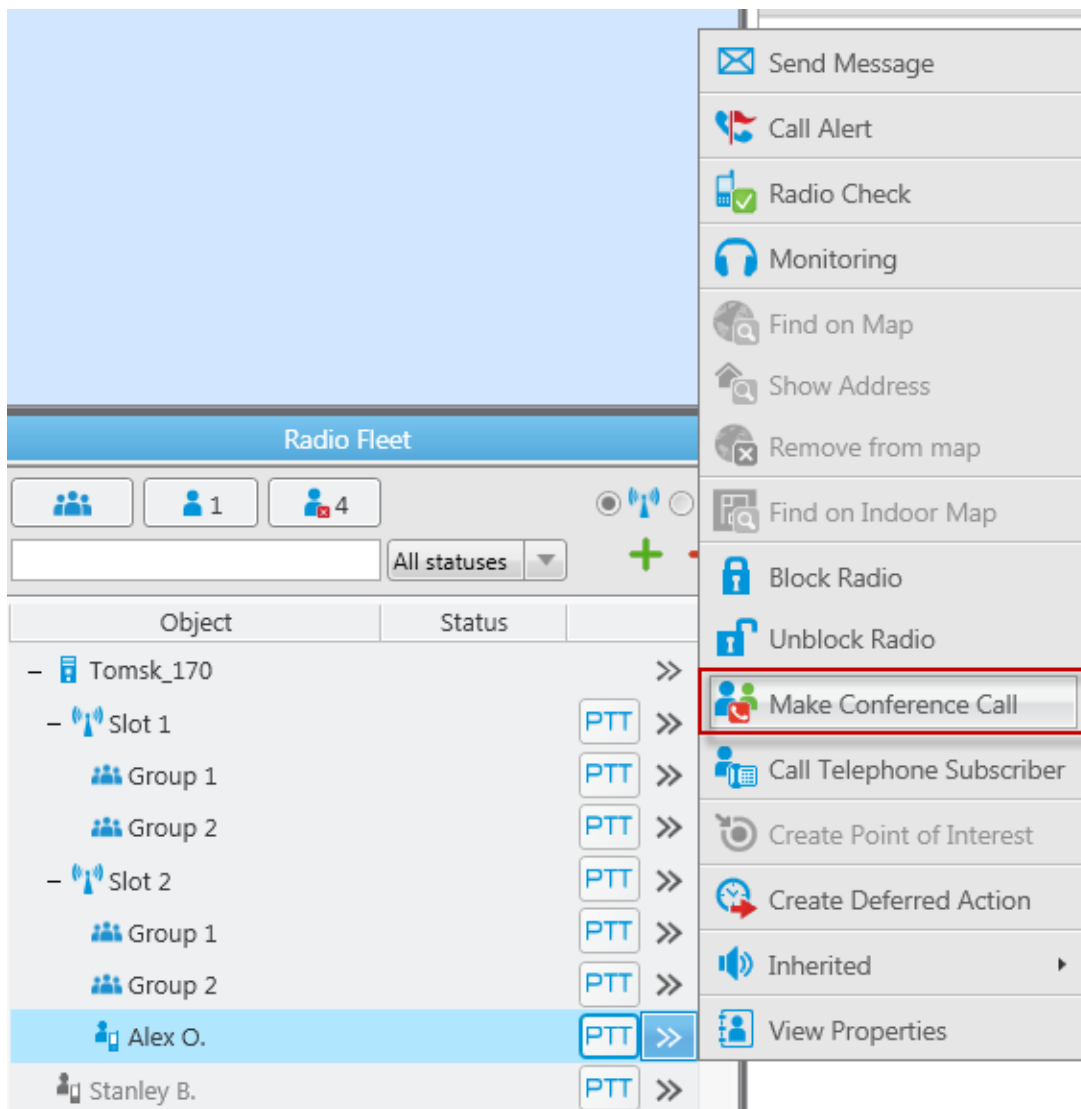


Dispatcher:



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

2. Use **Actions List** to make a conference call. At that, the **Conference Call** window appears and the call is initiated.



## 1.11 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.](#)

## 1.12 Remote Assistance

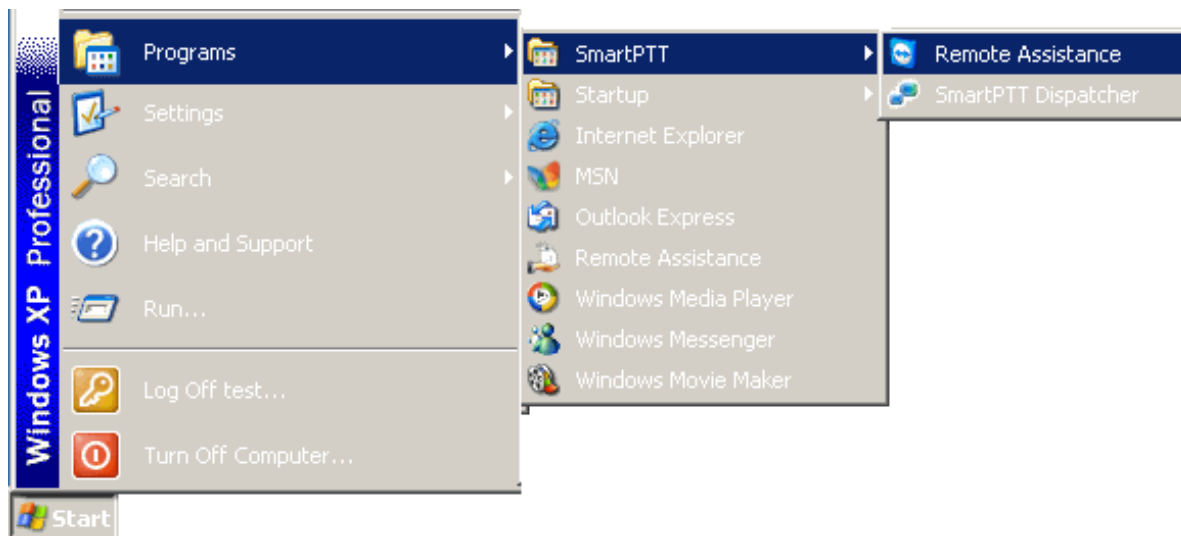
SmartPTT contains a special technical support tool providing remote access to the PC to resolve possible technical issues.

To give the technical support engineer remote access to the PC, launch SmartPTTRemoteAssistance.exe.

SmartPTTRemoteAssistance.exe window will show ID and Password which should be passed to the engineer.

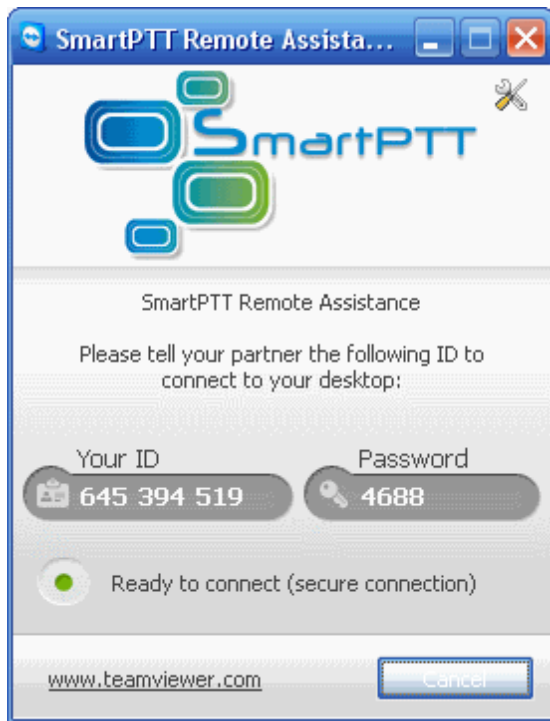
Steps to follow to get remote assistance:

1. Launch Remote Assistance (**Start > Programs > SmartPTT > Remote Assistance**).

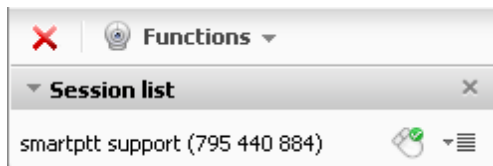




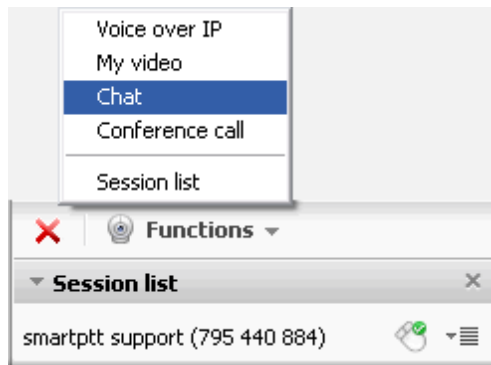
SmartPTT Remote Assistance window




- 2. Pass **Your ID** and **Password** to the engineer who is going to provide technical support.
- 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 .

