





Version 6.2

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# **USA Office**

Neocom Software 150 South Pine Island Rd., Suite 300 Plantation, FL 33324, USA

### Sales

EMEA: +44 203 608 0598 Americas: +1 872 222 8726 APAC: +61 28 607 8325 www.trbonet.com info@trbonet.com

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# **1** Introduction

# 1.1 About This Guide and Related Documentation

This document is intended for MOTOTRBO radio network administrators as well as dispatchers responsible for the TRBOnet dispatch console operations. It provides guidance on the installation, configuration, and maintenance of the **TRBOnet Server** and **Dispatch Console** applications.

# 1.2 About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

# 1.3 Contacts

Region	Phone	Email & Support
EMEA	+44 203 608 0598	<u>info@trbonet.com</u> — general and commercial inquiries
Americas	+1 872 222 8726	<u>support@trbonet.com</u> — technical support
АРАС	+61 28 607 8325	<u>http://trbonet.com/kb/</u> — online knowledge base



# 2 Hardware and Software Requirements

TRBOnet Server/Agent with IP connection only							
Voice Channels	4	8	16	24	24+		
CPU	Intel Core i5	Intel Core i5	Intel Core i7, 4 Cores	Intel Core i7, 6 Cores	Contact technical		
Memory	2 GB	4 GB	4 GB	8 GB	support		
HDD 2 GB for installation files, +1 MB per 1 minute of voice recording							
Sound Card	Sound Card No						
	Windows 10 (x64)/11, Windows Server 2016/2019/2022 (x64)						
Supported OS	Note: Windows Server 2016/2019/2022 requires Desktop Experience Role/Feature installed.						
Software .NET Framework 4.8, MS SQL Server 2016 or higher							

TRBOnet Server /Agent with Control Stations						
Control Stations	1	2+				
CPU	Intel Core i5					
Memory	2 GB					
HDD	2 GB for installation files, +1 MB per 1 minute of voice recording					
Sound Card	Multi-channel Sound Card require Recommended: 1. M-Audio Delta 1010 LT 2. Roland OCTA CAPTURE Hi-SPEEL Audio Capture					
Additional Devices	Cable connector Motorola PMKN4016					
Supported OS	Windows 10 (x64)/11					
Software	.NET Framework 4.8, MS SQL Server 2016 or higher					

Dispatch Console					
СРU	Intel Core i5				
Memory	4 GB				
HDD	2 GB for installation files				
Sound Card	Yes				
Display	1600x900 minimum resolution, 1920x1080 and higher resolution is recommended				
Additional Devices	Speakers and microphone, or headset; Imtradex devices are recommended				
Supported OS	Windows 10 (x64)/11				
Software	.NET Framework 4.8				



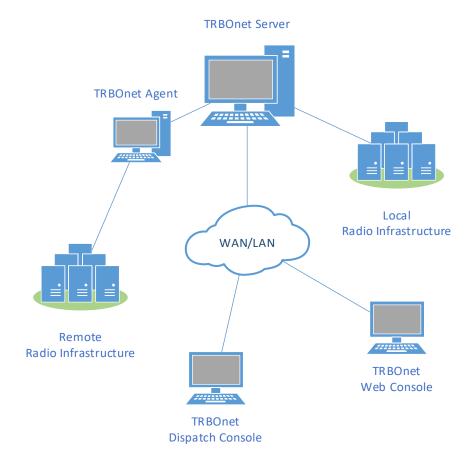
# **3** System Architecture Overview

# 3.1 TRBOnet Server, Agent and Console

The TRBOnet software is designed as a client-server architecture, where **TRBOnet Server** is PC-based and runs as a Windows service on a network computer, stores data in an MS SQL database, and allows client connections from Web Consoles, Dispatch Consoles, and Mobile Clients. The TRBOnet service can be located on a dedicated remote PC, a local PC (along with the Dispatch Console), or on a virtual machine.

In addition, remote software agents, such as **TRBOnet Agent**, and/or hardware agents, such as TRBOnet Swift A200, can be connected to TRBOnet Server providing additional voice and data communications paths to and from remote sites. Such configurations can be used when radio equipment can't be connected directly to TRBOnet Server due to IP network limitations (see section <u>3.3, IP Backend Network Requirements</u>).

**TRBOnet Dispatch Console** is a PC-based voice dispatch and data application for MOTOTRBO professional digital two-way radio systems.





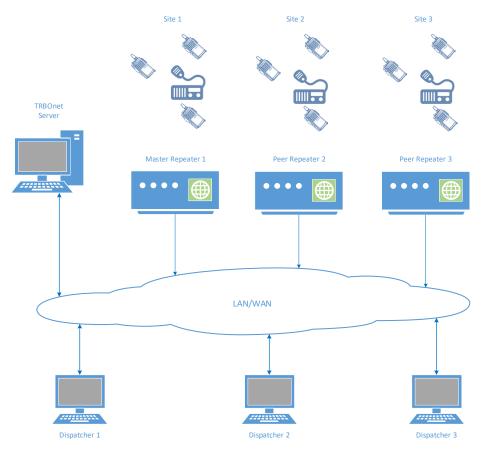
# 3.2 MOTOTRBO Radio Systems

# 3.2.1 Single Site conventional system

A Single Site conventional system is a digital conventional two-way MOTOTRBO system that includes one digital repeater and allows you to transmit voice and data via two conventional channels. Radio groups and radio units are assigned to these conventional radio channels.

# 3.2.2 IP Site Connect

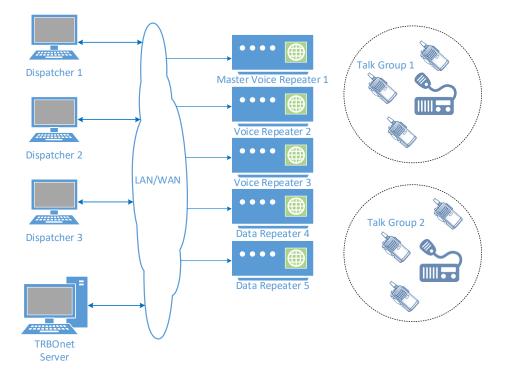
An IP Site Connect (IPSC) system is a digital conventional two-way MOTOTRBO system that provides two wide-area channels to increase your communications RF coverage area. It is possible to connect up to 15 repeaters (each geographical location of a repeater is called a "site") into one system using an IP connection, which allows increasing the coverage area for voice and data transmissions. The main objective of an IPSC system is to provide a stable connection between the radio units and control centers regardless of the distance.





# 3.2.3 Capacity Plus

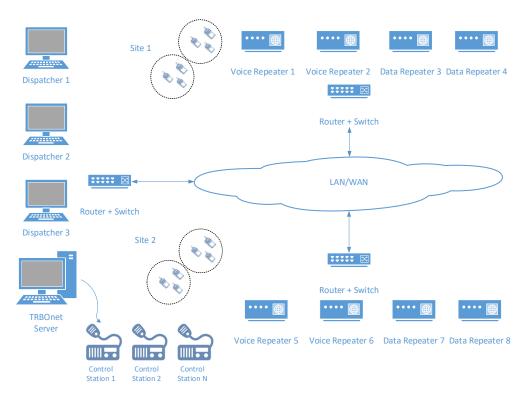
Capacity Plus (also known as Capacity Plus Single Site) is a digital trunked twoway MOTOTRBO system that is designed for high volume communications at a single site location. The system is designed to provide communications among a large number of users within a building, a set of buildings, or a single geographical region. This system type allows you to effortlessly increase the number of channels for both voice and data transmission between the radio units and control centers. As this system type is trunked instead of standard conventional, radio units are always automatically forwarded to a free channel rather than being programmed to remain on a single slot, thereby utilizing/sharing the available unused/free RF resources (channels) among different users. The main objective of Capacity Plus is to support more simultaneous voice and data transmissions within one capacious system.



# 3.2.4 Linked Capacity Plus (LCP)

Linked Capacity Plus (also known as Capacity Plus Multi Site) is a digital trunked multisite two-way MOTOTRBO system that enables you to accommodate both high volume and wide area communications. This system design allows you to connect via IP up to 15 Linked Capacity Plus sites located in one geographical region (for example, City of Charlotte) or in larger geographically separated territories (for example, covering the Florida Keys from Miami to Key West). This system type allows you to increase the RF coverage area and the number of channels for voice and data transmission between the radio units and control centers. The main objective of Linked Capacity Plus is to support more simultaneous voice and data transmissions regardless of the distance.

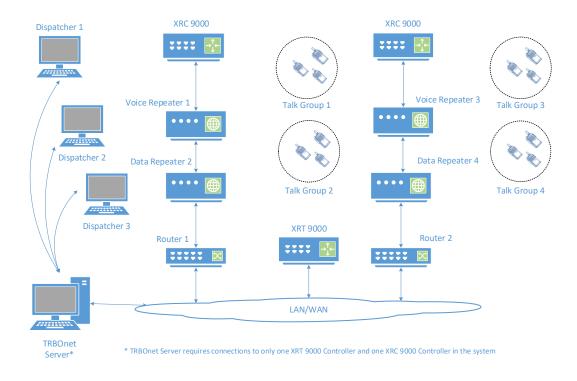




# 3.2.5 Connect Plus

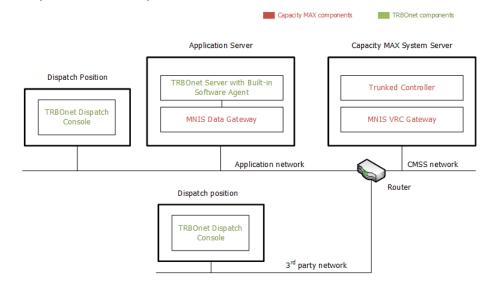
Connect Plus is a digital trunked multisite two-way MOTOTRBO system that enables you to accommodate high volume, wide area communication that's required for your business allowing you to connect via IP multiple sites located in one geographical region or in larger geographically separated territories. This system type allows you to increase the RF coverage area and the number of channels for voice and data transmission between the radio units and control centers. Radio units are always automatically forwarded to the control channel. The main objective of Connect Plus is to support more simultaneous voice and data transmissions regardless of the distance as well as to provide a more structural addressing of the transmissions provided by XRC controller and XRT gateway.





# 3.2.6 Capacity Max

Capacity Max is MOTOTRBO's next-generation trunking solution. Built on the DMR Tier III Mode of Operation, it delivers smooth scalability, low cost of ownership and reliable operation.





# 3.3 IP Backend Network Requirements

Before planning any IP connected MOTOTRBO system, read the MOTOTRBO System Planner (Back-End Network Considerations).

# • Delay/Latency

The amount of time it takes for voice to leave the source repeater and arrive at the destination repeater. The delay should be less than 60 ms. It can be up to 90 ms, but requires changes in CPS for both radio units and repeaters.

• Jitter

The variation of the packet inter-arrival time. It should be less than 60 ms.

• Packet Loss

In the case of voice, the ongoing call ends if six consecutive packets do not arrive within 60 ms of their expected arrival time. In the case of data, the repeater waits for the expected number of packets (as per the data header) before ending the call.

# • Bandwidth

Refer to the MOTOTRBO System Planner for bandwidth calculations, but roughly, it requires 96 kbps for each repeater connection and should be summed up for all repeaters.

If the IP backend network does not satisfy MOTOTRBO requirements, it will degrade audio quality significantly, including dropped voice calls.

# 3.3.1 Linked Capacity Plus Specific Requirements

# • Addresses and Ports

A static IP Address and UDP Port for the master repeater must be made available to all peer devices on the Linked Capacity Plus system.

 When a peer device registers with the master repeater, the network supplies the return IP address and UDP port of the peer device to the master repeater. The IP address and UDP port must then be made available to all other MOTOTRBO™ LCP devices on the system.



# 4 TRBOnet Enterprise and Dependencies Installation

TRBOnet runs on Microsoft Windows-based PCs. For the TRBOnet Enterprise Compatibility Table, see

https://trbonet.com/kb/trbonet-enterprise-plus-compatibility-table/

# 4.1 Installing Microsoft SQL Server

Download and install Microsoft SQL Server 2016 or higher.

You can download and install either a full-featured MS SQL Server or an Express edition of MS SQL Server. The Express edition of MS SQL Server is free; however, it has some technical restrictions (maximum database size of 10 GB, RAM usage, and other restrictions).

For example, Microsoft SQL Server 2016 SP2 - Express Edition (which is free) is available at:

https://www.microsoft.com/en-us/download/details.aspx?id=56840

Note: We recommend that you download a version of SQL Server with Tools.

Select the 32-bit or 64-bit version depending on the underlying OS. Accept the defaults for the setup.

See also section <u>5.2.1.1, Windows Authentication</u> on page 15.

# 4.2 Installing .NET Components

The .NET Framework installer is available at: https://support.microsoft.com/en-us/topic/microsoft-net-framework-4-8offline-installer-for-windows-9d23f658-3b97-68ab-d013-aa3c3e7495e0

# 4.3 Installing TRBOnet Enterprise

- Contact **Neocom Software** to obtain the latest installation package of the TRBOnet Enterprise software, unzip, and run the setup file as a local administrator.
- When the **TRBOnet Enterprise Setup** wizard appears, click **Next**.
- On the **End User License Agreement** page, accept the terms of the license, and then click **Next**.



Choose Setup T Choose the set	ype up type that best suits your needs
1 <del>2</del>	TRBOnet Dispatch Console This is a dispatcher computer and only Dispatch Console must be installed
17	TRBOnet Server and Dispatch Console This is a Server computer and you need to install Server software and Dispatch Console
	Custom Allows users to choose which program features will be installed and where they will be installed.
Neocom Software —	<back next=""> Cancel</back>

• On the **Choose Setup Type** page, click one of the following options:

# TRBOnet Dispatch Console Choose this option to install only TRBOnet Dispatch Console on your computer.

TRBOnet Server and Dispatch Console

Choose this option to install both TRBOnet Server and TRBOnet Dispatch Console at once on your computer.

Custom

Choose this option to select from the list one or more components to be installed.

Custom Setup Select the way you want features to be installed	. <b>TRBO</b> DOR
Click on the icons in the tree below to change th	e way features will be installed.
Dispatch Console     Server Instance     Agent Instance	TRBOnet Enterprise 5.2 Agent This feature requires 199MB on your hard drive.
Location: C:\Program Files (x86)\Neocom So Enterprise\	oftware\TRBOnet Browse
Neocom Software Reset Disk Usage	< Back Next > Cancel

For example, you may install only TRBOnet Server Instance:

Custom Setup Select the way you w	ant features to be install	ed.	TRBOmed
Click on the icons in t	e tree below to change	the way features will be i	nstalled.
Serve	atch Console er Instance t Instance	TRBOnet Enterpris	e 5.2 Server
		This feature requir your hard drive.	es 209MB on
Location: C:\Prog Enterpr	ram Files (x86)\Neocom ise\	Software\TRBOnet	Browse
Reset	Disk Usage	< Back Next >	Cancel

• Accept the defaults for the rest of the setup and complete the installation.



# **5 TRBOnet Server**

To start TRBOnet Server, click the corresponding shortcut on the desktop, or click **Start > All Programs > Neocom Software > TRBOnet Server x.x** 

# 5.1 License Information

The TRBOnet software requires a valid license in order to operate. Depending on the License Type (see next section), the license can be obtained via TRBOnet's website or from a **Neocom** representative.

# 5.1.1 License Types

There are three license types available for TRBOnet Enterprise:

License Type	Demo	Trial	Commercial			
Validity	60 days	By Request	Permanent (non-expiring)			
Quantity of ControlUp to 2 control stations or 1 IP repeater connectionStations 		By Request	According to Customer order			
Features	Limited functionality	By Request	According to Customer order			
How to obtain	It can be downloaded from the web page.	Assigned to server's Hardware ID. For more details on Hardware ID, see the article at <u>https://trbonet.com/k</u> <u>b/how-to-get-the-hardware-id/</u> .	Assigned to server's Hardware ID. Assigned to the serial numbers of master repeaters and control stations. To retrieve serial numbers, use Control Station's codeplug (do not rely on a serial number printed on the device's label).			
For more information on the license and renewals, contact our technical support at						

info@trbonet.com

To see how the Hardware ID and control stations and/or repeaters are assigned in your license, open the INFO file delivered with the license file (for example, in Notepad):



License ID: aada3405-4e5f-4254-843f-a2ba01e7c475 License generated by: John Smith License generation date: 7/20/2016 TRBOnet Support is active up to: 7/20/2017 Product: TRBOnet_Enterprise (4.0.0.138) License for: Neocom Software Ltd Licensed instance: [Default]		
Server limitations		
Server hardware keys:		
42B1-BA64-D473-D6E8-DFAC		
Remote Agent connections: 5		
System types: Unlimited		
Agent limitations	2	
Agent hardware keys: Any	1-	
Number of master radios or master repeaters: 5	*	
Master radios / master repeaters serial numbers: 484TNL2887; 484TNL2888; 484TNL2889;	484TNL2890;	484TNL2891
Total number of peers in IP Site Connect or Capacity Plus systems: 10		
Serial numbers of peers used in IP Site Connect or Capacity Plus systems: Unlimited		
Limitation for Client connections		
Remote Dispatch connections: 10		
Number of Remote Dispatch accounts: 10		
Subscriber radios limitations		
Number of subscriber radios: 10		
Number of Subscriber radios. 19		

- 1. Your license is assigned to the Hardware ID.
- 2. Your license is assigned to the serial numbers of master repeaters and control stations.

# 5.1.2 Moving TRBOnet Server to a Different Server PC

If there is a need to use TRBOnet Server on a different server PC, please contact your **Neocom** sales representative for further instructions.

# 5.1.3 Using Spare Repeaters

If the plan is to use spare repeaters, for example, as replacement for damaged ones, communicate the total number of repeaters when ordering a license.

For example, 3 repeaters will be actively used with TRBOnet Server and 1 spare repeater. Communicate the following repeaters limitation: 3 active 1 spare and provide the serial numbers of all 4 repeaters when placing an order (also include the spare repeater's serial number).

# 5.1.4 License Manager

• In the **Configuration** pane on the left, select **License**. In the right pane, you can see the text of your current license.



Configuration		License			
	^				
		License is valid License ID: 95589aaf-7714-4889	05440-07-	44-	<b></b>
		Hardware ID: 42B1-BA64-D473-E		468	
DDMS service		License generated by: Eugene Ba		)	
Advanced Setting		License generation date: 23 Marc TRBOnet Support is active up to:			
MNIS data service		Product: TRBOnet_Enterprise	20 March 2022		
Advanced Setting		Licensed to: demo (Walt) Active instance: [Default]			
- Audio Paths		Licensed instance: [Default]			
🖵 PTT over Cellular					
		Demo License Expiry date: 23 March 2022			
🛄 📃 TRBOnet.Mobile gateway		Expiry dotor 20 March 2022			
🔂 Remote Agents		Server limitations Server hardware keys:			
🔂 Friendly Servers		42B1-BA64-D473-D6E8-DFAC			
🔞 Phone Connect		Remote Agent connections: 2			
🖞 Data Sources		System types: Unlimited			
🔀 Email		Agent limitations			
Incoming Mail Server		Agent hardware keys: Any			
Outgoing Mail Server		Number of master radios or mast Master radios / master repeaters		Jnlimited	
SMS Notifications		Total number of peers in IP Site (	Connect or Capaci	ity Plus syster	
Push Notifications		Serial numbers of peers used in I Unlimited	P Site Connect or	Capacity Plus	systems:
📮 License	v	Shimiced			¥
< >		License Manager		Send Email	Copy to Clipboard
Set Defaults			Apply	ОК	Cancel

# To apply the new license:

- 1. Click the **License Manager** link in the right pane. The **License Manager** wizard appears.
- 2. Click Next.
- 3. Click the ellipsis (...) button on the right-hand side of the **License file** box. The **Open** dialog box appears.
- 4. Locate the license file you received from our technical support and click **Open**.

The full path of the license file appears in the **License file** box.

- 5. Click Next.
- 6. Click **Finish** to close the wizard.
- 7. Click **Apply** and then confirm to restart TRBOnet Server.
  - Note: To use a single license for multiple TRBOnet software instances, you need **TRBOnet License Server**. For detailed instructions on how to use TRBOnet License Server, refer to *TRBOnet License Server Configuration Guide*.



# 5.2 TRBOnet Server Database

• In the **Configuration** pane, select **Database**.

Configuration	Database	
	SQL Server: Database: Authentication: Username:	(local)\SQLEXPRESS    TRBOnet11     Windows
Service Management Advanced Settings Coccoding Servers Radio Systems FIT over Cellular Cittonika	Password:	D:\Temp\TRBOnet
Remote Agents Friendly Servers Phone Connect Advanced Settings Remote PBX Server	<ul> <li>Save audio recordi</li> <li>Folder:</li> <li>Save attachments</li> <li>Folder:</li> </ul>	D:\Audio
	Test Conner Upgrade Datab Create Datab	base v
Set Defaults		Apply OK Cancel

• In the **Database** pane, specify the following database-related settings:

#### SQL Server

Enter the location of the Microsoft SQL Server name and instance. For example, in the screenshot above, the default instance name of Microsoft SQL Server Express installed on the local computer is shown.

#### Database

Enter the name of the TRBOnet database.

#### Authentication

Select the authentication method for the TRBOnet database. The default method is Windows Authentication. See also section <u>5.2.1</u>, <u>Database Authentication Methods</u> (page 15).

#### Login and Password

Enter a valid SQL Server login and password if the <u>SQL Server</u> <u>Authentication</u> is selected for the database.

#### Save database backups to

Select this option, and in the corresponding **Path** box enter the full path of the custom folder for database backups. Or, click the ellipsis (...) button and in the **Browse For Folder** dialog box locate the appropriate path.

#### Save audio recordings to

Select this option, and in the corresponding **Path** box enter the full path of the custom folder for audio recordings of the voice calls/sessions. Or, click the ellipsis (...) button.



Path to Audio Files	×
Root Folder:	
D:\Audio	
File Path Template:	
%YEAR%%MONTH%%DAY%	
Year Month Day Hour Minute Second Millisecond Channel ID	
Channel Name System ID System Name Call Type Source Source Type	
Source ID Recipient Recipient Type Recipient ID	
Example:	
D:\Audio\20221025_xxx.tna	
OK Cance	el

• In the **Path to Audio Files** dialog box, select the **Root Folder**, and in the **File Path Template** box enter the information (by clicking the appropriate links below: Year, Month, Day, etc.) that will be used to generate the file/path name.

Note: If you don't specify folder paths for the database archives and audio files, TRBOnet Server will use the following default paths:
%ProgramData%\Neocom Software\TRBOnet Enterprise\Backu ps - for database archives.
%ProgramData%\Neocom Software\TRBOnet Enterprise\Audio - for audio.
Also note that older backups are not deleted automatically. It is recommended that you regularly delete the files you no longer need to avoid running out of storage space.

# Save attachments to

Select this option, and in the corresponding **Path** box enter the full path of the custom folder where text message attachments will be stored. Or, click the ellipsis (...) button and in the **Browse For Folder** dialog box locate the appropriate path.

- When you finish configuring the required database parameters, click **Create Database**.
- After you create or upgrade a database, click **Apply** and then confirm to restart TRBOnet Server.

# 5.2.1 Database Authentication Methods

# 5.2.1.1 Windows Authentication

• From the Authentication drop-down list, select Windows.



Configuration	Database				
💣 Service					
S Network	SQL Server:	(local)\S	QLEXPRESS		-
🕏 Redundancy	Database:	TRBOne	et11		-
Remote Access Restriction	Authentication:	Window			-
Database	Audicinacadon.	Window	5		
😪 Reports	Username:		5		
Service Management	Password:	SQL Ser	ver		
🔀 Advanced Settings					
Geocoding Servers	✓ Save database	backups to			
nadio Systems	Folder:	D:\Tem	o\TRBOnet		
PTT over Cellular	Folder:	D. (rent	plikbonet		
Carl Teltonika	Save audio reco	ordings to			
Remote Agents	Folder:	D: \Audi	0		
Friendly Servers	_		-		
Phone Connect	<ul> <li>Save attachmer</li> </ul>	nts to			
	Folder:	D:\Temp	p\Attach		
1 Internal PBX Server			-		
$\Psi$ Data Sources					
🔀 Email	Test Con	nection			
SMS Notifications	Upgrade Da	tabase	-		
Push Notifications					
📮 License	Create Dat	abase	*		
Set Defaults			Apply	ОК	Cancel
Serbeidults			Apply		Cancer

To provide access permissions for TRBOnet Server to connect to MS SQL Server, create an account with **sysadmin** privileges.

During the installation process, MS SQL Server 2008 automatically grants **sysadmin** privileges to the **NT Authority\SYSTEM** account.

In the case of MS SQL Server 2012 and higher versions, add the **NT Authority\SYSTEM** account to the Administrators group during the installation process. If the database owner privileges are required to work with TRBOnet Database, you need to assign the **sysadmin** role to the **Local System** account. For instructions on how to install and configure MS SQL Server 2012, see

Appendix B: Configuring SQL Server 2012 for Local System Account.

# 5.2.1.2 SQL Server Authentication

• From the Authentication drop-down list, select SQL Server.

Configuration	Database				
💣 Service					
Network	SQL Server:	(local)\SQLEXPRESS ~			
🛱 Redundancy	Database:	TRBOnet11 -			
Remote Access Restriction	Authentication:	SOL Server			
Database	Hadrendeddorn				
😪 Reports	Username:	sa			
Service Management	Password:	•••••			
🔀 Advanced Settings					
Geocoding Servers	✓ Save database ba	ickups to			
Radio Systems	Folder:	D:\Temp\TRBOnet			
🖵 PTT over Cellular	Polder: D. (relip (redonet				
Carlonika	✓ Save audio recordings to				
Remote Agents	Folder:	D:\Audio			
Friendly Servers	- Older				
Phone Connect	Save attachments	; to			
	Folder:	D:\Temp\Attach			
📷 Internal PBX Server					
↓ Data Sources					
🔀 Email	Test Conne	ction			
SMS Notifications	Upgrade Data	hase			
Push Notifications					
📮 License	Create Datab	ase *			
Set Defaults		Apply OK Cancel			



To connect to SQL Server using **SQL Server Authentication**, create a SQL login with **sysadmin** privileges in the SQL Server in use. For detailed instructions on how to create a SQL login, see <a href="http://technet.microsoft.com/en-us/library/aa337562.aspx">http://technet.microsoft.com/en-us/library/aa337562.aspx</a>

# 5.3 TRBOnet Server Service

• In the **Configuration** pane, select **Service**.

TRBOnet Enterprise 6.2 / Ser	rver – X
Configuration	Service
<pre></pre>	The TRBOnet Server service is not installed. It is recommended to run TRBOnet Server as a Windows service: it will start automatically after a reboot and run even when no user is logged on. Click the Install Service button below to install the TRBOnet Server service. Service logon type: () Logon as Local System (Recommended)
Advanced Settings Geocoding Servers Radio Systems TT over Cellular Celtonika	Logon as User       User name:       TRBONET\v.kulinichev       Password:
Remote Agents Friendly Servers Phone Connect Advanced Settings Thermal PBX Server	Install Service
V Data Sources     Email     SMS Notifications     SMS Notifications     License	Server password: Set password Turn off password View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

- In the **Service** pane, specify the following service-related parameters:
  - Choose the required logon type:

# Logon as Local System

Choose this option to use an account with local system administrator privileges to run the service as a Windows service (Recommended);

#### Logon as User

Choose this option to use a different account to run the service as a Windows service. This account must allow the user to run services in Windows, have read and write access to the **Neocom Software** folder and subfolders in the "**%ProgramFiles%**" (or,

"%ProgramFiles(x86)%" for 64-bit OS) and "%ProgramData%" folders. For example, using such an account may be required in the following cases:

- An Active Directory domain network is used, and the current Windows user is not allowed to use a Local System account to launch services on the local PC due to domain policy restrictions.
- MS SQL Server is installed on a remote PC, and Windows Authentication (see section <u>5.2.1.1</u>, page 15) has been selected to connect to the database.
- Click the **Install Service** button.



• Click the **Start Service** link that appears in the right pane.

#### Server password

Click the **Set password** link and enter a password if you want to password-protect the server configuration. Once the configuration password is set, the user will be prompted to enter it when opening and exiting the TRBOnet Server application.

To remove the password, click the **Turn off password** link.

# 5.4 Network Parameters

• In the **Configuration** pane, select **Network**.

Configuration		Network			
💣 Service	^				
S Network		Network interface:	System Default	- ¢	
🛱 Redundancy		Command port:	4021	÷	
Remote Access Restriction		Watch PM port:	4017	*	
Database				*	
Reports		First VoIP port:	4022	÷	
Service Management		VoIP protocol:	UDP	*	
X Advanced Settings		Data protocol:	UDP	+	
Geocoding Servers					
Radio Systems		Use broadcast mode for audio			
Services		Broadcast port:	5000	÷	
Cellular CELLONIKA		✓ Use proxy server			
Remote Agents		Configure			
Friendly Servers		conniquire			
Phone Connect		Encrypt data traffic between se	erver and clients		
Advanced Settings					
Thernal PBX Server					
↓ Data Sources					
🔀 Email					
SMS Notifications					
Push Notifications	~				
Set Defaults			Apply	ОК	Cancel

• In the **Network** pane, specify the following network-related parameters:

#### Network interface

From the drop-down list, select the network interface that will be used to communicate between the Server and Dispatch Consoles. Click to refresh the list of network interfaces available on your PC.

Note: If both TRBOnet Server and Dispatch Console are installed on the same PC, then select **127.0.0.1** (Loopback Pseudo-Interface).

#### Command port

Enter the port number to be used by a Dispatch Console to connect to the Server (4021, by default).

Watch PM port

Enter the port number that will be used by Watch Performance Monitor to monitor the computer where TRBOnet Server is running.



# • First VoIP port

Enter the number of the first VoIP port for audio communications between the Server and Dispatch Consoles (4022, by default). Each additional Dispatch Console will establish a connection on the next available port number.

## VoIP protocol

From the drop-down list, select the VoIP protocol type for communications between the Server and Dispatch Consoles:

- All UDP will be used first; if unavailable, TCP will be used;
- TCP slower but more reliable (set by default);
- **UDP** faster but data packets can be lost; some routers may drop UDP packets.

## Data protocol

From the drop-down list, select the protocol to exchange data other than voice between the Server and Dispatch Consoles (**TCP**, by default).

## Use broadcast mode for audio

Selecting this option will help to optimize network load and minimize transmission delays. The "load" on the network will be reduced as the Server will utilize a single audio transmission to a group of Dispatch Consoles instead of sending multiple audio streams to each individual Dispatch Console. This method of transmission will also minimize the transmission delays if there's a large number of Dispatch Consoles or the Server is busy processing other features.

Note: When the broadcast mode is set, a Dispatch Console cannot run on the same machine as TRBOnet Server, and a warning message will appear when you select this option.

#### • Broadcast port

Enter the port number to be used to broadcast audio (5000, by default).

## Use proxy server

Select this option to enable an alternative proxy server for TRBOnet Dispatch Software to access Internet.

• Click the **Configure** link to specify the alternative server settings:



Configure the proxy server	×
Use an alternative server	
Settings	
Address: 177.71.134.70	
Port: 80 🚖	
Authentication	
Use authentication	
Username: User	
Password:	
OK Cancel	
Calicer	

#### • Use an alternative server

Select this option to enable an alternative proxy server.

✓ Address

Enter the proxy server IP address.

✓ Port

Enter the proxy server port number.

#### • Use authentication

Select this option to use authentication to connect to the alternative proxy server.

✓ Username

Enter the username for the authentication, if needed.

✓ Password

Enter the password for the authentication, if needed.

• After you configure the proxy server settings, click **OK**.

### Encrypt data traffic between server and clients

Select this option to guarantee the security of data transfer between TRBOnet Server and Dispatch Console, and/or TRBOnet Agent. It is recommended that this option be used when a connection between system components is established via the Internet or other public networks.

# 5.5 Redundancy

TRBOnet Server supports a redundant (secondary/backup) configuration which allows automatic switching from the primary to the redundant (secondary/backup) server in case of failure of the primary server. Dispatch Console operation will not be interrupted.

• In the **Configuration** pane, select **Redundancy**.



Configuration	Redundancy
Service     Network     Redundancy     Remote Access Restriction     Database	✓ Redundant server mode         Redundancy Mode:         Primary servers:
Reports	IP Address Port
Service Management	1 📝 172.20.40.24 4021
Advanced Settings	
Radio Systems	
🚛 Teltonika	
Remote Agents	
Phone Connect Advanced Settings	
↓ Data Sources	
SMS Notifications	
Push Notifications License	Add Edit Delete Test A V
Set Defaults	Apply OK Cancel

• In the **Redundancy** pane, select this option to enable the **Redundant server mode** option.

# • Redundancy Mode

Select a mode for the redundant server (**Active** or **Passive**) from the drop-down list.

• To add a primary server, click **Add**.

Server Properti	es	×
IP Address:	172.20.40.24	
Port:	4021	
ОК	Cancel	Test

# • IP Address

Type the IP address of the primary server.

• Port

Enter the same port number as specified for the Command port.

Note: For more details on Redundant Server configuration, see <u>Appendix G: Redundant Server</u> (page 419).

# 5.6 Remote Access Restriction

This section describes how to restrict remote access to TRBOnet Server.

• In the **Configuration** pane, select **Remote Access Restriction**.



		_							
C	onfiguration		Ren	note Access Res	triction				
ø	Service	^							
6	Network		~	✓ Use restricted access					
¢	Redundancy		Allo	Allowed connections:					
1	Remote Access Restriction			IP Address			Passwore	4	
	Database								
R	Reports		-	-			•••••	••••	
¢	Service Management		L~	10.10.109.20	)3		•••••	••••	
	Advanced Settings								
1.									
-	Radio Systems								
	- 🏠 Services								
-	- 💋 System #1								
-	PSC 1								
	🔒 Privacy								
	Local Slots								
1.	- 🔗 CP1								
	DDMS service	~		Add	Delete				
۲	>								
	Set Defaults					Apply		ОК	Cancel

- In the **Remote Access Restriction** pane, select the **Use restricted access** checkbox and add allowed connections to the table below:
  - Click the **Add** button.
  - IP Address

Enter the IP address of the PC that will be allowed to connect.

Password

Enter the password that will be used for a connection from this IP address.

Note: If the **Use restricted access** checkbox is selected and the list of allowed connections is empty or no connections are selected in the list, the TRBOnet Server won't be able to be remotely accessed at all.

# 5.7 Reports

Perform the following steps to select the option to save scheduled reports and enter the appropriate information.

- Note: The selection of the type of scheduled reports is configured in the Dispatch Console (see section <u>6.4.5.16</u>, <u>Scheduled Report</u>)
- In the **Configuration** pane, select **Reports**.



Configuration	Reports	
Service Network	Save scheduled r	eports
🛱 Redundancy	Folder:	D:\Reports ····
Remote Access Restriction	Format:	PDF *
Reports	Logo:	
Advanced Settings	S neoc softv	om vare
Radio Systems	Select	Default
C Remote Agents		
Friendly Servers		
Advanced Settings		
∲ Data Sources		
K Email		
Push Notifications		
📮 License		
Set Defaults		Apply OK Cancel

- In the **Reports** pane, select the **Save scheduled reports** checkbox and specify the following parameters:
  - Folder

Click the ellipsis (...) button and locate the folder on the PC where you want to save reports generated by the TRBOnet software.

Format

From the drop-down list, select the format for the reports (PDF or Excel).

Logo

Click the **Select** button, and in the 'Open' dialog box, navigate to the desired logo file (.BMP, .PNG, .JPG, etc.) and click 'Open'. To revert to the default logo file, click the **Default** button.

# 5.8 Service Management

The Service Management pane allows you to specify various parameters for the Presence, Location, and Indoor services.

• In the **Configuration** pane, select **Service Management**.



Configuration	Service Management				
Service					
S Network	Presence service		1		
🛱 Redundancy	Auto request presence timeout:	5 ‡	minutes		
Remote Access Restriction	ARS refresh interval:	1440 1	minutes		
Database					
Reports	Ignore unregistered Radios				
Service Management X Advanced Settings	Location service				
Geocoding Servers	Dispatch Console update interval:	5 ‡	seconds		
Radio Systems	Send last known locations of radios in alarm				
TT over Cellular			1		
Teltonika	For the last:	10	minutes		
Remote Agents	GPS points:	10			
Friendly Servers	Indoor service				
2 Phone Connect	Remove offline radio from beac				
	Remove of the radio from beact	on			
Thernal PBX Server	Don't use beacon location if rad	io in alarm has GPS fix	(K-TERM only)		
∲ Data Sources					
K Email					
SMS Notifications					
Push Notifications					
📮 License					
Set Defaults		Apply	OK Cancel		

• In the **Service Management** pane, specify the following service-related parameters:

# 5.8.1 Presence service

The **Presence service** group includes the following registration-related parameters:

## • Auto request presence timeout

Enter the time interval that will be used by the server to regularly check the online subscriber radios if there has been no activity. The server considers a radio to be inactive (or, offline) if the radio does not send any GPS, Text, ARS, or Voice messages.

If you do not have a dedicated channel for data revert, use the following table:

Number of radio units	Presence timeout (minutes)	Number of radio units	Presence timeout (minutes)
up to 10	5	30 to 40	17
10 to 20	9	40 to 50	21
20 to 30	13	over 50	120

If there is a dedicated data revert channel in the system, you may set this parameter to a somewhat lower value than indicated in the table.

Note: If the DDMS service is enabled, set the value of this parameter to the value of the **DeviceRefreshTime** parameter in MOTOTRBO DDMS.

## • ARS refresh interval

Enter the value of the parameter that determines how often a radio unit will send ARS packets. It is recommended that a value of 30 minutes be used for this interval. This value may be changed depending on the system load.



Notes: For all radio systems (except for Connect PLUS and Capacity MAX), the ARS service must be enabled on the subscriber radio channels (*MOTOTRBO CPS*, *Channels>Channel>ARS*).

> If the DDMS service is enabled, set the value of this parameter to the value of the **PersistenceTO** parameter in MOTOTRBO DDMS. See also <u>Appendix F: NAI VOICE & DATA Support</u>.

# • Ignore unregistered radios

Select this option so that unregistered radio units will be ignored and thus won't appear in Dispatch Console.

# 5.8.2 Location service

The **Location service** group includes the following location-related parameters:

• Dispatch Console update interval

Enter the time interval that will be used to send GPS data packages from the Server to Dispatch Consoles. The lower the value, the more data traffic will be present on the network. Adjust this value based on the network bandwidth. The lower the bandwidth, the higher the update interval.

# • Send last known locations of radios in alarm

Select this option so that dispatchers receive the latest locations when an alarm occurs. Then choose one of the following options:

For the last X minutes

Choose this option and enter the time, in minutes, to be used as the last time period for the latest GPS data.

GPS points

Choose this option and enter the number of GPS points to be used for the latest GPS data.

# 5.8.3 Indoor service

The **Indoor service** group includes the following indoor-related parameters:

• Remove offline radio from beacon

Select this option so that an offline radio is not shown on its associated beacon.

• Don't use beacon location if radio in alarm has GPS fix (K-TERM only) Select this option so that beacon positioning is ignored in case of alarm when a radio transmits valid GPS data.

Note: This feature relates only to K-TERM beacons.



# 5.9 Advanced Settings

• In the **Configuration** pane, select **Advanced Settings**.

Configuration	Advanced Settings		
💣 Service			
S Network	Language:	English	Ŧ
🛊 Redundancy	Logging level:	Normal	Ŧ
Remote Access Restriction	Administrator account:	Enabled	
Database	Administrator account.	Reset pass	word
😪 Reports		<u></u>	word
Service Management	Audio recording format:	WAV - Waveform Audio File	Ŧ
Advanced Settings	Audio recording codec:	G.711µ-Law/8000	*
Radio Systems	Text-to-speech voice:	Default	Ŧ
PTT over Cellular	Measurement system:	Metric	Ŧ
Teltonika Remote Agents	Coordinate format:	Degrees, Minutes, Seconds	Ŧ
Friendly Servers	TX Passive timeout:	Unlimited 🗘 hours	
Phone Connect	Voice message expiry time:	Unlimited	
Thernal PBX Server	Number of messages:	Unlimited 🗘	
🖞 Data Sources	Text message expiry time:	Unlimited 🗘 hours	
🔀 Email	Number of messages:	Unlimited ‡	
SMS Notifications	italiber of incodegest		
Push Notifications			
📮 License			
Set Defaults		Apply OK Can	cel

• In the **Advanced Settings** pane, specify the following advanced parameters:

#### Language

From the drop-down list, select the interface language for TRBOnet Server.

#### Logging level

From the drop-down list, select the logging level that determines the granularity of log messages in the System Log. The choices are: None, Low, Normal, and High.

Note: This information is used by technical support for troubleshooting purposes, so it is recommended that this value be kept unchanged (Normal).

### Administrator account

From the drop-down list, select either Enabled or Disabled. If you select Disabled, the administrator won't be able to log in to the Dispatch Console.

## • Reset password

Click this link to reset the administrator password to the default value.

#### Audio recording format

From the drop-down list, select the format to be used to store audio recordings. The available formats are WAV, TNA, and OGG.



Note: The TNA format is a proprietary audio format that contains additional information about radio calls, such as radio ID, start time, end time, and other parameters. This format provides more details about call participants and allows easy navigation within recorded audio files.

# Audio recording codec

From the drop-down list, select the audio codec to be used to compress the audio files.

## Text-to-speech voice

From the drop-down list, select the voice that will be used for Text-to-Speech messages.

# Measurement system

From the drop-down list, select either Metric or US units.

## Coordinate format

From the drop-down list, select a format for displaying coordinates.

## TX Passive timeout

Enter the time period during which text and voice messages will be stored and later sent when the channel becomes available (no longer busy). "Unlimited" is recommended.

# Voice message expiry time

Enter the time period during which TRBOnet Server will continue to try to send Voice messages to a recipient while they are offline. "Unlimited" is recommended.

# • Number of messages

Enter the maximum number of Voice messages that will be stored in the queue before being sent.

#### Text message expiry time

Enter the time period during which TRBOnet Server will continue to try to send Text messages to a recipient while they are offline. "Unlimited" is recommended.

### • Number of messages

Enter the maximum number of text messages that will be stored in the queue before being sent.

# 5.9.1 Geocoding Servers

Geocoding servers resolve GPS coordinates to street addresses for reporting purposes and other needs, for example, 'GPS activity for period' reports. Online geocoding services, such as Google or Nominatim, can be used and are the standard default services in TRBOnet. However, their use may be limited by the number of requests. Furthermore, you can add custom geocoding servers to the system.



You can configure geocoding servers in three ways depending on whether the Server and/or Dispatch Console have Internet access and on your local geocoding server settings:

- The Dispatch Console has Internet access and the Server has no Internet access. The Server can connect to preconfigured (Google and Nominatim) and/or local corporate geocoding servers via the Dispatch Console.
- 2. The Server has Internet access and Dispatch Console has no Internet access. The Dispatch Console can connect to preconfigured (Google and Nominatim) and/or local corporate geocoding servers via the Server (follow the instructions below).
- 3. You have your own Geocoding server in the local network. In this case, you can configure data resolving in both the Server and the Dispatch Console.

# 5.9.1.1 Configuring Geocoding Servers

• In the **Configuration** pane, select **Geocoding Servers**.

Configuration	Geocoding Servers
Configuration	Server Name         Google         Nominatim             Add       Delete         Add       Delete         Request a place name upon receiving GPS coordinates
Set Defaults	Apply OK Cancel

- In the **Geocoding Servers** pane, specify the following geocoding-related parameters:
  - Google and Nominatim

These are pre-configured geocoding servers, which allow resolving GPS coordinates to street addresses and street addresses to GPS coordinates.

Note: These geocoding servers can't be deleted from the system.

Click Add to add a geocoding server to the system.



Map Server for Geocoding X
Server Name: MyGeocodingServer
Get address by coordinates
http://127.0.0.1/reverse?format=xml⪫={lat}&lon={lon}&zoom=18&adressdetails=1
Test
Get coordinates by address
http://127.0.0.1/search?q={address}&format=xml
Test
OK Cancel

# • Server Name

Enter the name of your geocoding server.

## • Get address by coordinates

Select this option to resolve GPS coordinates to street addresses. In the box below, enter the server address with the appropriate parameters.

Note: Keep in mind that the {lat} and {lon} variables are mandatory to allow TRBOnet Dispatch Console to retrieve GPS coordinates from the radio unit.

Click **Test** to check the connection to the geocoding server. Enter a pair of GPS coordinates and see if the resolved street address appears.

# • Get coordinates by address

Select this option to resolve street addresses to GPS coordinates (for example, for the <u>Search by Address</u> feature).

In the box below, enter the server address with the appropriate parameters.

Note: Keep in mind that the {address} variable is mandatory to allow TRBOnet Dispatch Console to search map objects by address.

Click **Test** to check the connection to the geocoding server. Enter an address and see if you get the list of map objects corresponding to the address entered.

Use the Up ( ) and Down ( ) buttons to move the selected geocoding server up and down in the priority list of geocoding servers. When requesting GPS data via the geocoding servers configured in TRBOnet Server, GPS data is requested from the geocoding servers according to the priority level. The geocoding server at the top of the list has the highest priority level. In case the first geocoding server is unavailable, data will be requested from the second geocoding server in the list, and so forth down the list of geocoding servers.



The administrator must ensure that the geocoding servers in the list are able to resolve GPS data.

Request a place name upon receiving GPS coordinates
 Select this option to resolve GPS coordinates to street addresses
 immediately by a GPS event. Note that street addresses and GPS
 coordinates are automatically (without user intervention) stored in the
 TRBOnet database to optimize the response time for street address
 requests (for example, GPS reports) and to reduce geocoding server
 load. These street addresses and GPS coordinates will be stored
 without user intervention whenever GPS are resolved to street
 addresses via a request to a Geocoding Server.

# 5.10 Radio Systems

By enabling the Radio Systems feature, the TRBOnet Server is able to be connected to a radio system. Otherwise, you should use Remote agents (see section <u>5.13, Remote Agents</u>).

- In the Configuration pane, select Radio Systems.
- In the **Radio Systems** pane, select or make sure that the **Enable Radio Systems** option is selected.

Configuration		Radio Systems			
<ul> <li>♂ Service</li> <li>⊙ Network</li> <li>♥ Redundancy</li> <li>■ Database</li> <li>♀ Reports</li> </ul>	^	Enable Radio Systems     CAI Network:     CAI Group Network:	12		*
<ul> <li>Service Management</li> <li>Advanced Settings</li> <li>Ceocoding Servers</li> </ul>		Registered Radio Systems		Address	Radio ID
Radio Systems		Capacity MAX		10.10.101.139	2020 64250
Capacity MAX PSC 1 Advanced Settings		CP1		10.10.188.35	64250
Privacy					
CP1					
Advanced Settings					
< DDMS service	*	Add Delete			Test
Set Defaults		[	Appl	у ОК	Cancel

• In the Radio Systems pane, specify the following parameters:

#### CAI Network

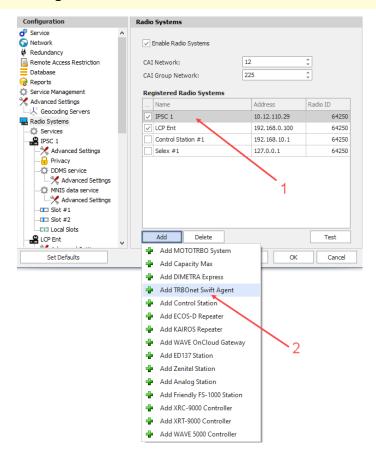
The CAI (Common Air Interface) Network is a value that is combined with the Radio ID to produce the individual radio's air interface network IP address. All radios must use the same CAI Network ID to be able to exchange data. It is recommended that the default value of 12 is used.



## CAI Group Network

The CAI Group Network is a value that is combined with the Group ID to produce the group's air interface network IP address. The CAI Group Network ID forms the first or most significant byte of each group's network IP address. All radios must use the same CAI Group Network ID to be able to exchange data (225, by default).

Note: The values of these two parameters must match those configured for the radio units via the MOTOTRBO CPS.



All radio systems based on MOTOTRBO services are represented in the **Registered Radio Systems** table, including their Name, IP Address, and Radio ID (1):

• To add a radio system, click **Add** and select the appropriate system type from the drop-down menu (2).

# 5.10.1 Services

- In the Configuration pane, under Radio Systems, select Services:
- In the **Services** pane, specify the following Radio System Services-related parameters:



# Automatic Registration Service (ARS)

Select this option to enable the ARS service for the radios. When the radio powers up, it automatically registers with the server. This feature is used with data applications, that is, any data traffic on this channel is associated with an application server such as MOTOTRBO Text Messaging or MOTOTRBO Location Services.

• Port

Enter the local port number for the ARS service (4005, by default).

• RSSI

Select this option so that the RSSI level will be sent in ARS messages.

#### Telemetry service (TLM)

Select this option to enable the Telemetry service, which is the wireless transmission and reception of measured quantities for remotely monitoring environmental conditions or equipment parameters.

• Port

Enter the local port number for the Telemetry service (4008, by default).

## Text Messaging service (TMS)

Select this option to enable the Text Messaging service (Motorola Solutions proprietary) which is used to exchange text messages between the radios and the dispatchers.

• Port

Enter the local port number for the Text Messaging service (4007, by default).

#### Location service (LRRP / Indoor)

Select this option to enable the Location service. The radio can send its coordinates when it is in Global Positioning (via **LRRP Protocol**) or iBeacon coverage area.

• Port

This is the local port number for the Location service (**4001**), which cannot be modified.

## Location service (LIP / Indoor)

Select this option to enable the Location service. The radio can send its coordinates when it is in Global Positioning (via **LIP Protocol**) or iBeacon coverage area.

Port

This is the local port number for the Location service (**5017**, by default).

# Job Ticketing service (JTS)

Select this option to enable the Job Ticketing service.



# • Port

This is the local port number for the Job Ticketing service (4013, by default).

# Text Messaging service DMR

Select this option to enable the DMR-based Text Messaging service.

• Port

Enter the local port number for the DMR-based Text Messaging service (5016, by default).

# Indoor service (K-TERM)

Select this option to enable the Indoor Location service.

• Port

Enter the local port number for the Indoor service (3022, by default).

## Indoor LAN Service (K-TERM)

Select this option to enable the Indoor LAN service.

• Port

Enter the local port number for the Indoor LAN service (3001, by default).

# Tallysman Sprite service

Select this option to enable the service for autonomous event and aggregated event reporting to provide significant reduction in GPS data overhead.

• Port

Enter the local port number for the Tallysman Sprite service (4004, by default).

# FS 5000 location service (GPS)

Select this option to enable the FS 5000 location service, which is a service for transmitting GPS data packages. This service uses FS 5000 Option Board.

• Port

Enter the local port number for the FS 5000 location service (4004, by default).

# Swift.Tracker v.1 service

Select this option to enable the service to transmit coordinates and data packages via a radio channel using the Swift.Tracker TR001 device.

• Port

Enter the local port number for the Swift.Tracker v.1 service (4004, by default).

# Swift.Tracker v.1 service (IP channel)

Select this option to enable the service to transmit coordinates and data packages via a radio channel and a reserved IP channel using the Swift.Tracker TR001 device.



#### • Port

Enter the local port number for the Swift.Tracker v.1 service with an IP channel (4080, by default).

#### Swift.Tracker v.2 service

Select this option to enable the service to transmit coordinates and data packages via a radio channel using the Swift.Tracker TR001 device (version 2).

#### • Port

Enter the local port number for the Swift.Tracker v.2 service (4104, by default).

#### Swift.Tracker v.2 service (IP channel)

Select this option to enable the service to transmit coordinates and data packages via a radio channel and a reserved IP channel using the Swift.Tracker TR001 device (version 2).

• Port

Enter the local port number for the Swift.Tracker v.2 service with an IP channel (4180, by default).

#### Extended Text Messaging service

Select this option to enable the Extended Text Messaging service to include sending detailed preconfigured templates with the help of TRBOnet Dispatch Software.

• Port

Enter the local port number for the Extended Text Messaging service (4010, by default).

#### Extended Data service

Select this option to enable the Extended Data service that will be used for communication with TRBOnet Communicator.

• Port

Enter the local port number for the Extended Data service (4106, by default).

#### Telemetry service Novox

Select this option to enable the Telemetry service based on NOVOX devices.

#### • Requests port

Enter the local port number to listen for requests (8090, by default).

• Events port

Enter the local port number to listen for events (8091, by default).

#### G4S RS232 service

Select this option to enable the custom developed G4S RS232 service.

• Port

Enter the local port number for the G4S RS232 service (4004, by default).



#### Zebra printer service

Select this option to enable the service for printing Job Tickets. A Zebra printer is connected to a radio via Bluetooth. The radios should be Bluetooth-enabled.

• Port

Enter the local port number for Zebra printer service (4072, by default).

#### Forward Data service

Select this option to enable the Forward Data service. This feature is used to forward "raw data" via the COM port from one device to another.

• Port

Enter the local port number for Forward Data service (4011, by default).

#### 5.10.2 Adding a MOTOTRBO Repeater

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add MOTOTRBO System.
- In the **Repeater** pane, specify the connection parameters. To ensure your connection parameters match the actual configuration of your radio network, you may need to use Motorola CPS or Config Advisor tools to determine the values. Contact your radio network administrator, if you do not have this information.

Configuration		Repeater #1			
💣 Service	^				
S Network		System Name:	Repeater #1		
🛱 Redundancy		TRBOnet Peer ID:	100 ‡		
Remote Access Restriction		TRBOnet Radio ID:	64250 *		
Database			· · · · · · · · · · · · · · · · · · ·		
Reports		TRBOnet Local Port:	50000 ‡		
Service Management		Master Repeater Conn	ection Information:		
X Advanced Settings		IP Address:	10.10.133.5 -		
Geocoding Servers		UDP Port:	50501 ‡	Test	
Radio Systems		Authentication Key:	951		
System #1		Addientication Rey:			
Repeater #1		System Type:	IP Site Connect		-
Advanced Settings		System Identifier:	Department 1		
Privacy		Use NAI Voice			
		Use NAI Data (MNIS an	d DDMS)		
III Slot #2		Use RCM to monitor rad			
Local Slots		obe reen to monitor rat	and decayley		
🖵 PTT over Cellular					
🛛 💥 Advanced Settings					
TRBOnet.Mobile gateway	~				
X >					
Set Defaults			Apply	ОК	Cancel

#### System Name

Enter a name for the repeater. This name will be displayed in the Dispatch Console.



#### TRBOnet Peer ID

Enter a Peer ID for TRBOnet Server. The Peer ID must be unique among the repeaters in the radio system.

Note: Motorola recommends that this value be less than 200.

#### TRBOnet Radio ID

Enter the Radio ID, which is a gateway for voice and data. The Radio ID must be unique in the radio system (for Capacity Plus and Linked Capacity Plus systems, the maximum value is 65535).

#### TRBOnet Local Port

Enter the local port number that will be used by TRBOnet Server to establish a connection to the repeater. Use unique port numbers for each repeater connection if there are several repeaters connected.

#### **Master Repeater Connection Information**

#### IP Address

Enter the Ethernet IP address of the master repeater.

Note: This value is programmed for a repeater via MOTOTRBO CPS, in *Link Establishment>Master IP*.

#### UDP Port

Enter the UDP port number of the master repeater.

Note: This value is programmed for a repeater via MOTOTRBO CPS, in *Link Establishment>Master UDP Port*.

#### Authentication Key

Enter the repeater's authentication key (if any).

Note: This value is programmed for a repeater via MOTOTRBO CPS, in *Link Establishment>Authentication Key*.

#### System Type

From the drop-down list, select the type of the radio system ('IP Site Connect', 'Capacity Plus', 'Linked Capacity Plus', or 'Extended Range Direct Mode').

#### Test

Click this button to check the connection to your master repeater. If the test is successful, you'll see the information on the repeater you are connected to, such as the serial number, firmware version, and other relevant information.



#### System Identifier

Enter the system identifier if a Capacity Plus/Linked Capacity Plus or Capacity MAX system is used with one or more control stations. Use the same system identifier as you have specified for the corresponding control stations.

#### Use NAI Voice

Select this option to connect to the repeater via NAI (Network Application Interface) for Voice transfer. For more details about NAI, see <u>Appendix F: NAI VOICE & DATA Support</u> (page 409).

#### Use NAI Data (MNIS and DDMS)

Select this option to connect to the repeater via NAI (Network Application Interface) for Data transfer. For more details about NAI, see <u>Appendix F: NAI VOICE & DATA Support</u> (page 409).

• MNIS

MOTOTRBO Network Interface Service is a Windows application which acts as a data gateway between the data applications and the radio system. Data messages are routed through the MNIS.

DDMS

Device Discovery and Mobility Service is a service for tracking the presence of radio subscribers in the radio network and transmitting the data to the server.

#### 5.10.2.1 Advanced Settings

• In the **Configuration** pane, under the corresponding **Repeater**, select **Advanced settings**.

Configuration		Advanced Settings			
ở Service 🎧 Network	^	Call Hangtime (ms):			
🛱 Redundancy		Group Call:	3000 ‡		
Remote Access Restriction Database		Private Call:	4000 ‡		
😪 Reports		Emergency Call:	4000 ‡		
<ul> <li>Service Management</li> <li>Advanced Settings</li> </ul>		TX Preamble:	120 ‡		
🦾 🤾 Geocoding Servers		TX Timeout:	60 ‡	seconds	
Radio Systems		Phone System:	Motorola Phone System		-
Repeater #1		TX Interrupt Mode:	MSI Proprietary		~
Privacy		Allow CSBK Data			
🛒 PTT over Cellular					
Advanced Settings					
Teltonika					
🔂 Remote Agents					
Friendly Servers	*				
Set Defaults			Apply	ОК	Cancel

• In the **Advanced Settings** pane, specify the following repeater-related advanced settings:

**Call Hangtime** (ms):



#### Group Call

This value sets the duration the repeater reserves the channel after the end of a group call transmission. During this time, only members of the group that the channel is reserved for can transmit.

#### Private Call

This value sets the duration a radio keeps the private call setup after a user releases the PTT button. This is to avoid setting up the call again each time a user presses the PTT button to transmit. During this time, other radios can still transmit since the channel is essentially idle. After the hang timer expires, the radio transmits using the *TX Contact Name* parameter specified for this channel in MOTOTRBO CPS.

#### Emergency Call

This value sets the duration the repeater reserves the channel after the end of an emergency call transmission. During this time, only members of the Group that the channel is reserved for can transmit.

Note: The values of the above three parameters must be taken from the corresponding parameter values programmed for the repeater via MOTOTRBO CPS in *General Settings*.

#### TX Preamble

Enter the value of the TX Preamble. The TX Preamble is a string of bits added in front of a data or control message (Text Messaging, Location Messaging, Registration, Radio Check, Private Call, and other message types) before transmission. The acceptable range is 0 - 8640 ms. The recommended value is 120 ms.

#### TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When the dispatcher starts any voice session in the Dispatch Console, transmission will be interrupted after this TX Timeout expires.

#### Phone system

From the drop-down list, select the system for phone calls:

#### Motorola Phone System

This system uses a special call type with the parameters specified for a radio unit in MOTOTRBO CPS. The Motorola Phone System is recommended for IP Site Connect mode to minimize Radio response time. For more details on programming Motorola Radios, see <u>Appendix E: SIP Setup for Motorola Phone System</u> (page 406).

#### • TRBOnet Phone System (TX Interrupt)

This is a phone call system based on the private call type using TX Interrupt feature. This phone system is available for radio systems with control stations.



#### • TX Interrupt Mode

Use the default value **MSI Proprietary**.

The 'DMR Standard' mode is selected when non-Motorola radios are used that support TX Interrupt and require to be additionally configured.

#### Allow CSBK Data

Select this option so that GPS data is sent in a single CSBK.

Note: This feature is available only when the <u>MNIS Data</u> <u>Service</u> is enabled for the repeater.

#### 5.10.2.2 Privacy

• In the **Configuration** pane, under the corresponding **Repeater**, select **Privacy**.

Configuration		Privacy						
	^	Privacy Type: Basic Privacy Key I Enhanced Privacy I Alghoritm		Enhar 1	Name	• 	Value	
Geocoding Servers Radio Systems Services Repeater #1 Advanced Settings Privacy Audio Paths		AES (256 bit) AES (256 bit) Lega	к					
PTT over Cellular Advanced Settings TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers	*	Add	Remo	ive				File
Set Defaults					Apply		ОК	Cancel

- In the **Privacy** pane, specify the following privacy-related settings:
  - Privacy Type

From the drop-down list, select one of the privacy types: **None**, **Basic**, or **Enhanced**.

- Basic Privacy Key ID
   Enter the Privacy Key ID available for the Basic privacy type.
- Enhanced Privacy Keys

Here you add enhanced privacy keys when the **Enhanced** privacy type is selected.

• Click **Add** and specify the required **Algorithm**, **ID**, **Name**, and **Value** for the privacy key being added.

#### ✓ Algorithm

From the drop-down list, select one of the enhanced algorithms if you are going to use additional encryption.



#### 5.10.2.3 DDMS Service

The DDMS, or Device Discovery and Mobility Service is a service for tracking the presence of radio subscribers in the radio network and transmitting the data to the server.

• In the **Configuration** pane, under the corresponding **Repeater**, select **DDMS service**.

Configuration	DDMS service		
Service     Network	✓ Use DDMS service		
🛱 Redundancy	Local port:	0 1	
Remote Access Restriction	Service IP Address:	127.0.0.1 *	Test
Database			Test
Reports	Service port:	3000 🗘	
Service Management	Authentication Port:	5055 ‡	
X Advanced Settings	Redundant services:		
Geocoding Servers			
Radio Systems	Service IP A	Address Service port	Local port
Services	1 🗸 10.10.101.	207 3000	0
System #1			
Repeater #1			
Advanced Settings			
Privacy			
DDMS service			
MNIS data service			
Audio Paths			
TT over Cellular			
Teltonika	Add D	elete	Test 🔺 🔻
Set Defaults		Apply	OK Cancel

- In the **DDMS service** pane, specify the following DDMS service-related settings:
  - Use DDMS service

Select this option to enable the DDMS service for the server.

Local Port

Enter the number of the local port to be used on a PC with TRBOnet Dispatch Software for DDMS service.

Service IP Address

Enter the IP Address of the PC with the DDMS service installed and running.

Service port

Enter the service port number.

Note: This value is programmed for a DDMS service via MOTOTRBO DDMS Administrative Client, in Interfaces>Watcher Settings>PortWatcher.

#### Authentication Port

Enter the authentication server port number.

Note: This value is programmed for a DDMS service via MOTOTRBO DDMS Administrative Client, in Interfaces>Authentication Server Settings> AuthenticationServerPort.



#### Redundant services

Here you see the list of redundant DDMS services for failover purposes.

- Click **Add** and specify the required parameters for the DDMS service being added.
- Click **Test** to test if the selected DDMS service is available.
- Use the Up ( ) and Down ( ) buttons to move a selected DDMS service up and down in the priority list of DDMS services.

#### **Advanced Settings**

• In the **Configuration** pane, under **DDMS service**, select **Advanced Settings**.

Configuration	Advanced Settings		
💣 Service \land			
S Network	Radio ID range:	1-200	?
🛱 Redundancy	Events:	All	-
Remote Access Restriction	External sites:		
Database			
Reports	Site ID	Presence Voice	Data
Service Management	✓ 251	✓ ✓	~
X Advanced Settings			
Geocoding Servers			
Radio Systems			
Services			
System #1			
Repeater #1			
Advanced Settings			
Privacy			
DDMS service			
Advanced Setting			
MNIS data service			
Audio Paths			
TT over Cellular			
Carlonika	Add	)elete	
< >	Add	/elete	
Set Defaults		Apply OK	Cancel

• In the **Advanced settings** pane, you can specify settings that relate to the connected DDMS service:

#### Radio ID range

Enter the range of the radios to receive data from according to the following rules:

- To receive data from all radios in the system, leave this box blank.
- To receive data from multiple radios and also from a range of radios, separate each Radio ID by a comma and also enter the range. For example: 12, 35, 105-111, 249.
- Note: In the Radio ID list, enter Radio IDs only, without mentioning Radio Names and/or the word "Radio".

#### Events

In the drop-down list, select the events to be monitored.



#### Specify external sites

This is the list of sites that is used when the corresponding system has a MOTOROLA System Bridge to the current Capacity MAX system.

 Click the Add button and add a site by specifying its Site ID and selecting the appropriate data types (Presence, Voice, and/or Data).

#### 5.10.2.4 MNIS Data Service

The MNIS, or Motorola Network Interface Service, is a Windows application which acts as a data gateway between the data applications and the radio system. Data messages are routed through the MNIS.

• In the **Configuration** pane, under the corresponding **Repeater**, select **MNIS data service**.

Configuration	MNIS data service		
Service     A     Network	✓ Use Data Gateway		
Redundancy	Service is on a local host		
Database	IP Address: 172.16.1		
Reports	✓ Control port: 55000	÷	Test
Service Management	MNIS Service: MOTOTR	BO Network Interface	Service - 🕫 ?
X Advanced Settings	Redundant services:		
Geocoding Servers	IP Address	Control port	Local port
Radio Systems		Control port	Local port
Services	1 🖌 10.10.102.103	55000	0
Repeater #1			
🔒 Privacy			
DDMS service			
Advanced Setting			
MNIS data service			
Advanced Setung			
PTT over Cellular			
<pre></pre>	Add Delete		Test 🔺 🔻
Set Defaults		Apply	OK Cancel

- In the **MNIS data service** pane, specify the following MNIS data service-related settings:
  - Use Data Gateway

Select this option to enable the MNIS data service for the server.

- Service is on a local host
   Select this option if the MNIS data service will be used on the local PC.
- IP Address

Enter the IP Address used by the MNIS to communicate with the PC.

- Note: This value is programmed for a MNIS data service via MOTOTRBO MNIS Configuration Utility, and can be retrieved from *General>Tunnel Network>Tunnel IP Address*.
- Control port

Select this option and enter the number for the MNIS control port.



Note: This value is programmed for a MNIS data service via MOTOTRBO MNIS Configuration Utility, in Advanced>Network>MNIS Control Interface TCP Port.

#### MNIS Service

Select this option, and from the drop-down list select the available MNIS service.

#### Redundant services

Here you see the list of redundant MNIS data services for failover purposes.

- Click **Add** and specify the required parameters for the MNIS data service being added.
- Click **Test** to test if the selected MNIS data service is available.
- Use the Up (
  ) and Down (
  ) buttons to move a selected MNIS data service up and down in the priority list of MNIS data services.

#### **Advanced Settings**

• In the **Configuration** pane, under **MNIS data service**, select **Advanced Settings**.

Configuration	Advanced Settings
🖗 Service 🗸	
> Network	✓ Send data over control port
Redundancy	Add network routes to the Windows routing table
Remote Access Restriction	
Database	Add port forwarding rules to the remote MNIS service
Reports	Queue Limit: None
Service Management	Radio Range: 1 2 - 16777215
Advanced Settings	
Geocoding Servers	
Radio Systems	
Services	
System #1	
Repeater #1	
Advanced Settings	
Privacy	
DDMS service	
Advanced Setting	
MNIS data service	
Advanced Setting	
Audio Paths	
PTT over Cellular	/
×	
Set Defaults	Apply OK Cancel

- In the **Advanced settings** pane, you can specify settings that relate to the remote MNIS data service:
  - Send data over control port
     Select this option so that data will be sent via the specified control port.

Or, do not select this option, and instead select one or both of the following two options:

# Add network routes to the local Windows routing table Select this option to allow TRBOnet Server to add network routes to the local Windows routing table so that data can be sent to the remote MNIS data service.



- Add port forwarding rules to the remote MNIS service Select this option to allow TRBOnet Server to add forwarding rules to the remote MNIS data service.
- Radio Range

Specify the range of radios to be monitored by the MNIS service.

#### 5.10.2.5 Slots

Note: The slots are available only when **IP Site Connect** is selected in the **Repeater** pane.

• In the **Configuration** pane, under the corresponding **Repeater**, select **Slot #1** or **Slot #2**.

Configuration	1	Slot #1
	*	Stot #1         Name:         Messaging Delay:         Use slot for RX data only (GPS Revert or Data Revert)         Use Privacy         Privacy Key:         Allow interruption         Always transmit when the PTT is pressed ("Impolite" channel access)         ✓ Data Call Confirmed         Private call confirmed         ✓ Emergency Alarm Ack         ✓ Emergency Call/Alarm Indication
Set Defaults		Apply OK Cancel

• In the **Slot** pane, specify the following slot-related parameters:

#### Slot #1 (or Slot #2)

Select this option to enable **Slot #1** (or **Slot #2**) for the Repeater.

Name

Enter a name for the slot. This name will be displayed in the Dispatch Console.

Messaging Delay

From the drop-down list, select the inter-repeater messaging delay based on the IP network configuration.

- Normal The inter-repeater messaging delay is 60 ms.
- High The inter-repeater messaging delay is 90 ms.

# Use slot for RX data only (GPS Revert or Data Revert) Select this option to configure the slot so that it will only receive data, thus having no transmission capability.



#### Use Privacy

Select this option to use Privacy for the slot.

Note: This option is available only if the **Basic** or **Enhanced** Privacy Type have been selected in Repeater's <u>Privacy</u> settings.

#### Privacy Key

From the drop-down list, select the privacy key.

Note: This option is available only if the **Enhanced** Privacy Type has been selected in Repeater's <u>Privacy</u> settings).

#### Allow interruption

Select this option to allow interrupting dispatcher transmissions by radios that are Transmit Interrupt capable.

Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that when the PTT button is pressed, the dispatcher will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

#### Data Call confirmed

Select this option to enable data packets in data calls (ARS, GPS, and Text Message) on the current slot to be confirmed.

Note: This feature is available only when both the **Use NAI Voice** and **Use NAI Data (MNIS and DDMS)** options are not selected in the **Repeater** pane.

#### Private call confirmed

Select this option to set Private calls on the current slot as confirmed. By default, Private calls are unconfirmed.

#### Emergency Alarm Ack

Select this option so that the Dispatch Console is allowed to acknowledge an emergency alarm received via this slot.

#### Emergency Call/Alarm Indication

Select this option so that audio and visual indication is given for an emergency call/emergency alarm received via this slot.

#### 5.10.2.6 Local Slots

While on a local slot, voice or data are not transmitted between sites in IPSC systems. Due to MOTOTRBO limitations TRBOnet Server can only receive information from local slots, but cannot transmit by IP connection to such slots.



Note: Local slots are available only when **IP Site Connect** is selected, and the **Use NAI Voice** option is selected in the **Repeater** pane.

If the **Use NAI Voice** option is not selected, local slots will be available only through dedicated control stations.

• In the **Configuration** pane, under the corresponding **Repeater**, select **Local Slots**.

Configuration		Local Slots			
Service     Network	^	Load Peers Map			
🛱 Redundancy		Name		Peer ID	Peer Slot
Remote Access Restriction		✓ Local Brine's		1002	Slot #1 -
Database					
Reports					
Service Management					
🔀 Advanced Settings					
Geocoding Servers					
Radio Systems					
Services					
Repeater #1					
Privacy					
<b>III</b> Slot #1					
Slot #2					
Local Slots					
🛒 PTT over Cellular					
Teltonika					
Remote Agents					
Friendly Servers	~	Add Remove			Configure
Set Defaults			Apply	ОК	Cancel

- In the Local Slots pane, specify the following Local Slot-related settings:
  - To add a Local Slot to the system, click **Add**.
  - Select the option in the first column to enable the selected local slot.
  - Enter a Name for the local slot. This name will be displayed in the Dispatch Console.
  - Enter the **Peer ID** of the repeater.

Note: This value can be taken from the repeater's configuration in MOTOTRBO CPS, in *General Settings>Radio ID*.

- From the drop-down list, select the **Peer Slot**.
- To configure the selected local slot, click **Configure**.

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TX Configuration		:
Name:	Local Brine's	
Messaging Delay:	Normal	*
Use slot for RX dat	a only (GPS Revert or Data	Revert)
Use Privacy		
Privacy Key:		÷
Allow interruption		
Always transmit w	en the PTT is pressed ("Imp	olite" channel access)
Data Call Confirme	ł	
Private call confirm	ed	
Emergency Alarm /	.ck	
Emergency Call/Ala	rm Indication	
		OK Cancel

 Specify the desired local slot settings similar to those for a common repeater <u>slot</u>.

#### 5.10.2.7 Audio Paths

The Audio Paths are talk paths of the system to make and receive Voice Calls; in general, they are talk groups. TRBOnet Server requires that all audio paths of a Capacity Plus system be registered in its configuration. If an audio path is not registered, the TRBOnet operator will not be able to receive and transmit to the corresponding talk group.

Note: Audio paths are available only when **Capacity Plus** or **Linked Capacity Plus** are selected.

• In the **Configuration** pane, under the corresponding **Repeater**, select **Audio Paths**.

Configuration	Audio Paths	
💣 Service 🔨 🔨	Load Groups Map	
S Network		
🕏 Redundancy	Call Type Group ID	Site ID
Remote Access Restriction	Group Call 10	Wide
Database	Group Call 20	Wide
🕞 Reports		mac
Service Management	Private Call	
🔀 Advanced Settings	All Call	
Geocoding Servers		
🔛 Radio Systems		
Services		
Repeater #1		
DDMS service		
Advanced Setting		
MNIS data service		
Advanced Setting		
Audio Paths		
TT over Cellular		
🐺 Teltonika		
<pre>     · · · · · · · · · · · · · · · · ·</pre>	Add Delete	Configure
-		
Set Defaults	Apply	OK Cancel

- In the **Audio Paths** pane, specify the following Audio Path-related settings:
  - To add an audio path to the system, click **Add**.
  - Make sure the checkbox in the first column is selected to make and receive voice calls on the selected talk path.



- From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private Call.
- Enter the **Group ID**, which is an ID of the talk group the dispatcher can make calls to. The Group ID is not applicable for Private Calls and All Calls.
- Enter the Site ID of the site the audio path will belong to in a Linked Capacity Plus system. Or, leave zero value in this column. In this case, the Site ID will be displayed as Wide, meaning that the audio path will belong to all sites in the system.
- To configure the selected audio path, click **Configure**.
- Specify the desired audio path settings similar to those for a common repeater <u>slot</u>.

#### 5.10.3 Adding a Capacity MAX System

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add Capacity MAX.

Note that a Capacity Max system can only be integrated with TRBOnet PLUS software. For more information on how to configure and deploy a Capacity MAX system, see *TRBOnet PLUS MOTOTRBO Capacity MAX Deployment Guide*.

#### 5.10.4 Adding a DIMETRA Express System

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add DIMETRA Express.

For more information on how to configure and deploy a DIMETRA Express system, see *TRBOnet DIMETRA Express Deployment Guide*.

#### 5.10.5 Adding a TRBOnet Swift Agent

The TRBOnet Swift Agent functions as a gateway to receive and transmit voice and data.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click **Add TRBOnet Swift Agent**.

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Configuration		TRBOnet Swift Agent #	#1	
💣 Service	^			
🛜 Network		Name:	TRBOnet Swift Agent #1	
🛱 Redundancy		Radio ID:	64250 🗘	]
Remote Access Restriction		IP Address:	10.10.110.191 -	]
Database		IP Address;		]
😪 Reports		Port:	8002 ‡	Test
Service Management		TRBOnet Local Port:	50001	
X Advanced Settings		Mode:	Single Control Station	
Geocoding Servers				
Radio Systems		System Identifier:	Department 2	
Services		Use radio for RX data	a only (GPS Revert or Data F	Revert)
TRBOnet Swift Agent #1		VoIP port:	4000	1
Redundancy			+000 ·····	
PTT over Cellular		Audio Format:	PCM 8 kHz 16 bit	
C Teltonika				
Remote Agents				
Friendly Servers				
Phone Connect				
Advanced Settings				
Thernal PBX Server				
Data Sources	~			
	~			
Set Defaults			Apply	OK Cancel

• In the **TRBOnet Swift Agent** pane, specify the following Swift Agentrelated parameters:

#### Name

Enter a name for the Swift Agent. This name will be displayed in the Dispatch Console.

#### Radio ID

This is the Radio ID of the control station connected to the Swift Agent. (for Capacity Plus and Linked Capacity Plus systems, the maximum value is 65535).

Note: This box is populated automatically once you have successfully tested the Swift Agent by clicking the **Test** button.

#### IP Address

Enter the IP Address of the Swift Agent network interface.

#### Port

Enter the port number of the Swift Agent connection (8002, by default).

#### TRBOnet Local Port

Enter the local port number that will be used by TRBOnet Server to establish a connection to the Swift Agent. The value 0 (default) means that a random port will be used.

Test

Click this button to check the connection to the Swift Agent. If the test is successful, you'll see the information on the Swift Agent you are connected to, such as Serial number, Firmware version, and other relevant information.



Mode

From the drop-down list, select the connection mode for the Swift Agent being configured. For more details, see section <u>5.10.6.1, Control</u> <u>Station Connection Modes</u> (page 54).

#### System Identifier

Enter the system identifier if the control station is used with a Capacity Plus or Linked Capacity Plus system. Note that the system identifier should be the same for all control stations used in the radio system.

Use radio for RX data only (GPS Revert or Data Revert)
 Select this option to configure the radio channel so that it will only receive data, thus having no transmission capability.

#### VoIP port

Enter the port number for audio communications (4000, by default).

Note: This setting is used for older firmware versions of TRBOnet Swift Agent.

Audio Format

From the drop-down list, select the format to transmit audio data.

#### 5.10.5.1 Advanced Settings

• In the **Configuration** pane, under the corresponding **TRBOnet Swift Agent**, select **Advanced Settings**.

Configuration		Advanced Settings	
Service     Service     Network     Redundancy     Remote Access Restriction     Database     Database     Cecooding Servers     Advanced Settings     Services     TRBOnet Swift Agent #1     Advanced Settings     Redundancy     PT over Cellular     Tettonika     Remote Agents     Friendly Servers	^	Advanced Settings         Automatically reset alarm mode         Emergency Call/Alarm Indication         Always transmit when the PTT is pressed ("Impolite" channel access)         TX Timeout:       60         Ø       \$ seconds         Mic delay time:       600         Roger beep:       C:\Desktop\RingMobile.wav         PTT Mode:       KeyUp / DeKey         Signaling System:       None	
<ul> <li>Phone Connect</li> <li>Advanced Settings</li> <li>Internal PBX Server</li> <li>Data Sources</li> </ul>	~		
Set Defaults		Apply OK Cancel	

- In the **Advanced Settings** pane, specify the following Swift Agent-related advanced settings:
  - Automatically reset alarm mode

Select this option to reset alarm mode on the control station radio automatically. It is recommended to enable this option.



#### Emergency Call/Alarm indication

Select this option so that audio and visual indication is given by the Control Station radio when an Emergency Call/Emergency Alarm is received.

Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

#### TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When a dispatcher starts any voice session in the Dispatch Console, transmission will be interrupted after this TX Timeout expires.

#### Mic delay time

Select this option and specify the time, in milliseconds, to be used as a delay time interval between pushing the PTT and enabling the microphone.

• Roger beep

Select this option to play a beep sound for the time interval until the microphone is enabled. Click the ellipsis button (...) on the right and locate the desired sound file (WAV).

#### PTT Mode

From the drop-down list, select the mode of pressing the PTT on the radio.

#### Signaling system

From the drop-down list, select the signaling system.

- **MDC-1200** signaling is a Motorola data system using audio frequency shift keying (ASFK) using a 1,200 baud data rate. A general option is to enable or disable an acknowledgement (ACK) data packet.
- SELECT-5 (5 Tone Signaling System). In the 5 Tone Signaling Systems, each radio has a unique numeric identity (for example, 12345). To signal the number 12345, a sequence of 5 tones is sent. Sequences of audible tones of a very short duration are sent between radios. Most 5 tone sequences take less than half a second to send. Available for Voice Calls, Radio Check, Call Alert, and Enable/Disable Radio.

Click the **Configure** link and specify desired SELECT 5 settings.

• **Quick Call I**. Using this signaling system, the radio sends a pair of tones followed by 50 to 1,000 milliseconds of silence and then a second pair of tones.

Click the **Configure** link and specify desired Quick Call I settings.



• **Quick Call II**. Using this signaling system, the radio sends a single tone followed by 50 to 1,000 milliseconds of silence and then a second tone.

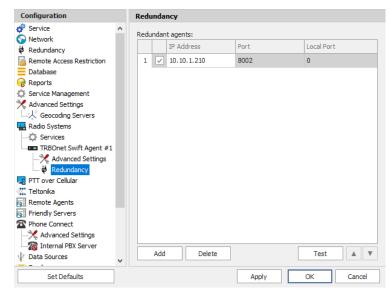
Click the **Configure** link and specify desired Quick Call II settings.

• **Quick Call II MOTOTRBO** When this system is selected, the parameters are configured for the radio units via the MOTOTRBO CPS.

#### 5.10.5.2 Redundancy

A Redundant TRBOnet Swift Agent will be used when a connection to the Main TRBOnet Swift Agent is lost.

• In the **Configuration** pane, under the corresponding **TRBOnet Swift Agent**, select **Redundancy**.



- In the **Redundancy** pane, specify the following Redundant Agent-related settings:
  - Click Add and specify the desired parameters for the Redundant Agent being added.
    - IP Address

Enter the IP Address of the Swift Agent that will be used as a Redundant Swift Agent.

• Port

Enter the port number that will be used for connections between the server and the Redundant Swift Agent (8002, by default).

• Click **Test** to check the connection to the Redundant Swift Agent. If the test is successful, you'll see the information on the Swift Agent you are connected to, such as Serial number, Firmware version, and other relevant information.



#### Local Port

Enter the port number that will be used for connections from the Redundant Swift Agent. The value 0 (default) means that a random port will be used.

#### 5.10.6 Adding a Control Station

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add Control Station.

Configuration		Control Station #1				
💣 Service	^					
S Network		Name:	Control Station #1			
🛱 Redundancy		Radio ID:	64250 ‡			
Remote Access Restriction						
Database		IP Address:	192.168.10.2 • ¢	Test		
😪 Reports		Mode:	Single Control Station			-
Service Management		System Identifier:	Department 1			=
🔀 Advanced Settings		by been recentioner	Deparamente 1			
Geocoding Servers		Use radio for RX data	only (GPS Revert or Data Re	evert)		
Radio Systems		Playback device:	Speakers (2-Logitech USB	Headset)		¢
Services		· · · ·	Minunehana (2. La sita di UK	-		-
Control Station #1		Recording device:	Microphone (2-Logitech US	se Headset)	Ŧ	¢
Advanced Settings						
TT over Cellular						
Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect						
Advanced Settings						
🔤 🌃 Internal PBX Server						
$\Psi$ Data Sources						
Email	¥					
Set Defaults			Apply	ОК	Cano	el

• In the **Control Station** pane, specify the following control station-related parameters:

#### Name

Enter a name for the control station. This name will be displayed in the Dispatch Console in the Voice Dispatch Radio Interface pane. It will be the name at the top of the PTT box.

#### Radio ID

This is the Radio ID of the radio unit connected as a control station. (for Capacity Plus and Linked Capacity Plus systems, the maximum value is 65535).

Note: This box is populated automatically once you have successfully tested the control station by clicking the **Test** button.

#### IP Address

Enter, or select from the list, the IP Address of the control station network interface.

Note: This value can be taken from the radio's configuration in MOTOTRBO CPS, in *Network*>*Accessory IP*.



#### Test

Click this button to check the connection to the control station. If the test is successful, you'll see the information on the control station you are connected to, such as radio ID, serial number, firmware version, and other relevant information.

#### Mode

From the drop-down list, select the connection mode for the control station being configured. For more details, see section <u>5.10.6.1, Control</u> <u>Station Connection Modes</u> (page 54).

#### System Identifier

Enter the system identifier with which the control station is used within a Capacity Plus or Linked Capacity Plus system. Note that the system identifier should be the same for all control stations used in a (Linked) Capacity Plus system.

# Use radio for RX data only (GPS Revert or Data Revert) Select this option to configure the radio channel so that it will only

receive data, thus having no transmission capability.

#### Playback device

From the drop-down list, select the playback device on the PC that will be used to transfer audio data to the connected control station.

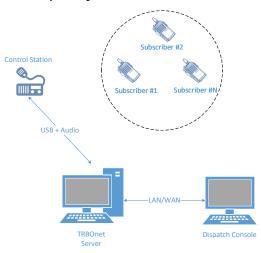
#### Recording device

From the drop-down list, select the recording device on the PC that will be used to receive audio data from the control station connected via a line-in jack.

#### 5.10.6.1 Control Station Connection Modes

#### **Single Control Station**

The Single Station mode is the simplest connection mode for receiving and transmitting voice and data through a conventional channel using one control station at this particular frequency.



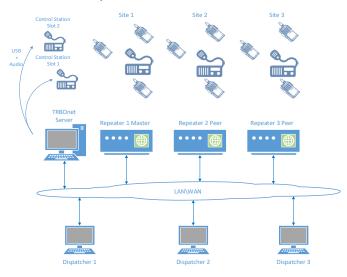


#### **IP Site Connect**

The IPSC is a digital conventional two-way MOTOTRBO system that allows you to extend the area of your communications by providing 2 wide area channels per repeater. It is possible to connect up to 15 repeaters in one system using IP connection.

The Server Connection Modes are as follows:

- 1. TRBOnet Server is connected to a repeater with two time slots in the "IP Site Connect" mode. The Server can transmit and receive over IP.
- 2. TRBOnet Server has no IP connection to a repeater. Two control stations are required to transmit and receive voice and data, that is, one control station per time slot.



#### **Common Channel**

The Common Channel is a mode where it is possible to use multiple simplex base stations operating at the same frequency with overlapping communication zones.

This mode allows the customer to provide radio coverage to large areas when there is only one frequency and additional frequencies are unavailable. While in this mode, the coverage area is being extended only for the dispatcher, and specifically when operating at one and the same frequency. When a radio unit initiates a call, the signal that can potentially be received by several base stations will be filtered on the server side so that repeated audio playback and recording is prohibited.

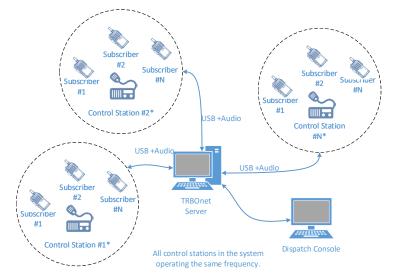
The signal filtering is performed based on the "first packet", that is, only the signal coming first to the server is played back and recorded, while the remaining signals are discarded.

When a dispatcher initiates a call to a specific base station, the signals received by the neighboring base stations will be discarded to prevent dispatchers from listening to their own call at the time of transmission. The dispatcher is not



recommended to place a simultaneous call to all base stations to avoid interference to the subscribers.

The recommended way to use this mode is as follows: each base station is configured with its own color code, and radio units are equipped with option boards having a Geo-roaming feature, and each geographic area is assigned its own radio channel with the corresponding color code.



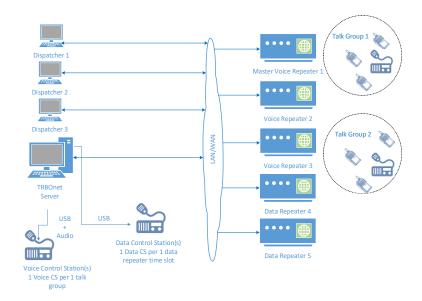
#### Capacity Plus/Linked Capacity Plus

Capacity Plus is a digital trunked two-way MOTOTRBO system that allows you to accommodate high volume communication. It is designed to organize stable connection in a few groups within one building or a set of buildings. This system type allows you to increase the number of channels for voice and data transmission between the subscribers and control centers. The subscribers are always automatically forwarded to a free channel. The main objective of Capacity Plus is to support more simultaneous voice and data transmissions within one capacious system.

In the Capacity Plus mode you can configure voice and data control stations to transmit and receive data over the air as it is described in the MOTOTRBO System Planner. Keep in mind that two data control stations are required per each data repeater – one per time slot. TRBOnet Dispatch Software provides you an option to utilize an IP connection to receive voice and data.

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#### 5.10.6.2 Advanced Settings

• In the **Configuration** pane, under the corresponding **Control Station**, select **Advanced Settings**.

Configuration	Advanced Settings
Service     Network     Rendundancy     Renote Access Restriction     Database     Reports     Service Management     Advanced Settings     Services     Ser	Automatically reset alarm mode     Automatically handle call alert     Emergency Call/Alarm indication     Use front microphone     Always transmit when the PTT is pressed ("Impolite" channel access)     Use serial port for PTT device     Serial port:     TX Timeout:     60     \$ seconds     Mic delay time:     600     \$ milliseconds     V Roger beep:     C:\Desktop\RingMobile.wav × ···
Control Station #1	✓ Roger beep: C:\Desktop\RingMobile.wav × ···
Email	Apply OK Cancel

- In the **Advanced Settings** pane, specify the following control station-related advanced settings:
  - Automatically reset alarm mode
     Select this option to reset alarm mode on the control station radio automatically. It is recommended to enable this option.
  - Automatically handle call alert Select this option to automatically redirect call alerts from the control station radio to the Dispatch Console.



#### Emergency Call/Alarm indication

Select this option so that audio and visual indication is given by the control station radio when an Emergency Call/Emergency Alarm is received.

#### Use front microphone

Select this option to use a remote control of the PTT button via a remote speaker microphone on the radio.

# Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

#### Use serial port for PTT device

Select this option to use a remote control of the PTT button via the serial port of the PC, and select the serial port from the drop-down list.

#### TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When a dispatcher starts any voice session in the Dispatch Console, the ongoing transmission will be interrupted after this TX Timeout expires.

#### Mic delay time

Select this option and specify the time, in milliseconds, to be used as a delay time interval between pushing the PTT and enabling the microphone.

#### • Roger beep

Select this option to play a beep sound for the time interval until the microphone is enabled. Click the ellipsis button (...) on the right and locate the desired sound file (WAV).

#### Signaling system

From the drop-down list, select the signaling system.

- MDC-1200 signaling is a Motorola data system using audio frequency-shift keying (AFSK) using a 1,200 baud data rate. A general option setting for the system is to enable or disable an acknowledgement (ACK) data packet.
- SELECT-5 (5 Tone Signaling System). In the 5 Tone Signaling Systems, each radio has a unique numeric identity (for example, 12345). To signal the number 12345, a sequence of 5 tones is sent. Sequences of audible tones of a very short duration are sent between radios. Most 5 tone sequences take less than half a second to send. Available for Voice Calls, Radio Check, Call Alert, and Enable/Disable Radio.

Click the **Configure** link and specify desired SELECT 5 settings.

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Voice Calls					6
Call Type	Telegram ID		Source ID	Target ID	
Private Call:	1 ‡ E	ncoder:		A1 A2 A3 A4	
	D	ecoder:	A1 A2 A3 A4		
Group Call:	1 ‡ E	ncoder:		A1 A2 A3 A4	
	D	ecoder:	A1 A2 A3 A4		
All Call:	1 - ‡ E	ncoder:		A1 A2 A3 A4	
	D	ecoder:	A1 A2 A3 A4		F
Check Radio					(
Call Alert					
Enable Radio					
Disable Radio					6

• **Quick Call I**. Using this signaling system, the radio sends a pair of tones followed by 50 to 1,000 milliseconds of silence and then a second pair of tones.

Click the **Configure** link and specify desired Quick Call I settings.

Quick Call I		×
	_	•
Preamble:	500	∓ ms
Tone 1:	1000	‡ ms
Tone 2:	1000	‡ ms
Long Tone:	4000	‡ ms
Pause:	200	‡ ms
Defaults	ОК	Cancel

• **Quick Call II**. Using this signaling system, the radio sends a single tone followed by 50 to 1,000 milliseconds of silence and then a second tone.

Click the **Configure** link and specify desired Quick Call II settings.

• Quick Call II MOTOTRBO

When this system is selected, the parameters are configured on the radio unit via the MOTOTRBO CPS.

Allow CSBK Data

Select this option so that GPS data is sent in a single CSBK.

#### 5.10.6.3 Audio Paths

The Audio Paths are talk paths of the system to make and receive Voice Calls; in general, they are talk groups. TRBOnet Server requires that all audio paths of a radio system be registered in its configuration. If an audio path is not registered, the TRBOnet operator will not be able to receive and transmit to the corresponding talk group.

Note: Audio paths are available only when one of the following modes is selected: **Capacity Plus**, **Linked Capacity Plus**, **Connect Plus**, or **Capacity MAX**.

• In the **Configuration** pane, under the corresponding **Control Station**, select **Audio Paths**.



Configuration	Audio Paths	
Service     Network	Site ID: 1	
🛱 Redundancy	Call Type	Group ID Site
Database     Reports	Group Call	10 Wide
Service Management	Group Call	20 Wide
🔀 Advanced Settings	Private Call	
Radio Systems	All Call	
Services		
Control Station #1		
🖵 PTT over Cellular		
Remote Agents		
Friendly Servers		
↓ Data Sources		
🔀 Email		
SMS Notifications		
Push Notifications		
📮 License	Add Delete	
Set Defaults	Apply	OK Cancel

- In the **Audio Paths** pane, specify the following Audio Path-related settings:
  - To add an audio path to the system, click **Add**.
  - Make sure the checkbox in the first column is selected to make and receive voice calls from the selected subscriber.
  - From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private Call.
  - Enter the **Group ID**, which is an ID of the talk group the dispatcher can make calls to. The Group ID is not applicable for Private Calls and All Calls.
  - In the Site column, select either Local or Wide. The value Wide means that the audio path will be to all sites in the system and not just to the local site.

#### 5.10.7 Adding an ECOS-D Repeater

The **ECOS-D** repeater is configured as a stand-alone repeater which supports connections to MOTOTRBO<sup>™</sup> radios to transmit voice and data in digital, analog, and mixed modes.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add ECOS-D Repeater.

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Configuration		ECOS-D #1	
💣 Service	^		
S Network		Name:	ECOS-D #1
Redundancy		Radio ID:	64250 *
Remote Access Restriction			•
Database		Repeater Mode:	Digital -
😪 Reports			
Service Management			
🔀 Advanced Settings			
Geocoding Servers			
🔛 Radio Systems			
🗘 Services			
ECOS-D #1			
Slot #1			
Slot #2			
PTT over Cellular			
🚛 Teltonika			
Remote Agents			
Friendly Servers			
Phone Connect			
Internal PBX Server	¥		
Set Defaults			Apply OK Cancel

• In the **ECOS-D** pane, specify the following ECOS-D Repeater-related parameters:

#### Name

Enter a name for the ECOS-D Repeater. This name will be displayed in the Dispatch Console.

Radio ID

Enter the Radio ID for the ECOS-D Repeater (for Capacity Plus systems, the maximum value is 65535).

The Radio ID is an individual ID that uniquely identifies the radio. This ID is used by other calling radios when addressing the radio, for instance, when making a private call or sending a text message.

#### Repeater Mode

From the drop-down list, select the mode. The available modes are Digital, Analog, Mixed, and <u>Tier III</u>.

#### 5.10.7.1 Advanced Settings

• In the **Configuration** pane, under the corresponding **ECOS-D**, select **Advanced Settings**.



Configuration		Advanced Settings			
🛷 Service	^				
😚 Network		Keep Alive Interval:	10	÷	seconds
🛱 Redundancy		TX Timeout:	60	A	seconds
Remote Access Restriction		the first state of the		*	]
Database		Audio Frame Size:	20	÷	ms
😪 Reports					
Service Management					
🔀 Advanced Settings					
Geocoding Servers					
Radio Systems					
Services					
ECOS-D #1					
<b>I</b> II Slot #1					
Slot #2					
🖵 PTT over Cellular					
Teltonika					
📷 Remote Agents	-				
Friendly Servers					
2 Phone Connect					
X Advanced Settings					
Internal PBX Server	¥				
Set Defaults				Apply	OK Cancel

• In the **Advanced Settings** pane, specify the following ECOS-D Repeaterrelated advanced settings:

#### Keep Alive Interval

Enter the time interval, in seconds, for TRBOnet Server to check the connection to the ECOS-D repeater (10, by default).

TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When a Dispatcher starts any Voice Session in the Dispatch Console, transmission will be interrupted after this TX Timeout expires (60, by default).

#### Audio Frame Size

Set the audio frame size, in milliseconds.

#### 5.10.7.2 Slots

The ECOS-D repeater has two available slots (in **Digital** or **Mixed** mode) to transmit voice and data.

• In the **Configuration** pane, under the corresponding **ECOS-D**, select **Slot #1** or **Slot #2**.

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Configuration	Slot #1				
🔗 Service 🎧 Network	^ ✓ Slot #	1			
🛱 Redundancy	Name:		Slot 1		
Remote Access Restriction	TRBON	et IP Address:	10.10.100.99	- ¢ Port:	6082 1
Database	FCOS	) IP Address:	10.10.9.30	+ Port:	6082 1
😪 Reports	20034	7 IF Address.	10.10.9.50	+ Fort.	6062 -
Service Management			Test		
🗶 Advanced Settings					
Geocoding Servers			lata only (GPS Rever	t or Data Rev	ert)
Radio Systems		Encryption			
🗘 Services	Alwa	ays transmit when	the PTT is pressed (	("Impolite" cha	nnel access)
ECOS-D #1	🗸 Data	a Call Confirmed			
Advanced Settings	V Priv	ate call confirmed			
PTT over Cellular					
Remote Agents					
Friendly Servers					
Phone Connect					
Advanced Settings					
1 Internal PBX Server	<b>,</b>				
Set Defaults			Apply	ОК	Cancel

- In the **Slot #1** (or **Slot #2**) pane, specify the following slot-related parameters:
  - Name

Enter a name for the slot. This name will be displayed in the Dispatch Console.

#### TRBOnet IP Address

Enter the IP Address of the PC with TRBOnet Dispatch Software. Enter the **Port** number (6080, by default).

#### ECOS-D IP Address

Enter the IP Address of the ECOS-D Repeater (refer to the repeater configuration). Enter the **Port** number (6080, by default).

- Click **Test** to check the connection to the repeater.
- Use gateway for RX data only (GPS Revert or Data Revert)
   Select this option to configure the channel so that it will only receive data, thus having no transmission capability.

#### Use Encryption

Select this option to encrypt voice and data traffic over IP.

Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

#### Data Call Confirmed

Select this option to enable individual packets in data calls (ARS, GPS, and Text Message) on the current slot to be confirmed.

#### Private call confirmed

Select this option to set Private calls on the current slot as confirmed.



#### 5.10.7.3 Tier III and Audio Paths

The ECOS-D repeater can be used in a **Tier III** mode. To configure this mode, do the following:

- While in the **ECOS-D** pane, select **Tier III** from the **Repeater Mode** dropdown list.
- In the **Configuration** pane, under the corresponding **ECOS-D**, select **Tier III**.

Configuration	Tier III
Service	✓ Tier III
S Network	Name: Tier III
Remote Access Restriction	
Database	TRBOnet IP Address: 10.10.100.99 - 2 Port: 6082 -
Reports	ECOS-D IP Address: 10.10.9.30 - Port: 6082 -
Service Management	Test
X Advanced Settings	
Geocoding Servers	Use gateway for RX data only (GPS Revert or Data Revert)
Radio Systems	Use Encryption
Services	Always transmit when the PTT is pressed ("Impolite" channel access)
ECOS-D #1	Data Call Confirmed
X Advanced Settings	✓ Private call confirmed
Audio Paths	
🛒 PTT over Cellular	
🗱 Teltonika	
Remote Agents	
🔂 Friendly Servers	
Phone Connect	
Advanced Settings	
Thernal PBX Server	
Set Defaults	Apply OK Cancel

• In the **Tier III** pane, specify the following Tier III-related parameters:

#### Use Encryption

Select this option to encrypt voice and data traffic over IP.

Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

Private call confirmed

Select this option to set Private calls on the current slot as confirmed.

#### To configure Audio Paths:

• In the **Configuration** pane, under the corresponding **ECOS-D**, select **Audio Paths**.

Note: Make sure the **Tier III** mode has been selected as a Repeater Mode for the ECOS-D repeater.



Configuration	Audio Paths	
🔗 Service 🔨 🔨		
Network	Call Type	Group ID
🛱 Redundancy	Group Call	10
Remote Access Restriction	Group Call	20
Database		
Reports		
Service Management	All Call	
🔀 Advanced Settings		
Geocoding Servers		
Radio Systems		
🗘 Services		
ECOS-D #1		
Advanced Settings		
Tier III		
Audio Paths		
TT over Cellular		
👫 Teltonika		
Remote Agents		
Friendly Servers		
2 Phone Connect		
🛛 🎆 Internal PBX Server	Add Delete	
1 · -		
Set Defaults	Apply OK	Cancel

- In the **Audio Paths** pane, specify the following Audio Path-related settings:
  - To add an Audio Path to the system, click **Add**.
  - Make sure the checkbox in the first column is selected to make and receive Voice Calls from the selected subscriber.
  - From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private Call.
  - Enter the **Group ID**, which is a radio ID of the talk group to make a call to. The Group ID is not applicable for Private Calls and All Calls.

#### 5.10.7.4 Analog channel

The ECOS-D repeater can also use the Analog channel.

• In the **Configuration** pane, under the corresponding **ECOS-D**, select **Analog**.

Note: Make sure the **Analog** or **Mixed** mode have been selected as a Repeater Mode for the ECOS-D repeater.



Configuration		Analog
Service Network	^	✓ Analog
🛱 Redundancy		Name:
Remote Access Restriction		TRBOnet IP Address: 10.10.100.99 - 🕫 Port: 6082 🌲
Reports		ECOS-D IP Address: 10.10.9.30 - Port: 6082 +
Service Management		Test
Advanced Settings		Use gateway for RX data only (GPS Revert or Data Revert)
Radio Systems		Use Encryption
Services		Always transmit when the PTT is pressed ("Impolite" channel access)
ECOS-D #1		Data Call Confirmed Private call confirmed
PTT over Cellular		
Carlot Teltonika		
Friendly Servers		
The Phone Connect		
Advanced Settings		
1 Internal PBX Server		
∲ Data Sources	¥	
Set Defaults		Apply OK Cancel

- In the **Analog** pane, specify the following Analog channel-related settings:
  - Name

Enter a name for the ECOS-D repeater in the analog mode. This name will be displayed in the Dispatch Console.

#### TRBOnet IP Address

Enter the IP Address of the PC with TRBOnet Dispatch Software. Enter the **Port** number (6080, by default).

#### ECOS-D IP Address

Enter the IP Address of the ECOS-D Repeater (refer to the repeater configuration). Enter the **Port** number (6080, by default).

- Click **Test** to check the connection to the repeater.
- Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).

#### 5.10.8 Adding a KAIROS Repeater

The **Radio Activity Kairos** repeater is configured as a stand-alone repeater which supports connections to MOTOTRBO<sup>™</sup> radios to transmit voice and data in digital, analog, and mixed modes.

Note: When the Kairos repeater is connected, the following TRBOnet Dispatch features are not supported: Remote Monitor, Radio Enable/Disable, Kill Radio, and Telemetry.

• In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.



• In the drop-down menu, click Add KAIROS Repeater.

Configuration		Repeater #1	
🔗 Service	^		
🕤 Network		Name:	Kairos #1
🛱 Redundancy		IP Address:	10.10.155.130 -
Remote Access Restriction		User Name:	kairos
Database		User Name:	kairos
🔂 Reports		Password:	•••••
🔅 Service Management			Test
Advanced Settings			
人 Geocoding Servers		Radio ID:	64250 ‡
🛃 Radio Systems		Repeater Mode:	Mixed (Analog and Digital)
Services			
Kairos #1			
🛛 💥 Advanced Settings			
Analog			
🚛 PTT over Cellular			
🗶 Teltonika			
👔 Remote Agents			
Friendly Servers			
Phone Connect			
Advanced Settings	~		
Set Defaults			Apply OK Cancel

- In the **Kairos** pane, specify the following repeater-related parameters:
  - Name

Enter a name for the Kairos repeater. This name will be displayed in the Dispatch Console.

IP Address

Enter the IP Address of the Kairos repeater network interface.

User Name

Enter the user name. For the user name, refer to the Kairos repeater configuration.

Password

Enter the password for the user. For the password, refer to the Kairos repeater configuration.

Radio ID

Enter the Radio ID, which is a gateway for voice and data. The Radio ID must be unique in the radio system.

Repeater Mode

From the drop-down list, select the mode. The available modes are Digital, Analog, and Mixed.

#### 5.10.8.1 Advanced Settings

• In the **Configuration** pane, under the corresponding **Kairos**, select **Advanced Settings**.



Configuration		Advanced Settings				
🛷 Service	^					
S Network		Keep Alive Interval:	10	÷	seconds	
🛱 Redundancy		TX Timeout:	60	*	seconds	
Remote Access Restriction				*		
Database		Call Hangtime (ms):				
😪 Reports		Group Call:	3000	÷		
Service Management		Private Call:	4000	*		
🔀 Advanced Settings		Private Call:	4000	*		
Geocoding Servers		Emergency Call:	4000	÷		
Radio Systems						
🗘 Services						
Kairos #1						
X Advanced Settings						
III Slot #1						
Analog						
TT over Cellular						
Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect						
Advanced Settings	$\checkmark$					
Set Defaults				Apply	OK	Cancel

• In the **Advanced Settings** pane, specify the following Kairos Repeaterrelated advanced settings:

#### Keep Alive Interval

Enter the time interval, in seconds, for TRBOnet Server to check the connection to the Kairos repeater (10, be default).

#### TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When a Dispatcher starts any Voice Session in the Dispatch Console, transmission will be interrupted after this TX Timeout expires (60, be default).

#### Call Hangtime (ms):

#### Group Call

This value sets the duration the repeater reserves the channel after the end of a group call transmission. During this time, only members of the group that the channel is reserved for can transmit.

#### Private Call

This value sets the duration a radio keeps the private call setup after a user releases the PTT button. This is to avoid setting up the call again each time a user presses the PTT button to transmit. During this time, other radios can still transmit since the channel is essentially idle. After the hang timer expires, the radio transmits using the *TX Contact Name* parameter specified for this channel in MOTOTRBO CPS.

#### Emergency Call

This value sets the duration the repeater reserves the channel after the end of an emergency call transmission. During this time, only members of the Group that the channel is reserved for can transmit.



#### 5.10.8.2 Slots

The Kairos repeater has two digital slots (in **Digital** mode) and one analog slot (in **Mixed** or **Analog** mode) to transmit voice and data.

• In the **Configuration** pane, under the corresponding **Kairos**, select **Slot #1** or **Slot #2** (or **Analog**, if you have selected **Mixed** or **Analog** mode).

Configuration		Slot #1		
🛷 Service 🕥 Network	^	✓ Slot #1		
Redundancy		Name:	Slot 1	
Remote Access Restriction		Audio Codec:	G.711µ-Law/8000	-
Reports		Audio port KAIROS:	40000 ‡	
Service Management		Audio port TRBOnet:	40000 ‡	
Advanced Settings		Data port KAIROS:	40001	
Radio Systems		Data port TRBOnet:	40001 ‡	
Kairos #1				
PTT over Cellular				
👯 Teltonika Remote Agents Friendly Servers				
Phone Connect				
Advanced Settings	~			
Set Defaults			Apply OK 0	Cancel

- In the **Slot #1** (or **Slot #2**) pane, specify the following slot-related parameters:
  - Name

Enter a name for the slot. This name will be displayed in the Dispatch Console.

Audio Codec

From the drop-down list, select the audio codec to be used to compress the audio files.

- Audio port KAIROS/ Audio port TRBOnet
   Enter the port numbers to be used for KAIROS/TRBOnet audio ports.
- Data port KAIROS/ Data port TRBOnet
   Enter the port numbers to be used for KAIROS/TRBOnet data ports.
  - Note: Use the matching port numbers for KAIROS and TRBOnet. The default audio and data port numbers are
     40000 and 40001 for Digital slot 1, 40002 and 40003 for
     Digital slot 2, and 40004 and 40005 for the Analog slot.

#### 5.10.9 Adding a WAVE OnCloud Gateway

WAVE OnCloud is a Push-to-Talk (PTT) service that connects phones, computers and radios together.

• In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.



- In the drop-down menu, click Add WAVE OnCloud Gateway.
- In the **Wave OnCloud Gateway** pane, specify the following Wave gateway-related parameters:
  - Name

Enter a name for the Wave OnCloud gateway. This name will be displayed in the Dispatch Console.

- Authentication FQDN Enter the fully-qualified domain name of the authentication server.
- Client ID

Enter the Client ID that will be used for authentication.

- Client Secret
   Enter the Client Secret that will be used for authentication.
- Agency

Enter the name of the agency that will be used.

Test

Click this button and see the list of all available agencies.

# 5.10.10 Adding an ED137 / Jotron Station

This section describes how to connect an ED137-compatible radio station (for example, the Jotron 7000 series Multimode Digital Radio).

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add ED137 Station.

Configuration		ED137 Station #1						
💣 Service	^							
S Network		Name:	ED137	7 Station #1				
🛱 Redundancy		Local Interface:	10.10	. 100.99				ø
Remote Access Restriction					*			-
Database		Local Port:	0		÷			
Reports		Station Radio User:	900					
Service Management		✓ Use Control Port:	3008		÷			
X Advanced Settings					*			
Geocoding Servers		<ul> <li>Separate receiver and</li> </ul>	transm	hitter				
Radio Systems		Receiver:						
Services		IP Address:	10,10	. 123. 145				
ED 137 Station #1			_			<b>T</b> - 1		
PTT over Cellular		Port:	5060		-	Test		
C Teltonika		Transmitter:						
Remote Agents		IP Address:	10.10	. 123. 158				
Friendly Servers					*			
Phone Connect		Port:	5060		-	Test		
Advanced Settings								
Thernal PBX Server								
↓ Data Sources								
🔀 Email	<b>v</b>							
	*				-			
Set Defaults				Apply		OK	Can	cel

• In the **ED137 Station** pane, specify the following ED137 Station-related settings:

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### Name

Enter a name for the control station. This name will be displayed in the Dispatch Console.

### Local Interface

Enter the IP address of the PC with TRBOnet Server.

### Local Port

Enter the local UDP port number.

- Station Radio User Enter the SIP ID of the radio station.
- Use Control Port Select this option and enter the control port number.
- Separated receiver and transmitter Select this option if the receiver and transmitter are separate devices with different IP addresses.
- IP Address

Enter the IP Address of the receiver/transmitter (or transceiver).

Port

Enter the port number (5060, by default).

# 5.10.11 Adding a Zenitel Station

This section describes how to connect a Zenitel station.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add Zenitel Station.
- In the **Zenitel Station** pane, specify the following Zenitel-related settings:
  - Name

Enter a name for the Zenitel station. This name will be displayed in the Dispatch Console.

Radio ID

This is the Radio ID of the Zenitel station. The maximum value is 65535.

# Local Interface

Enter the IP address of the PC with TRBOnet Server.

- Local Port Enter the local UDP port number.
- Station IP Address Enter the IP address of the Zenitel station.

## • **Station Control Port** Enter the control port on the Zenitel station.



### Station SIP Port

Enter SIP port on the Zenitel station (5060, by default).

# 5.10.12 Adding an Analog Station

TRBOnet Dispatch Software allows using analog radios as control stations.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click **Add Analog Station**.

Configuration		Analog Control Station	
💣 Service	^		
S Network		Name:	Analog Control Station
🛱 Redundancy			
Remote Access Restriction		Playback device:	Digital Audio (S/PDIF) (High Definition Audio 👻 🕫
Database		Recording device:	Microphone (2- Logitech USB Headset) - 🕫
Reports			
Service Management		Serial port:	COM1 -
🔀 Advanced Settings		Aluque traccuit ubon i	the PTT is pressed ("Impolite" channel access)
🦾 🦶 Geocoding Servers		Aiways u arismit when	(impolite channel access)
Radio Systems		TX Timeout:	60 🌲 seconds
Services		✓ Mic delay time:	600  milliseconds
Analog Control Station			···· · ·
TT over Cellular		Roger beep:	C:\Desktop\RingMobile.wav × ···
Carlonika			
Remote Agents		Extended protocol:	None 👻
Friendly Servers		Signaling System:	Quick Call I
Phone Connect		Signaling System.	Configure
Advanced Settings			configure
1 Internal PBX Server			
↓ Data Sources			
Email			
SMS Notifications	¥		
Set Defaults			Apply OK Cancel

- In the **Control Station** pane, specify the following Analog Control Station-related settings:
  - Name

Enter a name for the analog control station. This name will be displayed in the Dispatch Console.

Playback device

From the drop-down list, select the playback device on the PC that the control station is connected to.

Recording device

From the drop-down list, select the recording device on the PC that the control station is connected to.

Serial port

From the drop-down list, select the serial port the control station is connected to on the PC.

 Always transmit when the PTT is pressed ("Impolite" channel access) - Select this option so that when the PTT button is pressed, the radio will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).



# TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When a Dispatcher starts any voice session in the Dispatch Console, transmission will be interrupted after this TX Timeout expires.

# Mic delay time

Select this option and specify the time, in milliseconds, to be used as a delay time interval between pushing the PTT and enabling the microphone.

• Roger beep

Select this option to play a beep sound for the time interval until the microphone is enabled. Click the ellipsis button (...) on the right and locate the desired sound file (WAV).

# Extended protocol

From the drop-down-list, select either **None**, if your radio does not support the extended protocol, or **IC-F1721D v1.01** if the radio supports the extended protocol.

## Signaling System

From the drop-down-list, select the signaling system (**Quick Call I** or **Quick Call II**). Click the **Configure** link and specify desired Quick Call settings. Selecting the signaling system is available only if **None** is selected in the **Extended Protocol** list.

# 5.10.12.1 Serial Port

Note: The serial port settings are available only when the extended protocol **IC-F1721D v1.01** is selected for the analog control station.

• In the **Configuration** pane, under the corresponding **Control Station**, select **Serial Port**.

Configuration		Serial Port				
💣 Service	^					
S Network		Baud Rate:	19200	÷		
🛱 Redundancy		Data Bits:	8	*		
Remote Access Restriction			<u> </u>	Ŧ		
Database		Parity:	None	*		
Reports		Stop Bits:	1	+		
Service Management			L			
💥 Advanced Settings		Handshake:	None	*		
Geocoding Servers						
Radio Systems						
🗘 Services						
Analog Control Station						
Serial Port						
🛒 PTT over Cellular						
Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect						
Advanced Settings						
internal PBX Server						
↓ Data Sources						
🔀 Email	~					
Set Defaults			Apply		OK	Cancel



• In the **Serial Port** pane, specify the same serial port settings as those on the radio device connected to the serial port.

# 5.10.13 Adding an XRC-9000 Controller

The XRC Controller is a site controller that provides a channel for transferring data between sites and managing data flow.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add XRC-9000 Controller.

Configuration		Controller #1					
💣 Service	^						
🕥 Network		Name:	Controller	r #1			
🛱 Redundancy		IP Address:	10.10.10	0.100	-	Test	
Remote Access Restriction							
Database		System Identifier:	Connect F	Plus 1			
Reports							
Service Management							
🔀 Advanced Settings							
Geocoding Servers							
🔛 Radio Systems							
Services							
Controller #1							
Services							
🛛 💥 Advanced Settings							
Redundancy							
TT over Cellular							
Teltonika							
Remote Agents							
Friendly Servers							
Phone Connect							
🕺 Advanced Settings							
🔤 📷 Internal PBX Server	v						
Set Defaults				Apply	0	к	Cancel

- In the **Controller** pane, specify the following XRC controller-related parameters:
  - Name

Enter a name for the XRC controller. This name will be displayed in the Dispatch Console.

IP Address

Enter the IP Address of the XRC controller network interface.

• Click **Test** to check the connection to the controller.

## System Identifier

Enter the system identifier. Note that the system identifier should be the same through all the controllers in a Connect Plus system.

## 5.10.13.1 Services

• In the **Configuration** pane, under the corresponding **XRC Controller**, select **Services**.



Configuration		Services
🛷 Service 🌀 Network	^	Automatic Registration service (ARS)
Redundancy Remote Access Restriction		Controller port: 4005
Database Reports		Local port: 0 Location service (GPS / Indoor)
Service Management		Controller port: 4001
Geocoding Servers Radio Systems		Local port: 4001 C
Controller #1		✓ Text Messages service (TMS)
Advanced Settings		Controller port: 4007 Local port: 4007
TT over Cellular		Dispatcher ID: 64250 ‡
Contraction Con		Multi Gate connection
Friendly Servers Phone Connect		Subscribe ID:
Advanced Settings	~	
Set Defaults		Apply OK Cancel

- In the **Services** pane, specify the following XRC controller-related services:
  - Automatic Registration service (ARS) provides an automated data application registration for the radio. When the radio powers up, it automatically registers with the server. This feature is used with data applications, that is any data traffic on this channel is associated with an application server, such as MOTOTRBO Text Messaging or MOTOTRBO Location Service. This option is selected by default and cannot be cleared.
    - Controller port

Enter the controller's port number for ARS service (4005, by default).

• Local port

Enter the local port of the PC with TRBOnet Dispatch Software. The value 0 (default) means that a random port will be used.

### Location service (GPS / Indoor)

Select this option to enable Location service on the controller. The radio can send its coordinates when it is in Global Positioning coverage area. GPS settings can be configured in the **Service Management** pane (see section <u>5.8.2, Location service</u>).

• Controller port

Enter the controller's port number for Location service (4001, by default).

• Local port

Enter the local port of the PC with TRBOnet Dispatch Software (4001, by default).

## • Use adaptive location trigger

Select this option to use the adaptive GPS polling interval.



### Text Messaging service (TMS)

Select this option to enable text message transmission on the controller.

• Port

Enter the controller's port number for Text Messaging service (4007, by default).

• Local port

Enter the local port of the PC with TRBOnet Dispatch Software (4007, by default).

• Dispatcher ID

Enter the Dispatcher ID. The Dispatcher ID should belong to TRBOnet Server account in a Connect Plus system.

### Multi Gate connection

Select this option to use a multi-gate connection and enter the corresponding **Subscribe ID**.

### 5.10.13.2 Advanced Settings

• In the **Configuration** pane, under the corresponding **XRC Controller**, select **Advanced Settings**.

Configuration		Advan	ced Settings			
💣 Service	^					
😚 Network		Radio	DID range:	100-200		?
🕏 Redundancy		Exte	rnal sites:			
Remote Access Restriction			Site ID	Presence	Voice	Data
Database						
😪 Reports		$\checkmark$	251	~	~	~
Service Management		$\checkmark$	252	$\checkmark$		$\checkmark$
🔀 Advanced Settings						
Geocoding Servers						
Radio Systems						
Services						
Controller #1						
Services						
X Advanced Settings						
PTT over Cellular						
C Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect						
🕺 🕺 Advanced Settings						
Thernal PBX Server	~		Add D	elete		
Set Defaults				Appl	у ОК	Cancel

- In the **Advanced Settings** pane, specify the following XRC controllerrelated services:
  - Radio ID list

Enter a list of the radios to receive data from according to the following rules:

- To receive data from all radios in the system, leave this box blank.
- To receive data from multiple radios, separate each Radio ID by a comma, for example, 105,106,111, and so on.



• To receive data from a range of radios, enter the range using the following example: 105-111.

Note: In the Radio ID list, enter Radio IDs only, without mentioning Radio Names and/or the word "Radio".

## External sites

This is the list of Connect Plus sites that is used when the corresponding Connect Plus system has a MOTOROLA System Bridge to the current Capacity MAX system.

 Click the Add button and add a site by specifying its Site ID and selecting the appropriate data types (Presence, Voice, and/or Data).

# 5.10.13.3 Redundancy

A redundant XRC controller will be used when a connection to the main XRC controller is lost.

• In the **Configuration** pane, under the corresponding **XRC Controller**, select **Redundancy**.

Configuration	Redunda	incy		
🔗 Service 🔨	Redunda	nt controllers:		
S Network	Keddridd	IP Address	Controller port	Local port
Redundancy				
Remote Access Restriction	1 🗸	10.10.101.100	4005	0
Database				
Reports				
Service Management				
X Advanced Settings				
Geocoding Servers				
Radio Systems				
Services				
Controller #1				
Services				
Advanced Settings				
🔤 🛱 Redundancy				
🖵 PTT over Cellular				
K Teltonika				
🔂 Remote Agents				
Friendly Servers				
2 Phone Connect				
🛛 🏹 Internal PBX Server	Add	Delete		Test 🔺 🔻
Y				
Set Defaults			Apply	OK Cancel

- In the **Redundancy** pane, specify the following redundant XRC controllerrelated settings:
  - Click Add and specify the desired parameters for the redundant XRC controller being added.
    - IP Address

Enter the IP Address of the XRC controller that will be used as a redundant XRC controller.

• Controller port

Enter the port number of the redundant XRC controller for incoming connections (4005, by default).



- Click **Test** to check the connection to the redundant XRC Controller. If the test is successful, you'll see the information on the XRC controller you are connected to, such as serial number, firmware version, and other relevant information.
- Local port

Enter the port number that will be used for incoming connections from the redundant XRC controller. The value 0 (default) means that a random port will be used.

# 5.10.14 Adding an XRT-9000 Controller

The XRT controller functions as a voice gateway connected to each XRC controller in a <u>Connect Plus</u> system.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add XRT-9000 Controller.

Configuration		Controller #1				
🛷 Service	^					
Network		System Name:	Controller #1			
🛱 Redundancy		Radio ID:	64250	÷		
🔤 Remote Access Restriction		Start Local Port:	0	*		
Database			-	Ŧ		
😪 Reports		XRT-9000 Controller I	nfo:			
Service Management		Controller IP Address:	10.10.111.102	*		
X Advanced Settings		Controller TCP Port:	10001	÷	Test	
Geocoding Servers		User Name:	Admin			
Services		Password:	••••			
Controller #1		System Identifier:	Connect Plus 1			
Services						
Advanced Settings		Monitor voice calls (no	audio recordings)			
🛱 Redundancy						
XRT Controller #1						
Privacy						
🖓 Data Path						
Audio Paths						
Redundancy						
TT over Cellular						
Teltonika	¥					
Set Defaults			Apply		ОК	Cancel

- In the **Controller** pane, specify the following XRT Controller-related parameters:
  - System Name

Enter a name for the XRT Controller. This name will be displayed in the Dispatch Console.

Radio ID

Enter the individual virtual radio ID. The virtual Radio ID is required to do the following:

- Make all types of voice calls from XRT Controller to radios, dispatchers and groups.
- Send commands (for example, Remote Monitor).



# Start Local Port

Enter the local port of the PC with TRBOnet Server. The value 0 (default) means that a random port will be used.

# XRT Controller Info:

# Controller IP Address

Enter the IP Address of the XRT controller network interface.

## Controller TCP Port

Enter the port number of the XRT controller to be used for connections via TCP (10001, by default).

• Click **Test** to check the connection to the XRT controller.

## User Name

Enter the user name. For the user name, refer to the XRT controller configuration.

Password

Enter the password for the user. For the password, refer to the XRT controller configuration.

Note: The user name and password must belong to the same TRBOnet Connect Plus account and be appropriately configured.

### System Identifier

Enter the system identifier. Note that the system identifier should be the same through all the controllers in a Connect Plus system.

# Monitor voice calls (no audio recordings)

This is the Billing feature. Select this option to monitor only PTT press events.

## 5.10.14.1 Privacy

• In the **Configuration** pane, under the corresponding **XRT Controller**, select **Privacy**.



	_							
Configuration		Privacy						
💣 Service	$\sim$							
S Network		Privacy Type:		Enhan	iced	Ŧ		
🕏 Redundancy		Basic Privacy Key ID:		1		÷		
Remote Access Restriction		Enhanced Privacy Ke				-		
Database			ys:					
😪 Reports		Algorithm	ID		Name		Value	
Service Management		ARC4 (40 bit) 👻	1					
💥 Advanced Settings		ARC4 (40 bit)						
Geocoding Servers		AES (256 bit)						
🖶 Radio Systems		AES (256 bit) Legac	,					
🏠 Services		into (200 bit) regue						
XRC Controller #1								
💭 Services								
🗰 🛱 Redundancy								
XRT Controller #1								
🔒 Privacy								
💭 Data Path								
Audio Paths								
🗰 🕏 Redundancy								
🖵 PTT over Cellular								A colo
Carlonika	~	Add	Remo	ve				File
						-		
Set Defaults					Apply		OK	Cancel

- In the **Privacy** pane, specify the following Privacy-related settings:
  - Privacy Type

From the drop-down list, select one of the privacy types: **None**, **Basic**, or **Enhanced**.

### Basic Privacy Key ID

Enter the Privacy Key ID available for the **Basic** privacy type.

#### Enhanced Privacy Keys

Here you add enhanced privacy keys when the **Enhanced** privacy type is selected.

- Click **Add** and specify the required **Algorithm**, **ID**, **Name**, and **Value** for the privacy key being added.
  - ✓ Algorithm

From the drop-down list, select one of the enhanced algorithms if you are going to use additional encryption.

# 5.10.14.2 Data Path

The Data Paths are used to transmit data in a Connect Plus system.

• In the **Configuration** pane, under the corresponding **XRT Controller**, select **Data Path**.

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Configuration		Data Path			
Configuration Co	^	Data Path Data Service: Radio ID:	Extended Data service 64251	÷.	v
Set Defaults	*		Apply	ОК	Cancel

• In the **Data Path** pane, specify the following data path-related settings:

# Data Service

From the drop-down list, select the data service to be used to transfer data.

Radio ID

Enter the Radio ID of the data service.

### 5.10.14.3 Audio Paths

The Audio Paths are talk paths of the system to make and receive voice calls; in general, they are talk groups. TRBOnet Server requires that all audio paths of a Connect Plus system be registered in its configuration. If an audio path is not registered, the TRBOnet operator will not be able to receive and transmit to the corresponding talk group.

• In the **Configuration** pane, under the corresponding **XRT Controller**, select **Audio Paths**.

Configuration		Aud	io Paths				
🛷 Service	^		1				
S Network			Call Type		Source ID		Target ID
🛱 Redundancy		$\checkmark$	Group Call				10
Remote Access Restriction			Group Call				20
Database			Private Call	_	64250		
Reports		$\checkmark$		Ť	04200		
Service Management		$\checkmark$	All Call				
💥 Advanced Settings							
Geocoding Servers							
Radio Systems							
🗘 Services							
Services							
🗰 🕸 Redundancy							
XRT Controller #1							
Privacy							
Data Path							
Audio Paths							
🔤 🕸 Redundancy							
🖵 PTT over Cellular		-					
Carl Teltonika	$\mathbf{v}$		Add Delete				Configure
- · · ·				_			
Set Defaults				A	pply	ОК	Cancel



- In the **Audio Paths** pane, specify the following Audio Path-related settings:
  - To add an Audio Path to the system, click **Add**.
  - Make sure the checkbox in the first column is selected to make and receive Voice Calls from the selected subscriber.
  - From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private Call.
  - Enter the Source ID for Private Calls. In general, this is TRBOnet's Radio ID. If more than one Radio ID is specified in a Connect Plus system (for example, for different dispatchers), the corresponding talk paths should be added for all of them.
  - Enter the **Target ID** for Group Calls. This is the Radio ID of the talk group to make a call to. The Target ID is not applicable for Private Calls and All Calls.

### 5.10.14.4 Redundancy

A Redundant XRT Controller will be used when a connection to the Main XRT Controller is lost.

• In the **Configuration** pane, under the corresponding **XRT Controller**, select **Redundancy**.

Configuration		Redundancy
Service Network	^	Redundant controllers:
Redundancy		Controller IP Address Controller TCP Port Start Local Port
Remote Access Restriction		1 🗸 10.10.112.99 10001 0
Database		
😪 Reports		
Service Management		
🔀 Advanced Settings		
Radio Systems		
Controller #1		
Services		
🔤 🗭 Redundancy		
Controller #1		
Privacy		
💭 Data Path		
Audio Paths		
Redundancy		
TT over Cellular		Add Delete Test
Carl Teltonika	~	Test A T
Set Defaults		Apply OK Cancel

- In the **Redundancy** pane, specify the following Redundant XRT Controller-related settings:
  - Click Add and specify the desired parameters for the Redundant XRT Controller being added.

### Controller IP Address

Enter the IP Address of the XRT Controller that will be used as a Redundant XRT Controller.



## Controller TCP Port

Enter the port number of the Redundant XRT Controller to be used for connections via TCP (10001, by default).

# Start Local Port

Enter the local port of the PC with TRBOnet Dispatch Software. The value 0 (default) means that a random port will be used.

 Click **Test** to check the connection to the Redundant XRT Controller. If the test is successful, you'll see the information on the XRT Controller you are connected to, such as Serial number, Firmware version, and other relevant information.

# 5.10.15 Adding a WAVE 5000 Controller

Before creating a connection to the Wave controller, make sure the Wave server is configured to allow 3rd party applications to connect with a Neocom Software-specified license key.

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add WAVE 5000 Controller.

Configuration	WAVE 5000 controller	#1
💣 Service 🔺		
S Network	Name:	WAVE 5000 controller #1
🛱 Redundancy	Connection:	
Remote Access Restriction	✓ Use proxy for conner	ction
Database		
🕝 Reports	Controller IP Address:	10.10.150.110 -
Service Management	Controller Port:	4502 ‡
X Advanced Settings	TRBOnet Local Port:	0 1
Geocoding Servers		*
Radio Systems	User Name:	test4
Services	Password:	•••••
WAVE 5000 controller #1	Profile:	all-channels -
🖵 PTT over Cellular		
🚛 Teltonika		Test
Remote Agents		
Friendly Servers		
Phone Connect		
Advanced Settings		
Thernal PBX Server		
↓ Data Sources		
🔀 Email		
SMS Notifications		
Set Defaults		Apply OK Cancel

- In the **Wave 5000 controller** pane, specify the following Wave controllerrelated parameters:
  - Name

Enter a name for the Wave controller. This name will be displayed in the Dispatch Console.

Use proxy for connection

Select this option to use a proxy server to connect to the Wave controller.

## Controller IP Address

Enter, or select from the list, the IP Address of the Wave controller.



### Controller Port

Enter the port number of the Wave controller.

### TRBOnet Local Port

Enter the local port number that will be used by TRBOnet Server to establish a connection to the Wave controller.

User Name

Enter the user name. For the user name, refer to the Wave server configuration.

Password

Enter the password for the user. For the password, refer to the Wave server configuration.

Profile

From the drop-down list, select the profile to be used on the Wave server.

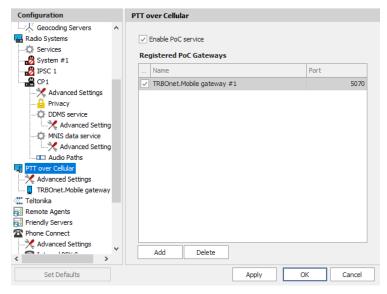
Test

Click this button to check the connection to the Wave controller.

# 5.11 PTT over Cellular

To enable connections of Mobile Client applications to TRBOnet Server, you must configure at least one dedicated gateway.

- In the **Configuration** pane, select **PTT over Cellular**.
- In the PTT over Cellular pane, select Enable PoC service.



# **5.11.1 Advanced Settings**

- In the **Configuration** pane, select **PTT over Cellular > Advanced Settings**.
- In the **Advanced Settings** pane, specify the following parameters:



# Max Call Duration

Specify the maximum duration of a call, in minutes.

### Registration Interval

Enter the time interval, in seconds, to check the registration status of mobile subscribers.

### **Call Hangtime**

### Private Call

This value sets the duration, in ms, during which the private call setup is kept after a Mobile Client user releases the PTT button.

TX Timeout

Enter the time, in seconds, to be used as a limit for PTT calls. When a Mobile Client user starts a PTT session, transmission will be interrupted after this TX Timeout expires.

# 5.11.2 Adding a Mobile Gateway

- In the **PTT over Cellular** pane, click **Add**.
- In the **Mobile Gateway** pane, specify the following parameters:

Configuration		TRBOnet.Mobile gatewa	ay #1			
Geocoding Servers	^					
🖶 Radio Systems		Name:	TRBOnet.Mobile g	atewa	ay #1	
Services		System Identifier:	Mobile 1			
		Local Interface:	127.0.0.1			- ¢
CP1		Local Port:	5070	÷		
Advanced Settings		Public Address/Domain:	84.52,107.217			
Privacy				*		
DDMS service		First VoIP port:	Default	Ŧ		
Advanced Setting						
MNIS data service						
Advanced Setting						
Audio Paths						
PTT over Cellular						
Advanced Settings						
TRBOnet.Mobile gateway						
🚛 Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect						
Advanced Settings	v					
<>						
Set Defaults			Apply		ОК	Cancel

### Name

Enter a name for the mobile gateway.

## System Identifier

Enter the name of the mobile system to which the gateway will belong.

- Local Interface
   Enter the IP address of the PC with TRBOnet Server.
- Local Port

Enter the local UDP port number for the Mobile service (5070, by default).



### Public Address/Domain

This is the public IP address of your PC. Enter the Public Address if your TRBOnet Server is behind a router. To detect the public address, click the ellipsis (...) button.

Public IP Address		×
Detect pu	blic IP Address ov	er STUN server
STUN Server:	stun.ekiga.net	-
Port:	3478 ‡	]
IP Address detected:	80.246.253.115	
Detect		OK Cancel

### • STUN Server

From the drop-down list, select the STUN Server.

• Detect

Click this button to detect your public IP address.

### First VoIP port

Enter the number of the first VoIP port for audio communications. The default value is specified in <u>Network Parameters</u>.

# 5.12 Teltonika

To integrate Teltonika devices into TRBOnet software:

• In the **Configuration** pane, select **Teltonika**.

Configuration	Teltonika
Privacy     DDMS service     Advanced Setting     MIJS data service     Advanced Setting     Advanced Setting     THBOnet.Mobile gateway     Teltonika     Remote Agents     Friendly Servers     Phone Connect     Advanced Settings     Internal PBX Server     Advanced Settings     External PBX Server     Advanced Settings	Teltonika         Image: Enable Teltonika service         Local Interface:       10.10.100.99         Local Port:       5010
↓ Redundancy ↓ Data Sources	
<	
Set Defaults	Apply OK Cancel

• In the **Teltonika** pane:

#### Enable Teltonika service

Select this checkbox and specify the following Teltonika-related parameters.



### Local Interface

From the drop-down list, select the local network interface that will be used to communicate between TRBOnet Server and Teltonika devices.

### Local port

Enter the UDP port number to be used.

# 5.13 Remote Agents

The Remote Agent is TRBOnet Agent installed on a remote PC.

• In the **Configuration** pane, select **Remote Agents**.

Configuration	Remo	ote Agents				
Advanced Setting						
MNIS data service	Reg	istered remo	te Agents:			I
Advanced Setting		Agent Nam	2	IP Address	Port	Redundancy
Audio Paths		Agent #1		10.10.110.190	4020	No
PTT over Cellular						
Advanced Settings						
TRBOnet.Mobile gateway						
Remote Agents						
Redundancy						
Friendly Servers						
Phone Connect						
Advanced Settings						
Thternal PBX Server						
Advanced Settings						
↓ Data Sources						
K Email						
SMS Notifications						
Push Notifications						
📮 License						
< >		Add	Delete			Test
Set Defaults				Apply	OK	Cancel

• In the **Remote Agents** pane, click **Add**.

Configuration	Agent #1		
Configuration  Configuration  Advanced Setting  Advanced Setting  PTT over Cellular  Advanced Settings  Teltonika  Remote Agents  Remote Agents  Rendundancy  Friendly Serverss  Phoe Connect  Advanced Settings	Agent #1 Agent Name: IP Address: Port: Password: Use all services Use selected ser Service Na		Test
Tinternal PBX Server  Advanced Settings  Advanced Settings  Data Sources  Email  SMS Notifications  Push Notifications  License  V	Load services f	rom agent	
< >	Load services f	romagent	
Set Defaults		Apply	OK Ca

• In the **Agent** pane, specify the following parameters:

### • Agent Name

Enter a name for the remote agent. This name will be displayed in the Dispatch Console.



### • IP Address

Enter the IP address of the remote agent.

• Port

Enter the local port number that will be used by TRBOnet Server to accept connections from the remote agent.

Password

Enter the password, if the connection to the remote agent is password-protected.

- Click Test to check the connection to the remote agent.
- Use all services

Choose this option so that all available services will be used on the remote agent.

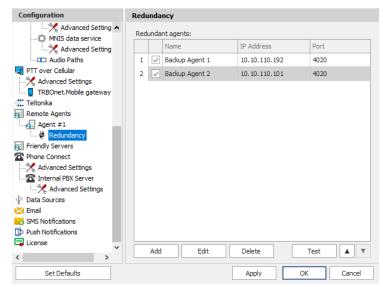
• Use selected services

Choose this option and click the **Load services from agent** link to load services available on the remote agent.

# 5.13.1 Redundancy

A Redundant remote agent will be used when a connection to the Main remote agent fails.

• In the **Configuration** pane, under the corresponding **Agent**, select **Redundancy**.



• In the **Redundancy** pane, click **Add**.

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Remote Agent			×
Agent Name:	Backup Agent 2		
IP Address:	10.10.110.101		
Port:	4020	;	
Password:			Test
Use all services     Use selected ser     Service Na			
Load services f		К	Cancel

- In the **Remote Agent** dialog box, specify the following parameters:
- Agent Name

Enter a name for the redundant remote agent.

• IP Address

Enter the IP address of the redundant remote agent.

• Port

Enter the local port number that will be used by TRBOnet Server to accept connections from the redundant remote agent.

• Password

Enter the password, if the connection to the remote agent is password-protected.

- Click **Test** to check the connection to the redundant remote agent.
- Use all services

Choose this option so that all available services will be used on the redundant remote agent.

• Use selected services

Choose this option and click the **Load services from agent** link to load services available on redundant the remote agent.

• Click **OK** to add a redundant remote agent to the system.

# 5.14 Friendly Servers

The Friendly Servers are used to transmit voice over IP between dispatchers connected to different servers.

• In the **Configuration** pane, select **Friendly Servers**.



C P P								
Configuration		Friend	lly Server	5				
	^							
DDMS service		Regi	stered Frier	dly Servers	:			
Advanced Setting			Name				IP Address	Port
MNIS data service			Region Ser	ver 1			10.10.101.167	4021
			Region Ser				10, 10, 101, 198	4022
Audio Paths			Region Sei	VCI 2			10.10.101.190	1022
🛒 PTT over Cellular								
TRBOnet.Mobile gateway								
🗱 Teltonika								
📑 Remote Agents								
Friendly Servers								
Phone Connect								
Advanced Settings								
Thernal PBX Server								
Advanced Settings								
↓ Data Sources								
Email								
SMS Notifications								
Push Notifications								
License							7	
+	×		Add	Edit		Delete		Test
< >								]
Set Defaults						Apply	ОК	Cancel

• In the Friendly Servers pane, click Add.

Server	:	×
Name:	Region Server 1	
IP Address:	10.10.101.167	
Port:	4021	
Password:	Test	
	OK Cancel	

- In the **Server** dialog box, specify the following parameters:
  - Name

Enter a name for the friendly server. This name will be displayed in the Dispatch Console.

• IP Address

Enter the IP Address of the server.

• Port

Enter the local port number on the PC to connect to the friendly server.

Password

Enter the password, if the connection to the friendly server is password-protected.

- Click **Test** button to check the connection to the friendly server.
- Click **OK** to add the friendly server to the system.

# 5.15 Phone Connect

TRBOnet Server has its own built-in SIP server to support VoIP communications between the radios as well as other SIP-compliant clients. In addition, you can add multiple external PBX servers to the TRBOnet Server configuration.

• In the **Configuration** pane, select **Phone Connect**.

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Configuration		Phone Connect
CP1 Advanced Settings Privacy DDMS service Advanced Setting Advanced Setting Advanced Setting Tri over Cellular Advanced Settings Teltonika Remote Agents Friendly Servers Advanced Settings Teltonika Remote Agents Friendly Servers Advanced Settings Teltonica Structure Settings Thermal PBS Server Advanced Settings Themai SMS Notifications SMS Notifications	~	Add Delete Test A V
< > Set Defaults		Apply OK Cancel

# 5.15.1 Advanced Settings

• In the **Configuration** pane, under **Phone Connect**, select **Advanced Settings**.

Configuration		Advanced Settings			
Configuration Co	~	Advanced Settings SIP Ringing Timeout: Max Call Duration: Public Address: Phone Owner Address:	30 10 84.52.107 Take from	seconds minutes	
< > Set Defaults			Apply	ОК	Cancel

• In the **Advanced Settings** pane, specify the following parameters:

## • SIP Ringing Timeout

Specify the maximum ringing time, in seconds.

Max Call Duration

Specify the maximum call time, in minutes.

Public Address

This is the public IP address of your PC. Enter the Public Address if your TRBOnet Server is behind a router and an <u>External PBX Server</u> will be used. To detect the public address, click the ellipsis (...) button.



Public IP Address	×
Detect	public IP Address over STUN server
STUN Server:	stun.ekiga.net 👻
Port:	3478 🗘
IP Address detected	80.246.253.115
Detect	OK Cancel

### • STUN Server

From the drop-down list, select the STUN Server.

• Detect

Click this button to detect your public IP address.

### Phone Owner Address

From the drop-down list, select 'Take from database'. This will enable determining the street address of a caller.

Click the **Configure** link.

A	Address format	×
	Address format:	
	, %HOUSE_NUMBER%, %STREET_NAME%	•
	Availablefields: %HOUSE_NUMBER%_%FLAT_NUMBER%_%STREET_NAME%_%COMMUNITY_NAME%_	
	%STATE NAME% %POSTCODE% %COUNTRY NAME% %EXTRA INFO%	
	OK Cance	

• Add the required fields to the address information.

# 5.15.2 Internal PBX Server

- Make sure the **Internal PBX Server** option is selected in the **Phone Connect** pane.
- In the **Configuration** pane, select **Internal PBX Server**.

Configuration	Internal PBX Server
CP1 Advanced Settings Privacy DMS service Advanced Setting MILIS data service Advanced Setting TT over Cellular Advanced Settings TRBOnet.Mobile gateway	Internal PBX Server         Local IP:       10.10.1.99 < ♀ Port:       5060 ♀         Dispatch Center         User's Extension:       1234         User Name:       1234
TRBOnet.Mobile gateway TRBONE gateway TR	
Set Defaults	Apply OK Cancel



- In the Internal PBX Server pane, specify the following parameters:
  - Local IP Enter the IP address of the PC with TRBOnet Server.
  - Port

Enter the local UDP port number for the SIP service (5060, by default).

#### **Dispatch Center**

User's Extension

Enter the user's extension number that will be used by the Dispatch Center.

• User Name Enter the user name that will be used by the Dispatch Center.

### 5.15.2.1 Advanced Settings

• In the **Configuration** pane, under **Internal PBX Server**, select **Advanced Settings**.

Configuration		Advanced Settings			
	٨				
		Packet time (ms):	60	÷	
Privacy		Codecs:	G711µ,G711a,O	PUS,OPUS,G729	
DDMS service			3600	*	
Advanced Setting		Registration Interval (sec):	3600	-	
MNIS data service		DTMF Send Mode:	RFC 2833	-	
Advanced Setting		First VoIP port:	Default	÷	
Audio Paths			All		
TT over Cellular		Use VoIP ports:	All	·	
TRBOnet.Mobile gateway					
Carl Teltonika					
Remote Agents					
Friendly Servers					
Phone Connect					
Internal PBX Server					
Advanced Settings					
↓ Data Sources					
🔀 Email					
SMS Notifications	5				
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Set Defaults			Apply	ОК	Cancel
Sec Delauits			мрргу		Cancel

- In the **Advanced Settings** pane, specify the following Internal PBX Serverrelated advanced settings:
  - Packet time

Enter the packet length, in milliseconds.

Codecs

In the drop-down list, select/deselect the codec(s) to be used for audio compression.

Registration Interval (sec)

Enter the time interval, in seconds, to check the SIP registration status of subscribers.

DTMF Send Mode

Enter mode for sending DTMF tones. The available modes are RFC 2833, SIP INFO (DTMF relay), and SIP INFO (DTMF).



### • First VoIP port

Enter the number of the first VoIP port for audio communications. The default value is specified in <u>Network Parameters</u>.

Use VoIP ports

From the drop-down list, select which VoIP ports will be used (all, even, or odd).

# 5.15.3 External PBX Server

You can enable multiple external PBX servers to use the SIP Interconnect feature. This feature enables calls from the radio to the phone and vice versa. The dispatcher can make a call from the Dispatch Console to a phone as well as redirect a phone call to a subscriber radio.

In the Phone Connect pane, click Add.
 Or, in the Configuration pane, right-click Phone Connect and choose
 Add PBX Server.

Configuration	External PBX Server
CP1	Use External PBX Server
DDMS service	Provider options
Advanced Setting	Address: yourprovider.com UDP -
MNIS data service	Port: 5060 ‡ Test
Audio Paths	Local IP: 10.10.100.99 • ¢ Port: 5061 ‡
Advanced Settings	Dispatch Center
Teltonika	User's Extension: 57068
🔂 Remote Agents	User Name: Dispatcher 1
Friendly Servers	User Password:
Phone Connect	Test Call
Advanced Settings	
Advanced Settings	
< >	
Set Defaults	Apply OK Cancel

• In the **External PBX Server** pane, specify the following parameters:

### Use External PBX Server

Select this option to enable an external PBX server.

### **Provider options**

Address

Enter your SIP provider address, and select the protocol from the dropdown list on the right of the address (for more details, contact your SIP provider).

Port

Enter the port number of the SIP provider (5060, by default).

- Click **Test** to check the connection to the provider.
- Local IP

Enter the IP address of the PC with TRBOnet Server.

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### • Port

Enter the local port number to make connections from.

### **Dispatch Center**

Note: This information is provided by the SIP provider.

### User's Extension

Enter the extension number that will be associated with TRBOnet Server to make and receive calls.

- User Name Enter the user name for the login.
- User Password

Enter the user password for the login.

Test Call

Click this button to make a test call.

Note: To make a test call, make sure that the TRBOnet Server service is not running.

# 5.15.3.1 Advanced Settings

• In the **Configuration** pane, under the corresponding **External PBX Server**, select **Advanced Settings**.

Configuration		Advanced Settings				
CP1	^					
		Packet time (ms):	60	÷		
Privacy		Codecs:	G711µ,G711a,OPU5	5,G729	•	
DDMS service		Registration Interval (sec):	3600	*		
Advanced Setting				*		
MNIS data service		DTMF Send Mode:	RFC 2833	Ŧ		
Advanced Setting		Do not register users with F	BX server (SIP trunk)			
Audio Paths		Do not register internal	users with PBX server			
PTT over Cellular		Change User Authentication settings				
TRBOnet.Mobile gateway						
Teltonika		First VoIP port:	Default	÷		
Remote Agents		Use VoIP ports:	All	Ŧ		
Friendly Servers		✓ Allow outgoing SIP calls				
Phone Connect		Available SIP numbers:	5555-6666		-	
Advanced Settings		Available Str Humbers.	0000 0000			
Advanced Settings						
External PBX Server						
X Advanced Settings						
🗰 🛱 Redundancy	v					
C >						
Set Defaults			Apply	ОК	Cancel	

- In the **Advanced Settings** pane, specify the following External PBX Server-related advanced settings:
  - Packet time

Enter the same value as specified in the phone system;

Codecs

In the drop-down list, select/deselect the codecs specified in the phone system.



Note: For more details on Phone System configuration, see <u>Appendix E: SIP Setup for Motorola Phone System</u> (page 406).

## Registration Interval (sec)

Enter the time interval, in seconds, to check the SIP registration status of subscribers.

- Do not register users with PBX server (SIP trunk)
   Select this option so that radios will use the SIP trunk system to get extensions.
  - **Do not register internal users with PBX server** Select this option so that internal users won't be registered with the external PBX server.

### Change User Authentication settings

Click this link to set up user authentication for the systems with enhanced authentication parameters. It is recommended to be used when Radio ID is equal to User's Extension. In case when voice is transmitted via a radio channel, the Radio ID is used. When voice is transmitted via a GSM channel, the User's Extension is used.



- Click **Add** to add a user.
- User's Extension

Enter the extension number for the new user.

- Authorization User Name Enter the name that will be used as the authorization user name.
- Click **OK** to save the new user authorization.

### First VoIP port

Enter the number of the first VoIP port for audio communications. The default value is specified in <u>Network Parameters</u>.

### Use VoIP ports

From the drop-down list, select which VoIP ports will be used (all, even, or odd).

### Allow outgoing SIP calls

Select this option to allow users to make outgoing SIP calls.



### • Available SIP numbers

Enter the range of SIP phone numbers that will be available for outgoing calls.

## 5.15.3.2 Redundancy

A Redundant PBX Server be used when a connection to the main PBX Server fails.

• In the **Configuration** pane, under the corresponding **External PBX Server**, select **Redundancy**.

Configuration	Redundancy
MNIS data service	Redundant PBX Servers:
Auto Paths	PBX Server Address PBX Server Port TRBOnet Local Port
PTT over Cellular	1 🖌 123.21.102.201 5060 5061
Advanced Settings	Summe
TRBOnet.Mobile gateway	
🗱 Teltonika	
Remote Agents	
Friendly Servers	
Phone Connect	
Advanced Settings	
Thernal PBX Server	
Advanced Settings	
External PBX Server	
Redundancy	
↓ Data Sources	
Email	
SMS Notifications	
Push Notifications	✓ Register users when PBX server changes
License	
< >	Add Delete Test A V
Set Defaults	Apply OK Cancel

- In the **Redundancy** pane, click **Add**.
  - PBX Server Address

Enter the IP address of the redundant server.

- Check the corresponding port numbers (PBX Server Port and TRBOnet Local Port).
- Select the checkbox beside the server address.
- Register users when PBX server changes
   Select this checkbox so that phone users will be registered when the PBX server is switched to the redundant server.

# 5.16 Data Sources

The Data Sources feature allows receiving data from third-party applications and devices.

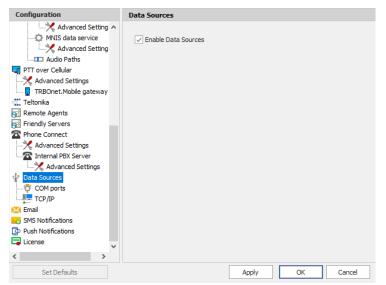
TRBOnet Dispatch Software can work with the following two data source types:

- 1. Physical or virtual devices connected via a COM port
- 2. PCs running third-party applications connected via TCP/IP

To allow TRBOnet Dispatch Software to receive data from a third-party application or device:



• In the **Configuration** pane, select **Data Sources**.

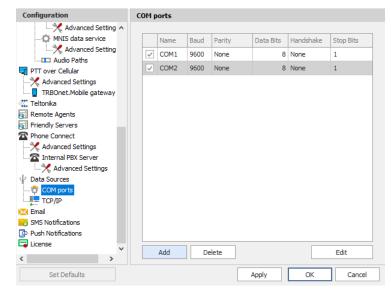


• In the **Data Sources** pane, select the **Enable Data Sources** option.

## 5.16.1 COM Ports

To manage physical or virtual devices connected to the TRBOnet Server PC via COM port:

• In the **Configuration** pane, under **Data Sources**, select **COM ports**.



• In the **COM ports** pane, click **Add** to add a device.

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COM Port	×
Serial port name:	COM1 -
Baud rate:	9600 -
Parity checking:	None -
Stop bits per byte:	1 *
Data bits per byte:	8 -
Handshaking protocol :	None -
Protocol:	Text -
Text Encoding:	ASCII -
Message delimiter:	LINE FEED 0x0A(\n) -
	OK Cancel

• In the **COM Port** dialog box, specify the following parameters:

### Serial port name

From the drop-down list, select the COM port on the PC with TRBOnet Server to which the device is connected to.

Baud rate

From the drop-down list, select the baud rate at which the data is transmitted.

### Parity checking

From the drop-down list, select one of the values that represent the parity-checking protocol.

### Stop bits per byte

From the drop-down list, select the standard number of stop bits per byte.

### • Data bits per byte

From the drop-down list, select the standard length of data bits per byte.

### Handshaking protocol

From the drop-down list, select the handshaking protocol for serial port transmission of data.

### Text Encoding

From the drop-down list, select the Text Encoding type.

Note: The Text Encoding types selected in the TRBOnet Server and in the connected application must be the same to avoid incorrect text display and incorrect data parsing.

# Message delimiter

From the drop-down list, select the type of delimiters in the data.

Note: The Message delimiter types selected in the TRBOnet Server and in the connected application must be the same to avoid incorrect text display and incorrect data parsing.

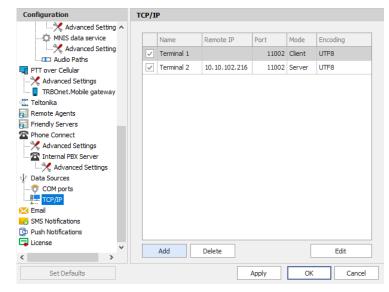


• Click **OK** to save settings and close the dialog box.

# 5.16.2 TCP/IP

To manage PCs running third-party applications:

• In the Configuration pane, under Data Sources, select TCP/IP.



• In the **TCP/IP** pane, click **Add** to add a TCP/IP connection.

External Connection						
Name:	Terminal 2					
Mode:	Server (TRBOnet connects to App)	Ŧ				
Remote IP:	10.10.102.216					
Port:	11002	÷				
Protocol:	Text	*				
Text Encoding:	UTF8	Ŧ				
Ignore the following data						
During:	30 🗘 min					
Discard the following substring:						
	\d{2}:\d{2}:\d{2}					
OK Cancel						

• In the External Connection dialog box, specify the following parameters:

#### Name

Enter a name for the TCP/IP connection.

Mode

From the drop-down list, select the connection mode. The connection mode depends on the type of the application installed on the connected PC:

Client

In this case, the application connects to TRBOnet Server which sends the data to the application.



### • Server

In this case, TRBOnet Server accepts connections from the application and receives the data.

### Remote IP

Enter the IP address of the application server.

Note: Available only when the **Server** connection mode is selected.

### Port

In the case of the **Client** connection mode, select the local port of the PC with TRBOnet Server PC.

In the case of the **Server** connection mode, select the port of the PC where the third-party application is installed.

### Text Encoding

From the drop-down list, select the Text Encoding type.

Note: The Text Encoding types selected in the TRBOnet Server and in the connected application must be the same to avoid incorrect text display and incorrect data parsing.

## Ignore the following data

Select this option so that the following messages arriving during the specified time period will be ignored.

• During

Specify the time period, in minutes, so that similar messages that arrive during this time period will be ignored.

## • Discard the following substring

Enter a regular expression that will be used to filter messages upon arriving and before being processed. For example, the following regular expression  $d{2}:d{2}:d{2}$  means that if a message contains a substring like 11:01:54, then this substring will be dropped before processing the message.

# 5.17 Email Settings

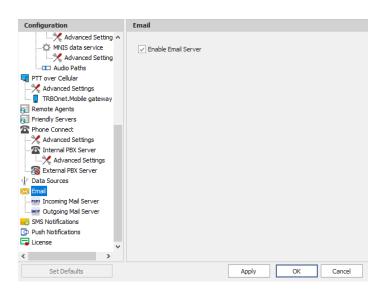
TRBOnet Dispatch Console allows processing emails as follows:

- 1. Receive emails from email servers and forward them to a particular radio or talk group (via a POP3 or IMAP server);
- 2. Send emails from radios to a particular email address (SMTP Server).

Note: Microsoft Exchange Server can be used as SMTP and POP3/IMAP servers.

- In the **Configuration** pane, select **Email**.
- In the **Email** pane, select **Enable Email Server**.





# 5.17.1 Incoming Mail Server

The Incoming Mail Server is used to synchronize the Incoming Emails folder located on a mail server with your local PC. If you are using a POP3 server, all incoming emails can be downloaded from the mail server to the local PC to be then forwarded as text messages to radios or talk groups.

• In the **Configuration** pane, under **Email**, select **Incoming Mail Server**.

Configuration	Incoming Mail Server	
Configuration MNIS data service Advanced Setting Theorem Cellular Advanced Settings TBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Phone Connect Advanced Settings Theorem JPBX Server Advanced Settings External PBX Server Data Sources Estimal PBX Server Data Sources Set Email Server SMS Notifications Set Notifications Set License	✓ Enable         Server:       map.gr         ✓ This         Port:       993         Protocol:       IMAP         Check for new messages       every:         every:       60         Connect using       OAuth         Provider:       Gmail         Email:	nail.com  server requires a secure connection (SSL)  seconds  2.0  Authorize and Check
< > > Set Defaults		Apply OK Cancel

- In the **Incoming Mail Server** pane, specify the following incoming mail-related parameters:
  - Enable

Select this option to enable Incoming Mail Server.

- Server Enter the server hostname or IP address.
- This server requires a secure connection (SSL)
   Select this option to enable a secure connection. Note that a dedicated port will be used to connect to the mail server via SSL.



Note: The port number will automatically change when you select this option. For example, from **110** to **995** for POP3, and from **143** to **993** for IMAP.

### Port

The port number to be used for the connection.

Note: This box is populated automatically depending on the selected protocol and whether a secure connection is required.

#### Protocol

From the drop-down list, select either **IMAP** or **POP3**. Note that if you select **POP3**, all email messages will be deleted from the server once you have downloaded them. In the case of **IMAP**, all new messages will be marked as read once you have downloaded them.

Note: The port number will automatically change when you change the protocol.

#### Check for new messages every X seconds

Enter the time interval to check for new email messages (60, by default).

### Connect using

From the list, select one of the following options:

#### Anonymous access

Select this option to use an anonymous access to the incoming mail server.

### Windows authentication

Select this option to connect via TRBOnet Service Windows Account, if it is running under a specific account;

## • Use login and password

Select this option and specify the credentials for the mailbox:

✓ Login

Enter the incoming mail server login.

✓ Password

Enter the incoming mail server password.

• OAuth 2.0

Select this option if the email server requires OAuth 2.0 authorization.

✓ Provider

From the drop-down list, select either Office 365 or Gmail.

🗸 Email

Enter the email address.



✓ If Gmail is selected as the email provider, enter the Client ID and Client secret.

If **Office 365** is selected as the email provider, enter the **Client ID** and **Tenant ID**.

✓ Authorize and Check

Click this button to authorize your email account and check for new emails.

# 5.17.2 Outgoing Mail Server

The SMTP Server is used to send emails from users to mail servers as well as between mail servers to deliver emails to the final destination.

For example, the administrator can enable email notifications from TRBOnet Dispatch Console to particular email users when alarms occur on selected radios. In this case, the radio sends an alarm to TRBOnet Server which in turn converts this alarm to text and then forwards it as an email message to particular email addresses (for example, to <u>admin@yourcompany.com</u>).

• In the **Configuration** pane, under **Email**, select **Outgoing Mail Server**.

Configuration		Outgoing Mail Server		
MNIS data service Advanced Setting Traver Cellular TRBOnet.Mobile gateway Teltonika Treltonika Treltonika Treltonika Treindly Servers Phone Connect Advanced Settings Triendly Servers Advanced Settings External PBX Server Advanced Settings External PBX Server Data Sources Email Troming Mail Server Outgoing Mail Server SMS Notifications Push Notifications License	~	Enable Sender's Email: SMTP Server: Encryption: SMTP Server Port: Connect using Provider: Email: Client ID: Tenant ID:	outlook.office365.         Explicit (TLS)         587         OAuth 2.0         Office 365	· · · · · · · · · · · · · · · · · · ·
Set Defaults			Apply	OK Cancel

- In the **Outgoing Mail Server** pane, specify the following outgoing mailrelated parameters:
  - Enable

Select this option to enable Outgoing Mail Server.

Sender Email

Enter the email address (optional) of the sender.

SMTP server

Enter the server hostname or IP address of the SMTP server.



### Encryption

From the drop-down list, select the encryption protocol (**SSL**, **TLS**) if a secure connection is required, or select **None** if not. Note that three different dedicated ports will be used to connect to the mail server: via SSL, TLS, or with no encryption.

Note: The port number will automatically change when you select the encryption protocol. For example, from **25** (no encryption) to **465** for SSL, and to **587** for TLS.

### SMTP server port

The port number to be used for the connection.

Note: This box is populated automatically depending on the selected encryption protocol.

### Connect using

From the list, select one of the following options:

### • Anonymous access

Select this option to use an anonymous access to the SMTP server.

### • Windows authentication

Select this option to connect via TRBOnet Service Windows Account, if it is running under a specific account;

## • Login and password

Select this option and specify the credentials for the mailbox:

### ✓ User name

Enter the SMTP server user name.

## ✓ Password

Enter the SMTP server password.

✓ Туре

From the drop-down list, select the SMTP login type.

• OAuth 2.0

Select this option if the email server requires OAuth 2.0 authorization.

✓ Provider

From the drop-down list, select either Office 365 or Gmail.

🗸 Email

Enter the email address.

✓ If Gmail is selected as the email provider, enter the Client ID and Client secret.

If **Office 365** is selected as the email provider, enter the **Client ID** and **Tenant ID**.

✓ Authorize

Click this button to authorize your email account.



#### ✓ Send Test Message

Click this button to send a test message from the Sender Email address.

## 5.18 SMS Notifications

TRBOnet Dispatch Console allows sending SMS notifications to a cell phone when alarms and other events occur on selected radios (for example, DTMF commands from radios, Telemetry, Radio Status, and other events).

- In the **Configuration** pane, select **SMS Notifications**.
- In the SMS Notifications pane, select Enable SMS Service.

Configuration	SMS Notificat	tions		
Advanced Setting 🗸	<b>^</b>			
Audio Paths	Enable St	MS Service		
PTT over Cellular				
	Connecti	on to GSM via:	Vianett servio	ce (www.vianett.com) 🛛 🗸
📘 TRBOnet.Mobile gateway	Sender:			
Teltonika	benden			
🔂 Remote Agents	Usernam	e:	login@yourco	mpany.com
Friendly Servers	Passwor	a.		
The Phone Connect	Passwor	a:	•••••	
		Send Test	MMS	Send Test SMS
Thernal PBX Server				
Advanced Settings				
Data Sources				
TCP/IP				
🔀 Email				
Incoming Mail Server				
Outgoing Mail Server				
SMS Notifications				
Push Notifications				
📮 License				
< >				
Set Defaults			Apply	OK Cancel

• In the **SMS Notifications** pane, specify the following SMS-related parameters:

#### Connection to GSM via

From the drop-down list, select the type of connection.

• COM port GSM modem

Select this item if you are using a GSM Modem connected via COM port. In addition, select the **COM port** the modem is connected to, and enter the **SIM Card Pin Code**.

- Gemalto Cinterion EHS6T LAN Select this item if you are using a Cinterion EHS6T GSM modem connected via LAN. In addition, enter the IP address of the modem, and enter the SIM Card Pin Code.
- Vianett service
   Select this item to use an account on Vianett service.

For more details on Vianett service, see <u>www.vianett.com</u>



## • SMS Broadcast

Select this item to use an account on SMS Broadcast service. For more details on SMS Broadcast service, see <u>www.smsbroadcast.com.au</u>

## • Clickatell

Select this item to use an account on Clickatell service. In addition to the **Login** and **Password**, you'll have to specify the **API ID**.

For more details on Clickatell service, see www.clickatell.com

#### • IntelliSoftware

Select this item to use IntelliSoftware SMS Gateway. For more details on IntelliSoftware SMS service, see <u>www.intellisoftware.co.uk</u>

#### Sender

Enter the sender phone number.

#### Username

Enter the login for the selected service account.

Password

Enter the password for the selected service account.

## Send Test MMS

Click this button to send a test MMS from the selected service account to a recipient's phone number.

Note: This button is available when connected via Vianett service only.

## Send Test SMS

Click to send a test SMS from the selected service account to a recipient's phone number.



## 5.19 Push Notifications

TRBOnet Dispatch Console allows sending push notifications to connected TRBO.SOS applications.

- In the **Configuration** pane, select **Push Notifications**.
- In the **Push Notifications** pane, select **Enable Push Service**.

Configuration	Push Notifications
Advanced Setting A Audio Paths PTT over Cellular Advanced Settings TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Advanced Settings Thternal PBX Server Advanced Settings COM ports TCP/IP Commoning Mail Server Outgoing Mail Server Outgoing Mail Server Outgoing Mail Server Colligned SMS Notifications License X	Enable Push Service     Server: push.trbonet.com     Port: 8081 ‡ Test
Set Defaults	Apply OK Cancel

- In the **Push Notifications** pane, specify the following parameters:
  - Server

Enter the Ethernet IP address of the push server.

Port

Enter the UDP port number of the push server.

Test

Click this button to check the connection to your push server. If the test is successful, you'll see information on the server you are connected to.



# 6 **TRBOnet Dispatch Console**

The key features of TRBOnet can be configured by the administrator in TRBOnet Dispatch Console after initial installation and configuration.

## 6.1 Connecting to Server

- Launch TRBOnet Dispatch using the desktop or Start menu shortcut.
- Enter the required connection settings as explained below.

For the default Admin credentials (**User Name** and **Password**), consult our support team.

Note: For security reasons, we strongly recommend that you change the password for the administrator immediately after the first login. See section <u>6.3.4.5, Changing</u> <u>Password</u>.

Connect to TRBOnet	Server X
Connect to:	
Address:	Server 1 V
Port:	4021 🗘 Configure
Authentication: -	
Method:	TRBOnet Authentication $~~$
User Name:	admin
Password:	•••••
Remember pass     Connect on star	
	OK Cancel

## Connect to:

Address

Enter the IP address of the TRBOnet Server to connect to.

- Note: This is the **Network interface** parameter of TRBOnet Server configured in section <u>5.4, Network Parameters</u> (page 18).
- Port

Enter the local port of the TRBOnet Server PC to accept connections from the Dispatch Console.

Note: This is the **Command port** parameter of TRBOnet Server configured in section <u>5.4, Network Parameters</u> (page 18).

## Authentication:

Method

From the drop-down list, select the Authentication method:



#### • TRBOnet Authentication

Select this method to log on as a User registered in the TRBOnet Dispatch Console Users list.

## • Windows Authentication

Select this method to log on using the PC name. The system automatically shows the PC name as a User Name.

Note: The Windows user must be registered in the TRBOnet Dispatch Console Users list.

#### User Name/Password

Enter the user name and password. For the default Admin credentials (User Name and Password), consult our support team.

Note: For security reasons, we strongly recommend that you change the password for the administrator immediately after the first login. For this, on the **Tools** menu, click **Change Password**.

#### • Remember password

Select this option to have the Dispatch Console application remember your password.

#### • Connect on startup

Select this option to launch the Dispatch Console application without having to type the User Name and Password every time. Use this option if you regularly connect to the same TRBOnet Server and your workstation is in a secure location.

## 6.2 Main Window Elements

When the TRBOnet Dispatch Console application is initially launched, the default Dispatch Console window will be displayed with the **Voice Dispatch** tab being active.

oice Dispatch	Radio Interface									Ŷ
- 🖧 🕼 🕼 🗄 🝸 🛊 🛠 🖻	🗗 🖊 Radio Interface 🛛 Tele	phony   Recent Calls/E	vents							
	9							X	C	lock
🧟 Online Dispatchers (1)									Thursday	, September 30
Administrator									11.	06 AM
Online. Indoor	1								11.	UU AM
Online, GPS Fixed						_		^	Quick Co	mmands 🚺
Online, No GPS (2	Contact Dialer	•	🛛 ) 🛛 🗹	Group 11		Group 22	-		Configure	
★ 4444				11			22			-
Ҟ Radio 125		¥		PTT		PTT			Pre-recorde	d Messages
		1enu 🖚								• 😰 File -
Offline (19)	Line 1	ine 2 Line 3		Session:			Session:		To: Selected	6*
1	Line 4	ine 5 Line 6		Free cha	nnel 4		Free channel		Pat	
H Voice Dispatch										
Location Tracking	1	2 3		Sender:			Sender:			p PTT Box here to new group
Execution (Fracking	4	5 6		6		S			0.000	nen groop
🐕 Job Ticketing	7	8 9							Ra 🔊 Ra	dio Bridge 🔃
		0 #		RX / TX	3	RX / TX -		6		Unknown
📝 Route Management									PTT	Any Groups
	Recent Calls/Events									7.04
Text Messages	🕮 Playback 🖉 Save *	🔒 Print 📕 Pause	🎯 Clear 🔹	🧐 Reload   🌇 Fil	er By Radio 🛛 🗮 Grouping 🥈	🗸 Auto Filter	Oefault Settings	Details	Show Notes	Add Note
Voice Recording	Date	System Send	ier De	estination D	escription	Details				Note
3	30-Sep-21 10:57:47 AM				ivate Call: '4444' called 'Administ					
Reports	30-Sep-21 10:57:27 AM		nistrator 22		oup Call: 'Administrator' called '2					
· ·	30-Sep-21 10:57:20 AM		nistrator 11 nistrator Al		oup Call: 'Administrator' called ' I Call: 'Administrator' called 'A		: Administrator			
Event Viewer	30-Sep-21 10:57:00 AM				vate Call: '4444' called 'Radio 12					
	a 30-Sep-21 10:55:16 AM				attery: 80%	a çaanı remera	,,			
8 Radio Allocation	30-Sep-21 10:52:59 AM		0 125 11	G	oup Call: 'Radio 125' called '11' (	00:04) Talkers	Radio 125			
	H4 44 4 Record 1 of 7 >	н н ч								
s Administration	Recent Calls/Events Rec	uests To Talk Radio St	tate Active 1	Tasks Active Routes	User Activity Map Came	105				

# **TRBOnet Enterprise** — User Manual



The main user interface elements are as follows:

- 1. Main menu
- 2. Radio list panel
- 3. Modules tab panel
- 4. Radio Interface panel
- 5. Activity Monitor panel
- 6. Quick Pane panel

Note: The look of the Dispatch Console windows may have been customized for your specific operation.

## 6.3 Main Menu

The TRBOnet Dispatch Console main menu allows the user to manage the main Dispatch Console options. The main menu is located in the upper left corner of the main window.

## 6.3.1 File

The File menu contains the following items:

• File > Connect to TRBOnet Server

Choose this menu item to connect to a different TRBOnet Server, or to use different credentials for the current connection.

For more details, see section <u>6.1, Connecting to Server</u> (page 109).

• File > Exit

Choose this menu item to exit TRBOnet Dispatch Console.

## 6.3.2 View

The **View** menu contains the following items:

• View > Show Navigation Pane

Choose this menu item to toggle the display of the Navigation pane on the left of the main window. The Navigation pane includes two panes: the Radio list pane and the Modules tab panel (see section <u>6.2, Main Window Elements</u>).

View > Show Touch Keyboard Button

Select this menu item to display a Touch Keyboard button on the bottom of the Modules panel. Clicking this button will bring up a virtual keyboard on the screen.

#### • View > Show Modules

Choose this menu item, and in the drop-down menu select/deselect the modules to display in the Modules tab panel.



#### • View > Additional Tabs

Choose this menu item, and in the drop-down menu select/deselect the tabs to display in the Activity Monitor panel.

## • View > Configure PTT Boxes

Choose this menu item to configure the view of PTT boxes.

lame:	Radio Interface		
Туре	Name	View Mode	Available Calls
Channel	Intercom	Normal	
Channel	Control Station #1	Normal	All
Group	Group 1	Normal	Firemen
Group	Group 2	Normal	Police

In the **Configure PTT Boxes** dialog box, specify the following PTT box parameters:

#### Type

In this column, the box type (for example, Channel, Group, Radio or All Call) is displayed.

Note: The 'Channel' type means that the PTT box has been automatically created by the radio systems connected to TRBOnet Server and it can only be partially edited. The **Edit** link is grayed out when a PTT box of this type is selected.

#### Name

Enter a name for the selected box. This name will be displayed in the title of the PTT box.

#### View Mode

From the drop-down list, select the view mode:

- Invisible
  - Select this mode so that the PTT box will not be displayed.
- Normal

Select this mode so that the PTT box will be displayed in Normal view mode:



Control S	tation #1 🛛 🔳 🕷 🥥
<b>DTT</b>	Channel 1
PTT	All Call 🔻
	Session:
	Free channel
	Sender:
	Sender:
RX / TX	]

## • Minimized

Select this mode so that the PTT box will be displayed in Minimized view mode:



Note: Hover the mouse pointer over the Minimized PTT box to view the PTT box in the Normal view mode.

## Available Calls

From the drop-down list, select the destination radio or radio group for the PTT box.

#### **Create virtual channel boxes**

 To create a virtual PTT box, click the Create link in the lower-left corner of the Configure Voice Boxes dialog box.

Virtual Channel			×
🗹 Name:	Group Call		
Call Type: All Call Group Call Private Call Execute call or Execute call or Execute call or Execute call or Control S	n all available cha nly on selected ch	Dispatcher	*
	e's #1: Slot #1 #1: Slot #2		
		OK	Cancel

In the **Virtual Channel** dialog box, specify the following virtual channel parameters:

Name

Select this option and enter a name for the virtual channel.

• Choose a **Call Type** for the channel.



#### Call Destination

(available only when Group Call or Private Call is selected as the Call Type)

Choose **Select by Dispatcher** to allow the dispatcher to select a Call Destination.

Or, choose **Selected from list** and from the list below select the desired group (if the Group Call type is chosen) or individual radio (if the Private Call type is chosen).

#### Execute call on channels

(available only when All Call or Group Call is selected as the Call Type) Choose **Execute call on all available channels**,

or **Execute call only on selected channels** and in the list below select the available channels.

#### • View > Configure Active Calls panel

Choose this menu item to configure call types and advanced settings for the Active Calls panel. This menu item is available if **View > Show Active Calls Panel** is selected.

#### Call Types

On this tab, you can select which call types to display in the Active Calls panel:

Active Calls	×
Call Types Advanced	
Latil types       Advanced         □       Show All Call         □       Show Group Calls         □       Show Private Calls         □       Show Remote Monitor         □       Show Intercom Group Calls         □       Show Intercom Private Calls	
	OK Cancel

## Advanced

On this tab, you can set following options:

#### • Show Visible Channels

Select this option to display Visible channels in the Active Calls panel.

#### • Show Hidden Channels

Select this option to display Hidden channels in the Active Calls panel.



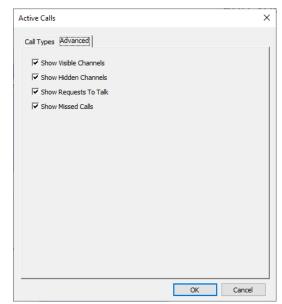
Note: For the visibility of channels, see <u>Configure PTT boxes</u>, <u>View Mode</u>.

#### • Show Requests To Talk

Select this option to display Requests To Talk in the Active Calls panel.

#### • Show Missed Call

Select this option to display Missed calls in the Active Calls panel.



The **Active Calls** panel is displayed in the upper part of the Dispatch Console:



#### • View > Customize Shortcuts

Choose this menu item to configure shortcuts for the actions on the selected channels.



Ch	u'		×
Change Shortcut Se	ttings		~
Show shortcut bu	ttons		
Shortcut	Device Button	Action	Caption
Shift		Terminate All Tran	Terminate 🔺
Space		Toggle Select chan	Toggle Select
L		Unmute channels	Unmute
Enter	Mone (Footswitch	PTT	Intercom
		PTT	DG 1
		PTT	IPSC 1: Slot #1
		PTT	IPSC 1: Slot #2
		PTT	Group 11
144 44 4 Record 4	of 11 ▶ ₩ ₩ ◀		Þ
🖶 Create 📑 Edit	× Delete		Show all PTT boxes
			OK Cancel

- To configure shortcut PTT actions to the PTT boxes, click the Show all PTT boxes link, double-click the desired PTT box(es) to apply the changes, then assign a keyboard shortcut or combination of keys.
- To configure specific non-PTT actions to PTT boxes (for example, mute channels or set default PTT channels), click the **Create** link to make the changes:

Action		×
Caption:	Mute Mode	
Shortcut:	Ctrl	<b>;;;</b> }
Device Button:	Mone (Footswitch PTT)	*
Action:	Mute channels	-
Channels:		
<ul> <li>✓ Telephony</li> <li>✓ Intercom</li> <li>□ DG 1</li> <li>□ IPSC 1: Slot #1</li> <li>□ IPSC 1: Slot #2</li> </ul>		
Group 11		
Group 22		<b>–</b>
	ОК	Cancel

In the **Action** dialog box that appears, specify the following parameters:

• Caption

Enter the caption that will be displayed in the Dispatch Console.

• Shortcut

Click the **Configure** button, and on the keyboard, press the key or key combination you want to assign as a shortcut for the selected action.

• Device Button

From the drop-down list, select the external device button you want to assign for the selected action.

• Action

From the drop-down list, select the desired action:

✓ Toggle Select channel

This action sets the Select status to selected PTT boxes and the Unselect status to others.

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✓ Mute channels

This action mutes selected PTT boxes.

✓ Unmute channels

This action unmutes selected PTT boxes.

- Toggle Mute channel
   This action sets the Unmute status to selected PTT boxes and the Mute status to others.
- Terminate All Transmissions
   This action terminates all transmissions for selected PTT boxes.
- Change channel settings
   This action will configure settings, such as Recorder, Player,
   Speaker, etc., for the channel specified below.
- Change Sound settings
   This action will configure the Sound settings, such as Recorder and Player.
- Channels

In the list below, select the PTT boxes to which to assign the actions specified above.

• To enable displaying the configured shortcuts in the Dispatch Console, select the **Show actions panel** option.

All the shortcuts you have configured are displayed in the upper part of the Dispatch Console:

File View Map Tools Help		
Voice Dispatch	Radio Interface	😫 🗐
gi 🗄 h 📽 🛠 🏹 😒	Radio Interface Recent Cals/Events Radios Terminate all Transmit	Quick Commands
😑 🦣 Online Dispatchers (1)	Active Calls	Configure
Administrator		Pre-recorded Messages 🗙
🐵 📙 Firemen 📃 🗐		🔘 Record 👻 😰 File 👻
Police 📮		To: Selected Channels
	Intercom	Patch X
Voice Dispatch	PTT All Call PTT Channel 4	Drag and Drop PTT Box here to create new group
GPS Positioning	Session:	
🚰 Job Ticketing	Free channel Free channel	
💓 Route Management	Sender:	
RFID Tracker		
C Text Messages		
Uvice Recording	Recent Calls/Events	Auto Filter @ Default Settings
Reports	Date Radio System Sender Recipient Message Details	Note
OB Reports	29-Sep-2016 18:15:42 Intercom Administrator Al Intercom Call: Dispatcher ' Members	s: Administrator
Event Viewer	🔀 29-Sep-2016 17:53:22 RadioServer All Connection to 'Control Sta	
	29-Sep-2016 17:27:01 Intercom Administrator All Intercom Call: Dispatcher ' Member	
Radio Allocation	29-Sep-2016 17:27:00 Control Station Administrator Police Dispatcher 'Administrator' Members     29-Sep-2016 17:26:48 Intercom Administrator All Intercom Call: Dispatcher' Members	
<i>v</i> -	Z 29-569-2016 17:20:46 Intercom Administrator All Intercom Call: Dispatcher Member:     H 4 4 Record 1 of 319	s: Administrator
administration	Recent Calls/Events Recent Calls Radio State Active Tasks Active Routes User Activity Map Cameras	
🔂 127.0.0.1 🛞 🕵 🕵 💁 Administ	ator 📑 Licensed to: demo Demo License	🖉 Active

• View > Add Radio Interface Tab

Choose this menu item to add a new Radio Interface tab to the Radio Interface pane.



Name:	Radio Interface #1			
Гуре	Name	View Mode	Available Calls	
Channel	Telephony	Normal		
Channel	Intercom	Normal		
Channel	DG 1	Normal		
Channel	IPSC 1: Slot #1	Normal	All	
Channel	IPSC 1: Slot #2	Normal	All	
Channel	Group 11	Normal		
Channel	Group 22	Normal		
Channel	All Call	Normal	All	
Radio	Private Call	Normal	All	

- In the Configure PTT Boxes dialog box, specify the following PTT box parameters for the new radio interface:
  - Name

Enter a name for the radio interface.

Other parameters can be configured in the same way as when <u>Configuring PTT Boxes</u>.

The user can switch between Radio Interfaces by clicking on the tab bar in the upper part of the **Radio Interface** pane.

	Radio Interface							9
1 🗄 1 👶 🗶 🍸 🚳	Radio Interface Radio	Interface #1	Recent Calls/Ev	ents Radios	1			
	Terminate all Transmit	~					Quick	Commands
🛛 🤵 Online Dispatchers (1)	-		Active C	alls		×	Configu	re
Administrator								orded Mes
Firemen 📮								
Police P								rc 🔻 🎦 File
D Police						^	To: Sele	cted Channels
	Intercom	-0		Control Sta	ation #1 🕘 🛋			Patch
		 			Channel 4	5		
	PTT	aii		PTT				Drop PTT Box he sate new group
Voice Dispatch					All Call	-		
5	Sessio	n:			Session:			
GPS Positioning		hannel			Free channel			
<b></b>								
📅 Job Ticketing	Sende	r:			Sender:			
Route Management								
Noute Hundgement						5		
RFID Tracker	RX / TX		_	RX / TX -		-		
<b>_</b>						-7		
Text Messages	Recent Calls/Events					- vi		
		h Datas   11 Dat	an d Class	in natural 1	🌃 Filter By Radio 🛛 🚍 G	· · · · · · · · · · · · · · · · · · ·	Auto Filter	
2							Auto Thitei	
Voice Recording		-		-		Details		
× ·	Date	Radio System	Sender	Recipient	Message	Details Members: Adr	ninistrator	Note
🔮 Voice Recording	Date 30-Sep-2016 10:48:54	-		-		Members: Adr		Note
Reports	Date	Radio System Intercom	Sender Administrator	Recipient All	Message Intercom Call: Dispatche	Members: Adr Members: Adr		Note
<b>x</b> -	Date 30-Sep-2016 10:48:54 29-Sep-2016 18:15:42 29-Sep-2016 17:53:22 29-Sep-2016 17:27:01	Radio System Intercom	Sender Administrator Administrator	Recipient All All	Message Intercom Call: Dispatche Intercom Call: Dispatche	Members: Adr Members: Adr	ministrator	Note
Reports	Date Date Date Date Date Date Date Date	Radio System Intercom Intercom Intercom Control Statio	Sender Administrator Administrator RadioServer Administrator Administrator	Recipient All All All All Police	Message Intercom Call: Dispatche Intercom Call: Dispatche Connection to 'Control S Intercom Call: Dispatche Dispatcher 'Administrato	Members: Adr Members: Adr Members: Adr Members: Adr	ministrator ministrator ministrator	Note
Reports	Date 30-Sep-2016 10:48:54 29-Sep-2016 18:15:42 29-Sep-2016 17:53:22 29-Sep-2016 17:27:01	Radio System Intercom Intercom Intercom Control Statio Intercom	Sender Administrator Administrator RadioServer Administrator	Recipient All All All All	Message Intercom Call: Dispatche Intercom Call: Dispatche Connection to 'Control S Intercom Call: Dispatche	Members: Adr Members: Adr Members: Adr Members: Adr	ministrator ministrator ministrator	Note

#### • View > Delete Radio Interface Tab

Choose this menu item to delete the Radio Interface tab currently selected in the Radio Interface pane.

Note: The default Radio Interface tabs can't be deleted.

#### • View > Show Channel Selector Box

Select this menu item to display a separate PTT box that allows selecting a channel.

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	-
Intercom	
IP Site Conne	ct: Slot #1
IP Site Conne	ct: Slot #2
	,
	Session:
	Sender:
G	nannel not selected

Click the arrow of the drop-down list and select the channel for this PTT box.

## • View > Show Call Type Buttons

Select this menu item to display the Call Type Buttons panel in PTT boxes.

IP Site Con PTT	All Call
	Session: Free channel
	Sender:
RX /TX	

## • View > Show Keypad Panel

Select this menu item to display the Keypad panel in PTT boxes.



Note: The Keypad panel will be displayed only when the **Num** button is pressed in the Call Type Buttons panel.

## • View > Audio Message Library

Choose this menu item to add configured Voice Messages to the Queued Messages panel. For how to configure Voice Message settings, see <u>Tasks</u>, <u>Voice Message</u>.



۳.,	Add 🗙 Remove 🔤	T Filter Shortcut			
	Filename	Description	Severity	Shortcut	Visibility
	Alarm Tone		Alarm		Hidden
	Bobby.mp3		Information		Button
	Daisy.wav		Information		Link

- In the **Saved Audio Files** dialog box, specify the following parameters:
  - Filename

The name of the message displayed in the Queued Messages panel.

• Description

Enter a description for the Voice Message.

• Severity

From the drop-down list, select the severity level (Information, Alarm, or Warning).

• Shortcut

Click the **Shortcut** button and press the key or key combination you want to assign as a shortcut for the selected Voice Message box.

• Visibility

From the drop-down list, select how to display the selected Voice Message box:

✓ Hidden

Hide the Voice Message box.

✓ Button

Display the Voice Message as a button (1).

✓ Link

Display the Voice Message as a link (2).

Radio Interface			🔮 🚸
Radio Interface Recent Calls/Events	Radios		
Terminate all Transmit			Quick Commands
	Active Calls	۷	
		1 2	Pre-recorded Messages X
			🥥 Record 🔻 😰 File 💌
Intercom	📧 🙆 🛛 🔽 Control Statio	n #1 🛛 📧 🖉 🔪	Daisy.mp3
PTT All call	PTT -	Channel 4	Bobby.mp3
PTT	PTT	I Call 🔻	To: All Channels
Session:		sion:	Patch X
Free channel		e channel	
Free channel		e channel	Drag and Drop PTT Box here to create new group
Sender:		nder:	
RX / TX	RX / TX		
		),	



#### • View > Extended PTT boxes

Select this menu item to display PTT boxes as shown:



## • View > Large PTT boxes

Select this menu item to display PTT boxes as shown:



View > Medium PTT boxes
 Select this menu item to display PTT boxes as shown:



• View > Small PTT boxes Select this menu item to display PTT boxes as shown:

 View > Custom PTT boxes > Select Custom PTT Boxes 1 to display PTT boxes as shown:



Select **Custom PTT Boxes 2** to display PTT boxes as shown:





Select **Custom PTT Boxes 3** to display PTT boxes as shown:



#### • View > PTT Box Themes

Click this menu item and select the theme to be edited, or create a new theme.

#### To create a new theme:

- Click View > PTT Box Themes > Create Theme.
- In the **PTT Box Theme** dialog box, enter a theme name and specify desired colors for PTT box elements in various statuses and for various call types.
- From the **Preview** list box, select the box size/type and see how it will look like.
- To set the theme as default, select the **Set as default theme** option located at the bottom of the dialog box.
- Click OK.

PTT Box Theme					×
Name:	Police				
PTT Box Statuses:		<b>Defaults</b>	Preview:	Large PTT Boxes	*
Channel discor	nnected o Talk / Missed Call	^	Control	Station / Channel	
Transmit status H All Call Group Call			PTT	Recipients	
Emergency     Private Cal     Energency     Private Cal     Energency	1			Session: Free channel	
All Call Group Call Emergency	Cal	*		Sender:	
Select Colors:		Defaults			
Title Text:		*	RX / TX		
Background:	255, 213, 213	-			
Outer Border:		*			
Text:	108, 0, 0	*			
Field Borders:		٣			
Indicator Backgro	und:	*			
Status Bar Text:		٠			
PTT:		*			
Delete	Set as default theme			ОК	Cancel

#### • View > Show Active Calls Panel

Select this menu item to display the Active Calls panel in the Dispatch Console.

See also <u>Configuring Active Calls panel</u>.

#### • View > Show PTT Search Bar

Select this menu item to display the search bar in the Radio Interface panel.

### • View > Show Clock Panel

Select this menu item to display the Clock panel (1) in the Dispatch Console.



- View > Show Quick Commands Panel Select this menu item to display the Quick Commands panel (2) in the Dispatch Console. For more details, see section <u>6.5.6</u>, <u>Quick Commands</u>.
- View > Show Pre-recorded Messages Panel
   Select this menu item to display the Pre-recorded Messages panel (3) in the Dispatch Console. For more details, see section <u>6.5.7, Pre-recorded</u> <u>Messages</u>.
- View > Show Patch Panel

Select this menu item to display the Patch panel (4) in the Dispatch Console. For more details, see section <u>6.5.5</u>, <u>Patches</u>.

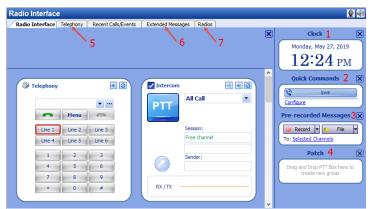
 View > Show Phone Calls Tab Select this menu item to display the Phone Calls tab (5) in the Radio Interface pane.

#### • View > Show Extended Messages Tab

Select this menu item to display the Extended Messages tab (6) in the Radio Interface pane.

#### • View > Show Radios Tab

Select this menu item to display the Radios tab (7) in the Radio Interface pane.



## 6.3.3 Map

- Select **Location Tracking** (1) in the Navigation pane to enable Map Options:
- Click the **Map** menu (2).



ocation	Select Active Map						👲 🐠 😉	Objects	
1 := 1	Save Online Map I	Data				_		ii ii	
· · · ·	Map Content	ee	• 0	Intercom	• • •	Group 10			
Fire 🗎	Print	2		Group 20		Group 11		😔 - 📝 🦢 Beacons	
Fire	Geocoding	2	•) • Ø	Private Call				🗹 🎯 Beer	
<b>*</b>	Open New Map in	Tab						- 🗹 🎯 Coffe	e
ے 😒 🚷	Open New Map in	Floor	plan 🗙					💷 🗹 🎯 Tea	
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	Show Radios on G	oogie Earth V	~					🖕 📝 📴 Map Regi	ons
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RFID Trac Text Mes Voice Rec Reports	cker sages	Recent Calls/Events	ve v Print     Radio Sys :57 :30 Capacity F :06 Capacity F	Hospital II Pause Clear - stem Sender Server Plus 1 Admistrator 125	Reload Fil Recipient All 11 11	235 235 59'56'27.63" N: Lo ter By Radio   = Message Connection Dispatcher Radio '125'	ngitude: 30°16'49.88" E Grouping 🍸 Auto Fi to 'Capacity Plus 1'h 'Administrator' calls gr calls group '11' (00:08)	Iter 💮 Default Setti Details Members: Administra Members: 125	ings itor, 125
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RFID Trac Text Mes Voice Rec Reports Event Vie	cker isages cording wer	Recent Calls/Events	ve - Print     Radio Sys :57 :30 Capacity F :06 Capacity F :55 Capacity F :34 Capacity F	Hospital II Pause Clear - Item Sender Server Plus 1 Administrator Plus 1 Administrator Plus 1 Administrator	Reload Fil Recipient All 11 11	235 235 59'56'27.63'' N: Lo ter By Radio 1 Message Connection Dispatcher' Radio 125' Dispatcher'	ngitude: 30°16'49.88" E Grouping 🍸 Auto Fi to 'Capacity Plus 1'h 'Administrator' calls gr calls group '11' (00:08)	Iter 💮 Default Setti Details Members: Administra Members: 125 Members: Administra	ings itor, 125 itor

The **Map** menu contains the following items:

• Map > Select Active Map

Click this menu item to select the map to display in the Dispatch Console.

	Path	State
MAPNIK		OK
CYCLE		OK
TRANSPORT		ОК
ANDSCAPE		OK
SING_ROAD		OK
SING_AREA		OK
SING_HYBRID		OK

- Enter the **Caption** of the map that will be displayed in the Dispatch Console.
- In the list of **Available Maps**, choose the map to be displayed.

#### Adding custom maps

You can also add an online map using its specific URL.

• Click the **Add** button.

ame: lap Type:	Map 1 WMS (Web Map Se			
ap type. RL:		ervice) del.edu:80/geoserver/DGS_Surficial_and_Conta	act Geolog	v/wms
~ ~			[	Get Capabilities
Map Title	Identifier	Description	Style	
	US-DE_DGS US-DE_DGS	This map shows the surficial geology of D		

• Enter a **Name** for the new map.



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From the drop-down list, select the map type: Custom Map, WMS (Web Map Service), or WMTS (Web Map Tile Service)

• Enter the URL of the map service and click Get Capabilities.

As a result, the table in the lower part of the dialog box will get populated with the available map layers.

- Select the checkbox in the left column of the table to enable the appropriate map layer.
- Click **OK**.

As a result, the new map will appear in the list of available online maps.

• Map > Save Online Map Data

Click this menu item to save your current map region.

Download Map Tiles					-		×
Region from N59*	57'32.29"	E030°17'59.	68" to N	59"56"1	3.91" E03	30°17'19	.45"
Tile expiration, days:	30	\$					
Refresh all tiles							
	Zoo	m level: 16 Tile:	to downlo	ad: 23			
Status: Finished Loading zoom level: 16 Loaded from the web: 0 Updated from the web: Local: 23 Failed: 0	)						
Preview tiles St	10w dawnla	aded tiles Loaded: 23 of	23 (100 %	.)			
				Sta	rt	Clos	e

In the dialog box, specify the following parameters:

## Tile expiration, days

Enter the expiration time, in days, for the map tiles. When you download the map, the already downloaded tiles are checked and if they are older than this number of days, these map tiles will be re-downloaded from the Internet.

## Refresh all tiles

Select this option to re-download the map tiles before saving to your PC.

Zoom level

Move the slider from left to right to increase the detail level of the map.

Preview tiles

Select this option to show how the map is divided into tiles.

## Show downloaded tiles

Select this option to show the progress bar while the online map is being saved.

 Click **Start** and wait for the system to save the files. This may take several minutes.



#### • Map > Map Content

Click this menu item to specify the folder and settings to store the map data.

Inline Map			-		×
Map cache					
Cache folder:					
D:\Temp\Maps					
				Change	
Update:	Never	$\sim$			
Map Type:	BING_ROAD				~
Bing key:					
http://msdn.microse	ift.com/en-us/library/ff42864	2 aspx			_
		(	ОК	Canc	el

In the **Online Map** dialog box, specify the following settings:

#### Cache folder

Click **Change** and locate the folder on the PC where you want to store the map data.

Update

Select the update interval ('Never', 'Immediately', or 'By period') for the map data stored in the specified Cache folder.

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From the drop-down list, select the map type. For more details on the maps used in TRBOnet Dispatch Console, see section <u>6.3.3.1, Map</u> <u>Types</u> (page 126).

## All A states of the state of

Enter the key for the selected map.

Note: To obtain the key, click the hyperlink below and follow the instructions.

## 6.3.3.1 Map Types

#### **Online maps:**

- MAPNIK free online map. For more details on OpenStreetMaps, visit the official the website: <u>http://www.openstreetmap.org</u>
- Thunderforest commercial online maps. Visit <u>http://www.thunderforest.com/docs/apikeys/</u> to get a key.
- Microsoft BING commercial maps from Microsoft. Includes BING\_ROAD, BING\_AREA, and BING\_HYBRID subtypes. A user may use BING maps for 90 days and then they must get a Basic Key. Visit <u>http://msdn.microsoft.com/en-us/library/ff428642.aspx</u> to get a Basic Key.
- Google Maps online mapping service from Google. Visit <u>https://developers.google.com/maps/documentation/javascript/get-api-key#key</u> to get a key.



 Custom Maps – online mapping services such as TRBOnet Map Server, WMS and WMTS services. For more details, refer to *TRBOnet Map Server User Guide*. For more details on the WMS/WMTS services, visit <u>http://www.opengeospatial.org/standards/wms/introduction.</u>

#### **Offline Maps:**

 TMap – internal map-making resource. The user can create an offline copy of online maps for selected regions according to their needs and requirements. The user can create a map from any picture via the TRBOnet Map Edit application.

## Click Start > All Programs > Neocom Software > TRBOnet Enterprise> Console> TRBOnet.MapEditor.exe

For more details on map calibration, read the following article at: <a href="https://trbonet.com/kb/how-do-i-create-a-custom-map-for-trbonet/">https://trbonet.com/kb/how-do-i-create-a-custom-map-for-trbonet/</a>

- Beacon 2D two-dimension offline map for Indoor positioning. The user can create indoor maps using the Indoor 2D Map Converter. See section <u>6.4.21.2, Indoor 2D Map Converter</u>.
- Beacon 3D three-dimension map for Indoor positioning. The user can use any DirectX file as a map.
- Map > Print

Click this menu item to print the map region currently displayed in the Map pane.

## • Map > Geocoding

Click this menu item to configure geocoding servers in the Dispatch Console.

	Server Name
~	Google
7	Nominatim

 Load data from TRBOnet Server if Geocoding services are unavailable on local PC

Select this option to receive location data from the TRBOnet Server PC if the Dispatch Console is unable to resolve location data.

 For other settings, see section <u>5.9.1.1, Configuring Geocoding Servers</u> (page 28).

## • Map > Open New Map in Tab

Click this menu item to add a new map tab to the Map pane.



Map Type:	Online maps			
Caption:	Му Мар			
Available Maps				
Name	Path			State
MAPNIK				OK
CYCLE				OK
TRANSPORT				OK
LANDSCAPE				OK
BING_ROAD				OK
BING_AREA				OK
BING_HYBRID				OK
Add	Edit	Remove	OK	Cancel

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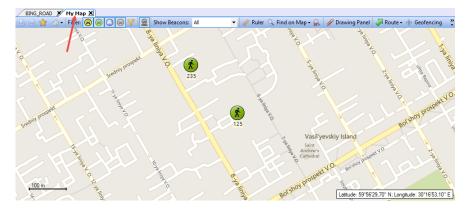
From the drop-down list, select the map type.

Caption

Enter a caption for the new map tab.

For other settings, see <u>Selecting Active Map</u>.

Once you have clicked **OK**, the new tab will appear in the Map pane:

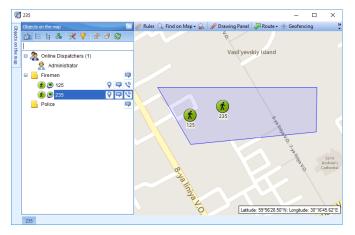


#### • Map > Open New Map in Window

Click this menu item to create a new map window with the specified map.

For required settings, see <u>Selecting Active Map</u>

Once you have clicked **OK**, the new Map window will appear:



## • Map > Google Earth Click this menu item to open the Google Earth application.



- Note: Google Earth must be previously installed on the PC. To download Google Earth, go to the Google Earth website <u>https://www.google.com/intl/en/earth/desktop/</u>, and click **Download**.
- Map > Delete Routes on Google Earth Click this menu item delete all routes from Google Earth.
- Map > Show Radios on Google Earth Click this menu item and in the drop-down menu select which radios to display on Google Earth.

## 6.3.4 Tools

The **Tools** menu contains the following items:

## • Tools > Event Viewer in Window

Click this menu item to open the Event Viewer in a new window.

30-Sep-21 11:12:40 AM CP1 Radio 125 22 Group Call: Radio 125 called '22' (00:04) Talkers: Radio 125	essages Date	V	System	Sender	Destination	Description	Details
(i)         3/3-59-21:11:12:04         (i)         7-48         7-48         7-28	ox (i) 30-Sep-2	1 11:12:46 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125
Open         0         30 - Sep-21 11:12:124         PDI         Redu 125         11         Disco Coll: Medical Section 127 colled: 117 (DOI-9)         Tables: Redu 125           00         30 - Sep-21 11:12:124         Mole 1         4444         Rodo 125         Protect Coll: 444+ coll 454 Mole 125 (DOII)         Tables: Felder 2444, Rodo 125           00         30 - Sep-21 11:10:124         Mole 1         4444         Rodo 125         Protect Coll: 444+ coll 454 Mole 125 (DOII)         Tables: 4444, Rodo 125           01         30 - Sep-21 10:57:244         Mole 1         4444         Rodo 125         Protect Coll: 444+ coll 454 Mole 125 (DOII)         Tables: 4444, Administrator           01         30 - Sep-21 10:57:244         Mole 1         4444         Rodo 125         Protect Coll: 444+ coll 454 Mole 1250 (DOI)         Tables: Administrator           01         30 - Sep-21 10:57:244         Mole 1         4448         Rodo 125         Protect Coll: 444+ coll 454 Mole 1250 (DOI)         Tables: Administrator           01         30 - Sep-21 10:57:244         Mole 155         I         Adoi: Mole 1250 (DOI)         Tables: Rodo 125 4444           01         30 - Sep-21 10:57:244         Mole 155         I         Adoi: Administrator: Coll: 444 coll 454 Mole 2010 (DOI)         Tables: Rodo 155 4444           01         30 - Sep-21 0:57:744	(i) 30-Sep-2	1 11:12:46 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administrate
0         30-069-11 ID:21.04         Mode 10-2         11         Group Call Residue 12-2	(i) 30-Sep-2	1 11:12:40 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125
3) 3-39-01 1110:1114         Mode 1         ++++         Rodo 13         ++++         ++++         Rodo 13         ++++++         ++++++         ++++++         +++++++         +++++++++         ++++++++++++         ++++++++++++++++++++++++++++++++++++	signals i 30-Sep-2	1 11:12:39 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125
30 - 30 - 21, 05.97-744         Mob.1         4+44         Admestator         Private Call: 4+44 - datel 24 collars 3 - dates 4+44 - Admestator           30 - 30 - 21, 05.97-744         Mob.1         4+44         Admestator         Coll: Admestator 4042 (20003)         Taker: Admestator           30 - 30 - 21, 05.97-744         Mob.1         4+44         Admestator         Coll: Admestator 4042 (20003)         Taker: Admestator           30 - 30 - 21, 05.97-744         Mob.1         4+44         Roda 0.25         Coll: Admestator 404 (20003)         Taker: Admestator           30 - 30 - 21, 05.97-304         Mob.1         4+44         Roda 0.25         Private Call: 4446 (20003)         Taker: Admestator           30 - 30 - 21, 05.97-304         Mob.1         4444         Roda 0.25         Private Call: 4446 (20003)         Taker: Admestator           30 - 30 - 21, 05.97-304         Mob.1         Roda 0.25         Private Call: 4446 (call: Admestator (20003)         Taker: Roda 0.25 (2003)           31 - 20 - 21, 05.97-304         Mob.1         Roda 0.25         Private Call: 4446 (call: Admestator (2000)         Taker: Roda 0.25 (2001)           31 - 20 - 21, 05.97-304         Mob.1         Roda 0.25         Private Call: 4446 (call: Admestator (2001)         Taker: Roda 0.25 (2001)           31 - 20 - 21, 05.97-304         Mob.1         Roda 0.25 (2001)         Taker:	ands 30-Sep-2	1 11:12:11 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125
Dispersion         Dispersion <thdispersion< th="">         Dispersion         Dispersi</thdispersion<>	<ol> <li>30-Sep-2</li> </ol>	1 11:10:52 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Talkers: 4444
0             0	30-Sep-2	1 10:57:47 AM	Mobile 1	4444	Administrator	Private Call: '4444' called 'Administrator' (0	Talkers: 4444, Administrator
(i) 35 459-21 10:57:00 AM         CP1         Administrator         II         Goog Cal: Xelementator         III 40000000000000000000000000000000000	30-Sep-2	1 10:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator
3) 30 dep 21 10:51:01 MM         Hölde 1         444         Rade 125         Phone Cell Fedde Caller Rade 125 (00:30)         Talkers Rade 125, 4444           3) 30 dep 21 10:52:01 MM         Frag         Rade 125         11         Group Cell Fadde 125 called 11 (00:00)         Talkers Rade 125, 4444           3) 30 dep 21 10:52:01 MM         Frag         Rade 125         11         Group Cell Fadde 125 called 11 (00:00)         Talkers Rade 125           3) 21 dep 21 4:50:10 PM         F71         Administrator All         All Cell Administrator (alled 11 (00:00)         Talkers Administrator           3) 21 dep 21 4:50:10 PM         F71         Administrator         Group Cell Ministrator (alled 11 (00:00)         Talkers Administrator           3) 24 dep 21 4:50:10 PM         Internon         Manistrator         Dag 24 def 11 (00:00)         Talkers Administrator           3) 24 dep 21 4:50:10 PM         Internon         Administrator         Dag 24 def 11 (00:00)         Talkers Administrator           3) 24 dep 21 4:50:10 PM         Internon         Administrator         All Call Administrator (all 21 Ministrator)         Talkers Administrator           3) 24 dep 21 4:50:10 PM         Internon         Administrator         All Call Administrator (all 21 Ministrator)         Talkers Administrator           3) 24 dep 21 4:50:12 PM         PT         Administrator         Group Call "	ssages i 30-Sep-2	1 10:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator
1)         39-569-21 19-52:94         P1         Rodo 125         11         Grap Call: Nation 125 (Gald V11 (100-6))         Taken: Rado 135           1)         21-669-21 49-51194         P1         Administrator VI         Administrator VI         Administrator VI           1)         21-669-21 49-51194         P1         Administrator VI         10         Grap Call: Nationator VI (100-6)         Taken: Administrator VI           1)         21-669-21 49-510194         P1         Administrator VI         11         Grap Call: Nationator VI         Grap Call: Nationator VI         Taken: Administrator           1)         21-669-21 49-510194         P1         Administrator         Call: Mathemater VI         Call: Mathemater VI         Taken: Administrator           1)         21-669-21 4-50-51094         Intercon         Administrator         Call: Mathemater VI         Taken: Administrator           1)         21-669-21 4-50-51094         Intercon         Administrator         Call: Call: Mathemater VI         Taken: Administrator           1)         21-669-21 4-50-51094         Intercon         Administrator         Call: Mathemater VI         Taken: Administrator           1)         21-669-21 4-50-5204         Intercon         Administrator         Call: Mathemater VI         Taken: Administrator           1)	30-Sep-2	1 10:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator
<u>             12</u> 24-59-21 4-50:10 M             0F1             Administrator               All Call: 'Administrator 'alled 'A' (00:03)               Takes: Administrator <u>             21-59-21</u> 4-30:10 M               CPI               Administrator               Group Call: 'Administrator 'alled               Takes: Administrator               Group Call: 'Administrator               Takes: Administrator               Takes: Administrator         <	30-Sep-2	1 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444
0.225-69-21-49:01:90          0.91             Adventators 11          Drags Call -Memistrator Valide 17 (00x0)             100x0          Dialess - Adventators                 0.225-69-21-49:01:90          Networkstork Valide 17 (00x0)          Dialess - Adventators                 0.225-69-21-49:01:90          Networkstork Valide          Memistrator Valide          Memistrator Valide          Networkstork          Network          Network	<ol> <li>30-Sep-2</li> </ol>	1 10:52:59 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125
21-5ep-21-4:00:10/PM Intercom Administrator Dispatcher Group 1 Group Call' Administrator Called Dispatcher. Takers: Administrator     21-5ep-21-4:00:10/PM Intercom Administrator All Call' Administrator Called TA (Doctor) Takers: Administrator     21-5ep-21-4:00:10/PM Intercom Administrator Objective Group 2 Group Call' Administrator Called Taylouch Calles: Administrator     21-5ep-21-4:00:10/PM Intercom	1 21-Sep-2	1 4:30:10 PM	CP1	Administrator	All	All Call: 'Administrator' called 'All' (00:03)	Talkers: Administrator
1             21-56-91             21             21-56-91             21-56-91             21             21	21-Sep-2	1 4:30:10 PM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:06)	Talkers: Administrator
21-5ep-21-4:30:10 PM Intercom Administrator Dispatcher Group 2 Group Call: "Administrator" called 'Dispatche Talkers: Administrator     21-5ep-21-4:33:21 PM CP1 Administrator 22 Group Call: "Administrator Called '22 (00:0-0) Talkers: Administrator     21-5ep-21-4:33:21 PM CP1 Administrator 22 Group Call: "Administrator Called '22 (00:0-0) Talkers: Administrator	21-Sep-2	1 4:30:10 PM	Intercom	Administrator	Dispatcher Group 1	Group Call: 'Administrator' called 'Dispatche	Talkers: Administrator
21 Sep-21 4:28:32 PM CP1 Administrator 22 Group Cal: 'Administrator' called '22' (00:04) Talkers: Administrator     22 Coroup Cal: 'Administrator' called '22' (00:04) Talkers: Administrator	21-Sep-2	1 4:30:10 PM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:02)	Talkers: Administrator
A DE CAR DE ADD 20 DEL COLO A ADDISTRIA DE CAR COLO CAR DE LA ADDISTRIA DE LA	21-Sep-2	1 4:30:10 PM	Intercom	Administrator	Dispatcher Group 2	Group Call: 'Administrator' called 'Dispatche	Talkers: Administrator
	1 21-Sep-2	1 4:28:32 PM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:04)	Talkers: Administrator
	H 4 1 R	cord 2 of 212				encode to describe and solid to at feet on on	wallingen Aufertation and
	🗹 🛛	lestination:	11				🔞 Playback 🔐 Save 📷 Add
Destination: 11 (7) Playback 🛶 Save 📷 Ad		Radio 125 calle		7)			

• Tools > Recent Calls/Events in Window Click this menu item to open Recent Calls/Events in a new window.

-Sep-21 11:12:46 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Takers: Radio 125	
-Sep-21 11:12:46 AM						
-3eb-51 11/15/40 Will	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administr	
-Sep-21 11:12:40 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
-Sep-21 11:12:39 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
-Sep-21 11:12:11 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125	
-Sep-21 11:10:52 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Takers: 4444	
-Sep-21 10:57:47 AM	Mobile 1	4444	Administrator	Private Call: '4444' called 'Administrator' (00:02)	Talkers: 4444, Administrator	
-Sep-21 10:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
-Sep-21 10:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
-Sep-21 10:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator	
-Sep-21 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444	
-Sep-21 10:55:16 AM		4444	All	Battery: 80%		
-Sep-21 10:52:59 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
<ul> <li>Record 1 of 391</li> </ul>	► H H 4					Þ
	Sep-21 11:12:39 AM Sep-21 11:10:52 AM Sep-21 11:10:52 AM Sep-21 10:57:47 AM Sep-21 10:57:27 AM Sep-21 10:57:20 AM Sep-21 10:57:00 AM Sep-21 10:55:10 AM Sep-21 10:55:16 AM	Sep-21 11:12:39 AM         CP1           Sep-21 11:12:11 AM         Mobile 1           Sep-21 11:10:52 AM         Mobile 1           Sep-21 10:57:07 AM         Mobile 1           Sep-21 10:57:07 AM         CP1           Sep-21 10:57:07 AM         CP1           Sep-21 10:57:07 AM         CP1           Sep-21 10:57:07 AM         CP1           Sep-21 10:57:07 AM         Mobile 1           Sep-21 10:55:16 AM         Mobile 1           Sep-21 10:55:16 AM         Mobile 1           Sep-21 10:55:16 AM         CP1	Sep-21 1112.219 AM         CP1         Radio 125           Sep-21 1110523 MM         Mobile 1         4444           Sep-21 1110523 MM         Mobile 1         4444           Sep-21 105722 AM         Mobile 1         4444           Sep-21 105722 AM         CP1         Administrator           Sep-21 105722 AM         CP1         Administrator           Sep-21 105720 AM         Intercom         Administrator           Sep-21 1055710 AM         Mobile 1         4444           Sep-21 1055710 AM         P1         Administrator           Sep-21 1055710 AM         Mobile 1         4444           Sep-21 1055710 AM         Mobile 1         4444           Sep-21 1055710 AM         Mobile 1         4444           Sep-21 1055710 AM         P1         Administrator           Sep-21 1055710 AM         Mobile 1         4444           Sep-21 1055710 AM         P1         Radio 125	Sep-21 11:12:13 AM         OP1         Radio 125         11           Gep-21 11:15:12:11 AM         Mobie 1         4444         Radio 125           Gep-21 11:15:12:13 AM         Mobie 1         4444         Radio 125           Gep-21 11:15:12:14 AM         Mobie 1         4444         Radio 125           Gep-21 10:15:27:07 AM         Mobie 1         4444         Administrator           Gep-21 10:57:07 AM         CP1         Administrator         11           Gep-21 10:57:07 AM         Intercom         Administrator         AI           Gep-21 10:55:10 AM         Intercom         Administrator         AI           Gep-21 10:55:10 AM         Mobie 1         4444         AI           Gep-21 10:55:10 AM         Mobie 1         4444         AI           Gep-21 10:55:10 AM         Mobie 1         4444         AI           Gep-21 10:55:10 AM         Administrator         11           Gep-21 10:55:10 AM         CP1         Radio 125         11	Sep-21 11:12:39 AM         OPI         Radio 125         11         Group Call Radio 125 called '11 (00:0-)           Sep-21 11:10:23 AM         Mobile 1         4444         Radio 125         Private Call' 4444 called Radio 125 (00:0:1)           Sep-21 11:10:23 AM         Mobile 1         4444         Radio 125         Private Call' 4444 called Radio 125 (00:0:1)           Sep-21 10:57:27 AM         Mobile 1         4444         Radio 125         Private Call' 4444 called Radio 125 (00:0:0)           Sep-21 10:57:27 AM         Mobile 1         4444         Radio 125         Private Call' 4444 called Radio 125 (00:0:0)           Sep-21 10:57:20 AM         Mobile 1         4444         Radio 125         Group Call' Administrator (20:0:0)           Sep-21 10:57:20 AM         Mobile 1         4444         Radio 125         Group Call' Administrator (20:0:0)           Sep-21 10:57:20 AM         Mobile 1         4444         Radio 125         Private Call' 4447 called Radio 127 (00:0:0)           Sep-21 10:57:20 AM         Intercom         Administrator         All Call' Administrator called '11 (00:0:0)           Sep-21 10:55:10 AM         Mobile 1         4444         All         Battery: 80%           Sep-21 10:55:10 AM         Mobile 1         4444         All         Battery: 80%           Sep-21 10:55:10 AM         Mo	Sep-21 111:23 PAM         CP1         Rodo 125         11         Group Call: Rado 125 called '11 (00:0-0)         Talkers: Rado 125 Talkers: Rado 125 Talkers: Rado 125 Physice Call: '4447 caller Rado 125 (00:11)           Sep-21 11:10:22 AM         Mobie 1         444         Rado 125 Physice Call: '4447 caller Rado 125 (00:12)         Talkers: R444, Rado 125 Physice Call: '4447 caller Rado 125 (00:01)         Talkers: R444, Rado 125 Physice Call: '4447 caller Rado 125 (00:01)         Talkers: R444, Rado 125 Physice Call: '4447 caller Rado 127 (00:01)         Talkers: R444           Sep-21 10:57:20 AM         OF1         Administrator         Physice Call: '4447 caller Rado 122 (00:00)         Talkers: Administrator           Sep-21 10:57:20 AM         OF1         Administrator         Physice Call: '4447 caller Rado 122 (00:00)         Talkers: Administrator           Sep-21 10:57:20 AM         OF1         Administrator         Nota Call: '4447 caller Rado 122 (00:00)         Talkers: Administrator           Sep-21 10:55:10 AM         DF1         Administrator         All         All: 'Administrator Calle' 11 (00:00)         Talkers: Administrator           Sep-21 10:55:10 AM         DF1         Rado 125         Physice Call: '4447 caller Rado 125 (00:02)         Talkers: Administrator           Sep-21 10:55:10 AM         OF1         Rado 125         Physice Call: '4447 caller Rado 125 (00:02)         Talkers: Administrator           Sep-21:0:55:10 AM

- Click **Playback** to play back the selected call.
- Click **Save** to save the selected call as an audio file.



In the **Save As** dialog box, locate the folder where you want to save the audio file, specify the file name, and from the drop-down 'Save as type' list, select the format (\*.wav, \*.tna, or \*.ogg) for the audio file.

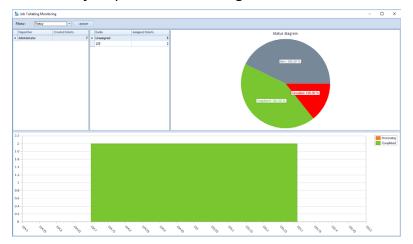
• Click Add Note to add a note to the selected event.

	×
	<b></b>
	-
OK Car	ncel

- Enter the text of the note in the text box.
- You can extend the form of a note by clicking the **Add Extension** link and adding new fields and their possible values to the form.

## • Tools > Job Ticketing Monitoring

Click this menu item to open the window that visually represents the job tickets created by dispatchers and assigned to radios.



In this window, you can perform the following actions:

- Select a time period for which to display Job Ticketing data.
- Monitor tickets created by dispatchers.
- Monitor tickets assigned to radios.

All data are shown in the form of status diagrams.

#### • Tools > Radios in Window

Click this menu item to open a new window that displays the radios present in the system.

# **TRBOnet Enterprise** — User Manual



😨 Radios		- 🗆 X
Filter: Statuses: (Online, Indoor), (Online	Radio Groups:	All V (Select All) V Select All) V Gelect All V Gelect V Constant of the select All V Constant of the s
125	235	✓ 11     ✓ 22     ✓ Mobile Client     ✓
& Q	ß	ę

In this window, you can make radio calls, send text messages. In addition, you can select to display radios by groups and statuses.

#### • Tools > Phone Calls in Window

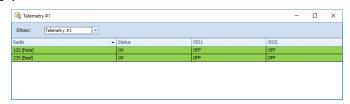
Click this menu item to open a new window that displays Phone Calls available in the system.

Phone	Calls					-	o x
1	🗢 Finish	Walt	_	^	•	+	o 🌵
	Hold Forward	00:15			1	2	3
2					4	5	6
		Line free			7	8	9
	📞 Call				С	0	<
3					<u> </u>	Call	
	Call	Line free	Contacts -		Dispa	tcher Gr	oup 2
			/		Dispa	tcher Gr	oup 1
4		Line free	Shortcuts	1		Eugene	
	📞 Call					Walt	

In this window, you can make and receive phone calls. To make a call, enter a phone number in the dial string and click **Call**. You can also select a contact from the Contacts list. Or, use the shortcut buttons you have previously created for your contacts (**Tools > Contacts**).

#### • Tools > Telemetry Monitoring

Click this menu item to open the window that displays configured telemetry profiles for the radios.



• From the **Show** drop-down list, select the Telemetry profile to display.

See also section <u>6.4.12</u>, <u>Telemetry</u> (page 227).

• Tools > Text Messages in Window Click this menu item to open a new window to manage text messages.



🖼 Text Messages		-	×
💼 🗄 🗄 🛠 🍸 🗇 🗇 🔇			
	05-Oct-2016 17:51:19 Received from 235 to 125 His be on		
Online Dispatchers (1)	05-Oct-2016 18:01:43 Received from 235 to 125		
Administrator	only 6 m		
E Firemen			
£ 🔊 125 📮 🕈			
💰 💌 235 📮 🕈			
Police			
	Recipient: 🎄 Police \cdots 🗈 Send 🔘 Attach F	ile	
			125

In this window, you can perform the following tasks:

- View sent messages in the upper-right pane.
- Select online dispatchers and radio groups in the left pane, or by clicking the ellipsis (...) button in the lower-right pane.
- Type messages in the text box in the lower-right pane.
- Send messages by clicking the **Send** button in the lower-right pane.

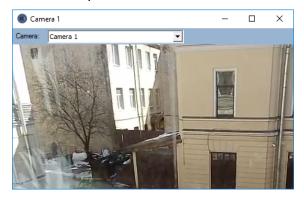
#### • Tools > Routes in Window

Click this menu item to open a new window to manage routes.

For more details on Route Management configuration, see section <u>6.8, Guard Tour / Route Management</u> (page 349).

#### • Tools > Camera in Window

Click this menu item to open a new window with an IP camera view.



In this window, the IP camera view is displayed.

### Camera

From the drop-down list, select a camera that is connected to TRBOnet Dispatch Console.

See also section <u>6.4.9</u>, <u>IP Cameras</u> (page 220).

#### • Tools > Reset All Location Triggers

Choose this menu item to stop/start location triggers on all radios.



## • Tools > Dynamic Regrouping

Click this menu item to dynamically regroup radios depending on current needs. For more details, see section <u>6.4.31.2</u>, <u>Dynamic Regrouping</u>.

Note: The Dynamic Regrouping feature is available only for Capacity MAX systems. In addition, the radio's firmware version must be 2.10 or later, and the DGNA feature must be enabled on the radios.

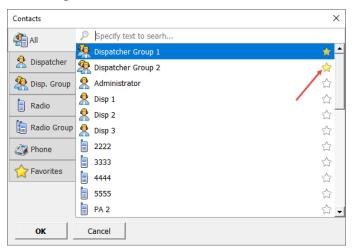
#### • Tools > Terminate All Transmissions

Click this menu item to terminate all voice sessions.

This action is a "hard" request to stop all "hung" transmissions in the TRBOnet software. If a radio communication session is not allowed to be interrupted on a repeater or base station, it will only be stopped for the TRBOnet software.

#### • Tools > Contacts

Click this menu item to open the Contacts list for reference purposes as well as for creating favorites and shortcut buttons.



#### **Creating favorites**

• In the right pane, click the gray star on the right of the contact's name until it turns yellow.

## **Creating shortcut buttons**

• Click the Favorites tab.



Contacts		×
All	Specify text to searh	
A Disestation	Dispatcher Group 1	€★
😤 Dispatcher	😤 Dispatcher Group 2	<b>e</b>
🞘 Disp. Group	Zugene	
Radio	🧼 Walt	1 👄 🚖
📔 Radio Group		
🦪 Phone		
숨 Favorites		
ОК	Cancel	

• In the right pane, click the circle to on the right of the contact's name and from the menu that opens select the desired button color.

The shortcut buttons you have created will appear in the Phone Calls window (**Tools > Phone Calls in Window**).

## 6.3.4.1 Options

• On the **Tools** menu, click **Options**.

		1					
ound	Map	Coverage Ma	p Hardware	Advanced	Audio	Alarm	Phone Call
0	Cor	nfigure the Soun	d Notification				
7.08	e Souni	d Notifications					
_		specific sound n	otifications, s	elect the corr	espondir	na notific	ation
even	it, and f	from the Sound li	st, select the	desired sound	d file	ig noune	
4	D. Tak	nermit					
	) Tak						
	D. Line						
	Alar	m or Emergency	Call				
		t message receiv					
	Info	rmation received					
4	Wan	ning received					
4	Aları	m received					
4	Syst	tem error					
4	🔊 Alarr	m Tone					
ę	🔊 Priva	ate call					
٩	Req	uest To Talk / Mis	sed call				
9	🗞 Radi	io Online					
9	🗞 Radi	io Offine					
Soun	d:						
(Sou	nd by d	default)			~	Se	elect
Alam	n or Eme	ergency Call dura	ation:	5 🗘	second	ds	

## Sound

- In the **Options** dialog box, click the **Sound** tab.
  - Use Sound Notifications Select this option to enable sound notifications in the Dispatch Console.
  - Select the event in the list and specify the sound.
  - From the Sound drop-down list, select ether 'Sound by default' to play default sound, or 'Disabled' to disable sound notification for the event.

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- Click listen to the sound notification for the selected event.
- Click **Select** and browse for the audio file on your PC.
- Alarm of Emergency Call duration
   Enter the time value, in seconds, for the duration of the alarm tone when an emergency call is received.

#### Мар

• In the **Options** dialog box, click the **Map** tab.

Sound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Cal
	Cor	nfigure the image p	parameters t	hat are show	n on the	e map	
Map n	efresh ir	nterval:		30 🖨	secor	nds	
Show	direction	ns:					
Show	radio na	ames:					
Show	map obj	ject names:		$\checkmark$			
Hide o	verlapp	ing names of obje	cts:				
Group	nearby	icons:					
Show	last kno	wn locations of or	nine radios:				
Show	PTT on	map:		Radios		1ap Obje	cts
Defau	lt Map F	Filter:		8	3	8	
Show	coordin	ates on map:		Degrees, M	inutes, S	Seconds	*
Select	image s	size:		32 x 32 pix	els		×
Select	default	timage type:		🛞 Portabl	e Radios		- + -
The in	ages bi	elow will be shown	on the map				
Ŕ	) (	<b>*</b>	*				
Path t	o Googi	e Earth exe file					
							×

• Map refresh interval

Enter the time period, in seconds, to update map data.

• Show directions

Select this option to display a direction of motion for map objects.

• Show radio names

Select this option to display radios names on the map.

- Show map object names Select this option to display object names on the map.
- Hide overlapping names of objects Select this option to hide overlapping object names.
- **Group nearby icons** Select this option to group nearby icons together.
- Show last known indoor locations of online radios If this option is selected, online radios will remain displayed at the beacon location after they left the beacon's coverage area and have not detected another beacon yet.
- Show PTT on map

Select this option to allow the dispatcher to make private calls by clicking a corresponding radio icon on the map.



## • Default Map Filter

Select/deselect the icons for the default map filter (for a description of the icons, see section 6.6.2.4, Filters).

#### Show coordinates on map

In the drop-down list, select the coordinate systems/units that will be used to display coordinates in the lower-right corner of the Map pane.

• Select image size From the drop-down list, select the size of a radio icon.

#### • Select default image type

From the drop-down list, select the default image type of a radio icon.

#### • Path to Google Earth exe file

Click the ellipsis (...) button and specify the location of the Google Earth exe file on your PC. For example, the path may look like: *C:\Program Files\Google\Google Earth Pro\client\googleearth.exe* 

#### **Coverage Map**

TRBOnet Dispatch Console allows displaying RSSI levels on a map. The RSSI is a received signal strength indicator. It measures the power level of the RX signal at a repeater's receiver. The RSSI maps can be used by radio system engineers to plan further extension of their radio networks.

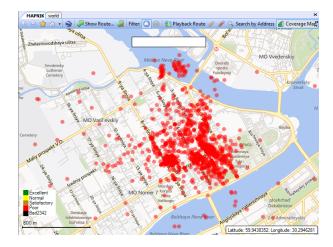
• In the **Options** dialog box, click the **Coverage Map** tab.

Option	ns								×
Sound	i Map	Coverage	Мар На	dware	Advanced	Audio	Alarm	Phone Call	s
		dots verage zon RSSI zone							
П	Value (dE	3) V	Descriptio	n		Co	lor		
•			Excellent				Green	l.	
			Normal				Orang		
_			Satisfacto	ry				oldenrod	
		-113					DarkM	lagenta	
- H		-00	Bad				Red		
	Add	D	elete				Def	ault	

## Show as dots

For a more detailed data view, choose this option to display on the map, dots of RSSI levels representing coordinate points.



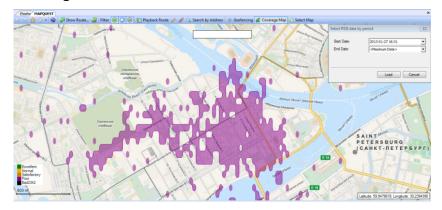


#### Show coverage zones

For a less detailed view, choose this option to configure and display on the map, RSSI zones of average RSSI levels using GPS coordinates.

#### • RSSI zone size

Enter the size of the RSSI zone within which RSSI levels will be averaged.



- Click **Add** to add a new RSSI level.
  - Value

Enter the minimum level for the signal range (for example, -65 means -65 and higher).

• Description

Enter the name of the RSSI level to display in the system.

Color

Pick a color for the RSSI indicator on the map.

To view RSSI Levels on the map, click the **Location Tracking** tab in the **Navigation** pane, and on the **Map** pane toolbar, click **Coverage Map**. Then set the Start Date and End Date to display RSSI data.

## Hardware

• In the **Options** dialog box, click the **Hardware** tab.



ound	Мар		Coverage	e Map	Hardwar	e Advanced	Audio	Alarm	Phone Call
X						to press the F			nt such as a
_ u	lse sign	aling	device						
S	ierial po	ort:			CO	M1			~
					Cor	ifigure			
ixter	mal Dev	/ices							
_	Name					Description			
v	Footsw					COM3			
	Microph		1			TRBOnet Mic			
	Keyboa					Wired Keyboa			
- -									
irst 1	/o 🕮	TR TR	80net N	licrop ledia [	hone Ada Dock 2000 itch (RS2)	ppter	•		
irst i	√o mm ₽ ♥ \$€	TRI TRI TRI	8 <mark>0net M</mark> 80net M 80net Fr	licrop ledia [ potswi	Oock 200	apter			
irst i		TRI TRI TRI TRI HII	30net M 30net M 30net Fi 30net Fi 3	licrop ledia [ potswi	Dock 200 itch (RS2	apter	•		
irst i	√o mm ₽ ♥ \$€	TRI TRI TRI TRI HII	BOnet M BOnet M BOnet Fe BOnet Fe D ectX	licrop ledia [ potswi	Dock 200 itch (RS2	apter	•		

#### Use signaling device

Select this option to use an external signaling device.

• Serial port

From the drop-down list, select the COM port the signaling device is connected to.

 Click **Configure** and specify the duration of a signal and which call types to include in signaling.

Signaling COM port	×
Duration	10 seconds
Private Call	
Call Alert	
Alarm	
	OK Cancel

The **External Devices** table displays the connected devices (Type/Name/Description).

- Click the **Add** link, and from the pull-down menu select the type of TRBOnet device with a PTT button connected to the PC (Microphone Adapter, Media Dock, or Footswitch), or the device type (HID, DirectX, TIPRO, or COM).
- In the dialog box that opens, specify the desired device parameters, and click **OK**.
- First VoIP port

Enter the number of the first VoIP port for audio communications (4022, by default). Each additional Dispatch Console will create a connection on the next port number.

• First IP Camera port

Enter the number of the first IP Camera port for video communications (13152, by default). Each additional Dispatch Console will create a connection on the next port number.



#### • Use proxy server

Select this option to enable a Proxy Server service in TRBOnet Dispatch Console to access the Internet.

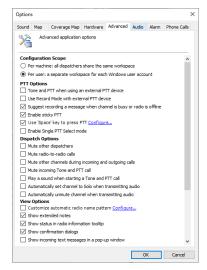
A proxy server can be used when a user's computer cannot be connected directly to the Internet, but there is another computer with Internet access in the network.

✓ Click the **Configure** link to specify the alternative server settings.

Configure th	e proxy server	×
✓ Use an al Settings	ternative server	
Address:	177.71.134.70	
Port:	80 🜩	
Authenticati		
Username:	User	
Password:	••••	
	ОК	Cancel

#### Advanced

• In the **Options** dialog box, click the **Advanced** tab.



## **Configuration Scope**

Per machine

Choose this option to store settings in a common place for all dispatchers of the Dispatch Console.

Per user

Choose this option to store settings for each dispatcher separately if they are using different Windows user accounts.



#### **PTT Options**

Tone and PTT when using external PTT device

Select this option to enable Alert Tone for all subscribers on a channel when the dispatcher presses the PTT button on an external PTT device.

- Use Record Mode with external PTT device
   Select this option to record all voice transmissions from external PTT devices (Palm mics, Footswitches, and other devices).
- Suggest recording a message when channel is busy or radio is offline

Select this option to record a message when a radio channel is busy or radio is offline.

Enable sticky PTT

Select this option to start and finish voice calls by a short press of the PTT rather than holding the PTT down until the end of a voice call.

#### Use 'Space' key to press PTT

Select this option to use a shortcut for the PTT. Click the **Configure** link, and on the keyboard, press the key or combination of keys you want to use as a shortcut for the PTT button.

#### Enable Single PTT Select mode

Select this option so that only one PTT box can be selected at a time, that is you can't have multiple selected PTT boxes.

#### **Voice Options**

- Mute other dispatchers
   Select this option to mute all other dispatchers voice transmissions.
- Mute radio-to-radio calls
   Select this option to mute all private calls on the channel.
- Mute other channels during incoming and outgoing calls Select this option to mute other channels when the dispatcher transmits audio or records a voice message.
- Mute incoming Tone and PTT call Select this option to mute the tone when you receive a Tone and PTT call.
- Play a sound when starting a Tone and PTT call
   Select this option to play the tone when you start a Tone and PTT call.
- Automatically set channel to Solo when transmitting audio Select this option to mute other channels when transmitting audio.
- Automatically unmute channel when transmitting audio Select this option to automatically unmute a channel when transmitting through this channel.



#### **View Options**

#### Customize automatic radio name pattern

Select this option and click the **Configure** link to set a custom alias for a radio in the list of radios. Once the changes are made, selecting this checkbox will cause a change to the radios in the Radio list pane (upper left pane of the Main Interface screen).

Display Formats	×
Display Formats	~
Radio display name:	
%NAME%	
Example: My Radio	
Display name of allocated radio:	
%NAME% (%OWNER%)	
Example: My Radio (John Smith)	
Display name of allocated radio (user took two or more radios):	
%NAME% (%OWNER%)	
Example: My Radio (John Smith)	
Defaults OK Cano	el

#### • Radio display name

Click the ellipsis (...) button and in the **Format** dialog box pick the fields to display for a radio.

%NAME% (%CHANNE	EL%)		
Example: My Radio (Co	ontrol Station / Channe	l)	
Add Field:			
Radio Name			
Radio Owner's name			
Radio ID			
Active Channel			

## • Display name of allocated radio

Click the ellipsis (...) button and in the **Format** dialog box pick the fields to display for an allocated (taken) radio.

- **Display name of allocated radio (user took two or more radios)** Click the ellipsis (...) button and in the **Format** dialog box pick the fields to display for an allocated (taken) radio in case when a user has more than one radio.
- Click **Defaults** to set default settings for radio display.

## Show extended notes

Select this option to enable Extended Notes in the Dispatch Console.

The Extended Notes feature is intended to add predefined Extended Notes templates, the same as for Extended Messages, for the selected calls and events.

For example, a Taxi Dispatcher needs to check clients' call response period for the company internal monitoring of the employees. They



can add a predefined template and check the time period. All Extended Notes are displayed in the **Ext. Note** column in the **Recent Calls/Events** tab:

	Date T	7 Radio System	Sender	Recipient	Message	Ext. Note	Note
$\mathbf{\hat{x}}$	7/7/2014 3:49:56 AM		Radio 11	All	Geofencing Alarm [Dat		
¥.	7/7/2014 3:49:56 AM		Radio 11	All	Radio left allowed region		1
4	7/7/2014 3:47:52 AM	Repeater #1 Slot 1	Radio 105	Dispatcher	Administrator Accept		1
*	7/7/2014 3:41:24 AM	Repeater #1 Slot 1	RadioServer	Radio 105	Telemetry status cann		
4	7/7/2014 3:40:16 AM		Administrator	All	test		
0	7/7/2014 3:39:08 AM	Repeater #1 Slot 1	Radio 105	Unknown group: 1010	Radio 'Radio 105' calls	View	
$\mathbf{x}$	7/7/2014 3:32:55 AM		Administrator	Radio 105	Dispatcher 'Administra		
$\mathfrak{R}$	7/7/2014 3:18:43 AM		105	All	On Duty		> 2
2	7/7/2014 12:56:40 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		1
ō	7/4/2014 4:01:35 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		
T	44 4 Record 54 of 83	T-Annany -	A JANNARA AND	A11			

Click the **Extended Notes** button (1) to fill the template;

Click the **View** button (2) to see the Extended Note.

Show status in radio information tooltip
 Select this option to show the radio status in the Radio information

tooltip (see section 6.5.1.3, Radio Information Tooltip).

# Show confirmation dialogs

Select this option to enable confirmation dialogs for dispatcher actions. For example, when sending a configured Voice Message from the Dispatch Console, the following confirmation dialog box will appear:



# Show incoming text messages in a pop-up window

Select this option so that incoming Text Messages will pop up over the application window.



# Close button minimizes application

Select this option so that clicking the Close button will minimize the Dispatch Console rather than close it.



- Minimize button minimizes window to PTT Panel
   Select this option so that when you click the Minimize button you will see only the PTT Panel displayed at the top of the PC's screen.
- Show this number of recent calls/events Enter the number of items to display in the Recent calls/Events pane.
- Measurement system
   From the drop-down list, select Metric, US, or Nautical units.
- **Coordinate system** From the drop-down list, select the coordinate system to be used.

# Audio

• In the **Options** dialog box, click the **Audio** tab.

ind Map Coverag	Map Hardware Adva	nced Audio Alarr	n Phone Ca
Default audio devic	e <i>s</i> :		Configu
Recorder:			
Player:	Default Audio Device		
Filter			
Selected channel			*
		De	faults
Recorder:	Default		*
Player:	Default		*
Speaker:	Default		*
Volume:	_	1	-+
External PTT:	Foot (Footswitch PTT	)	-
Indicator:			*
Theme:	Default		*
Unselected channel	1		¥
Intercom			>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Private Calls			≽
System sounds			♦
Alarm			♦
Telephony			×
Audio player			•
Reset All audio device:	to default	Manage	Custom Mode

# **Default audio devices**

# Recorder

From the drop-down list, select the recording device the microphone is connected to.

# Player

From the drop-down list, select the audio device to play incoming voice messages and playback voice recordings in the Dispatch Console.

Note: If TRBOnet Dispatch Console is running on the same PC with TRBOnet Server connected to control stations via a programming cable and sound card, the playback and recording devices cannot be the same for TRBOnet Dispatch Console and TRBOnet Server.

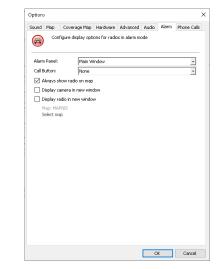
In the list below, you can configure audio settings for specific channels by expanding the corresponding items (**Selected channel**, **Unselected channel**, **Intercom**, etc.)

The configurable audio settings are as follows: Recorder, Player, Speaker, Volume level, External PTT, Indicator, and Theme.



#### Alarm

• In the **Options** dialog box, click the **Alarm** tab.



#### Alarm Panel

From the drop-down list, select where to show the alarm panel (in the main window or in a new window), or select 'None' to hide it.

# Call Button

From the drop-down list, select the call destination when the PTT button is pressed in the alarm panel (private call, group call, or all call).

🔶 Radios in Ala	irm	-		$\times$
235 • Geofenci	ing Alarm			×
РТТ	Request Location Copy Coordinates Find on GPS map Find on Beacon map			
<ul> <li>GPS: Region:</li> <li>Coffee</li> </ul>			ul 2018 1 Reg ul 2018 1	ion 1
f 125 • Emergen	icy Call			×
Emergen	cy Call Request Location Copy Coordinates Find on GPS map Find on Beacon map			×
Emergen	Request Location Copy Coordinates Find on GPS map		ul 2018 1 ul 2018 1 Reg	6:58

#### Always show radio on map

Select this option so that radios in alarm mode will always be displayed on the map regardless of the filters applied to the radio (see section <u>6.6.2.4, Filters</u>).

Note: When this option is selected, you cannot disable the display of radios in alarm mode.



# Display camera in new window

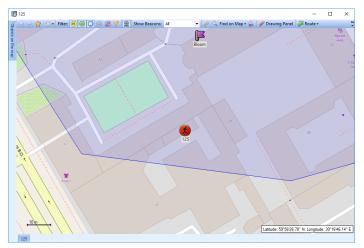
Select this option so that when a radio is in alarm mode, a window will open with the camera associated with the radio.

# Display radio in new window

Select this option to display a radio in alarm mode on the selected map in a new, separate window.

• Map

This field displays the map name. Click the **Select map** link and specify the map on which to display a radio in alarm mode.



# **Phone Calls**

• In the **Options** dialog box, click the **Phone Calls** tab.

und Map	Co	verage Map	Hardware	Advanced	Audio	Alarm	Phone Call
Show this	number	ming phone of recent p guration	calls phone calls:		10		<b>.</b>
	_		Call on hold				
Call P	riority		Ringtone	Ac	tion		
Norma	al:		Default	•	Play		
Emerg	ency:		Default	►	Play		
High:			Default	▶	Play		
Low:			Default	▶	Play		

# Queue all incoming phone calls

Select this option so that when the phone line is busy, incoming calls will be queued rather than rejected.



# Show this number of recent phone calls

Enter the number of items to display in the list of recent calls. The list of recent phone calls appears when you click the arrow on the right of the dial string in the Contact Dialer box (see section <u>6.5.9.1, Phone Calls from/to Dispatch Console</u>).

#### **Ringtone configuration**

On the Incoming Call (Call Waiting) tab:

- Click a corresponding link in the **Ringtone** column, and from the pull-down menu, select either **Set Default**, **Set Custom**, or **Disable**. If you select **Custom**, in the dialog box that opens, browse for the audio file on the local PC and click **Open**.
- Click a **Play** link in the **Action** column to play back the corresponding ringtone.

#### On the **Call on hold** tab:

• Remind after

Enter the timeout, in seconds, that will be used for playing the reminder tone when a call is on Hold.

• Ringtone

Specify the reminder tone to be played when a call is on Hold.

# 6.3.4.2 Exporting/Importing Options

A dispatcher can export custom Dispatch Console settings (Volume level, UI view, shortcuts configuration, and other settings) as a .config file and save it to the local PC or to a selected external device.

• Click **Tools > Export Options** and save the file to the specified location.

If you want to apply settings from a different TRBOnet Dispatch Console:

 Click Tools > Import Options and browse for the .config file with the desired settings.

# 6.3.4.3 Exporting/Importing Objects

A dispatcher can export/import various types of objects, such as beacons, IP cameras, map objects, maps regions, map routes, phone contacts, radio users, and radios.

#### To export objects:

• Click Tools > Export Objects.

In the dialog box that opens, enter the following information:

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Objects:	[	Radios	*					
Radio ID		Map Objects Map Regions	▲ ame	SipContact:UserExtension	Block incoming calls	Block ou	tgoing ca	alls
8 B C	R B C	Map Regions (circles)		88C	RBC	R B C		1
✓ 235		Map Routes Phone Contacts			False	False		
✓ 4444		Radio Users		4444	False	False		
√ 125	Radio		-		False	False		
✓ 3333	3333			3333	False	False		
✓ 100	Radio 1	100			False	False		

# Objects

From the drop-down list, select the type of objects you want to export.

- In the table below, select/deselect the desired records.
- Click Export, and in the Save As dialog box, locate the folder where you want to save the file, type a filename, and click Save.

# To import objects:

• Click Tools > Import Objects.

In the dialog box that opens, enter the following information:

Object Import from File	×
Name: Import Objects	
General Update Column Mapping	
Objects: Radio Users 💌	
File Path D:\CSV\users.csv	
Passwords encrypted	
Delete objects not present in file	
OK Cancel	

# Objects

From the drop-down list, select the type of objects you want to import.

 In the table below, in the right column, enter/change the column names that would correspond to the database field names.

# Passwords encrypted

Select this option if the passwords are kept encrypted in the data being imported.

 Click **Import**, and in the **Open** dialog box, locate the desired file and click **Open**.

# 6.3.4.4 Setting Language

• On the Tools menu, click Set Language



Select Langua	ge	Х
Language:	English	[
	OK Cancel	

From the drop-down list, select the desired language and click **OK**.
 The changes will apply after you restart the Dispatch Console.

# 6.3.4.5 Changing Password

• On the Tools menu, click Change Password

Change Password	×
Change Passv	vord
Old password:	•••••
New password:	•••••
Repeat password:	•••••
	OK Cancel

- In the **Old password** box, enter your current password.
- In the **New password** box, enter the new password.
- In the **Repeat password** box, enter the new password again.
- Click OK.

# 6.3.5 Help

# • Help > Send Feedback

Click this menu item to send your feedback to Neocom Software, either through E-mail, or online via the site.

# • Help > Save System Logs

Click this menu item to save the logs as a .zip file. This .zip file can then be sent to Neocom support.

• Help > About

Click this menu item to see the About dialog displaying information about TRBOnet Enterprise (applied license, version, build date, and other relevant information).

# 6.4 Administration

This section describes how to configure the most important settings of TRBOnet Enterprise.

• Click the **Administration** tab (1), and see the full system information in the **Server** (2) pane:

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File View Map Tools Help					
Administration	Server				🔮 🐠 🔽
Server 2 License 2 Database 2 Lisense 3 System Bridge System Calls	Group 10 •)	Intercom     Image: Complete state     Image: Complete state	9 4 0 9 4 0	Al Call	) # () ) # ()
Tacke	Administration				
Voice Dispatch	Licensed to: demo Demo License				
Location Tracking	Server is available				
😵 Job Ticketing	CapacityPLUS Capacity Plus (Department1) Data (Data)				
😿 Route Management	Serial number: 4847MG41. Version: 2.6.0.7 CapacityPLUS: Private Call	0			
RFID Tracker	Serial number: 4847MG41. Version: 2.6.0.7 CapacityPLUS: All Call	-			
Contemporary Text Messages	Serial number: 4847MG41. Version: 2.6.0.7 CapacityPLUS: Group #10	0			
🔮 Voice Recording	Serial number: 4847MG41. Version: 2.6.0.7 CapacityPLUS: Group #20				
Reports	Serial number: 4847MG41. Version: 2.6.0.7 CapacityPLUS: Group #30				
Event Viewer	Serial number: 484TMG41. Version: 2.6.0.7 Phone Connect	v			
Radio Allocation	Service is available Internal PBX Server: 10.10	. 100.99:5060			
Administration 🔶	- 1				
🔂 127.0.0.1 🚷 🕵 🙎 Administrator 📗	Licensed to: demo Demo Licens				🕑 Active -

# 6.4.1 Database

• Go to **Administration** (1), **Database** (2) to see the full overview of the database:

Administration		Databa	se					🔮 📣 🛂
Server	^	3 1: 11			Intercom		Dispatcher Group 1	
Database			: 1: Slot #1		IPSC 1: Slot #2		Group 11	
System Bridge	~	Grou	p 22	• < 0	All Call	0) 🛋 🥝	Private Call	0 🕷 🥝
		🤩 Back	Up Database	🧇 Schedul	e Backup			
Voice Dispatch			Database	Information				
Location Tracking								
-			Server name: Database nar		(local)\SQLEXPRESS TRBOnet1			
📅 Job Ticketing			Backup date:	ne:	30-Sep-19 12:56:02 PM			
💓 Route Management			Database ver	sion:	Jun 15 2019 00:26:19 Copyright (C) 2017 Micro	soft Corporation	1505224) - 14.0.2027.2 (X6	
🖂 Text Messages					Express Edition (64-bit) of	n Windows 10 Pro	10.0 <x64> (Build 18362:</x64>	)
0			Data size:		163.19 MB			
👻 Voice Recording			Audio size:		629.43 MB			
😪 Reports								
Event Viewer								
Radio Allocation			- 1					
Administration	~							

In the **Database** pane, the administrator can restore and back up the database and audio recordings.

For more details on backups, see <u>Appendix D: Backing up and Restoring</u> <u>Database and Audio Recordings</u> (page 394).

# 6.4.2 Systems

All radio systems registered in the Server are represented in the Systems pane. In addition to radio systems, the following systems can also be present in the Systems pane: Intercom, Phone Connect, PoC, and Public Announcement systems.

• Go to Administration (1), Systems (2) to see the system parameters:



File View Map Tools Help					
Administration		Systems			🖬 🕪 💩
Server	^	Properties			
Ucense 10 Database		System type	System ID	Caption	
- 🖶 Systems		Intercom		Intercom	
		Phone     Capacity Plus		Telephony	
- Selephony 2	~	TRBOnet PoC System	Mobile 1	CP1 Mobile 1	
		Announcement System	MODIE 1	Announcement	
Hispatch		Amburtement system		Amountement	
Location Tracking					
😸 Job Ticketing					
😥 Route Management					
RFID Tracker					
C Text Messages					
🔮 Voice Recording					
😪 Reports					
📔 Event Viewer					
8 Radio Allocation					
administration	-	144 44 4 Record 3 of 5 > 3+ 3+ 3+	4		Þ
访 Connected 🔉 🕵 🕵 🕵 🕱 Admir	nistrator 📑 L	icensed to: demo (Walt) (Demo	License)		🕜 Active -

The administrator is able to see the following system parameters in the table:

- **System Type** the type of the system.
- **System ID** a unique System Identifier configured in TRBOnet Server configuration for repeater or control stations in the system.
- **Caption** the caption of the system.

# **6.4.2.1 System Properties**

To see the radio system properties, do the following:

• Select a radio system in the list and click the **Properties** button (1); or,

double-click the radio system in the list; or,

click the corresponding element at the bottom of the Dispatch Console window, and choose **Properties** (2).

Administration	Sys	tems					🔮 📣 🔽
Server		9 1: Line free Group 10 Private Call	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Intercom Group 20	•) •: 0 •) •: 0		) #0 •) #0
Voice Dispatch	S In	roperties ystem vpe itercom	S	ystem ID	In	aption tercom Jephony	
Location Tracking	<b>v</b> a	apacity Plus	D	epartment 1	Cr	pacityPLUS	
Route Management			$\backslash_1$				
RFID Tracker Text Messages							
Voice Recording							
Event Viewer		2					
Administration		Record 1 of 3					Active
127.0.0.1 (2) 2 Adminis Reset Properties		ised to: demo Der	mo License				Active

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The administrator is able to see Active and Inactive registered systems. In case you have more than 10 registered systems, systems are grouped and can be seen in the drop-down list.

Common information for all system elements is listed below:

# **Description tab**

On the **Description** tab, you can see the general info:

Repeater #1: Slo	t#1	×
Description C	hannels Transmits	
System Typ	e: IP Site Connect	
System ID:	Department1	
Caption:	Repeater #1: Slot #1	
	OK Cancel	

# • System Type

The system type for a repeater/control station (in Digital or Analogue mode).

For more details on the systems, see section <u>3.2, MOTOTRBO Radio</u> <u>Systems</u> (page 4).

• System ID

The Unique System Identifier configured in TRBOnet Server for a repeater or control stations in the system.

• Caption

Enter the system name.

#### **Channels tab**

On the **Channels** tab, you see the list of channels:

Repeater #1: Slot #1		×
Description Channels Transmits		
🚰 Properties ່ Control 🚔 Re	set	
Name	Voice	Data
Repeater #1: Slot #1	RX, TX	RX, TX
Channel for private and phone calls:	ОК	Cancel



• Click the **Properties** button to see the channel additional data:

R	epeater #1: S	Slot #1	×
	Description	Talk groups Volume	
	ID:	8ccc8f18-a3e6-4b4f-b8e7-581e19debceb	
	Name:	Repeater #1: Slot #1	
	Type:	MOTOTRBO Repeater	
	Mode:	IP Site Connect	
	Connect	ted	
	Serial I	Number: 484TMG4110	
	Firmwa	are version: 2.6.0.7	
		OK Cancel	

- ID
  - Default registration number (manufacturer's number);
- Name

System element's name in the system;

• Туре

System type for a repeater/control station (in Digital or Analogue mode).

Mode

System type for a repeater/connection mode for a control station.

For details on the control station modes, see section <u>5.10.6.1, Control</u> <u>Station Connection Modes</u> (page 54).

- Connected
  - Serial number

Default system element's serial number (manufacturer's number).

• Firmware Version

Current system element's firmware version.

• Click the **Reset** button to test the connection to the system element.

Note: For a repeater, clicking the **Reset** button reconnects the repeater.

For a control station, clicking the **Reset** button reloads the radio.

# Talk groups tab (for repeaters only)

• On the **Talk groups** tab, you can see selected Talk group info:

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escr	ription Talk groups Volume	
Spe	ecify available talk groups	
	All Call	
<u>।</u>	-	
-	Police	
	Police	

• Specify available Talk groups for the system element in the list of created Talk groups.

Selected Talk groups are available on the **Radio** tab in the system element box in the drop-down list:



Note: Close TRBOnet Server before applying the system element settings.

#### Volume tab (for repeaters only)

• On the **Volume** tab, you can see Volume settings for the repeater:

Repeater #1: Slot #1		×
Description Talk grou	os Volume	
Ð	$\oplus$	
P		
Θ	$\ominus$	
RX <u>Reset</u>	TX <u>Reset</u>	
Configure syste	m volume	
	OK	Cancel



- Specify the **RX** and **TX** volume levels for the Repeater using a volume control slider.
- Click the **Reset** link to set default volume level for RX or TX.
- **Configure system volume** Select this option to save default volume settings for Voice transmissions from the selected Repeater.

#### **Extras tab**

• On the **Extras** tab, you can see the information about audio and data transmissions:

Description     Channels     Extras       ✓     Enable Voice Recording       ✓     Use DTMF commands to mute and unmute incoming audio traffic from the channel in consoles       Mute:     123       Unmute:     321	>
Use DTMF commands to mute and unmute incoming audio traffic from the channel in consoles Mute:	els Extras
traffic from the channel in consoles Mute: 123	Recording
	- mmands to mute and unmute incoming audio
Unmute: 321	123
	321
OK Cancel	

- Enable Voice Recording Select this option to enable Voice Recording for the selected repeater.
- Use DTMF commands to mute and unmute incoming audio traffic from the channel in consoles

Select this option to use certain DTMF commands that can be sent to the channel so that the channel will be muted/unmuted in active consoles.

• Mute

Enter the DTMF sequence that will be sent to the channel to mute the channel in active consoles.

• Unmute

Enter the DTMF sequence that will be to the channel to unmute the channel in active consoles.

# **6.4.2.2 Intercom Properties**

 Select Intercom in the list and click the Properties button; or,

double-click **Intercom** in the list of radio systems.

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# **Channels tab**

On the **Channels** tab, you see the list of Intercom channels. These are the dispatcher groups you added in TRBOnet Dispatch Console (see section <u>6.4.24</u>, <u>Dispatcher Groups</u>).

#### **Extras tab**

Intercom				
Description	Channels	Trunked Channels	Extras	
Enable	e Voice Reco	ording		
Call Han	gtime (ms	;):		
Group Cal	Ŀ	3000	<b></b>	
Private Ca	all:	4000	<b>•</b>	
TX Timeou	ıt:	60	<u>*</u>	seconds
🗹 Alway	s transmit v	when the PTT is pres	sed	
		Г	ОК	Cancel
		L	UK	

# Enable Voice Recording

Select this option to record all audio transmissions over the Intercom channel.

# Call Hangtime (ms):

Group Call

This value sets the duration of reserving the channel after the end of a group call transmission. During this time, only members of the dispatcher group that the channel is reserved for can transmit.

Private Call

This value sets the duration during which the private dispatcher call setup is kept after a dispatcher releases the PTT button. This is to avoid setting up the call again each time a dispatcher presses the PTT button to transmit. During this time, other dispatchers can still transmit since the channel is essentially idle.

TX Timeout

Enter the time, in seconds, to be used as a voice session limit. When the dispatcher starts a voice session over the Intercom channel, transmission will be interrupted after this TX Timeout expires.

# Always transmit when the PTT is pressed ("Impolite" channel access)

Select this option so that when the PTT button is pressed, the dispatcher will start transmitting regardless of whether the channel is free or not (that is any transmission in progress will be interrupted).



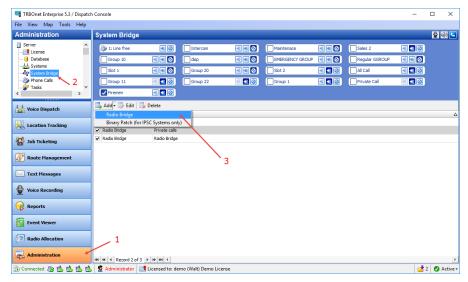
# 6.4.3 System Bridge

TRBOnet Dispatch Console provides the **System Bridge** function that allows configuring the network for redirecting radio calls.

The administrator can create the following two types of system bridges:

- System Bridge for Radio Channels allows connecting all types of Radios (analogue and digital radios, supports IP Site Connect, Capacity Plus, Linked Capacity Plus and Connect Plus modes). See section <u>6.4.3.1</u>, <u>Radio Bridge</u>.
- 2. **System Bridge for Repeaters (Binary Patch)** allows connecting only the repeater slots between IP Site Connect systems without encoding/decoding voice and data. See section <u>6.4.3.2, Binary Patch</u>.

# To add a system bridge:



• Go to Administration (1), System Bridge (2).

• Click the **Add** button, and from the drop-down menu, select the System Bridge type (3).

# 6.4.3.1 Radio Bridge

lame:	Radio Bridge	
Bridge Mode:	Channels redirect calls to each o	ther 💌
TT Button:	Always Enabled	-
Channels Param	eters Initialization	
Channels to redire	ect calls	
System	Group	Mode
IPSC 1: Slot #1	Cleaners	Always
CP1	- Any Groups	Always
	1 2 3	4

• On the **Channels** tab, specify the following bridge parameters:



# Name

Specify a name for the Radio Bridge to display in the Radio Interface pane.

# Bridge Mode

Select the mode from the drop-down list. For more details on System Bridge types, see <u>Radio Bridge Types</u> (page 158).

# PTT Button

From the drop-down list, select how to display the PTT button in the System Bridge box. There are 3 options available:

- Enabled when Bridge is activated
- Always Enabled
- Invisible
- On the Channels tab, click the Add button (1) to add a channel to the list.
- In the System column, select a radio channel from the drop-down list (2).
- In the **Group** column, select available group for the radio channel (3).
- In the **Mode** column, select a mode for the radio channel (4).
  - Always

Enables the System Bridge always, regardless of the radio status (online/offline).

• By Radio

Enables the System Bridge on a selected channel when there are online radios capable to receive voice calls from the selected group.

• On the Parameters tab, specify call types for the System Bridge:

Radio Bridge		×
Name:	Radio Bridge	
Work Mode:	Channels redirect t	he calls to each other 🚽
PTT Button:	Always Enabled	¥
Channels Parame	ters Initialization	
Specify call ty	pes for System Br	idge:
Voice Call		✓ Text Message
Check Radio		Telemetry
Enable/Disable	e Radio	Location (GPS)
Call Alert		User Data
Emergency Al	ert	
		OK Cancel
		OK Cancel

- Select call types to use in System Bridge mode.
- Click **OK** to add a System Bridge for the radio channels.
- On the **Initialization** tab, specify how the bridge will be initialized:



Radio Bridge		×
Name:	Radio Bridge	
Work Mode:	Channels redirect the calls to each other	-
PTT Button:	Always Enabled	-
Channels Parame	ters Initialization	
Specify call so	urces for System Bridge:	
Call from dispa	atcher	
Dispatcher:	(Any) v	
Call from other	r bridge	
Bridge:	(Any) -	
Call from radio	•	
Radio:	(Any) -	
	OK Cancel	

# Call from dispatcher

Select this option and from the **Dispatcher** drop-down list, select the desired dispatcher.

# Call from other bridge

Select this option and from the **Bridge** drop-down list, select the desired bridge.

# Call from radio

Select this option and from the **Radio** drop-down list, select the desired radio(s).

The System Bridge boxes are displayed on the Patch panel of the Radio Interface pane:

Voice Dispatch	Radio Interface							ê 4
	Radio Interface Teleph	nony Recent Calls/	vents Radios					<u>.</u>
	Kadio Interiace Telepi	iony Recent Calis/	vents Radios		×		Quick Comman	ds 🕅
n 🖥 c								
Online, GPS Fixed						Þ	Send Pu	sh
Online, No GPS						Configu	re	
Offline (18)					^		Patch	5
(*) Radio 235	Intercom	•)) 🛋 (	🖉 📔 🗌 Dispa	tcher Group 1	• • •			
(★) 3333	Free ch	annel		Free channe	el 🖉	Drag a	nd Drop PTT Box her group	e to create new
	PTT		PTT					
	All Call			Dispatcher Gr	oup 1		CapPlus - Cleane	rs 🜒
Voice Dispatch							IPSC 1: 5	
	IPSC 1: Slot #1	•)) ••(•		: Slot #2	•) 🛋 🖉	PTT	Cleaners	
Location Tracking	PTT Cleane		PTT	Firemen Administrator			CP1 All Call	
🙀 Job Ticketing	Cleaners			All Call				
Sob ficketing							Firemen - Cleane	
Route Management	Group 11	•)) •••	Group	22		РТТ	IPSC 1: Sk Firemen	ot #2
	Free ch	annel		Free channe	el de la companya de		(1) IPSC 1: Sk	ot #1
Text Messages	PTT		PTT		<b>~</b>		Cleaners	
	Recent Calls/Events					_		
Voice Recording	🕮 Playback 📓 Save -	🚽 Print 📔 Pause	🦪 Clear 🝷 🌀	Reload 🛛 🎦 Filt	er By Radio 🛛 🚟 Grouping	🍸 Auto F	ilter 🍥 Default S	ettings
	Date	Radio System Se	ender	Recipient	Message		Details	Note
🕝 Reports	13-Mar-20 4:09:55 PM		Iministrator	Firemen	Dispatcher 'Administrator' ca		Units: Administrator	•
25	13-Mar-20 4:09:55 PM		Iministrator	Cleaners	Dispatcher 'Administrator' ca		Units: Administrator	
Event Viewer	2 13-Mar-20 4:09:38 PM		ministrator	Firemen	Dispatcher 'Administrator' ca		Units: Administrator	
	13-Mar-20 4:09:38 PM		Iministrator	Cleaners	Dispatcher 'Administrator' ca Dispatcher 'Administrator' ca		Units: Administrator Units: Administrator	
Radio Allocation	13-Mar-20 4:09:24 PM		Iministrator Iministrator	Firemen	Dispatcher 'Administrator' ca		Units: Administrator	
	HI 41 4 Record 1 of 166	F HH 4						Þ
Administration	Recent Calls/Events Rece		Talk Radio State	Active Tasks	Active Routes User Activit	v Mao	Cameras	

# **Radio Bridge Types**

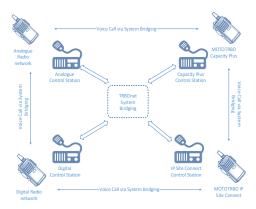
1. Channels redirect calls to each other

This is the most common type of System Bridge when data exchanges between the channels set in the System Bridge settings. Thus, there is a common channel for all the radios of the specified control stations:

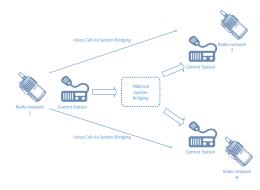
To create this type of System Bridge, add a System Bridge and set the Work Mode as **Channels redirect calls to each other**.

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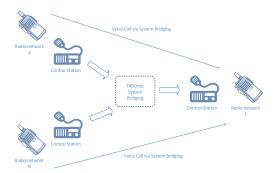


2. Channel redirects calls to multiple channels



To create this type of System Bridge, add a System Bridge and set the Work Mode as **Channel redirects calls to multiple channels**.

3. Multiple channels redirect calls to one channel



To create this type of System Bridge, add a System Bridge and set the Work Mode as **Multiple channels redirect calls to one channel**.

4. Redirect private calls

Select this mode so that private calls can be redirected between radio systems.

5. Redirect private calls to group calls

Select this mode so that private calls will be redirected to group calls within one radio system or between radio systems.



# 6.4.3.2 Binary Patch

Name:	Binary Patd	h			
Rules					
Rule 1 of 2					^
Slot: Slot 1			Voice	🗹 Data	
All Calls		Private Calls	Group Calls		
Groups: (All G	iroups)				
Repeaters: (A	All Repeaters)				
Rule 2 of 2					^
Slot: Slot 2			Voice	🗌 Data	
All Calls		V Private Calls	Group Calls		
Groups: (All G	iroups)				
Repeaters: (A	All Repeaters)				

# • Name

Specify a name for the Binary Patch to display in the Radio Interface pane.

• Rules

Specify the rules for redirecting calls between IPSC systems. Click the **Add** link below to add a rule.

Slot

From the drop-down list, select the slot (**Slot 1** or **Slot 2**) of the IPSC systems being connected.

- Select the type of data: **Voice** and/or **Data**.
- Select the call types: **All Calls**, **Private Calls**, and/or **Group Calls**.
- Groups

In the drop-down list, select the group(s).

Repeaters

In the drop-down list, select the IPSC systems to be connected via the selected slot.

The Binary Patch boxes are displayed on the Patch panel of the Radio Interface pane:

ile View Map Tools Help							
Voice Dispatch	Radio Interface						<u>\$</u>
1: E H 🚨 🛠 🏹 🖉 🍟	Radio Interface Telephony Recent Calls/E Terminate all Transmit				P	re-recorded M	V senesse
Administrator     Online, Indoor (0)     Online, GPS Fixe		Active Call	\$		× .	Record	File 🔻
Online, GPS Fixe Online, No GPS (0)	Control Station #1 🐠 🕷 🖗	Group	1 Free channel	1	^ (	Bobby. To: <u>Selected Char</u> Patch	
GPS Positioning	Al Cal Channel 4	Repea	Eremen			Drag and Drop PTT create new (	Box here to group
📅 Job Ticketing	Polce Polce Repeater #1: Slot #2 🛛 🛒		<u>All Call</u>			Patch on Repea	
RFID Tracker	Free channel AL Cal Recent Calls/Events	РТТ	Free channel All Call		~	Repeater Firemen Control St Any Groups	PTT
Voice Recording	🖾 Playback 🚽 Save - 🛁 Print 🔢 Pause				-		
Reports	Date Radio System  17-Oct-2016 14:21:07 Repeater #1: Slot #1  17-Oct-2016 14:21:06 Control Station #1			Deta '125' (00:01) Men dispatcher '	als ibers: 125	Note	Ext. Note
Event Viewer	<ul> <li>✓ 17-Oct-2016 14:21:02</li> <li>✓ 17-Oct-2016 14:22:57</li> <li>✓ Control Station #1</li> <li>✓ 17-Oct-2016 14:20:57</li> <li>✓ Control Station #1</li> </ul>	Dispatcher All Dispatcher All	All Call from	dispatcher ' dispatcher '			
8 Radio Allocation	17-Oct-2016 14:20:51 Repeater #1: Slot #1     17-Oct-2016 14:20:51 Control Station #1     ≪ ≪ Record 1 of 333    ▶    ▶    ₩    ₩    ♦	125 All Dispatcher All	All Call from	'125' (00:01) Men dispatcher '	bers: 125		•
Administration	Recent Calls/Events Recent Calls Radio State	Active Tasks A	ctive Routes User Activ	ity Map Came	ras		



Note: System Bridges can also be created by drag and drop of the PTT boxes in the Radio Interface pane. It is a temporary System Bridge, which will be deleted after reconnecting to TRBOnet Server or exiting TRBOnet Dispatch Console.

# 6.4.4 Phone Calls

This section describes how to configure the Phone Connect system in TRBOnet Dispatch Console.

- Go to Administration (1), Phone Calls (2).
- In the **Phone Calls** pane, click the **Configuration** tab (3).

File View Map Tools Help			
Administration	Phone Calls		🔮 🚯 🕒
Server A	Configuration Extensions Call Redirection Phone Co	ntacts Dial Plans	
License			^
📋 Database	Radio Call Configuration 3		
- La Systems	Access code:	0	
- Age System Bridge	Deaccess code:		
🛞 Phone Calls		-	
- 💕 Tasks	Callback Request Options		
- III Custom Fields	Allow radios to make outgoing calls:	Yes	
Modbus TCP Connections	Send a DTMF command to request a callback:	Yes	
Virtual Modbus Devices 2	Send a text message to request a callback:	Yes, Prefix: 'sip:'	
- 💬 IP Cameras - 🌒 Public Announcements	Start transmission:	Wait for answer	
Alarm Management	Calls to Radios and PoC Devices		
Administration of the second sec	Start transmission:	Immediately	
Text Messages	Max ring time:	Unlimited	
Request To Tak	Check if the radio is available before making a call:	No	
Radio Statuses	Call notifications:	Yes	
Location Profile	Play a tone when PTT is pressed or released:	Yes	
Mobile Client Profile (TRBOnet Mobile)	Configure		
- Mobile Client Profile (TRBO.SOS)	Conngure 4		
Mobile Client Profile (TRBOnet Communicator)	Inbound Call Configuration		
- 🕼 Teltonika Profile	Inbound Call Control		
⊕-X Tools			
- Schedulers	Call to Dispatch Center:	Redirect to online dispatchers	
- 🔒 Disabled Radios	Call to unregistered number:	Reject	
	Do not establish call until called party responds:	No	
	Interactive Voice Response (IVR) Options		
- Email Groups v	Do not wait for Accept code:	Yes	
	Maximum number of digits:	Unimited	
Voice Dispatch	Accept code:	#	
	Number	Destination	
k Location Tracking	0	Call dispatcher (any available)	
	<number></number>	Call radio with Radio ID = <number></number>	
🙀 Job Ticketing	Configure		
<u> </u>	5		
Route Management	Conference Configuration		
	-	60 minutes	
Text Messages	Max Call Duration:	80 minutes	
rearnessages	Automatic Voice Detection:		
🔓 Voice Recording	Automatic Gain Control:	No	
Voice Recording	Automatic Noise Reduction:	No	
	Configure		
Reports	6		
Event Viewer	Voice Message Loop Settings		
( <b>7</b> )	Play intro message:	No	
19 Radio Allocation	Play voice message this many times:	2	
_	Set delay between voice messages:	Yes	
Administration	Configure 7		
· · · · · · · · · · · · · · · · · · ·			~
🚯 Connected 🍇 🕵 🥵 🥵 🤹 Admini	istrator 🛛 📑 Licensed to: demo (Walt) (Demo License)		🕑 Active 🕶

# 6.4.4.1 Radio Call Configuration

• Click the **Configure** button (4) to set radio call configuration parameters:



adio Call Configuration	
Access code:	0
Deaccess code:	#
Callback Request Options	
Allow radios to make outgoing calls	
Send a DTMF command to request a	a callback
🔽 Send a text message to request a c	allback
Use this prefix in text messages:	sip:
Start transmission:	Immediately -
Calls to Radios and PoC Devices	
Start transmission:	Wait for PTT 👻
Max ring time:	10 seconds
Check if the radio is available before m	aking a call
Call notifications	
✓ Play a tone when PTT is pressed or rele	eased
Tone volume level:	+
	-
	OK Cancel

Access Code

Set the value to that configured for the radios as **Access Code** in MOTOTRBO CPS (see <u>Appendix E: SIP Setup for Motorola Phone System</u>, section <u>Programming Radios</u>).

• Deaccess Code

Set the value to that configured for the radios as **Deaccess Code** in MOTOTRBO CPS (see <u>Appendix E: SIP Setup for Motorola Phone System</u>, section <u>Programming Radios</u>).

# **Callback Request Options**

- Allow radio users to make outgoing calls Select this option to enable outgoing phone calls from the radios.
- Send a DTMF command to request a callback Select this option to allow radio users to dial the phone number as a sequence of DTMF tones sent over the radio channel.
- Send a text message to request a callback Select this option to allow radio users to initiate phone calls via sending TMS messages with a specified prefix to the dispatcher.
  - Use this prefix in text messages

Enter the specific prefix for a text message.

# • Start transmission

Select the mode for starting transmission on the radio that initiates a call.

Wait for answer

Transmission will be started as soon as the called party answers the call.

Immediately

Transmission will be started immediately that is without waiting for the called party to answer the call.



# **Calls to Radios and PoC Devices**

- **Start transmission** Select the option how to start transmission on the radio receiving a phone call.
  - **Immediately** Select to start the call immediately.
  - Wait for PTT

Select to play a ringtone until the radio user presses the PTT.

• Max ring time

Specify a timeout that defines how long to attempt to connect to the radio.

• Check if the radio is available before making a call

If this option is selected, a Radio Check command will be executed before placing a call. Select this option if the **Use NAI Data (MNIS and DDMS)** option is not selected in the **Repeater** pane (see section <u>5.10.2, Adding a MOTOTRBO Repeater</u>).

• Call notifications

Select this option to send a text message to the radio when the channel is busy and a phone call cannot be established.

Play a tone phone when PTT is pressed or released

Select this option so that a tone will be played during the established phone call when PTT is pressed or released on the remote radio that doesn't support a Full-Duplex mode.

# 6.4.4.2 Inbound Call Configuration

• Click the **Configure** button (5) to set inbound call configuration parameters:

nbound Call Conf	guration		×
Inbound Call C	ontrol		
Call to Dispatch C	enter: Forward	to IVR	-
Call to unregister	ed number: Reject		*
🗌 Do not establis	h call until called party r	esponds	
Interactive Vo	ce Response (IVR) (	ptions	
🔽 Do not wait fo	Accept code if one of t	• he fixed numbers below is dia	aled
Maximum number	of digits: 3		
Accept code:	#	•	
Number	Destination	_	
0	Call dispatcher (any	available)	
1 <number></number>	Call radio with Radi	DID = <number></number>	
235	Call radio 'Unknown		
56	Call dispatcher (any	available)	
🛃 Add 📑 Ed	t 🛃 Delete		
		OK	Cancel



# **Inbound Call Control**

#### • Call to Dispatch Center

Select the mode for handling incoming calls made to the Dispatch Center.

Reject

All incoming phone calls will be declined.

#### Forward to IVR

When an incoming call arrives, the phone user will hear Voice Menu commands.

# Redirect to online dispatchers

All incoming voice calls will be redirected to all dispatchers of the Dispatch center and any available dispatcher will answer the phone call.

# Use as a regular phone number

A call to the Dispatch Center's number will be processed as a call to a regular phone number, and will depend on the selection made in the parameter below.

#### • Call to unregistered number

Select the mode for handling incoming calls made to unregistered numbers.

Reject

Select this option to decline all phone calls to unregistered subscribers.

# Use this number as Radio ID Select this option so that the system will use unregistered numbers as a Radio ID and start a Private Call.

# Use this number as Internal Phone Number

Select this option to allow the system to read unregistered numbers according to Voice Menu rules.

#### Forward call to PABX

Select this option to forward all calls to unregistered numbers to the External PBX.

# **Interactive Voice Response (IVR) Options**

• Do not wait for Accept code if one of the fixed numbers below is dialed

Select this option to search for the fixed number in the Extensions table automatically.

When this option is disabled, the subscriber must dial the number according to the following example: **(phone number)#**. The character **#** (or **\***, if selected as the Accept code) is used to search for the phone number in the table.

# • Maximum number of digits

Specify the maximum number of characters allowed in a phone number.



# • Accept Code

Specify the character that will be used to finish dialing the extension number.

All available numbers are listed in the table below.

• Click the **Add** link to add a number to the table.

# To add a static (fixed) number

Choose Static number.

Extension numb	er		×
Static number	er		
C Dynamic nur	mber		
Number:	123456		
Call Type:	Call Group		*
Channel:	IPSC 1: Slot #1		•
Group:	Cleaners		•
Priority:	Normal		-
		ОК	Cancel

# Number

Enter a phone number to add to the table (contact list).

# Call Type

Select the call type from the drop-down list.

• Call Dispatcher

Select this type to make a phone call to the dispatcher.

• Call Radio

Select this type to make a phone call to the selected radio.

• Call Group

Select this type to make a phone call to the selected group.

Channel

Select the channel to make a group phone call through (available for group calls only).

# Dispatcher/Radio/Group

Select the dispatcher, radio, or group depending on what you have selected in the **Call Type** box.

Priority

Select the priority with which the call will be made (available for radio and group calls only).

# To add a dynamic number

• Choose Dynamic number.



Extension numb	er	×
C Static numbe	-	
Prefix:	123	
Call Type:	Call Radio	*
Channel:	Auto Detect	v
Radio:	Detected by Radio ID	v
Priority:	Normal	٠
	OK Cano	el

# Prefix

Specify a prefix to type in on the keyboard.

# Call Type

Select the call type from the drop-down list.

Call Radio

Select this type to make a phone call to a radio.

# • Call Group

Select this type to make a phone call to a group.

Call Phone

Select this type to make a phone call to a phone number.

Channel

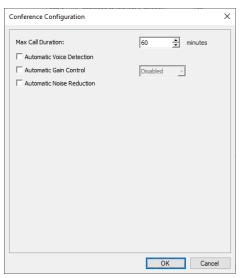
Select the channel to make a group phone call through (available for group calls only).

Priority

Select the priority with which the call will be made (available for radio and group calls only).

# 6.4.4.3 Conference Configuration

• Click the **Configure** button (6) to set conference parameters:



# Max Call Duration

Enter the maximum time allowed for the conference, in minutes.



# Automatic Voice Detection

Select this option to enable automatic voice detection during a conference call.

# Automatic Gain Control

Select this option to enable automatic gain control during a conference call. In the list on the right, select the desired gain level, in dB.

# Automatic Noise Reduction

Select this option to enable automatic noise reduction during a conference call.

# 6.4.4.4 Voice Message Loop Settings

• Click the **Configure** button (7) to configure Voice Message Loop Settings:

Note: These settings apply if the Voice Message task is enabled or the Voice Message or Text to Speech actions are selected in an Alarm Management rule.

Play intro message	
Play voice message this many times	s: 👌 🌩
Set delay between voice message	ges

# Play intro message

Select this option to play an introduction message before playing the voice message itself.

- Play voice message this many times
   Specify how many times to play the voice message.
- Set delay between voice messages
   Select this option to set a delay between repeated voice messages.

# 6.4.4.5 Adding Extensions

- Go to Administration (1), Phone Calls (2).
- In the **Phone Calls** pane, click the **Extensions** tab (3), and then **Add** (4).



File View Map Tools Help							
Administration	Phone Calls						🔞 🕸 🔽
Administration  Server  Dubabase  Dubabase  Dubabase  Dubabase  Dubabase  Dubabase  System Bridge  System Bridg	Phone Calls Configuration Exter Add Extit X Dispatch Center S SIP Phone S SIP Phone S SIP Phone S SIP Phone S	Delete bis Intern User Extension 1234 2408 2409 Phone User	al Numbers 🐺 0 User Name 1234 John 2409 al Groups Custom	Grouping 🍸 First Name John		fault Settings Display Name Internal PBX John B. Walt Eugene Prune	Logical Groups
Location Tracking		User Password Password (rep First Name: Last Name: Display Name:					
Voice Recording				ОК	Cancel		
Event Viewer							
Administration       Connected @ 0. 00 00 00 00 00 00 00 00 00 00 00 00	1 Here A Record 1 of 5 F tor E Licensed to: dem	dimensional discontinuo di	cense)				Active -

In the **Phone User** dialog box, specify the following parameters:

User's Extension

Enter the extension number that will be used by the phone user.

User Name

Enter the user name that will be used by the phone user.

User Password

Enter the password for the phone user to be authenticated by the phone system.

Password (repeat)
 Enter the password again

Enter the password again.

- Fist Name/Last Name/Display Name
   Enter the first, last and display names of the phone user.
- In addition, on the **Logical Groups** tab, specify logical groups for the phone user. For more information about logical groups, see section <u>6.4.29, Logical Groups</u>.
- On the Custom Fields tab, specify the desired values for the custom fields. For more information about custom fields, see section <u>6.4.6</u>, <u>Custom Fields</u>).

# 6.4.4.6 Call Redirection

If a dispatcher doesn't take a phone call within the set period or they have changed their status to unavailable, the call is automatically forwarded to a specified dispatcher, radio, radio group, or phone account. This can be useful during night shifts when no dispatcher is available.

• Click Administration (1), Phone Calls (2), Call Redirection (3), Add (4).



In the **Redirect Call** dialog box, specify the following parameters:

# Call to

Destination

From the drop-down list, select the dispatcher or dispatcher group.

Timeout

Specify the time period, in seconds, defining how long to wait until the dispatcher answers a call.

# **Redirect to**

• Туре

From the drop-down list, select one of the following:

• Decline

The calls will be declined.

• Dispatcher

The calls will be redirected to a specified dispatcher or dispatcher group.

• Radio unit

The calls will be redirected to a specified radio.

• Radio Group

The calls will be redirected to a specified radio group.

• Phone account

The calls will be redirected to a phone account from the phone book.

# System

If a radio group is selected as the redirection destination, select the radio system over which to make a call to the specified radio group.



# Destination

From the drop-down list, select a particular dispatcher/dispatcher group, radio, radio group, or phone account, depending on what you have selected in the **Type** field.

# Priority

If a radio or radio group is selected as the redirection destination, select the priority with which the call will be made over the radio system.

# 6.4.4.7 Phone Contacts

In addition to SIP extensions, the phone contacts can also be used in your Phone Connect system.

- Go to Administration (1), Phone Calls (2).
- In the **Phone Calls** pane, click the **Phone Contacts** tab (3), and then **Add** (4).

dministration	Phone Call	S				ê
License License Systems System Bridge Phone Calls Tasks License System Bridge Phone Calls Tasks	Configuration C	It X Delete Group User Name Phone Contact General Logical G	First Name	Default Settings	Display Name Walt Eugene 3	Logical Groups
Uvice Dispatch		User's Extension: User Name: First Name: Last Name: Display Name:	5548 Pip Philip Wilson P. Wilson			
Weight Route Management         Text Messages         Voice Recording						
Reports				OK Cancel		
<ul> <li>Radio Allocation</li> <li>Administration</li> </ul>	1	1of2 ▶ ₩ ₩ 4				

In the **Phone Contact** dialog box, specify the following parameters:

User's Extension

Enter the extension number for the phone contact.

User Name

Enter the user name for the phone contact.

- Fist Name/Last Name/Display Name Enter the first, last and display names of the phone contact.
- In addition, on the Logical Groups tab, specify logical groups for the phone contact. For more information about logical groups, see section <u>6.4.29, Logical Groups</u>.
- On the Custom Fields tab, specify the desired values for the custom fields. For more information about custom fields, see section <u>6.4.6</u>, <u>Custom Fields</u>).



# 6.4.4.8 Dial Plans

In order to restrict incoming and outgoing calls as well as set priority for calls, dial plans can be used in your Phone Connect system.

- Go to Administration (1), Phone Calls (2).
- In the **Phone Calls** pane, click the **Dial Plans** tab (3), and then **Add** (4).

Administration	Phone Calls	÷
Server A	Configuration Extensions Call Redirection Phone Contacts Dial Plans	
Contractions     Contreserve     Contreserve     Contreserve     Contreserve     Contr	Anne Pedra Dial Plan X General Patterns Inheritance A A Name: Droite Decorption: Execution dating for Bob's group	3
🛓 Voice Dispatch 🛼 Location Tracking 🚰 Job Ticketing		
Route Management		
Uvice Recording	OK Cancel	
Event Viewer	1	
🚓 Administration 🛛 🔶	14 44 4 Record 1 of 2 + ++ ++ 4	

In the **Dial Plan** dialog box, specify the following parameters:

Name

Enter a name for the dial plan.

Description

Enter a description for the dial plan.

- Apply to Incoming Calls (Caller number)
   Select this checkbox to apply the dial plan to incoming calls from the numbers specified in the patterns.
- Apply to Incoming Calls (Destination number)
   Select this checkbox to apply the dial plan to incoming calls to the numbers specified in the patterns.
- Apply to Outgoing Calls (Destination number) Select this checkbox to apply the dial plan to outgoing calls to the numbers specified in the patterns.
- Click the **Patterns** tab.



General Pattern	Teheritana	
seneral Pattern	Inneritance	
	ard characters in pattern:	
* - any number o ? - one character	rcharacters	
	of numbers from xxx to yyy	
IT pattern starts	with ^ the following number will	be excluded
1		
*411???		×
	Normal	

- Specify the pattern that will be used to match the numbers in the dial string or the incoming call numbers.
- Call Priority

From the drop-down list, specify the priority for the calls corresponding to the specified patterns.

• Click the **Inheritance** tab.

Dial P	Plan			×
Gene	ral Patterns 1	[nh	eritance	
	Call Priority		Dial Plan	
$\checkmark$	Inherit	-	Fedora	
	Inherit			
	Emergency			
	High			
	Normal			
	Low		]	
			_	
			OK Ca	ncel

On this tab, you can select the profiles to include in the dial plan you are adding/editing.

Call Priority

From the drop-down list, select the priority for the inherited dial plan.

# 6.4.5 Tasks

This section describes how to configure the tasks that can be performed in TRBOnet Dispatch Console.

• Go to **Administration** (1), **Tasks** (2), and see the list of the tasks in the right pane.



Administration	🔮 Tasks	😫 🚳 🛂
Server  Server  Server  Solutionse  Systems  System Bridge  Solution  Tasks  Tasks  7	Item free         Item on         Item on	
	Add - B Edit B Delete Task Name	
Location Tracking		
🚰 Job Ticketing	Adio Allocation (Sprite Forms)	
💓 Route Management	MS and Email notifications     Source Activity	
Text Messages		
Voice Recording		
Reports		
Event Viewer  Radio Allocation		
Administration	1 14 41 41 Record 3 of 7 1 19 19 4	

• To create a task, click **Add** (3), and from the drop-down list, select the appropriate task.

Note: After you have created a task you need to enable it. Just select the checkbox (4) beside the task you want to enable.

# 6.4.5.1 Dispatcher Presence Control

When enabled, this feature checks the presence of dispatchers and sends notifications to interested parties if the specified dispatchers are not present in the system.

- In the Tasks pane, double-click Dispatcher Presence Control.
- In the **Dispatcher Presence Control** dialog box, specify the following options:

Dispatcher Presence Control		×
Presence timeout Reminder time	10 in minute 30 is second	-
All Dispatchers     Selected Dispatchers     Dispatchers:	_	
Notifications		
	OK Cance	ł

# Presence timeout

Enter the time period, in minutes, that will be used as a timeout to check for the presence of dispatchers.

Reminder time

Enter the time period, in seconds, that will be used to show a reminder pop-up dialog before the planned time of performing the check. When the reminder appears on top of the screen, the dispatcher must click the round button in the center to confirm their presence in the system.



# All Dispatchers

Choose this option button so that all dispatchers will be checked for presence.

#### Selected Dispatchers

Choose this option button so that only selected dispatchers will be checked for presence.

• Dispatchers

In the drop-down list, select the dispatchers.

Notifications

Click this link to select who will receive the appropriate notifications. The recipients may include dispatchers, Email groups, SMS groups, radios, and radio groups.

# 6.4.5.2 Export to SWD - Location of radio

When enabled, this task will perform exporting location data to a dedicated SWD Server database.

- In the Tasks pane, double-click Export to SWD Location of radio.
- In the Export to SWD Location of radio dialog box, specify the following options:

Export to SWD - Location of	radio			;	×
Connection Radios					
SWD Server Address: TRBOnet Server Address: I Send data with confirmal	swd.trbonet.com	Port: Port:	5000	A P	
		ОК		Cancel	

#### **Connection tab**

• SWD Server Address

Enter the IP Address of the PC with the running SWD Server.

Port

Enter the port number that will be used for the connection.

# • TRBOnet Server Address

Enter the IP Address of the PC with the running TRBOnet Server.

Port

Enter the port number that will be used for the connection.



# • Send data with confirmation

Select this option to send location data to the SWD server until a confirmation is received.

# **Radios tab**

Add data received from all radios

Choose this option so that location data will be sent to the SWD server from all radios in the system.

Add data received from selected radios

Choose this option, and in the list below, select the radios whose location data will be sent to the SWD server.

# 6.4.5.3 Geofencing

The Geofencing feature allows controlling the location and speed of radios relative to manually defined regions on the map.

The Geofencing monitoring consists of the manually defined regions and the tasks. The regions specify where to apply the rules, while the tasks specify how to apply the rules for the regions and radios.

• In the Tasks pane, double-click Geofencing.

The administrator can **add/disable/delete** the rules for Geofencing as well as edit the currently selected rules:

Geofencing and Speed Contro	pl	×
Rules	General Time Range Location Speed Regions Radios Lone Worker	
Monitor Area 1		
Monitor Area 3	Select the general parameters of the rule	
4	Name: Monitor Area 3 Description: Watch out for the strangers	
	After the rule is triggered:	
/ <sup>1</sup>	2 3	
Rerun the rues after each r	ule modification server restart, and at the start of each scheduled time window (r	ot recommended) (i)
Add Rule 👻	Disable Rule OK	Cancel

- Click the **Add Rule** button (1) and select the appropriate rule from the drop-down list (Map Region, Beacons, Radios) to add a rule to the current Geofencing configuration. A new rule will be displayed in the list of rules (4).
- Click the **Disable rule** button (2) to disable the selected rule.
- Click the **Delete rule** button (3) to delete the selected rule.

# • Rerun the rules after each rule modification, ... If you select this option (though it is not recommended), the rule will be rerun each time the rule is modified, or the server is restarted, or when the scheduled time window starts.



# **Map Region Rule**

This section describes settings that can be applied for a Map Region rule.

# **General tab**

- Name Enter the rule name.
- **Description** Add a description of the rule.
- After the rule is triggered
  - **Reset Alarm mode when the rule conditions are no longer met** Select this option to reset Alarm mode after the rule is triggered.

# **Time Range tab**

On this tab, you can select which time periods the rule will be monitored.

• All Time

Choose this option to monitor the rule all the time.

• Selected Time

Choose this option and specify the days of week and the time of day the rule will be monitored.

- Click the Add link.
  - Day of Week

From the list, select the day of week on which to monitor the rule.

• Start

Specify the time of day at which to start monitoring the rule.

• End

Specify the time of day at which to stop monitoring the rule.

# **Location tab**

Geofencing and Speed Control		×
Geofencing and Speed Control Rules Wonter Area 1	General   Time Range         Locator         Speed   Regions'   Rados   Lone Worker             Define the radio's relative positioning conditions which will trigger the rule and choose specific actions to perform when the rule is executed           Trigger this rule when radio:         Entries specific regions           Entries specific regions         Is leaves specific regions           For multiple instalt(wregiong) regions:         Is crosses sny border only           Or crosses sny border         Perform the following actions:           Activate Jahrn mode         Activate Lane Worker mode	
	Activate Alarm mode	
Rerun the rules after each rule mod	fication, server restart, and at the start of each scheduled time window (not recommended	(j)
Add Rule	Rule Delete Rule OK Cancel	



# Trigger this rule when radio:

• Enters selected regions

Select this option so that the rule will be triggered as soon as a radio enters the selected region.

• Leaves selected regions

Select this option so that the rule will be triggered as soon as a radio leaves the selected region.

• For multiple nested/overlapping regions

Choose one of the options specifying for multiple regions whether to consider only an outer border of the group of regions, or any border of a region within the group.

# Perform the following actions:

Here you specify which actions to execute when the rule is triggered.

• Activate Alarm mode

Select this option to activate an Alarm mode in the Dispatch Console.

• Activate Lone Worker mode

Select this option to automatically activate a Lone Worker mode for the radio in case of entering or leaving the selected region.

• Notify source radio

Select this option to automatically send a text message to the radio when it enters or leaves the selected region.

• Send notification

Select this option to send a notification when the radio enters or leaves the selected region. Click the **Recipients** link and specify the recipients to send the notification to.

# • Send RTT to source radio

Select this option to automatically send a Request-to-Talk to the radio when it enters or leaves the selected region.

# Speed tab

Geotencing and Speed Control			ĸ
Geofencing and Speed Control Rules Monitor Area 1	General Time Range Location Speed Re Define the radio motion attributes whice actions to perform when the rule is exec Trigger this rule when radio: Moves faster than: Moves faster than: Moves faster than: Movies fa	gions Radios Lone Worker	×
Rerun the rules after each rule modif     Add Rule       Ossable		ch scheduled time window (not recommended) () OK Cancel	D



#### Trigger the rule when a radio:

#### • Moves faster than

Select this option and specify the maximum allowed speed for the vehicles. The rule will be triggered when the vehicle with the radio exceeds this speed limit.

#### • Moves slower than

Select this option and specify the minimum allowed speed for the vehicles. The rule will be triggered when the vehicle with the radio drops below the specified speed.

#### • Remains motionless longer than

Select this option and specify the time period, in seconds, during which the vehicle is allowed to remain motionless. The rule will be triggered when the vehicle with the radio remains motionless longer than this specified time period.

#### • Monitor speed in relation to regions

From the drop-down list, select where to monitor the speed of the vehicles: inside or outside the selected regions, or independently of the regions.

#### Perform the following actions:

Here you specify which actions to execute when the rule is triggered.

• Activate Alarm mode

Select this option to activate an Alarm mode in the Dispatch Console.

• Notify source radio

Select this option to automatically send a text message to the radio when it enters or leaves the selected region.

#### • Send RTT to source radio

Select this option to automatically send a Request To Talk to the radio when it enters or leaves the selected region.

#### **Regions tab**

Geofencing and Speed Contro	ı ×
Rules	General Time Range Location Speed Regions Radios Lone Worker
Monitor Area 1	
Monitor Area 3	Select regions where the rule will be triggered
Monitor Zone 2	All regions
	<ul> <li>Selected regions</li> </ul>
	Regions /
	456789
	My zone
	Route 1
	Route 2
	Zone 2
	Select All Deselect All
	Select All Deselect All
Rerun the rules after each ru	le modification, server restart, and at the start of each scheduled time window (not recommended) $({f i})$
Add Rule 🔻	Disable Rule Delete Rule DK Cancel
Add Rule *	Disable Rule OK Cancel



- All regions Choose this option to apply this rule for all regions.
- Selected regions Choose this option to apply the rule for one or several regions.
- Select all Click this button to select all regions in the list.
- Deselect all

Click this button to deselect all regions in the list.

## **Radios tab**

Rules	General Time Range Location Speed Regions Radios Lone Worker
<ul> <li>Monitor Rescon</li> </ul>	derive all time range: location: joecal neglocal works         Apply the rule to selected radios:         Apply the rule to selected radios:         Image: selected radios         Selected radios         Selected radios         Image: selected radios
Rerun the rules after each rule	odification, server restart, and at the start of each scheduled time window (not recommended)
	odification, server restart, and at the start of each scheduled time window (not recommended) sable Rule OK Cancel

## • All radios

Choose this option to apply this rule for all radios.

## • Selected radios

Choose this option to apply the rule for one or several radios.

• Select all (1) Click this button to select all

Click this button to select all radios in the list.

• Clear all (2)

Click this button to deselect all radios in the list.

• Collapse all (3)

Click this button to collapse the view of radios in the list.

• Expand all (4)

Click this button to expand the view of radios in the list.

• 7 - (5)

Click this button, and from the drop-down menu, select filters for the radios to be displayed in the list (Online (Indoor, GPS Fixed, No GPS), Offline).

## (5)

Click this button, and from the drop-down menu, select which list to display: Radio List, Radio Groups, or Logical Groups.



#### Lone Worker tab

Geofencing and Speed Contro	×
Rules	General Time Range Location Speed Regions Radios Lone Worker
Monitor Area 1	
Monitor Area 3	Select the tasks to be executed when the rule is triggered
	O All tasks
	<ul> <li>Selected tasks</li> </ul>
	Lone Workers /
	Lone Worker
	Select All Deselect All
Rerun the rules after each rul	e modification, server restart, and at the start of each scheduled time window (not recommended) $(i)$
Add Rule 🔻	Disable Rule OK Cancel

• All tasks

Choose this option to execute all Lone Worker tasks configured by the administrator when the rule has been triggered.

• Selected tasks

Choose this option, and in the list below, select the Lone Worker tasks to be executed when the rule has been triggered.

#### **Other Rules**

This section describes settings that can be applied for Geofencing rules of the types other than Map Region. These settings are represented in the table below:

Rule Type	Tab Name	Parameters Description	
Settings common	General	Name – Enter the rule name.	
for all rule types		<b>Description</b> – add the rule description.	
	Time Range	<b>All Time</b> Choose this option to monitor the rule all the time.	
		<b>Selected Time</b> Choose this option and specify the days of week and the time of day the rule will be monitored.	
		<ul> <li>Click the Add link.</li> </ul>	
		• <b>Day of Week</b> From the list, select the day of week on which to monitor the rule.	
		• <b>Start</b> Specify the time of day at which to start monitoring the rule.	
		• <b>End</b> Specify the time of day at which to stop monitoring the rule.	



Rule Type	Tab Name	Parameters Description	
	Radios	All radios – choose to apply this rule for all radios; Selected radios – choose to apply the rule for one or several radios;	

Rule Type	Tab Name	Parameters Description
Beacons	General	Rule Type:
Allows configuring rules when a radio		<b>Beacon entry</b> – select to enable the rule when a radio enters the beacon coverage zone.
enters or leaves the beacon		<b>Beacon exit</b> - select to enable the rule when a radio leaves the beacon coverage zone.
coverage zone		Activate Alarm mode when the rule is triggered - select this option to activate Alarm mode in the Dispatch Console if Beacons rule has been triggered.
		<b>Reset Alarm mode if the rule is not triggered</b> – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when <b>Beacon entry</b> is selected and the radio enters the monitored coverage zone and then leaves the zone, the alarm mode in the Dispatch Console will be reset automatically).
		<b>Send RTT to radio when the rule is triggered</b> – select this option to automatically send a Request To Talk to the radio if the rule has been triggered.
		<b>Send text message to radio when the rule is</b> <b>triggered</b> – select this option to automatically send a text message to the radio if the rule has been triggered.
		Activate Lone Worker when the rule is triggered – select this option to allow automatically activating a Lone Worker policy for a radio in case of entering or leaving beacon coverage zone.
	Time Range	See above.
	Radios	See above.
	Beacons	<b>All Beacons</b> – choose to apply this rule for all beacons;
		<b>Selected beacons</b> – choose to apply the rule for one or several beacons.
	Lone Worker	<b>All tasks</b> – choose to apply all tasks configured by the administrator when the rule has been triggered;
		<b>Selected tasks</b> – choose this option, and in the list below, select the Lone Worker tasks to be executed when the rule has been triggered.



Rule Type	Tab Name	Parameters Description
Radios	General	Rule Type:
Allows using radio(s) as map region(s) and		<b>Geofence entry</b> – select to enable the rule when a radio enters the proximity zone associated with another radio.
monitoring when another radio enters or leaves		<b>Geofence exit</b> - select to enable the rule when a radio leaves the proximity zone associated with another radio.
the vicinity of the radio's zone		Activate Alarm mode when the rule is triggered - select to activate Alarm mode in the Dispatch Console if Radios rule has been triggered.
		<b>Reset Alarm mode if the rule is not triggered</b> – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when <b>Geofence entry</b> is selected and radio enters the monitored vicinity zone and then instantly leaves the zone, alarm mode in the Dispatch Console will be reset automatically).
		Send text message to radio when the rule is triggered – select to inform radio user if the rule has been triggered.
		<b>Send RTT to radio when the rule is triggered</b> – select to inform radio user if the rule has been triggered.
		Minimum distance between radios – specify the distance, in meters or feet, depending on what is chosen in Tools > Options > Advanced / Measurement system. When a distance is less than the selected value, the rule will be triggered according to the settings above.
		<b>Color of region</b> – select the color for the radio's proximity zone.
	Time Range	See above.
	Proximity Zones	Select the radios in the proximity zones of which the rule is applied.
	Radios	See above.
	Map Regions	Rule works only in regions Select this option and then choose either All regions or Selected regions.

## 6.4.5.4 Idle Time

The Idle Time feature allows monitoring vehicles idle time assigning Telemetry Commands on selected VIOs.

• In the **Tasks** pane, double-click **Idle Time**.

Specify the telemetry command to set the Idle Time:



Idle Time				×
Start	VIO:	1	Command: High	-
Stop	VIO:	1	Command: High	•
			ОК	Cancel

Start

• Specify the telemetry **VIO** and **Command** to start the Idle Time task.

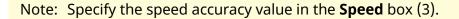
Stop

• Specify the telemetry **VIO** and **Command** to stop the Idle Time task.

The administrator can see Idle Time reports and statistics.

Click **Reports** (1), and under **Location History > Vehicle Tracking**, select **Idle Time (Summary)** or **Idle Time (Detailed)** (2), and specify report parameters:

Reports	Vehicle Tracking	ê 4 🖸
Stays in Region 2	Venicle Iracking Report Settings	
Vehicle Tracking     Welkide Tracking     With a second seco	Idle Time (Summary) Saved institute -text selected This report shows summary information on die times of vehicles that are equipped with radios for which the Idle Time task is configured a	
Ide Time (Summary) Ide Time (Detailed)	Start:         10 Nov 22 12:00 AM            End:	
Voice Dispatch	Filter: Rdio: -Not selected	
Location Tracking	Logical Group:Not selected I Rode ID (for example, 22, 33, 40-55, 88):	
👔 Source Management	Speed:	
Text Messages		
Voice Recording	Generate Report 3	Report Profile
Event Viewer	1	
Radio Allocation		,



## 6.4.5.5 Radio Allocation (Sprite Forms)

This function is used for direct communication between the dispatcher and the subscriber via special **Tallysman Option board** installed into the radio. The dispatcher and subscriber have special form templates. The dispatcher receives Duty ID of the subscriber with his template output form whereas the subscriber sends it using his template input form. The radio name changes to its Duty ID.

Note: Any activity may be decoded with its Duty ID so this is a way to communicate for the dispatcher and subscribers only.

- In the Tasks pane, double-click Radio Allocation (Sprite Forms).
- Load the Sprite Form (output template) and select the Field Name:



Radio Allocation (Spr	ite Forms)	×
Form Description:		
FORMATTED= 0203000FB98C0AF 0FB00F502536869 AS_ARRAY=0x02, 0x4E, 0x5A, 0x20, 1 0x05, 0x00, 0x02, 0	12/12/2012 8:21:05 a.m. 502FB004E5A20427573018000000106180500028768CE0 6674206E756D62657235AD781E 0x03, 0x00, 0x0F, 0xB9, 0x8C, 0x0A, 0xF5, 0x02, 0xFB, 0x0 0x42, 0x75, 0x73, 0x01, 0x80, 0x00, 0x00, 0x01, 0x06, 0x18, 0x67, 0x68, 0xCE, 0x0F, 0x10, 0xFB, 0x00, 0xF5, 0x02, 0x53, 0x74, 0x20, 0x6E, 0x75, 0x6D, 0x62, 0x65, 0x72, 0x35, 0xAD	0. ≡
FORM_TITLE=NZ FORM_ID=2 FORM_REVISION:		
[Field Data #0] Prompt="Shift numb	per"	-
	Lo	ad
Field Name:	Shift number	•
	OK Car	icel

• Click **OK** to add a Sprite Form.

## 6.4.5.6 SMS and Email Notifications

TRBOnet Dispatch Console allows managing text messages:

- 1. Send Text Messages from LAN to a particular radio or talk group (POP3 Server);
- 2. Forward all Text Messages from radios to base radio to particular email address (SMTP Server).
  - Note: Microsoft Exchange Server can be used as SMTP and POP3 servers. For more details on SMTP or POP3 servers, ask your System Administrator.
- In the Tasks pane, double-click SMS and Email notifications:

#### SMS settings tab

MS and Emai	I Notifications		>
SMS settings	Outgoing email settings (SMTP)	Incoming Email settings	
Send St	45 to recipients if radio is in alarm	mode	
Send M	MS to recipients if radio is in alarm	mode	
	xt Messages to mobile phones		
	g messages (from radio network t		
Outgoin	g messages (from dispatchers to r	adio network)	
SMS Groups			

Send SMS to recipients if radio is in alarm mode
 Select this option to send an SMS in case of an alarm on the radio.



Send MMS to recipients if radio is in alarm mode
 Select this option to send an MMS in case of an alarm on the radio.

Forward Text Messages to mobile phones

- Input messages (from radio network to dispatchers)
   Select this option to forward incoming text messages to mobile phones.
- Output messages (from dispatchers to radio network)
   Select this option to forward outgoing text messages to mobile phones.

For more details on SMS settings, see section <u>5.17.2</u>, <u>Outgoing Mail Server</u> (page 104).

A radio sends text messages to the base station. TRBOnet Server forwards all text messages to a particular email address (for example,

<u>admin@yourcompany.com</u>). The administrator receives text messages from radios as regular emails.

#### **Outgoing Email settings (SMTP) tab**

Sivis and Emai	I Notifications		
SMS settings	Outgoing email settings (SMTP)	Incoming Email settings	
Send er	nail to recipients if radio is in alarm	mode	
	xt Messages to email addresses		
	g messages (from radio network t		
Uutgoin	g messages (from dispatchers to	radio network)	
Email Group	s		
Police d			
	ч¥		
			OK Cance

• Send email to recipients if radio is in alarm mode Select this option to send an Email in case of alarm.

Forward Text Messages to email recipients

- Input messages (from radio network to dispatchers)
   Select this option to forward incoming text messages to Email address(es).
- Output messages (from dispatchers to radio network)
   Select this option to forward outgoing text messages to Email address(es).

#### **Incoming Email settings tab**

TRBOnet Server connects to POP3 server, reads emails and sends text messages to radios or talk groups.

1. Create an email account on your email server.



- 2. Send an email to <u>radioserver@yourcompany.com</u>. In the **Subject** field, enter either 'RadioID:XXX' to send an email to a selected radio, or 'GroupID:XXX' to send an email to a selected radio group.
  - Note: If you don't properly specify the email **Subject**, or specified a non-existing **RadioID** (or **GroupID**), a corresponding notification will appear in the Event Viewer of the Dispatch Console.
- Forward incoming emails to radios Select this option to forward incoming emails to radio network.

## 6.4.5.7 User Activity

The **User Activity** function allows the dispatcher to create the statuses to which radios can be assigned due to their activity.

For example, if a radio sends an **On duty** message or presses an exact preset telemetry button, this radio gets assigned to the **On duty** status in the Dispatch Console. The dispatcher can also manually assign desired statuses to radios.

• In the Tasks pane, double-click User Activity:

#### Statuses tab

User	Activity					×
Stat	uses Advan	ced				
	Name		Description	ı		
*	Off Duty					
۲	On Duty					
×	User Activity	#1				
						.
		Add		Edit	Delete	
				OI	< Cancel	

• Click Add to add a User Activity status:



User Activity Confi	guration X
General Logical Gro	ups
Name:	User Activity #1
Description:	
Background:	💰 Sea 🔹 🛨 –
Assign this status t	o radios by using the following rules:
Manually by dis	patcher
Automatically b	y receiving Text Message from a radio
Message:	
Automatically b	by receiving Telemetry Command from a radio
VIO:	1 Command: Any event
Automatically b	by receiving DTMF command from a radio
Command:	
Automatically t	y receiving Status Message from a radio
Status:	0
	OK Cancel

Name

Enter a name for the user activity status.

Description

Add a description for the user activity status.

Background

Select the background color to display the radios assigned to the status.

#### Assign this status to radios by using the following rules:

#### Manually by dispatcher

Select this option to assign the status to radios manually.

- Automatically by receiving Text Message from a radio
   Select this option to assign the status to the radio list after receiving a text message from the radio. If you select this option, enter the text message in the Message box.
- Automatically by receiving Telemetry Command from a radio Select this option to assign the status to the radio after receiving a telemetry command from the radio. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option to assign the status to the radio after receiving a predefined DTMF command from the radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the Command box.
- Automatically by receiving Status Message from a radio Select this option to assign the status to the radio after receiving a specified Status Message, for instance, 1. If you select this option, specify the Status.



Click the **Advanced** tab:

User Activity		×
Statuses Advanced		
Assign default sta	tus to offline radios	
Timeout:	1 🔹 minutes	
	ОК	Cancel

• Assign default status to offline radios

Select this option to assign the default status to offline radios.

• Timeout

Specify the time period, in minutes, after which the default status will be assigned an offline radio.

#### 6.4.5.8 Lone Worker

The Lone Worker policy lets the dispatcher set a time interval the communication with a radio user is expected. For example, if a lone worker has not called the dispatcher for 15 minutes, the radio receives a message and the Dispatcher receives an alarm signal.

- To add a Lone Worker task, in the **Tasks** pane, click **Add > Lone Worker**.
- In the **Lone Worker** dialog box that appears, specify the following parameters:

Task name:	Lone Worker	
Task Start Con	ditions Task Stop	
Manually by	y dispatcher	
Automatica	lly by receiving Text Message from a radio	
Message:	Start	
Automatica	lly by receiving Telemetry Command from a radio	
VIO:	1 🗢 Command: Any event 🗸	
Automatica	lly by receiving DTMF command from a radio	
Command:		
Automatica	lly by receiving Status Message from a radio	
Status:	0	
🗹 Send text r	nessage to radio	
Message:	LW started	
		_
	OK Can	icel



#### **Task Start tab**

- Manually by dispatcher Select this option to start the Lone Worker task manually by the dispatcher.
- Automatically by receiving Text Message from a radio Select this option so that the Lone Worker task will start after receiving a message from a radio. If you select this option, specify a text message in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option so that the Lone Worker task will start after receiving a telemetry command from a radio. If you select this option, specify the VIO contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option so that the Lone Worker task will start after receiving a predefined DTMF command, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the **Command** box.
- Automatically by receiving Status Message from a radio Select this option so that the Lone Worker task will start after receiving a specified status from a radio. If you select this option, specify **Status**.

## • Send text message to radio

Select this option and in the **Message** box enter the text message that will be sent to the radio when a Lone Worker task is started for that radio.

## **Conditions tab**

Lone Worker		×
Task name: Lone	Worker	
Task Start Conditions	Task Stop	
Response time	30 🚔 minutes	
Send notification to	o radio	
Reminder time	60 🔶 seconds	
Send Request 1	To Talk	
O Send Text Mess	sage	
Message:		
Reset Lone Worker	r when receiving Text Message	
Message:		
Reset Lone Worker	r when receiving Telemetry command	
VIO:	1 Command: Any event	
Reset Lone Worker	r when the distance has been traveled	
Distance:	5 🔶 km	
Do not trigger alar	m if radio is offline for less than	
Interval:	60 🗢 seconds	
	OK Cancel	



#### • Response time

Specify the time period, in minutes, that determines how long TRBOnet Server waits since the last radio transmission.

#### • Send notification to radio

Select this option so that TRBOnet Server will send a notification to the radio before raising the alarm if the radio has not transmitted for the specified time period.

#### Reminder time

Specify the time period before it comes to raise the alarm, to send a notification asking the radio to respond.

#### Send Request to Talk

Choose this option to send a Request-to-Talk to the radio.

#### Send Text Message

Choose this option to send a text message to the radio. Specify the message text in the **Message** box.

- Reset Lone Worker when receiving Text Message
   Select this option to reset the Lone Worker task after receiving the message specified in the Message box.
- **Reset Lone Worker when receiving Telemetry command** Select this option to reset the Lone Worker task after receiving the

telemetry command. If you select this option, specify the **VIO** contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.

- **Reset Lone Worker when the distance has been traveled** Select this option to reset the Lone Worker task after the distance specified in the **Distance** box has been traveled.
- **Do not trigger alarm if radio is offline for less than** Select this option so that the alarm is not triggered if the radio is offline for a time less than the time specified in the **Interval** box.

#### **Task Stop tab**

Lone Worker		Х
Task name:	Lone Worker	
Task Start Condit	ions Task Stop	
Manually by d	ispatcher	
Automatically	by receiving Text Message from a radio	
Message:		
Automatically	by receiving Telemetry Command from a radio	
VIO:	1 🗘 Command: Any event 🗸	
Automatically	by receiving DTMF command from a radio	
Command:	123 #123#	
Automatically	by receiving Status Message from a radio	
Status:	0	
Automatically	when a radio goes offline	
Send text me	ssage to radio	
Message:		
	OK Cano	el



In the **Task Stop** tab, you can specify how to stop the Lone Worker task. The available options are similar to those you specified on the **Task Start** tab.

## **Enabling Lone Worker**

• To enable the Lone Worker task for a selected radio, go to **Voice Dispatch** (1), right-click the selected radio (2), and choose **Start Lone Worker** (3):

oice Dispatch		Radio Interface						ê
i 🗄 i 🔒 🗶 '	7 0	Radio Interface		Events			Duick Comma	
Online, GPS		2		Active Calls			onfigure	
🚯 💌 125 (P 🕇 💰 🔊 235 (B	Presen Private	ce in Network 2 Call				Pre-	Record v	
Voice Dispatch	Send O Reque	Call st Location	<b>.</b>		-0 4		: <u>Selected Chan</u> sisy.mp3	inels
GPS Positioning	Send N Advan	Aessage ced	Menu 🖚	PTT	ree channel		Bobby.	
Job Ticketing 1		n Google Earth Route on Google Earth	(i) (ii)	Group 2	•0 •		Patch	[
🕑 Route Management	Monit	oring 🗼	e channel		ree channel		and Drop PTT	Box here to
RFID Tracker		/ Custom Icons dio Channel 🔹 🕨	men 3		olice		create new	
Text Messages	Set On Start L	Duty one Worker 1	: Slot #1 🔟 🖪	Repeater #	1: Slot #2 🔊 🖪		atch on Repea	iters
Voice Recording	Start T	imer	🕶 进 Print 📔 Pause	🎯 Clear 🗕 🏐 Reload	🍸 Filter By Radio 🛛	Grouping 🍸 Aut	o Filter 🧼 De	fault Setting
Reports		Date 21-Oct-2016 17:56: 21-Oct-2016 17:56:		Sender Recipient Administra Police Administra Police	Message Dispatcher 'Administr Dispatcher 'Administr		Note	Ext. Note
Event Viewer		21-Oct-2016 17:56: 21-Oct-2016 17:56: 21-Oct-2016 17:56:	23 Repeater #1: Slo	Administra All	All Call from dispatch All Call from '125' (00	Members: Administr		
Radio Allocation		21-Oct-2016 17:56:	11 Repeater #1: So	235 Al 235 Al	All Call from '235' (00 All Call from '235' (00			
Administration			Recent Calls Radio State		loutes User Activity	Map Cameras		

• To monitor the Lone Worker task, click the **Active Tasks** tab:

File view Map Tools Help					
Voice Dispatch	Radio Interface				9
g: 🗄 🗄 👶 🛠 🍸 🗗 💡	Radio Interface Telephony	Recent Calls/Events			
	Terminate all Transmit			Quick Commands	× ^
😑 🦲 Online, GPS		Active Calls	×	Configure	
🛞 🕑 125 (P 🗦 🕅 🚃				Pre-recorded Messa	ges X
🐔 🖲 235 (B 📮 🔇				Record - C	
Online No.C			^	To: Selected Channels	
Voice Dispatch	Telephony			Daisy.mp3	
	1 2 3	<b>-</b>		G	
GPS Positioning		1enu 👝		Bobby.mp3 To: Selected Channels	_
0-0			· · · · · · · · · · · · · · · · · · ·	To: Selected Channels	
📅 Job Ticketing	Intercom			Patch	×
🕖 Route Management	Free channe	el		Drag and Drop PTT Box h	ere to
(A)	PTT			create new group	
RFID Tracker					$\leq$
	Group 1		<b>.</b>	Patch on Repeaters Binary Patch	
Text Messages	Active Tasks		· · · · · · · · · · · · · · · · · · ·	Dinary Patch	
Voice Recording	Stop 🗧 Grouping 🍸 A	uto Filter @ Default Settings			
*	Task	Radio	State		
Reports	Lone Worker 1	125 (Pete) 125		5 •	17:25
Event Viewer					
Radio Allocation			/		
	H4 44 4 Record 1 of 1 + H+ H	भार			Þ
administration	Recent Calls/Events Recent Ca		Active Routes User Activity M	ap Cameras	
🐻 127.0.0.1 🛞 🥵 🕵 🧟 Administra					🕑 Active -
🐨 Erster 🥨 🤓 🦉 🗶 Administra	tor i i i consed to: dento bento	/ crocine			- Active -

## 6.4.5.9 Lone Worker Scheduler

The Lone Worker Scheduler task allows configuring a schedule for the <u>Lone</u> <u>Worker</u> task.

- To add the task, in the **Tasks** pane, click **Add > Lone Worker Scheduler**.
- Task name Enter a name for the task.



#### **Time Range tab**

#### All Time

Choose this option to run the task all the time.

#### • Selected Time

Choose this option and specify the days of week and the time of day the task will be run.

- Click the **Add** link.
  - Day of Week

From the list, select the day of week on which to run the task.

- **Start** Specify the time of day at which to start running the task.
- End

Specify the time of day at which to stop running the task.

#### **Radios tab**

• All radios

Choose this option to run the task for all radios.

• Selected radios

Choose this option to run the task for one or several radios.

#### Lone Worker tab

• All tasks

Choose this option to run all Lone Worker tasks.

• Selected tasks

Choose this option, and in the list below, select the Lone Worker tasks to run.

Note: When a Lone Worker task is mentioned as **Disabled**, enable it on the **Tasks** pane.

## 6.4.5.10 Export Data

TRBOnet Dispatch Console provides the Export Data function, which allows exporting data to an external database table.

- To add an Export Data task, in the **Tasks** pane, click **Add > Export Data**.
- In the **Export Data** dialog box, specify the following parameters:



Export Data						:	×	
Task name:		xport to database table - Location of radio						
Type:	E	xport to data	ort to database table					
Data:	Lo	ocation of rad	dio				Ŧ	
Connection	Data	Scheduler	Advanced					
	<ul> <li>○ Use default connection</li> <li>③ Select connection</li> </ul>							
Server na	ame	(local) \SQLEXPRESS						
Database	e name	TRBOne	TRBOnet 🔹			*		
Vindo	ows auth	entication						
User nam	ie							
User pas	sword							
					ОК	Cancel		

#### **Connection tab**

• Task name

Enter a name for the task.

• Type

Select the type of data export from the drop-down list. TRBOnet Dispatch Console allows exporting data for third-party systems using data export tasks.

#### • Export to database table

Allows exporting data to MS SQL Server tables. Specify MS SQL Server connection parameters, database, and table to export data.

#### Export to Versatrans

Allows exporting data to the Versatrans data collection system via IP. For more details, visit the <u>official website</u> of Versatrans.

#### Export to Google

Allows exporting data to file (file format is KML). For more details, visit the following <u>website</u>.

#### Export to NMEA

Allows exporting data to a file (text file format, export format is NMEA 0183). For more details, visit the following <u>website</u>.

#### Export to file

Allows exporting data to a text file.

#### • Data

Select which data to export from the drop-down list.

Use default connection
 Chaose this entire to use the default connection to

Choose this option to use the default connection to SQL Server.

## • Select connection

Choose this option and specify the SQL Server and database name.



- Server name Enter the SQL server name.
- **Database name** Select the database from the drop-down list.
- Windows authentication

Select this option to use **Windows authentication**, or deselect it to use **SQL Server authentication** (SQL Server user name and password will be required).

#### Data tab

Task name:	E	xport to data	abase table - L	ocation of rad	o	
Type: Export to dat Data: Location of ra		xport to data	abase table			
		dio				
Connection	Data	Scheduler	Advanced			
	_					
Table:		[Export_Loca	itions]			
Column	manning			Create table	E Load colum	ıns list
Table o			Data			
Date	olamin		Location date			
Latitude			Latitude			
Longitu	de		Longitude			-
Speed			Speed			
Directio	n		Direction			
Precisio	n		Accuracy			
RadioTO	)		Radio ID			-

• Table

the name of the table to be exported into external database (by default, the name of the table is created after you have specified it in **Create table** dialog box).

- Click the **Load columns list** link to update the columns list in case you have made any changes to the table.
- Click the **Create table** link to add a new table for data export:

	Active datab	ase connection
Гаb	le name:	Export_Locations
Colu	umn list:	
	Table column	Data
¥	Date	Location date
¥	Latitude	Latitude
¥	Longitude	Longitude
¥	Speed	Speed
¥	Direction	Direction
¥	Precision	Accuracy
¥	RadioID	Radio ID
¥	ID	Unique radio ID
V	Name	Radio name
•	ExportDate	Export date
	exportuate	Export date



• Select the data fields to add to the table.

#### **Scheduler tab**

Export Data					×
Task name:	Export to dat	tabase table -	Locatio	n of radio	
Type:	Export to da	tabase table			•
Data:	Location of r	adio			-
Connection Dat	ta Scheduler	Advanced			
Days of week:	(All da				•
Start time:	_	3:00	<b>÷</b>		
Stop time:	1-	5:00	-		
Repeat eve	ry: 0	1:00:00	-		
C Execute at pa	articular time				
				OK	Cancel

#### • Days of week

In the drop-down list, select the days of the week on which to export the data.

## • Execute recurrently with interval

Choose this option to perform data export on a periodic basis.

Start time

Specify the time at which to start data export.

Stop time

Specify the time at which to stop data export.

Repeat every

Specify a time period for periodic data exports.

#### • Execute at particular time

Choose this option and specify the times in the columns of the table below.



#### **Advanced tab**

Export Data	×
Task name:	Export to database table - Location of radio
Type:	Export to database table
Data:	Location of radio
	nly modified data
Export mode	
	s add new records
	e existing and add new records
Updat	e existing records
	OK Cancel

- **Export only modified data** Select this option to export only modified data.
- Export mode

Choose the mode for exporting data.

#### 6.4.5.11 Scheduled Task

This task allows sending scheduled commands to selected radios.

- To add a scheduled task, in the **Tasks** pane, click **Add > Scheduled Task**.
- In the **Scheduled Task** dialog box, specify the following parameters:

Scheduled Task	×
Task name: S	cheduled Task 1
Command Schedu	ler
Command:	Send Text Message
Message:	Send Text Message Send Telemetry
<ul> <li>○ Send to Radio</li> <li>● Send to Radio</li> <li>Recipient:</li> </ul>	Request Location Send Voice Message Send Signaling Send command to Control Station
8∎¢ ✓ 🚯 3333 ✓ 🚯 5555	Request To Talk Custom Event Send Swift Command Send Push Notification
<ul> <li>✓ (€) Radio 10</li> <li>○ (€) Radio 12</li> <li>○ (€) Radio 23</li> <li>○ (€) Radio 44</li> </ul>	5
Selected: 3	<b>Y :</b> :
	OK Cancel

Task name

Enter a name for the task.



#### **Command tab**

#### Command

From the drop-down list, select what to send to selected radios. For a description of the available commands, see sections 6.5.6.1 - 6.5.6.10.

#### **Scheduler tab**

Scheduled Task	×
Task name: Sched	luled Task 1
Command Scheduler	
Start date: End date:	11 December 2022         •           12 December 2022         •
Days of week:	Monday, Tuesday, Wednesday, Thursday, Frid 💌
<ul> <li>Execute recurrently</li> <li>Start time:</li> </ul>	12:00 AM
End time: Repeat every:	12:00 AM 🔦
C Execute at particular	r time
	OK Cancel

• Start date

Select the date to start the task.

• End date

Select the date to end the task.

• Days of week

In the drop-down list, select the days of the week on which to perform the task.

• Execute recurrently with interval

Choose this option to perform the task on a periodic basis.

• Start time

Specify the time at which to start the task.

• End time

Specify the time at which to end the task.

- **Repeat every** Specify a time period for periodic task executions.
- Execute at particular time

Choose this option and specify the times in the columns of the table below.



## 6.4.5.12 Voice Message

The Voice Message task allows you to automatically broadcast a predefined Voice Message after receiving a telemetry command, a text message, or a DTMF command.

 To add a Voice Message task, in the Tasks pane, click Add > Voice Message.

The user can have several Voice Message policies for different purposes. Enter a name for the policy in the **Task name** box and set the policy parameters.

#### **Task Settings tab**

Fask name:	Voice Message				
Task Settings S	tart Conditi	ions Stop Conditions	s Tele	emetry	
Load from	file				
Record me	ssage				
Play back	message				
Call Type		Channel		Call Destination	
Private Call		Auto Detect		Radio 125	
Group Call		HIPSC 1: Slot #1		Cleaners	
Phone Call		Phone Connect		2410	
🖶 Add 🛛 🗙	Remove				
	Normal				+
Priority:				second(s)	
Priority: Offset:		0	÷	second(s)	
	sage	0	÷	second(s)	
Offset:	-	0	÷	(0 = unlimited)	
Offset: Send voice me	-				

#### • Load from file

Click this link to load an existing file from your PC.

Record message

Click this link to record a new voice message.

• Play back message

Click this link to play back the voice message.

• Click the **Add** link and specify **Call Type**, **Channel**, and **Call Destination** for a voice message.

Note: To send a Voice Message to a contact from the phone book, click the ellipsis (...) button in the Call Destination column and select a contact from the phone book.

• Priority

From the drop-down list, select the priority with which the voice message will be sent/queued. If this priority is higher than that of the current transmission, which is, in turn, allowed to be interrupted, the current transmission will be interrupted, and the voice message will be sent instead.



#### • Offset

Specify the delay time, in seconds, for the Voice Message task.

- Send Voice Message
  - This many times

Enter the number of times to send the voice message.

Every

Set the repeat interval, in seconds, if the voice message is sent more than once.

Resend if interrupted

Select this option so that the voice message will be resent if the sending of the voice message is interrupted.

#### **Start Conditions tab**

Voice Message					×
Task name:	Voice Me	ssage			
Task Settings	Start Condi	tions Stop	Conditions	Telemetry	
Manually Manually	by dispatche	r			
Automatic	ally by recei	ving Text Me	essage from	i a radio	
Message:					
Automatic	ally by recei	ving Teleme	try Comman	id from a radio	
VIO:	1	-	Commar	nd: High level	*
Automatic	ally by recei	ving DTMF c	ommand fro	m a radio	
Command	: [				
Automatic	ally by recei	ving Emerge	ncy from a	radio	
Emergenc	y type: A	I			•
Activated	by any radi	D			
<ul> <li>Activated</li> </ul>	by selected	radios only			
Radio:	Γ				~
Send text	message to	radio			
Message:					
				OK	Cancel

• Manually by dispatcher

Select this option to allow the dispatcher to manually start the Voice Message task.

- Automatically by receiving Text Message from a radio Select this option to start the Voice Message task after receiving a specified text message from a radio. If you select this option, specify a brief text message in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option to start the Voice Message task after receiving a telemetry command. If you select this option, specify the VIO contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.



- Automatically by receiving DTMF command from a radio Select this option to start the Voice Message task after receiving a DTMF command from a radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the **Command** box.
- Automatically by receiving Emergency from a radio Select this option to start the Voice Message task after receiving an emergency command from a radio.
  - Emergency Type From the drop-down list, select the type of emergency to be sent from a radio.
- Activated by any radio Choose this option to expect receiving data from any radio in the system.
- Activate by selected radios only Choose this option to expect receiving data from selected radios.
  - Radio

In the drop-down list, select the radio(s).

## • Send text message to radio

Select this option so that a text message will be sent to the radio that activated the Voice Message task. If you select this option, specify a brief text message in the **Message** box.

#### **Stop Conditions tab**

Voice Message	×
Task name:	Voice Message
Task Settings	Start Conditions Stop Conditions Telemetry
Manually	by dispatcher
Automatic	ally by receiving Text Message from a radio
Message:	
Automatic	ally by receiving Telemetry Command from a radio
VIO:	1 Command: High level
Automatic	ally by receiving DTMF command from a radio
Command	:
Send text	message to radio
Message:	
	OK Cancel

## • Manually by dispatcher

Select this option to allow the dispatcher to manually stop the Voice Message task.

Automatically by receiving Text Message from a radio

Select this option to stop the Voice Message task after receiving a message from a radio. If you select this option, specify a text message in the **Message** box.



- Automatically by receiving Telemetry Command from a radio Select this option to stop the Voice Message task after receiving a telemetry command from a radio: If you select this option, specify the VIO contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option to stop the Voice Message task after receiving a DTMF command from a radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the Command box.

#### • Send text message to radio

Select this option so that a text message will be sent to the radio that stopped the Voice Message task. If you select this option, specify a brief text message in the **Message** box.

#### **Telemetry tab**

Voice Message				×
Task name:	Voice Message	e		
Task Settings	Start Conditions	Stop Conditions	Telemetry	
Send tele	metry before task	is started		
VIO:	1	Command: Hi	qh level	•
Delay aft	er sending:	0	* *	second(s)
Send tele	metry after task is	s stopped		
VIO:	1	Command: To	ogg <mark>le l</mark> evel	*
Delay bet	fore sending:	0	÷	second(s)
Recipient:	Radios: 2			•
Send tele	metry on every vo	pice message		
			OK	Cancel

#### • Send telemetry before task is started

Select this option to send a telemetry command before the voice message is transmitted.

- Specify the **VIO** contact number.
- Select the signal level from the **Command** list.

#### Delay after sending

Specify the time period, in seconds, to wait before sending the voice message after the telemetry command has been sent.

## • Send telemetry after task is stopped Select this option to send a telemetry command after the Voice Message task is stopped.

- Specify the **VIO** contact number.
- Select the signal level from the Command list.



#### Delay before sending

Specify the time period, in seconds, to wait before sending the telemetry command after the voice message has been sent.

#### • Recipient

In the drop-down list, select the radios/groups to send the telemetry command to.

#### • Send telemetry on every voice message

Select this option to send the telemetry command to the selected radios/groups every time the voice message is sent, provided the voice message is repeatedly sent.

## 6.4.5.13 Recorder

The Recorder feature allows connecting to an audio recorder via IP.

• To enable the task, in the **Tasks** pane, click **Add > Recorder**:

The feature allows replicating audio recordings to the recorder:

Audio Recorder	×
Task name:	Audio Recorder
Settings	
Recorder Type:	TRBOnet Recorder
IP Address:	10.10.169.121
Port:	9000
Audio Codec:	OPUS/48000/2
	OK Cancel

#### • Task name

Enter a name for the task.

• Recorder Type

Select either 'TRBOnet Recorder', 'NetCRR Recorder', or 'NexLog Recorder'.

- **IP Address** Enter the recorder's IP address.
- Port

Specify the recorder's port number.

• Port count

Specify the number of open ports if 'NexLog Recorder' is selected. Recommended value: twice the number of calls recorded at the same time.



- Audio Codec From the drop-down list, select the audio codec to be used.
- Await confirmation for audio stream control packets Select this option to wait for confirmation of audio stream control packets, if 'TRBOnet Recorder' is selected.
- Check Channels

Click this button to view all available channels on the recorder, if 'NetCRR Recorder' is selected.

• Click **OK** to add the task.

## 6.4.5.14 Agenda

The Agenda is used to automatically send predefined messages to the radios. It may be used when you have any software receiving any messages but it is not able to send them to the subscribers. In this case, TRBOnet Dispatch Console acts as an intermediary for receiving the messages from the folder and sending them to radios.

- To add an agenda, in the **Tasks** pane, click **Add > Agenda**.
- In the **Agenda** dialog box, specify the following parameters.

Task name: Agenda		
Settings		
Outgoing messages (path to a	eenverfolder):	
C:\Outgoing	server folder).	
Incoming messages (path to a	eenverfelder):	
C:\Incoming	server folder).	
_		
Wait for response(sec):	120	
Text to confirm:	ОК	

Task name

Enter a name for the task.

- Outgoing messages (path to a server folder) Enter the path to the folder for outgoing messages.
- Incoming messages (path to a server folder)
   Enter the path to the folder for incoming messages.
- Wait for response Specify the time interval, in seconds, for the response.
- Text to confirm Specify the text to be sent by radio users after they receive the message.



## 6.4.5.15 Import Phone Addresses

The **Import Phone Addresses** option allows importing phone/address data from a NENA database to TRBOnet database.

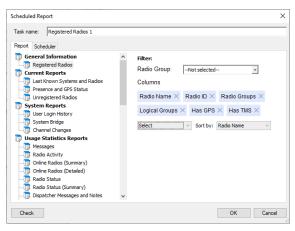
To perform this task:

- In the Tasks pane, click Add > Import Phone Addresses (NENA)
- In the **Import Phone Addresses (NENA)** dialog box, browse for the corresponding \*.CSV file, and click **OK**.

## 6.4.5.16 Scheduled Report

The Scheduled Report task allows reporting on selected parameters and sending these reports to selected Email subscribers groups. The user can have several Scheduled Report policies for different purposes.

- Note: Before configuring the task, you need to create a number of the Email groups to send reports to. For more details on Email groups, see section <u>6.4.26, Email</u> <u>Groups</u> (page 267).
- To add a Scheduled Report task, in the Tasks pane, click
   Add > Scheduled Report:
- Enter a name for the policy in the **Task name** box and set the policy parameters.



- On the **Report** tab, select the report type for the Scheduled Report task. The report details and filter might be different. For more details on reporting, see section <u>6.11, Reports</u> (page 365).
- Click the **Scheduler** tab to configure a schedule for the report.



heduled Report		:
ask name: Reg	stered Radios 1	
Report Scheduler		
Schedulers:	Scheduler 1 V +	
For the past:	(Select All)     Scheduler 1	
Email groups:	Scheduler 2	
	OK Cancel	
Check		OK Cancel

#### • Schedulers

On the list, select the scheduler(s) to use for the report. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.22, Schedulers</u>).

• For the past

Select the past time interval (in minutes, hours, days, weeks, or months) to collect the data for.

#### • Email groups

In the list, select Email groups to send the report to.

The created scheduled report will be displayed in the **Tasks** pane:

Administration	Tasks	😫 🕪 🛂
Server	Intercom     (1)     (2)     (1)	) # 0 ) # 0
Telephony     Tasks     Virtual Modbus Devices	Add • Edit & Delete	۵
Voice Dispatch		
Location Tracking	Geofending     Goofending     Goofending	
📅 Job Ticketing	Gene Worker 1     Wessages 1 Messages for Period	
Route Management		
RFID Tracker	C Scheduled Report 1 Messages for Period_26-Nov-2016 00:00:00     C Scheduled Report 1 Messages for Period_26-Nov-2016 00:00:00     C Scheduled Report 1 Messages for Period_26-Nov-2016 00:00:00	
C Text Messages	🔽 🍈 Timer	
Voice Recording	✓     Were Activity       ✓     ✓       ✓     ✓       ✓     ✓       ✓     ✓	
Event Viewer	Voice Message	
Radio Allocation		
Administration	144 44 4 Record 10 of 15 > >> >> >> 4	Þ

To enable the task, select the checkbox in front of the Scheduled Report task you have already created.

There are three types of the Scheduled Report status icons:

- Green indicates an active task, meaning the task is enabled (checked).
- Gray indicates an inactive task, meaning the task is disabled (unchecked).
- Red indicates a disabled task, meaning the task period is up in the past.



## 6.4.5.17 Import Beacon Data from Firebird DB

The **Import beacon data from Firebird DB** option allows importing beacon data from Firebird database to TRBOnet Dispatch Software database.

- To add the task, in the Tasks pane, click Add > Import beacon data from DB "Firebird".
- In the dialog box that opens, specify the following parameters:

Import beacon data from DB "Fi	rebird" ×
Name: Import beacon	data from DB "Firebird"
Settings Import	
Server:	User:
localhost	SYSDBA
Database path:	Password:
	•••••
Port:	Update (sec):
3050 🜩	10
-	
Test	
	OK Cancel

#### • Name

Enter a name for the task.

• Server

Specify a remote server or a server on the local PC.

• User

Enter the name of the Firebird DB user.

- Database path Specify the Firebird DB path.
- **Password** Specify a password to connect to Firebird DB (provided at logon).
- **Port** Specify the port number to connect to Firebird DB.
- **Update (sec.)** Specify the update period for Firebird DB.
- Click **Test** to test the connection to Firebird DB.
- Click the **Import** tab to specify Import settings:



Import b	eacon data from DB "Firebird"	×
Name:	Import beacon data from DB "Firebird"	
Settings	Import	_
Impo	ort data from:	
<t1< td=""><td>he Oldest Date Possible &gt; Import</td><td></td></t1<>	he Oldest Date Possible > Import	
$\checkmark$	Delete old data	
_		
Rep	ort:	
	OK Cancel	

- **Import data from** Specify the Firebird DB name.
- Click **Import** to import data.
- Delete old data

Select this option to delete all previously imported data from Firebird DB.

• Report

In this box, an import report will be displayed.

• Click **OK** to add the task.

## 6.4.5.18 HotSOS (Email)

The **HotSOS (Email)** task is used to automatically create and assign job tickets upon receiving email messages at the address specified for the radio (**Radio** > Additional > Email). In addition, you specify the email address at which to receive email messages about changes to the created ticket status.

- In the Tasks pane, click Add > HotSOS (Email).
- In the **HotSOS Configuration** dialog box, specify the following parameters:

HotSOS Configuration X          Name:       HotSOS         Email:       test@gmail.com         Source:       Subject         Status       HotSOS Status         New       N         Cancelled       Ca         Assigned       Ass         Accepted       Acc         Rejected       R         Completed       C         In Progress       InP					
Email: test@gmail.com Source: Subject ✓ Status HotSOS Status New N Cancelled Ca Assigned Ass Accepted Acc Rejected R Completed C In Progress InP	HotSOS Configur	ation			×
Source: Subject        Status     HotSOS Status       New     N       Cancelled     Ca       Assigned     Ass       Accepted     Acc       Rejected     R       Completed     C       In Progress     InP	Name:				
Status     HotSOS Status       New     N       Cancelled     Ca       Assigned     Ass       Accepted     Acc       Rejected     R       Completed     C       In Progress     InP	Email:	test@gmail.o	com		
New     N       Cancelled     Ca       Assigned     Ass       Accepted     Acc       Rejected     R       Completed     C       In Progress     InP	Source:	Subject			-
Cancelled Ca Assigned Ass Accepted Acc Rejected R Completed C In Progress InP	Status		HotSOS Status		
Assigned Ass Accepted Acc Rejected R Completed C In Progress InP	New		N		
Accepted Acc Rejected R Completed C In Progress InP	Cancelled		Ca		
Rejected R Completed C In Progress InP	Assigned		Ass		
Completed C In Progress InP	Accepted		Acc		
In Progress InP	Rejected		R		
	Completed		С		
OK Cancel	In Progress		InP		
OK Cancel					
OK Cancel	1				
				OK	Cancel

Name

Enter a name for the task.



#### Email

Enter the email address at which you want to receive notifications concerning the status of the created tickets.

#### Source

From the drop-down list, select which part of the email message, Subject or Body, will be included in the job ticket text.

#### HotSOS Status

Enter the text of the emails that will be sent as notifications upon changes to the job ticket status.

#### 6.4.5.19 HotSOS (Web Service)

The **HotSOS (Web Service)** task is used to create and assign job tickets by using the <u>HotSOS Web Service</u>.

- In the Tasks pane, click Add > HotSOS (Web Service).
- In the **HotSOS Configuration** dialog box, specify the following parameters:

HotSOS Configuration	;
Name:	HotSOS
URL:	https://ifc.int.hot-sos.net/api/service.svc/soap
Login:	Tester 123
Password:	*****
Provider:	MOTOTRBO
Polling Interval:	15 seconds
Text Messages:	
Message Format:	%TEXT%%PRIORITY%%ORDER_ID% Text Priority Room Name Room Number Remark Order ID Message ID
Status	HotSOS Status
New	N
Cancelled	Ca
Assigned	Ass
Accepted	Acc
Rejected	R
Completed	C

#### Name

Enter a name for the task.

URL

Enter the URL of the service.

- Login and Password Enter the login and password of the service account.
- **Provider** Enter the service provider name.
- Polling Interval

Enter the interval, in seconds, to check the service for orders (job tickets).



## Text Messages

If you select this option, additional text messages will arrive at the designated radios from the HotSOS server.

#### Message Format

Select the fields of a message to include in the job ticket text.

#### HotSOS Status

Enter the text of the messages that will be sent as notifications to the HotSOS server upon changes to the job ticket status.

#### 6.4.5.20 Timer

The **Timer** task is used to configure the timer that can be started/stopped/paused either manually by dispatchers, or when receiving a certain text message, telemetry command, DTMF command, or status from radios.

- In the **Tasks** pane, click **Add > Timer**.
- In the dialog box, specify the following parameters:

Timer						×
Task name:	Time	r				
🗌 Global ti	mer					
Task Start	Task Stop	Status Names	Dispate	thers		
Manua	Illy by dispat	cher				
Autom	atically by re	eceiving Text Me	essage fi	om a radio		
Messa	ge:					
Autom	atically by re	eceiving Telemet	ry Com	hand from a radio		
VIO:	1	Comm	and:	Any event	~	
Autom	atically by re	eceiving DTMF c	ommand	from a radio		
Comm	and:					
Autom	atically by re	eceiving Status M	lessage	from a radio		
Status	: 0	×.				
Send t	ext message	e to radio				
Messa	ge:					
				OK	Cano	el

• Task name

Enter a name for the task.

• Global timer

If you select this option, the timer will be started/stopped, etc. via the Alarm Management (Timers action).

## Task Start/ Task Stop tabs

• Manually by dispatcher

Select this option to allow the dispatcher to manually start/stop the timer for the desired radio.

## • Automatically by receiving Text Message from a radio

Select this option to start/stop the timer when receiving a predefined text message from a radio. If you select this option, specify a brief text message in the **Message** box.



- Automatically by receiving Telemetry Command from a radio Select this option to start/stop the timer when receiving a predefined telemetry command from a radio. If you select this option, specify the **VIO** contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option to start/stop the timer when receiving specified DTMF tones from a radio. If you select this option, specify a DTMF combination without the # characters in the **Command** box.
- Automatically by receiving Status Message from a radio Select this option to start/stop the timer when receiving specified Status from a radio, for instance, 1. If you select this option, specify the **Status**.
- Send text message to radio

Select this option so that a text message will be sent to a radio when the timer is started/stopped. If you select this option, specify a brief text message in the **Message** box.

#### Task Stop tab

• After Specify the duration of the timer, in minutes.

#### Status Names tab

In the text boxes below, enter the texts for the corresponding statuses: timer started, stopped by dispatcher/radio/system, elapsed, and paused.

#### Dispatchers tab

• All Dispatchers

Choose this option button so that the timer will be available to all dispatchers.

## • Selected Dispatchers

Choose this option button so that the timer will be available only to selected dispatchers.

#### Dispatchers

In the list below, select the dispatchers.

## 6.4.5.21 Automatic Data Retrieval

The **Automatic Data Retrieval** task is used to automatically retrieve missing location data from the radio's option board.

- In the Tasks pane, click Add > Automatic Data Retrieval (Swift GPS).
- In the dialog box, specify the following parameters:



	Data Retrieval	
Fask name	: Automatic Data Retrieval	
General	Radios	
Maximur	n number of simultaneous requests:	3 🌩
Allowed	regions for requests	Everywhere 🔹
Swift F	Parameters	
Retrie	ve missing locations if the data gap exceeds:	30 🚖 seconds
Do no	t retrieve missing locations older than:	30 🚔 minutes 👻
		OK Cancel

- Maximum number of simultaneous requests
   Specify the maximum number of radios being requested at the same time.
- Allowed regions for requests
   Select regions where location data will be retrieved from radios.
- Retrieve missing locations if the data gap exceeds
   TRBOnet Server automatically checks whether the location data is
   continuous. If it detects data gaps between any consecutive location
   data that exceed this value, it will attempt to retrieve missing
   information.
- Don't retrieve missing locations older than TRBOnet Server doesn't check location updates for consistency if they are older than this value in seconds, minutes, or hours.
- On the **Radios** tab, specify the radio(s) to retrieve location data from.

In the **Tasks** pane, activate the **Automatic Data Retrieval (Swift GPS)** task by selecting the checkbox next to the task name.

## 6.4.5.22 Automatic Voice Download

The **Automatic Voice Download** task is used to automatically retrieve voice data from the radio's option board when the radio is in WiFi zone.

• In the Tasks pane, click Add > Automatic Voice Download (Swift).



Automatic Voice Download (Swift)	<
Name: Voice Download	
General Radios	
Maximum number of simultaneous requests: 3	
Save to:  c:\	
%RADIO_ID%YEAR%%MONTH%%DAY%%HOUR%%MINUTE%%SECOND%         Year Month Day Hour Minute Second Call Type Source Source Type         Source ID Recipient Type Recipient ID Radio ID         Example:         c:\Radio_120221130133744_pox.tna	
Save to database (Note that this may cause duplication of voice records in the server database)	
OK	

- In the dialog box, specify the following parameters:
  - Maximum number of simultaneous requests
     Specify the maximum number of simultaneously requested radios.
  - Save to

Enter the path where to save voice data on your PC. Click the appropriate links below (Year, Month, Day, etc.) that will be used to generate the file/path name.

#### Save to database

Select this option to save retrieved voice data to the server database. Note that selecting this option may cause duplication of voice records in the server database.

• On the **Radios** tab, specify the radio(s) to retrieve voice data from.

In the **Tasks** pane, activate the **Automatic Voice Download (Swift)** task by selecting the checkbox next to the task name.

#### 6.4.5.23 Sign-in Reminder

The **Sign-in Reminder** task is used to remind users to sign in into the radio(s).

- To add a Sign-in Reminder task, in the **Tasks** pane, click **Add > Sign-in Reminder**.
- In the dialog box that opens, specify the following parameters:



Name:	Sign-in Reminder	
General Radios	Text to Speech	×
Description	Timeout (mm:ss):	01:00
Sign in	Text to speech:	
Chop-chop	Chop-chop, sign in	
🖶 Add 🗙 De	0	K Cancel
🗌 Run again at		
Disable radios	that were not checked out after notification	1
Timeout: 3 m	inutes 🚽	

Name

Enter a name for the task.

 Click the Add link and from the drop-down list, select either Text Message or Text to Speech.

In the dialog box that opens, specify the following:

• Timeout

Specify the time, in minutes, to wait before sending the message (voice message) to the selected radio(s).

- Text Message / Text to Speech Enter the text of the message (voice message) to be sent to the selected radio(s).
- Run again after user signs out
   Select this option to rerun the task after the user signs out.
- Disable radios that were not checked out after notification
   Select this option to disable the radio(s) if the user didn't sign in after being notified.
  - Timeout

Specify the corresponding timeout, in minutes.

• Click the **Radios** tab, and select the radio(s) to send reminder(s) to.

## 6.4.5.24 Sign-out Reminder

The **Sign-out Reminder** task is used to remind users to sign out of the radio(s).

- To add a Sign-out Reminder task, in the **Tasks** pane, click **Add > Sign-out Reminder**.
- In the dialog box that opens, enter the following parameters:



Sign-out Remine	der	×
Name:	Text to Speech	×
General Rad Add notificatic Descripti Sign out		01:00 ÷
♣ Add × Work shift dura	OK	Cancel
Auto sign-out: Notify if the use <u>Notification n</u>	er hasn't signed out before timeout expires: <u>ecipients</u>	
	ОК	Cancel

#### Name

Enter a name for the task.

 Click the Add link and from the drop-down list, select either Text Message or Text to Speech.

In the dialog box that opens, specify the following:

- Timeout
   Specify the time, in minutes, before the one
  - Specify the time, in minutes, before the end of the work shift.
- Text Message / Text to Speech Enter the text of the message (voice message) to be sent to the selected radio(s).

#### Work shift duration

Enter the duration of the work shift, in HH:MM.

Auto sign-out

Select this option to automatically sign out the user from the radio as soon as the work shift ends.

Notify if the user hasn't signed out before timeout expires
 Select this option and choose among Notification recipients by clicking the link below.

### 6.4.5.25 Screensaver

The **Screensaver** task is used to launch a screensaver when the dispatcher is idle for a period longer than the specified timeout. Once started, the screensaver will be stopped when you click the mouse button or press any keyboard key, or there is an emergency call or a request to talk.

- To add a Screensaver task, in the Tasks pane, click Add > Screensaver
- In the dialog box that opens, specify the following parameters:

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Screensaver	×
Name: Screen Saver	
Show screensaver after	30 minutes 主
Background	RoyalBlue 💌
Foreground	WhiteSmoke 🔹
Text	
TRBOnet	
<ul> <li>All Dispatchers</li> </ul>	
<ul> <li>Selected Dispatchers</li> </ul>	
Dispatchers:	Ψ.
T	est
	OK Cancel

Name

Enter a name for the task.

Show screensaver after

Set the time of inactivity, in minutes, after which the screensaver will automatically run.

- Background / Foreground
   Select the background/foreground colors for the screensaver.
- Text

Enter the text that will be displayed in the screensaver.

- All Dispatcher / Selected Dispatchers
   Select the dispatcher(s) to assign the screensaver task to.
- Test

Click this button to see how the screensaver will look.

#### 6.4.5.26 Import Objects

The Import Objects task is used to import new objects to the Users database and Radios database based on the .CSV data files.

 To add an Import Objects task, in the Tasks pane, click Add > Import Objects

Dbject Import from File	
Name: Import Objects	
General Update Column Mapping	
Objects: Radio Users	
File Path D:\CSV\users.csv	
Passwords encrypted	
Delete objects not present in file	
OK Cancel	



In the dialog box that opens, enter the following information:

Name

Enter a name for the task.

- General tab
  - Object Type

From the drop-down list, select into which database to import data (Beacons, IP Cameras, Map Objects, Map Regions, Map Routes, Phone Contacts, Radio Users, or Radios).

File Path

Click the ellipsis (...) button and locate the .CSV file on the same PC with TRBOnet Server.

Passwords encrypted

Select this option if the passwords are encrypted in the data being imported.

#### Delete objects not present in file

Select this option so that objects not found in the .CSV file will be deleted from the database.

#### • Update tab

#### File Changed

Choose this option so that the specified database will be updated as soon as the source CSV file is changed. Note that the source .CSV file must reside on the same PC with TRBOnet Server.

#### Scheduler

Choose this option and on the list below select the scheduler to use to perform the task. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.22</u>, <u>Schedulers</u>).

#### • Column Mapping tab

In the table below, in the right column, enter/change the column names that would correspond to the database field names.

#### 6.4.5.27 Export Objects

The Export Objects task is used to export objects from the Users database and Radios database to external .CSV data files.

 To add an Export Objects task, in the Tasks pane, click Add > Export Objects

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Export Objects t	o File		×
Name: Export C	bjects		
Object Type:	Radios		Ŧ
Columns:	All		-
Scheduler:	Not selected		V +
File Path	5V		
Diffeet factoria			
		OK	Cancel

In the dialog box that opens, enter the following information:

Name

Enter a name for the task.

Object Type

From the drop-down list, select which database to export (Beacons, IP Cameras, Map Objects, Map Regions, Map Routes, Phone Contacts, Radio Users, or Radios).

Columns

In the drop-down list, select the columns to be exported into a .CSV file.

Scheduler

Choose this option and on the list below select the scheduler to use to perform the task. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.22</u>, <u>Schedulers</u>).

File Path

Click the ellipsis (...) button and locate the CSV file on your computer (or elsewhere).

## 6.4.6 Custom Fields

In this section, you can add custom fields that can later be used when registering radios (see section <u>6.4.32</u>, <u>Radios</u>, <u>Additional</u> tab) and users (see section <u>6.4.28</u>, <u>Users</u>, Custom Fields tab).

• Go to Administration (1), Custom Fields (2)



Administration	Custom Fields					👲 🐵 🕻
Server	1: Line free		Intercom	•)) 46	🖉 🔽 All Call	
····· 📋 Database	Private Call		Cleaners	•)) 📢	Firemen	•) 📢 🧭
	Group 10		Group 20	•)) 📢	0	
Phone Calls 2	Custom Fields					
	🗟 Add 🌛 Edit 📑	Delete				
Modbus TCP Connections	Name	∆ Key	Туре	Description		
Virtual Modbus Devices 🗸	Car make	CAR_MAKE	Text			
	Description	DESCRIPTION	Text	Custom Field		×
Voice Dispatch	Email 3	EMAIL	Email			
	Name	NAME	Text	Name:	Car make	
Location Tracking	Phone	PHONE	Phone	Key:	CAR MAKE	
~	Plate number	PLATE_NUMBER	Text	Type:	Text	•
🧬 Route Management				Description:		
	-			Description.	1	
Market Messages						
0	-					
Reports	1				ОК	Cancel
				L		
Administration 🖌	144 44 4 Record 1 of 6	► ₩ ₩ 4				

- Click the **Add** button (3).
- In the **Custom Field** dialog box, specify the parameters of the field, such as its Name, Key, Type (Text, Phone, Email, or Barcode), and Description.

# 6.4.7 Modbus TCP Connections

TRBOnet Server can receive and send data from/to Modbus hardware and interact with Modbus data according to desired scenarios. There are two connection modes between TRBOnet Server and Modbus hardware: Master and Slave.

To connect TRBOnet Server to Modbus hardware:

• Go to Administration (1), Modbus TCP Connections (2):

File View Map Tools Help					
Administration	Modbus				👲 🐠 🛂
Systems System Bridge Phone Calls Tasks Modbus TCP Connections	I: Line free disp 15		Interce	m	•) •: Ø
Virtual Modbus Devices	🗸 🗟 Add 🌛 Edit 📑 I	Delete			
< >	Name 🛆 Mode	IP Address	Port	Slave ID	Behavior
	ModBust Master	192.168.77.10	502		
Voice Dispatch	ModBus2 Slave		502	1	Custom
Location Tracking					
Job Ticketing	3				
Route Management					
Radio Allocation					
Administration	144 44 4 Record 1 of 2	▶ <b>IH</b> ₩ 4			Þ
🐻 127.0.0.1 🛞 🕵 🕵 🙎	dministrator	to: demo Demo	License		🕑 Active 🗸

• In the **Modbus** pane, click **Add** (3).

Mode:	Slave	
Port:	502	
Slave ID:	1	
Behavior:	Custom	

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- From the **Mode** drop-down list, select the mode of connection.
  - If the 'Slave' mode is selected, specify the **Port** of TRBOnet PC and the **Slave ID** to assign to this PC.

Leave **Behavior** as Custom if this connection will be used for Alarm management.

• If the 'Master' mode is selected, specify the **Remote Address**, **Port**, and **ID** of the Modbus device, which in turn will be running in the Slave mode.



#### ✓ Parallel Requests

Select this checkbox so that TRBOnet Server can send multiple requests without waiting for responses from the Modbus device.

## 6.4.8 Virtual Modbus Devices

Once you have created the appropriate TCP connection, you can add a Modbus device:

• Go to Administration, Virtual Modbus Devices, and click Add.

Virtual Modbus D	evice			×	
Name:	PLC1				
Description:					
Configuration:	ModBus2			•	
Table:	DiscreteInputs			*	
	Address		Value		
				•	
		1		1	
		2		0	
		3		1	
		4		0 💠	
		5		0	
	_	6		0	
		7		0 -	
	~	8		Edit Filter	
	•			Cult Filter	
		_			
			OK	Cancel	

In the **Virtual Modbus Device** dialog box, specify the following parameters:

Name

Enter the name of the device.

Description

Enter the description of the device.

Configuration

From the drop-down list, select the slave connection you previously created for the device (that is, TRBOnet Server running in the Slave mode).



#### Table

From the drop-down list, select the appropriate MODBUS data type ('Discrete Inputs', 'Coils', 'Input Registers', or 'Holding Registers'). In the 'Address/Value' table, enter the appropriate register values.

# 6.4.9 IP Cameras

This section describes how to connect IP cameras to TRBOnet Dispatch Console. Once connected, the cameras can be associated with radios, beacons and other map objects.

- Go to Administration, IP Cameras to manage IP cameras in the system.
- In the **IP Cameras** pane, click the **Add** button.
- In the **IP Camera Configuration** dialog box, specify the following parameters:

Camera Configu	ration		×
Name:			
Camera 1			
Description:			
Disposal dump			
URI:			
rtsp://10.10.102.2	43:554/		
Protocol:			
UDP	¥		
Authorization			
User:			
Password:			
		OK	Cancel

#### Name

Enter a name for the camera.

Description

Enter a description for the camera.

URI

Enter the URI for the camera. Note the use of the **RTSP://** prefix and port number **554** (also note that some cameras may have been configured to use a different port number other than 554).

Protocol

From the drop-down list, select **UDP**.

- Authorization
  - User

Enter the user name for the authentication, if needed.

• Password

Enter the password for the authentication, if needed.

#### 6.4.10 Public Announcements

This section describes how to connect Public Announcement units to TRBOnet Dispatch Console.

• Go to Administration (1), Public Announcements (2).



- In the **Public Announcements** pane, select the **Public Announcements** tab (3).
- Click the **Add** button (4).

Administration	Public Announcements			🏂 🚸 👱
Sener License Dabase Dabase Dabase System Pade Trails Trails Modus TCP Connections Modus TCP Connections Modus TCP Connections Modus TCP Connections Modus TCP Connections Modus TCP Connections		×	IP connection	Radio con.
😸 Location Tracking 😵 Job Ticketing 👔 Route Management	Radio connection:       Connection Type:       Swift Option Board 2.0       Radio ID:	~		
Text Messages  Radio Allocation  Administration	0K Car	ncel		

In the **Public Announcement Configuration** dialog box, enter the following parameters:

#### • Name

Enter a name for the PA unit.

• Description

Enter a description for the PA unit.

• External ID

Enter the external ID for the Public Announcement unit. This ID will be used when an announcement is sent to the PA unit from some external system.

- IP connection
  - IP Address

Enter the IP address of the PA unit.

Port

Enter the port number that will be used for the connection.

• Radio connection

#### Connection type

From the drop-down list, select how the radio is connected within the PA unit.

Radio ID

Enter the Radio ID of the PA unit's radio. The Radio ID must be unique in the radio system.

#### Adding Public Announcement Zones

- In the **Public Announcements** pane, select the **Zones** tab.
- Click the **Add** button.



• In the dialog box that opens, click the **Main** tab.

PAGA Zone Confi	guration	$\times$
Main Radios		
Name:	Security	
Description:	Security dep	1
Radio ID	222   External ID 606	÷
1000 10		-
		_
	OK Cancel	

Name

Enter a name for the PA zone.

Description

Enter a description for the PA zone.

Radio ID

Enter the Radio ID of the PA zone.

Note: Due to some technical restrictions, this must be the Radio ID of the existing radio group.

External ID

Enter the external ID for the Public Announcement zone. This ID will be used when an announcement is sent to the PA zone from some external system.

• Click the **Radios** tab.

PAGA Zone Configuration		×
Main Radios		
		9
✓ PA 1		
V PA 2		
Selected: 2		
	OK	Cancel

• Select the desired PA units that will belong to the PA zone.

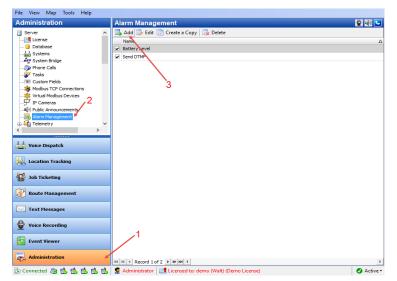


# 6.4.11 Alarm Management

The Alarm Management feature allows you to create rules for Alarms, Emails, Notifications, Text Messages to radios, and other events. When a configured rule is executed, the appropriate action(s) will start.

For example, an external application sends some text data, which contains the text "alarm", to TRBOnet software. The text "Alarm" is configured as the rule to start sending a predefined voice message (for example, "Alarm in Sector N") to selected radios (for example, the group "firemen"). As a result, the group "firemen" are notified about an emergency condition.

• Go to **Administration** (1), **Alarm Management** (2) to configure Alarm Management rules:



- Click Add (3) to add a new Alarm Management rule.
  - Note: The administrator can also create a copy of the existing Alarm Management rule. Select a rule in the list and click the **Create a Copy** button. The system will create a copy of the rule with the same configuration parameters.
  - Name

Enter a name for the alarm rule.

• On the **Sources** tab (1), click **Add** (2) to add an alarm source to the rule.



Name:     Source     X       Source:     Nam Mode Cn       Source:     Adve Graup Changed       Status on or more alors     Image Advector Changed       Name     Image Advector Change       Name     Image Advector Change       Name     Image Advector Change       Name     Image Advector Change       Name     Devery Confirmation       Do not perform Tenal     Devery Confirmation       Do not perform Tenal     External Network Connection       Objected Syn     Selected Syn       Solucted Syn     Selected Syn       Objected Syn     Selected Syn       Solucted Syn     Selected Syn       Objected Syn     Selected Syn       Solucted Syn     S	Name:     Source     X       Source     Atter Group Compod       Contrastor     Contrastor       Do not pefor     Final       Selected Syst     Source Status       Condition Source     Source Status       Obstate System or Ster Compod     Source       Schult Treahold     Schult Treahold       Schult Treahold     Schult Treahold       System or Ster Compoe     System or Ster Compoe	Alarm Management			- ×
Source: International Source: Alarm Mode On Active Group Changed Active Group Changed Three Group Changed Control of the Source	Source: Alam Mode On Active Group Changed The for an one alam box Sector of a none alam box The for a none alam box Active droup Changed Active droup Changed Active droup Changed Active droup Changed CMP and Coff Active droup Changed CMP and Coff Active droup Changed CMP and Coff Active droup Changed CMP and Coff Do not perform Enail Control States Selected State Control States Selected States Active droup Changed Control States States Measure States States States Measure System or Ster Change The Box Change The Box Change System Control States States Measure System Control States States Measure The Box Change The Box Control The Change The Box Control The States	Alarin Management	Source	×	
Selection or more airm If two more airm sol Active Group Changed Active Group Changed Active Group Changed Active Group Changed Pades: Pades: Pades: Pades: Arm: Do not perfor Group Changed Driver Confirmation Driver Delivery Confirmation Driver Delivery Confirmation Driver Selected Syst Selected Syst Selected Syst Confirmation Driver Selected Syst Selected Syst Confirmation Driver Selected Syst Selected Syst Selected Syst Selected Syst Science Advis Loadion Part Science Advis Loadion Part Event Science Advis Loadion Pade Status Ref Dispid Ref Dispid Ref Dispid Ref Dispid Science Prents SCIAD Presho System To reits Change Telemetry Text Message	Selectione or more alarm If how more alarm and Revealed by a factor of the factor of	Name: New Eve			
Better to the final data of the Anni Node Off     Triver one admin to     Activated by w     Anni Node Off     Activated by w     Ac	Advantade by explored and move off     Advantade by explored andvandtade by explored andvande by explored andvande by explored and	Sources Time Range	Source:	4	
Tied Bearon Lost	Timer Status	Selectione or more alarm if two or more alarm sou name	Activated by ar     Activated by se     Radios:     Aarm:     Do not perform     Al Systems	Actor Sour Channed Actor Sour Channed Actor Sour Channed Actor Sour Channed Actor Sour Channel Actor Source Actor Source Actor Source Actor Acto	

#### Source

From the drop-down list (3), select the alarm source to add to the rule.

For a description of the alarm sources, see *TRBOnet Enterprise/PLUS Alarm Management User Guide*.

Note: Select the alarm source you want to enable. In case no source is selected, all configured alarm sources are disabled by default.

	Battery L	evel
ource	Time Range	Location Actions
If tw	o or more alarm so	m sources that will be monitored. urces are selected, the alarm will be triggered y alarm rule are met.
	Name	Description
	Battery Level	Active Radios: All; Battery Level: 15%;
	Text Message	Active Radios: 3; Text: Pre;

• Click the **Time Range** tab to set the time at which the alarm rule will be applied.

#### All Time

Choose this option so that the rule will be valid all the time.

Selected Time

Choose this option so that the alarm rule will be applied on the selected days of the week at the selected time.

• Select the days of the week and specify the time ranges.



#### • Click the **Location** tab.

Under this tab, select the regions inside or outside of which the alarm rule will be applied. You can also select the beacons in the coverage zone of which the alarm rule will be applied.

Note: When **COM Port** and/or **External Network Connection** are selected as the alarm source, the **Location** rule won't be applied.

ame: New Rule		
Sources Time Range Locatio	Actions	
Location-based rules trigger acti Alarm sources will be monitored	ons based on the location of selected de f any location-based condition is met.	vice
Regions		
✓ Enable		
Radio Location:	Inside Regions	×
All Regions		
Selected Regions		
Regions:	Selected items: 1	•
Beacons		
Enable		
All Beacons		
Selected beacons		
Beacons:	Selected items: 2	٠

#### Regions

Select Enable to add regions to the alarm rule.

#### • Radio Location

From the drop-down list, select whether the alarm rule will be applied Inside Regions or Outside Regions.

#### • All Regions

Choose this option to apply the alarm rule inside/outside all map regions.

#### • Selected Regions

Choose this option to apply the alarm rule only inside/outside selected regions.

✓ Regions

In the list, select the region(s).

#### Beacons

Select **Enable** to add beacons to the alarm rule.

All Beacons

Choose this option to add all beacons to the alarm rule.

#### • Selected Beacons

Choose this option to add only selected beacons to the alarm rule.

#### ✓ Beacons

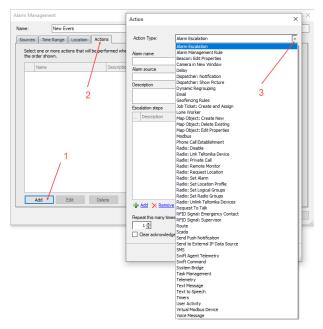
In the list, select the beacon(s).

• Click the **Actions** tab (1) to set actions for the rule.



In the Actions list, the administrator can add and configure actions to be executed when the events configured and selected in the **Sources** page are triggered.

• Click Add (2) to add an action:

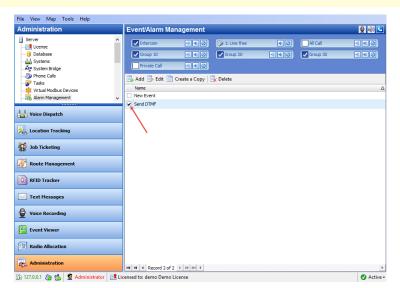


#### Action Type

From the drop-down list (3), select the action type.

For a description of the action types, see *TRBOnet Enterprise/PLUS Alarm Management User Guide*.

Note: After you configure the alarm rule, enable it by selecting the checkbox beside it. In case when no alarm rule is selected, the action will not be started.





# 6.4.12 Telemetry

On the **Telemetry configuration** page, you can configure settings for Telemetry.

## 6.4.12.1 Radio Groups Telemetry

This is a default telemetry profile that is used to send telemetry commands to radio groups.

- In the **Administration** pane, click **Telemetry > Radio Groups Telemetry**.
- In the **Telemetry configuration** pane, click **Edit**.

File View Map Tools Help			
Administration	Telemetry configuration		🔮 🕪 🕓
Phone Cals     A     Traids     Fund Modus Devices     Event/Alem Management     Government Profes     Distance Training     Telenstry     Distance Training     Telenstry     Distance Training     Telenstry     Telenstry	Croup 10 0 40 C	Line free 📢 🕢	Al Cal 0€0 ✔ Group 33 0€0
Uoice Dispatch	Telemetry Type: MOTOTRBO Radio Groups Telemetry		
Location Tracking	Digital Outputs ① VIO1: VIO1: High level (High level) ③ VIO2: VIO2: High level (High level)		
😼 Job Ticketing	<ol> <li>VIO3: VIO3: High level (High level)</li> <li>VIO4: VIO4: High level (High level)</li> </ol>		
Route Management	<ol> <li>VIO5: VIO5: High level (High level)</li> </ol>		
RFID Tracker			
C Text Messages			
👳 Voice Recording			
Event Viewer			
(1) Radio Allocation			
Administration			
🕼 127.0.0.1 🔊 🛝 🦉 Administrator 📑 I	icensed to: demo Demo License		Active -

elemetry Type:	MOTOTRBO	
Profile Name:	Radio Group Telemetry	
Route type:	Regular	•
Digital Outputs		
ID	Name	Command
VIO1	VIO 1: High level	High level
VIO2	VIO2: High level	High level
VIO3	VIO3: High level	High level
VIO4	VIO4: High level	High level
VIO5	VIO5: High level	High level
Description ID: Name: Command:	VID1 • High level •	Apply

• Click Add and specify ID (VIO), Name, and Command (signal level).

Note: For **Radio Groups Telemetry** only the **Digital Outputs** tab is available.

#### 6.4.12.2 Adding Telemetry Profile for Radios

• Go to Administration (1), Telemetry (2), and click Add (3):



File View Map Tools Help		
Administration	Telemetry configuration	9 🚯 🔽
Phone Cals     Tasks     Wrtuit Modous Devices     Wrtuit Modous Devices     Wrtuit Modous Devices     Swift Event/Alem Monagement     Swift Event Profiles     Construction     Constructio	Intercom     Image: Comp 20     Image: Comp 30       Image: Comp 20     Image: Comp 30     Image: Comp 30       Image: Comp 20     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30     Image: Comp 30       Image: Comp 30     Image: Comp 30	
Voice Dispatch	Telemetry Type: MOTOTRBO Auto refresh inputs: Disabled	
Location Tracking	Digital Inputs 3 VID1: Telemetry VK1 (High level)	
🔡 Job Ticketing	(102:Telemetry W3(2)(spin level)     (0) VIO3:Telemetry W3(1)(spin level)     (0) VIO4:Telemetry W4(1)(spin level)	
😿 Route Management	VIOS: Telemetry VKS (righ level)  Digital Outputs	
RFID Tracker	VIOS: VIOS: Low level     Low level	
V Text Messages		
🔮 Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration		
🚡 127.0.0.1 🛞 🕵 🙎 Administrator 📑 🖬	icensed to: demo Demo License	🗸 Active -
	Telemetry Profile X	
	Telemetry type: MOTOTRBO	

# Telemetry type

From the drop-down list, select one of the following types:

• MOTOTRBO - telemetry from Motorola radios.

Profile name: Telemetry #2

• **Socintech Novox** – telemetry from Novox devices connected to the radio via COM port.

OK Cancel

- **Swift Option Board** telemetry from the option board connected to the radio.
- Sprite telemetry from Sprite devices.

Note: Sprite telemetry profile can be read but not written.

Profile name

Enter the name of the profile to display in the Dispatch Console.

• Click OK.

Telemetry #1		×
Telemetry Type:	MOTOTRBO	
Profile Name:	Telemetry #1	
Route type:	Regular	*
Common Digital In	puts Digital Outputs	
Auto reques	st input states	
Request inte	erval: 600 🛓 second	
🗹 Trace digita	linputs	
Trace analo	g inputs	
Replace sta	tus events with VIO events	
RFID		
	OK Canc	el

# **TRBOnet Enterprise** — User Manual



#### **Common tab**

- Auto request input statuses
   Select this option and in the Request interval box specify the time interval, in seconds, to request input data.
- Trace digital inputs
   Select this option to monitor digital input damages.
- **Trace analog inputs** Select this option to monitor analog input damages.
- Replace status events with VIO events
   Select this option to generate VIO ON/OFF event when the system compares between the last and the current statuses of the VIO.

#### **Digital Inputs tab**

elemetry	Type:	MC	DTOTRBO		
rofile Nar	ne:	Te	lemetry #1		
oute type	e:	Re	gular		_
Common	Digital I	Inputs	Digital Outputs		
ID		Name		Event	
VIO1		<li>T</li>	elemetry VK1	High level	
VIO2		🔥 Т	elemetry VK2	High level	
VIO3		<li>T</li>	elemetry VK3	High level	
VIO4		① Ti	elemetry VK4	High level	
Descrip	tion	<u> </u>			
ID:		N	102 -		
Name:		Т	elemetry VK2		
Reset N	lame:	Ē			
Event:		Ē	figh level 👻		
Severit	y:	- 1	🔥 Warning 🖃		
🗹 Disp	lay as ra	dio sta	tus		
🗌 Auti	o reset si	tatus			
🗌 Req	uest loca	tion of	radio	Apply	
🛃 Add		<b>-</b>	Remove		

• Click **Add** to add a VIO (Virtual Input/Output) to the profile.

#### ID

Select the VIO to set the parameters for.

Name

Specify a name for the VIO to be displayed in the Dispatch Console.

Event

Select the signal level of VIO events from the drop-down list. When an event with the selected signal level occurs on the selected VIO, the telemetry will be activated. The signal level must be the same in the radio's codeplug and in Telemetry configuration in TRBOnet. It is a programmable option that sets the pin's voltage level to **High** or **Low** in order to trigger a selected functionality.

Severity

Specify a severity level for the VIO event from the drop-down list.

Note: Most of the policies are set to replace events, so it is recommended to enable this option.



#### Display as radios status

Select this option so that the radio will change its status after it sends the telemetry command.

#### Auto reset status

Select this option to automatically reset the telemetry VIO after the radio sends the telemetry command.

#### Request location of radio

Select this option to request a GPS position of the radio after it sends the telemetry command.

Click **Apply** to apply settings to selected inputs.

#### **Digital Outputs tab**

emetry Type:	MOTOTRBO	
file Name:	Telemetry #1	
mmon Digital	Inputs Digital Outputs	
>	Name	Command
101	VIO1: High level	High level
102	VIO2: Low level	Low level
103	VIO3: High level	High level
104	VIO4: Toggle	Toggle level
Description		
	V103 •	
Description ID: Name:	VIO3 T	
ID:	VIO3 C	Ασοίγ

- Click Add to add a VIO (Virtual Configured PIN) to the profile:
  - ID

Select the VIO in the dropdown list to set its parameters;

Name

Specify a name for the VIO to be displayed in the Dispatch Console.

Command

Specify a signal level for the command to send to the selected VIO.

Click **Apply** to apply settings to selected outputs.

#### 6.4.13 Text Messages

On the **Text Messages configuration** page, you can configure settings for Text Messages.

#### 6.4.13.1 Group Text Messages

This is a default text message profile that is used to send text messages to radio groups.

- Click Group Text Messages in the Administration pane.
- In the **Text Messages configuration** pane, click **Edit**.



 In the dialog box that opens, change the desired parameters.
 For a description of the profile parameters, see section <u>6.4.13.2</u>, <u>Adding</u> <u>Text Message Profile</u>.

# 6.4.13.2 Adding Text Message Profile

• Go to Administration (1), Text Messages (2), and click Add (3):

dministration Virtual Modbus Devices Urtual Modbus	Text Messages co					👲 🚳 🕻
IP Cameras	1: Line free					<b>X V</b>
- Telemetry	Slot 2	• •	✓ Intercom ✓ Group 11	) # Ø	Slot 1	) # 0 ) # 0
Radio Groups Telemetry     Group Text Messages     Group Text Messages     Addio Statuses	All Call	) 📢 🖉	Private Call	() # ()		
J Voice Dispatch	Profile Type: MOT Data protocol: Text Message format:	OTRBO	MSI Proprieta Sender and T	*		
Location Tracking	Max. message length: Split long message into	multiple messages	140 : No	Text Messages Profile		×
Route Management     Text Messages				Profile type: Profile name: Text Messages #1	MOTOTRBO MOTOTRBO Mobile Messenger	r (BT Accessory)
Voice Recording				Trext messages #1	ОК	Cancel
Telemetry	1					

- In the **Text Messages Profile** dialog box, specify the following parameters:
  - Profile type

From the drop-down list, select one the two items:

• MOTOTRBO

Select if the radio itself is used to send/receive messages.

- **Mobile Messenger (BT Accessory)** Select if the Bluetooth Communicator is used together with the radio to send/receive messages.
- Profile name

Enter a name for the text profile.

Click OK.

ext Messages #1	
Profile Type:	MOTOTRBO
Profile Name:	Text Messages #1
Data protocol:	MSI Proprietary
Route type:	Regular 👻
Text Message format:	Sender and Text 💌
Custom format:	{Sender} {Text}
Maximum message length:	140 🔶 chars



- In the **Text Messages Profile** dialog box, specify the following parameters:
  - Profile Name

Enter a name for the profile.

Data protocol

From the drop-down list, select one of the two items:

• MSI Proprietary

Select if the radio is equipped with a display and supports the new Text Messaging service.

• DMR Standard

Select if the radio is equipped with a display and supports DMR Compatible text messages.

Route type

From the drop-down list, select one of the three items:

• Regular

Select this type to receive messages on the radio.

• Option Board

Select this type to receive messages on the radio's option board.

• Non-IP Peripheral

Select if the radio is connected to a PC via a USB port.

#### Text Message format

From the drop-down list, select one of the pre-defined formats for text messages, or select the Custom format.

#### Custom Format

Enter your own format for text messages in this box if you have selected 'Custom' from the list above. The Custom Format will default to {Sender} | {Text}. There are four choices: {Sender}, {Text}, {Date}, and {Time}. Another example would be: {Date} | {Time} | {Text}.

#### Maximum message length

Enter the maximum number of characters that TRBOnet will send per text message. The recipient of the text message may not be able to receive the maximum number of characters due to its design limitations. Therefore, it may only display a partial text message.

# Split long message into multiple messages Select this option to allow single messages to be split into multiple messages based on the Max. message length setting.

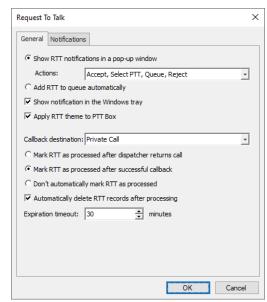
# 6.4.14 Request To Talk

This section describes how to configure the Request-To-Talk parameters.

- Go to Administration (1), Request To Talk (2).
- In the **Request To Talk** pane, click the **Edit** button.



• In the dialog box that opens, specify the following parameters:



Show RTT notifications in a pop-up window

Choose this option so that **Request to Talk** messages will pop up over the application window.

Request To Talk						
Ŕ	CP1 The Requ	2 <b>35</b> Jest To Talk has b	een received			
	Accept	Queue	Reject			

#### • Actions

In the drop-down list, select the buttons that will be available in the pop-up box. If necessary, modify the button captions.

	Caption	Action	
	Accept	Respond to RTT	Ŀ
$\checkmark$	Select PTT	Select the PTT box for a response	
$\overline{\mathbf{v}}$	Queue	Queue RTT	
$\Box$	Hide	Hide RTT for time	1
$\overline{\mathbf{v}}$	Reject	Reject RTT	
	Cancel	Cancel RTT	•

- The button captioned **Accept** means that an incoming RTT will be immediately responded by the dispatcher.
- The button captioned Select PTT means that an incoming RTT will not be responded to immediately. Instead, a dedicated PTT box (Private Call, Group Call, or All Call, depending on what is chosen as the callback destination) will be selected as the default PTT box, and the callback transmission will start as soon as the external PTT button is pressed.



- The button captioned **Queue** means that an incoming RTT will be queued and can be processed later.
- The button captioned **Hide** means that an incoming RTT will be hidden for the dispatcher for the time period selected from the drop-down list. Note that the RTT will be displayed for all other dispatchers.
- The button captioned **Reject** means that an incoming RTT will be rejected by the dispatcher and displayed for all other dispatchers.
- The button captioned **Cancel** means that an incoming RTT will be rejected and not displayed for all other dispatchers.

#### Add RTT to queue automatically

Choose this option so that all incoming requests to talk will be automatically queued and can be processed later (see <u>Activity Monitor</u> <u>Panel</u>, <u>Requests To Talk</u> tab).

### Show notification in the Windows tray

Select this option so that a notification will be displayed in the Windows tray when a Request to Talk arrives.

#### Apply RTT theme to PTT box

Select this option so that a special color theme (pink background, by default) will be applied to the associated PTT box when a Request to Talk arrives.

#### Callback destination

From the drop-down list, select where to transmit when answering to a request to call. You can select either Private Call, Home Group, Active Group, All Call, or one of the registered Radio Groups.

- Note: If the **Home Group** is selected, and the Home Group is not specified for the radio that initiated a Request to Talk, then the response to this Request to Talk will be made as an **All Call**.
- Choose one of the following three options:
  - Mark RTT as processed after dispatcher returns call Choosing this option means that a Request to Talk will be considered processed after a dispatcher makes the return call.
  - Mark RTT as processed after successful callback Choosing this option means that a Request to Talk will be considered processed only after the radio has responded to the return call.

# • **Don't automatically mark RTT as processed** Choosing this option means that a Request to Talk will be considered processed only after a dispatcher manually marks it as processed.



# Automatically delete RTT records after processing Select this option to automatically delete RTT records after they are processed.

#### Expiration timeout

Enter the time, in minutes, during which unanswered requests to talk will be stored.

On the **Notifications** tab, specify the following parameters:

Request To Talk			×
General Notificatio	ns		
Send notification	ns to caller		
Autodetect r	notification type		
C Send text m	essages		
C Send voice n	nessages		
Text messag	e notifications:		
Queued:	Call queued		
Rejected:	Call rejected		
Not available:	Dispatcher is unavailable		
		ОК	Cancel

#### Send notifications to caller

Select this checkbox to notify the radio when a request is rejected, queued, or the dispatcher is unavailable.

- Choose one of the buttons below to specify the way the radio is notified.
  - ✓ Autodetect notification type

Choose this option button so that the type of notification will be selected automatically depending on whether or not the Text Messages Service is enabled on the radio.

Send text messages

Choose this option button to send text notifications to the radio.

- Send voice messages
   Choose this option button to send voice notifications to the radio.
- In the **Text message notifications** boxes, enter the corresponding text notifications. These texts will be used when sending text notifications to the radio.

# 6.4.15 Radio Statuses

In TRBOnet Dispatch Console, you can configure different profiles for the radio statuses that are received from or sent to the radios.



• Go to **Administration**, **Radio Statuses**. You can see the default Radio Status profile settings in the **Radio Statuses** pane.

To add a Radio Status profile, click the **Add** button, and in the dialog that opens, specify the required statuses to be received from the radios (**Receive** tab) and sent to the radios (**Send** tab).

# 6.4.16 Location Profile

The Location Profile feature allows configuring different profiles of location update settings for built-in GPS receiver. Location Profile overrides default location trigger configuration in Server settings. For example, fire emergency service has a number of departments in a city and needs to monitor current position of radio subscribers (firemen). The administrator can create multiple separate location profiles with different location tracking settings for each department.

Note: The Location Profile feature is available for MOTOTRBO Generation II radios, firmware version 2.4 or later.

• Go to **Administration** (1), **Location Profile** (2). You can see the default Location Profile settings (3) in the **Location Profile** pane.

File View Map Tools Help			
Administration	Location Profile		👲 🚳 🙀
Genetry     G	😢 1: Line free 📧 🧭	✓ Intercom (1) (4) (2) ✓ Repeater #1: Slot #2 (4) (4) (2)	
Mobile Client Profile     Mobile Client Profile     Mobile Client Profile	🔁 Add 🕏 Edit   🔜 Delete		_
Mobie Clent Profile (TRBOnet Commu Teltonika Profile	Profile type: MOTOTRBO Location trigger managed by dispatcher: Channel type: Channel priority:	No Non-scheduled (Regular GPS over Voice or Data Revert Channel) Mixed Mode	
Voice Dispatch	Positioning mode: GPS data: iBeacon data: Fast GPS on Connect Plus systems;	iBeacon Indoor/Outdoor Lattude, Longitude, Direction, Speed, Precision No No	
3 Job Ticketing	Periodic updates: Distance-based updates:	Interval 30.0 sec Distance 1000 meters, update interval 10 sec	
Route Management	On emergency: GPIO-based updates: On every voice transmission:	<b>Yes</b> No No	
Voice Recording	On emergency voice transmission:	No	
Reports			_
Event Viewer	1	3	
🚯 Connected 🖓 🕵 🔂 🕵 🙎 Ac	dministrator 🛛 📑 Licensed to: demo (Walt)	(Demo License)	Active

There is a default Location Profile that the administrator can use and edit. The administrator can do the following:

- 1. Use default location profile.
- 2. Create a custom location profile: Add button.
- 3. Edit a profile: Edit button.

Note: In the default profile, the **Name** and **Description** cannot be changed.



# 6.4.16.1 Adding Location Profile

• In the **Location Profile** pane, click the **Add** button.



## Profile type

Select the Profile type (MOTOTRBO, FS 500, or Extended device).

- **Profile name** Enter the name of the profile.
- In the Location Profile dialog box that opens, click the **General** tab.

Location Pro	file (MOTOTF	BO)	×
General Lo	cation Update	Management	
Name:		Location Profile #1	
Description		· · · · · · · · · · · · · · · · · · ·	
Channel ty	pe:	Non-scheduled (Regular GPS over Voice or Dat 💌	]
Channel pr	iority:	Mixed Mode (recommended)	1
Protocol ty	pe:	LRRP (Location Request and Response Protocol)	1
Positioning	mode:	iBeacon Indoor/Outdoor 🗸	1
GPS dat	a:	Latitude, Longitude, Precision, Direction, Speed 🖃	1
🗌 iBeacon	data:	Major, Minor -	1
Number	of iBeacons:	1 *	
Fast GP:	S on Connect	Plus systems	
		OK Cancel	

#### • Name

Specify a name for the location profile.

#### • Description

Add a description for the location profile.

#### • Channel type

From the drop-down list, select a radio channel for sending location data to TRBOnet Server:

#### Non-scheduled

This is a channel with regular GPS (Enhanced GPS not supported).

Scheduled

This channel is available when the Enhanced GPS feature is configured in the radio system.

#### Non-scheduled with CSBK data

This channel allows using CSBK (Control Signaling Block) while decoding.



#### Scheduled with CSBK data

This is a channel with Enhanced GPS, which allows using CSBK (Control Signaling Block) while decoding.

#### • Channel priority

From the drop-down list, select the channel that will be used by location triggers when both LMR and broadband channels are available.

#### Mixed Mode (Recommended)

Location triggers are used for broadband and LMR channel simultaneously.

#### Broadband Channel

Location triggers are used for the broadband channel if available, and for the LMR channel if the broadband channel is not available.

#### LMR Channel

Location triggers are used for the LMR channel if available, and for the broadband if the LMR channel is not available.

Note: If you have entered the polling interval (**Triggers** tab, **Periodic trigger** > **Interval**) that is not supported for the selected channel, the closest larger value will be used.

#### • Protocol type

From the drop-down list, select the protocol with which to send GPS data.

- LRRP (Location Request and Response Protocol)
- LIP (Location Information Protocol)

Note: The LIP protocol is supported on IPSC systems only.

#### • Positioning mode

This option determines which GPS coordinates to show on the map and display in the radio's movement history when TRBOnet Server receives a data packet containing both iBeacon and GPS data.

#### iBeacon Indoor/Outdoor

The coordinates of the iBeacons will be positioned on the indoor and outdoor maps.

Use case: When a person enters a building, the accuracy of the GPS location reported by their radio is likely to deteriorate. This may cause TRBOnet to show the radio's location outside the building. Using coordinates of iBeacons positioned on the floor plan will prevent this from happening, and the route travelled by the person will also be correct. This is especially useful for reinforced concrete or high-rise buildings.



## iBeacon Indoor/GPS Outdoor

The coordinates of the iBeacons will be positioned on the indoor map while the coordinates of the radio will be positioned on the outdoor map.

Use case: This option is used to show the route travelled by the person based on the GPS coordinates received from their radio rather than from a detected beacon, or when the speed and/or altitude of the device are used for some purpose. The user's icon will appear on the map twice, one icon will show their actual GPS location, whereas the other icon will appear over a detected beacon. Only iBeaconbased location will be displayed on the floor plan. When the radio's GPS coordinates become unavailable, the user's icon will be displayed over the detected beacon on both the map and the floor plan.

#### iBeacon Indoor/No Outdoor

Only iBeacon-based location tracking will be used, GPS coordinates of radios and iBeacons will be ignored.

#### • GPS data

Select this option to enable the user to select what GPS readings to send to TRBOnet Server. In the drop-down list, select which GPS data to include in a packet.

#### • iBeacon data

Select this option to enable sending iBeacon data to TRBOnet Server. In the drop-down list, select which iBeacon data to include in a packet:

- Major, Minor (included by default and cannot be disabled)
- UUID

iBeacon's Universally Unique Identifier

TX Power, RSSI

The strength of the beacon's signal as seen on the receiving device.

#### • Number of iBeacons

Specify the number of the most recently detected iBeacons whose data will be included in the data packet sent to TRBOnet.



#### **Location Updates tab**

Location Profile (MOTOTRBO)	×
General Location Updates Management	
I Periodic updates	
Interval: 30.0 🔹 second	
✓ Distance-based updates	
Distance: 1000 💼 meters	
Min interval: 10 🔹 second	
✓ On emergency	
$\overleftarrow{\mathbf{V}}$ Activate alarm mode for radios sending emergency updates	
GPIO-based updates	
Inband location updates	
On every voice transmission	
On emergency voice transmission	
ОК	Cancel

#### • Periodic updates

Select this option to set a periodic location trigger on a radio. The trigger is a request to the radio to send its GPS and/or iBeacon data at the specified time interval.

Interval

Specify the location update interval, in seconds.

#### • Distance-based updates

Select this option to allow receiving location updates by a distance:

Distance

A radio will send location updates if the travelled distance exceeds a specified distance from the last GPS point, in meters.

Min. interval

A radio will send location updates no more than once within this time interval, in seconds.

#### • On emergency

Select this option so that a radio will send GPS and/or iBeacon data upon entering the emergency mode.

Activate alarm mode for radios sending emergency updates
 Select this option if you want a Dispatch Console operator to see the emergency status of a radio that transmitted location data.

#### • GPIO-based updates

Select this option so that a radio will send GPS and/or iBeacon data upon sending a Telemetry command.

#### **Inband location updates**

#### On every voice transmission

Select this option so that a radio will send GPS and/or iBeacon data every time the PTT is pressed and held more than 5 seconds.



#### • On emergency voice transmission

Select this option so that a radio will send GPS and/or iBeacon data every time the PTT is pressed in the emergency mode.

#### **Management tab**

Location Profile (MOTOTRBO)	)
General Location Updates Management	
☑ Save GPS data to database	
Automatic error correction	
Configure	
Location update settings are managed by dispatcher only (recommended if Save LRRP is enabled in radio's codeplug)	
GPS restart by inactivity timeout: 10 🚔 minutes	
· _	
21	· ·
OK	Cancel

#### • Save GPS data to database

Select this option so that GPS data is saved in TRBOnet database.

#### Automatic error correction

Select this option to enable automatic error correction to detect and correct invalid GPS data.

Click the **Configure** link to specify the GPS parameters to be corrected:

Automatic error correction		×
In some situations, speed and location value be erratic or unreliable. Use the settings be correction to the GPS data feeds.		
Discard GPS data if		
Speed greater than:	120 ‡	km/h
Location accuracy worse than:	50 ‡	meters
✓ GPS time error greater than:	30 ‡	minutes
Coordinates have duplicates		
Set speed to 0 if it is less than:	0	km/h
Defaults	ОК	Cancel

#### **Discard GPS data if**

#### Speed greater than

Select this option and enter the maximum possible speed of your vehicles. As a result, the coordinates with speeds that exceed the maximum limit will be discarded.

#### Location accuracy worse than

Select this option and enter the largest distance for the accuracy of the GPS receiver. As a result, the coordinates with distances that exceed the maximum limit will be discarded.



#### GPS time error greater than

Select this option and enter the largest allowable time error, in minutes. As a result, the coordinates with time errors that exceed the maximum limit will be discarded.

- **Coordinates have duplicates** Select this option to remove duplicate coordinates from the GPS data.
- Set speed to 0 if it is less than
   Select this option and enter the low-speed threshold. Speeds below this threshold will be considered as zero by the server.
- Location update settings are managed by dispatcher only (recommended if Save LRRP is enabled in radio's codeplug) Select this option so that Location updates can be started/stopped only manually by the dispatcher.
  - GPS restart by inactivity timeout

Enter the time interval that will be used by the server to send the GPS Start Trigger request to the online subscriber radio if there has been no GPS activity.

## 6.4.16.2 Applying Location Profile to a radio:

• Go to **Administration** (1), **Radios** (2), select the radio in the table, and click **Edit** (3):

File View Map Tools Help								
Administration		Radios						🍰 🍪 🐱
Logical Groups	^	Registered Un		🗓 Add Range	📑 Add TRB	Onet Mobile 🛃 Add 1	RBO.SOS   : 🕃 L	
To Device Lists		Radio Name	Type	Radio ID	MDC ID	User's Extension	. Radio Groups	Logical Groups
Radios	~	🛞 tmt250	Teltonika	1	0		All	
<	>	🛞 Radio 235	Digital Radio	235	0		11	
		3333	TRBOnet Mobile	3333	0	3333		
🖶 Voice Dispatch		4444	TRBOnet Mobile	4444	0	4444		
		🛞 Radio 125	Dinital Radio	125	0		11	
Location Tracking			🐈 Add Group					
🚮 Job Ticketing			Add Digital Ri					
Route Management			Add TRBOnet Add TRBO.SO	s				
Text Messages			Add WAVE 50	00				
Reports			🛃 Add Teltonika					
Event Viewer			🔒 Delete					
Radio Allocation			: Unlink Teltoni	ika	•			
Administration		144 44 4 Record 5 of	5 + ++ ++ 4					ŀ
访 Connected 🚷 🥵 🕵 🙎	Administrator	r 📑 Licensed to: de	mo (Walt) (Demo L	icense)				Active •



Voice Dispa	tch 125									×
General L	ogical Group	s Additional	SIP Accoun	t Cam	eras   T	elton	ika			
Radio N	ame:	125								
Radio IE	):	125	MDC I	<u>):</u>	0				•	
Radio G	roups:	All						$\sim$	٠	
Home G	roup:	Cleaners						$\sim$	٠	
Use icon		🖈 Portable	Radios					~ <b>+</b>	-	
Extende	d Device:	None		$\sim$	Т	est				^
Locatio	on Service									
Location	Source:	Built-in GPS r	receiver				$\sim$			
Location	Profile:	(Default)				$\sim$	+			
	~	(Default)								
Teleme	etry Servic	Location Pro	file #1							
TLM Sou	rce:	Built-in Telen	netry				$\sim$			
TLM Pro	file:	(Default)				$\sim$	+			
Text M	essages S	ervice								
TMS TW		Standard					$\sim$			*
Hide Ad	vanced Sett	ngs								
					OK			Cano	:el	

- Click the **General** tab, and from the **Location Profile** list select the location profile to use for the radio.
- Select/clear the **Location Enabled** checkbox to enable/disable the location trigger.

Note: The Location Profile is only applicable when the 'Built-in GPS receiver' or 'Extended device' (if any) is selected in the **Location Source**.

# 6.4.17 Mobile Client Profile (TRBOnet Mobile)

The Mobile Client Profile feature allows configuring different location profiles that can be applied to the Mobile Client app running on a smartphone. For information on how to register a TRBOnet Mobile app, see section <u>6.4.32.2</u>, <u>Adding TRBOnet Mobile</u>. For more details on TRBOnet Mobile, refer to *TRBOnet Mobile User Guide*.

• Go to Administration, Mobile Client Profile (TRBOnet Mobile).

You can see the default TRBOnet Mobile Profile settings in the **Mobile Client Profile** pane.

# 6.4.17.1 Adding TRBOnet Mobile Profile

- In the Mobile Client Profile pane, click the Add button.
- In the **Mobile Client Profile (TRBOnet Mobile)** dialog box, specify the following parameters:
  - **Profile Name** Enter a name for the mobile client profile.
  - Available Modes
     In the drop-down list, select/deselect the features that will be available to the associated Mobile Client.



Mobile Client Prof	file (TRBOnet Mobile)	×
Profile Name:	TRBOnet Mobile #1	
Client Type:	TRBOnet Mobile	~
Available Modes:	Voice Calls, Text Messages, Location, Job Tickets	-
Calls Location 4	Narms Channels Extras	
Remote Mor	itor	
Timeout:		
Private Calls		
Half-Dup		
Full-Dup		
	ex Calls	
Group Calls		
Phone Calls		
Allow Outgo	ing Calls	
Record audi	o on PoC devices	
Delete al	l previous recordings on PoC devices (this process cannot be reverse	d)
Defaults	OK	Cancel

• Click the Calls tab.

#### Remote Monitor

If you select this option, the dispatcher will be able to activate the mobile device's microphone in hidden mode.

Note: The Mobile Client app running on iOS 13 and later must be in the foreground and the screen must be on for this feature to work.

#### • Timeout

Specify the remote monitor duration, in seconds.

#### Private Calls

Select this option to allow the Mobile Client app to make private calls. In addition, you can select to allow:

- Half-Duplex Calls
- Full-Duplex Calls
- Group Calls

Select this option to allow the Mobile Client app to make group calls.

Phone Calls

Select this option to allow the Mobile Client app to make and receive phone calls.

#### Allow Outgoing Calls

Select this option to allow the Mobile Client app to make outgoing calls.

Note: If this option is cleared, the Mobile Client app will still be able to send RTTs and respond to incoming radio calls within the call hangtime.

#### Record audio on PoC devices

Select this option to save audio recordings on mobile devices running the Mobile Client app.



- Delete all previous recordings on PoC devices
   Select this option to delete all previous audio recordings from mobile devices.
- Click the **Location** tab.
  - Show locations of other devices

Select this option so that the Mobile Client app will receive locations of other radios (mobile clients).

Use GPS location

Select this option to enable sending GPS data to TRBOnet Server.

Periodic interval

Specify the time interval, in seconds, that will be used to send GPS location data.

• Emergency interval

Specify the time interval, in seconds, that will be used to send emergency messages.

- Save GPS data to database Select this option so that GPS data is saved in TRBOnet database.
- Automatic error correction

Select this option to enable automatic error correction to detect and correct invalid GPS data. Click the **Configure** link and specify the GPS parameters to be corrected.

#### Use Indoor location

Select this option to enable sending iBeacon data to TRBOnet Server.

• Periodic interval

Specify the time interval, in seconds, used to send iBeacon location data.

• Emergency interval

Specify the time interval, in seconds, that will be used to send emergency messages.

• Number of iBeacons

Specify the number of the most recently detected iBeacons whose data will be included in the data packet sent to TRBOnet.

• iBeacons filter

Click the **Add** link and enter the UUID of the beacons that will be used by the mobile client.

Note: If you don't specify the **iBeacon UUID**, the Mobile Client app running on an iOS device won't detect any iBeacons.



#### • Positioning mode

This option determines which GPS coordinates to show on the map and display in the device's movement history when TRBOnet Server receives a data packet containing both iBeacon and GPS data.

#### ✓ iBeacon Indoor/Outdoor

The coordinates of the iBeacons will be positioned on the indoor and outdoor maps.

#### ✓ iBeacon Indoor/GPS Outdoor

The coordinates of the iBeacons will be positioned on the indoor map while the coordinates of the device will be positioned on the outdoor map.

#### ✓ iBeacon Indoor/No Outdoor

Only iBeacon-based location tracking will be used, GPS coordinates of devices and iBeacons will be ignored.

#### Allow users to disable location services

Select this option so that users will be able to disable location services on their Mobile Client apps. To disable location services on a Mobile Client app, go to Settings > Power Saving > Position Accuracy > No location and GPS.

#### • Click the **Alarms** tab.

#### Emergency Button

Select this option so that the Mobile Client app will be able to send Emergency Alarms to the Dispatch Console.

#### Sensor Alerts

Select the desired sensor alert buttons (**Man Down**, **No Movement**, **Shake Detection**) to be shown in the Mobile Client app.

#### Show alarms from other devices

Select this option so that the Mobile Client app will receive alarms from other radios (mobile clients).

# Allow users to enable or disable selected sensor alerts Select this option so that the mobile app users will be able to enable or disable selected sensor alerts.

Note: If this checkbox is cleared, the selected sensor alerts will always be activated on mobile app devices and cannot be deactivated by mobile app users.

• Click the **Channels** tab.

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ient T	ype:	TRBO	net Mobile		
vailabl	e Modes:	Voice	Calls, Text Mess	ages, Location, Job Ti	:kets
Calls	Location	Alarms C	hannels Extras	1	
	Home	Monitor	Name	System	Group
1	O	MULIILUP	All Call	Intercom	Alical
2	•		Group 11	CP1	Group 11
			j <sup>,</sup>		

 In the table, choose the Home Group channel on which the mobile app will transmit if the user presses the PTT button (Home). You can also check channels to be monitored (Monitor). To add/insert a channel (Radio Group) to the table, click the Add/Insert link and specify the Name, System and Group.

# Allow users to change Home Group Select this option to allow users to change Home Group in their Mobile Client apps.

#### Allow users to select channels to monitor

Select this option to allow users to select the channels they can listen to in their Mobile Client apps.

#### • Click the **Extras** tab.

#### Battery Level

Select this option so that the smartphone's battery level will be sent to the Dispatch Console.

Note: Mobile apps send the battery information as soon as they are connected to TRBOnet. After successful connection, mobile apps pass the battery level to the server with every location update, voice transmission and text message. Regardless of its activity, a mobile app will update the battery charge level when it goes down to 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 15%, 10%, 5%.

#### Do Not Disturb

Select this option so that the DND mode will be enabled on the Mobile Client app.

# 6.4.18 Mobile Client Profile (TRBO.SOS)

This section describes how to configure the profile for the TRBO.SOS application running on a smartphone. For information on how to register a



TRBO.SOS app, see section <u>6.4.32.3</u>, <u>Adding TRBO.SOS</u>. For more details on TRBO.SOS, refer to *TRBO.SOS User Guide*.

• Go to Administration, Mobile Client Profile (TRBO.SOS).

You can see the default TRBOnet SOS Profile settings in the **Mobile Client Profile (TRBO.SOS)** pane.

# 6.4.18.1 Adding TRBO.SOS Profile

- In the **Mobile Client Profile (TRBO.SOS)** pane, click the **Add** button.
- In the **Mobile Client Profile (TRBO.SOS)** dialog box, specify the following parameters:
- **Profile Name** Enter a name for the TRBO.SOS profile.
- Click the **Calls** tab.
  - Remote Monitor

If you select this option, the dispatcher will be able to activate the device's microphone in hidden mode.

• Timeout

Specify the remote monitor duration, in seconds.

Note: The dispatcher won't be able to execute the Remote Monitor command for TRBO.SOS apps running in the background on iOS 13 and later.

#### • Click the **Location** tab.

#### Use GPS location

Select this option to enable sending GPS data to TRBOnet Server.

• Periodic interval

Specify the time interval, in seconds, that will be used to send GPS location data.

• Emergency interval

Specify the time interval, in seconds, that will be used to send emergency messages.

• Save GPS data to database Select this option so that GPS data is saved in TRBOnet database.

#### • Automatic error correction

Select this option to enable automatic error correction to detect and correct invalid GPS data. Click the **Configure** link and specify the GPS parameters to be corrected:



• Click the **TRBO.SOS** tab.

Profile Name:     TRBONE SOS #1       Client Type:     TRBONSOG       Available Modes:     SOS Services       Calls   Location     TRBONSOG   Alarms   Channels   Extras         Show Call button     Call Action:       Call Destination:     Request To Talk       Call button Name:     Request To Talk       I button Name:     Request To Talk       I button Vorker button     Interview one Worker button	× ×
Available Modes: 505 Services Calls Lucation TRB0.505 Alarms Channels Extras Show Call button Call Action: Request To Talk Call Destination: Home Group Call button Name: Request To Talk	-
Calis   Location   TRBO.SOS   Alarms   Channels   Extras   Show Cali button Cali Action: Request To Talk Cali Destination: Home Group Cali button Name: Request To Talk	•
Show Call button     Call Action:     Request To Talk       Call Destination:     Home Group       Call button Name:     Request To Talk	×
Call Action: Request To Talk Call Destination: Home Group Call button Name: Request To Talk	*
Cal Destination: Home Group Cal button Name: Request To Talk	•
Call button Name: Request To Talk	*
, ·	
Type Caption Severity Custom Event	_
FIRE Mobile app default Alarm None	
POLICE Mobile app default Alarm None	
AID AID Information None	
REPORT INCIDENT Message With Att	
✓ EMERGENCY EMERGENCY Information ▼ None	
Alarm Warning Information	

## Show Call button

If you select this option, the PTT button will be available in TRBO.SOS.

Call Action

From the drop-down list, select the action to be performed when the PTT button is pressed: Request To Talk, TRBOnet Call, or Phone Call.

• Call Destination

From the drop-down list, select the call destination.

• Call button Name

Enter the name (label) of the PTT button.

Show Lone Worker button

If you select this option, the Lone Worker button will appear in TRBO.SOS. This will allow the TRBO.SOS user to start the Lone Worker mode.

Panic buttons

In the table below, specify the Type, Caption, Severity/Status, and Custom Event for the additional button(s).

- Click the **Alarms** tab.
  - Sensor Alerts

Select the desired sensor alert buttons (**Man Down**, **No Movement**, **Shake Detection**) to be shown in the TRBO.SOS app.

- Click the **Channels** tab.
  - Home Group

Select the home group (**System** and **Group**) for the PTT button.

- Click the Extras tab.
  - Battery Level

Select this option so that the smartphone's battery level will be sent to the Dispatch Console.



# 6.4.19 Mobile Client Profile (TRBOnet Communicator)

This section describes how to configure the profile for the TRBOnet Communicator application running on a smartphone. For more details on TRBOnet Communicator, refer to *TRBOnet Communicator User Guide*.

File view Map Tools Help		(7000					
Administration	Mobile Client Profil	le (TRBOne	tCommun	icator)			ĝ
Request To Talk	> 1: Line free		<ul> <li>Intercom</li> </ul>	• •	Private Ca	al 🜒	• 0
🗟 🕞 Radio Statuses			Firemen	•) <b>4</b> Ø			
Mobile Client Profile (TRBOnet Mobile)	Cleaners		Fremen		PSC 1: Si	ot #1 🛄	•Ø
Mobile Client Profile (TRBOnet Communicator)	IPSC 1: Slot #2	Mobile Client	Profile (TRBOne	et Communicator)			×
Tools	🔜 Add 📑 Edit 🔜 De						
🕒 Schedulers	ES Add S Call   BX DE	Profile Name:	(Default)				
- 🔒 Disabled Radios		Client Type:	TRBOnet	Communicator			v
Dispatcher Groups	Profile Type:	Available Mode	s: Text Mess	sages, Actions			*
Email Groups	Available Modes:						
	Actions:	Actions					
	: Button (Alarm)	ID	Type	Castian	Severity/Status	Custom Event	_
Voice Dispatch	2: Button (Warning)	1	Button	Caption	Alarm	None None	_
	3	2	Button	Warning	Warning	None	
Location Tracking	<b>J</b>	3	Button	Button3	Information 💌	None	
Route Management Text Messages							
🔮 Voice Recording			/				
Reports							
Event Viewer		4 Add >	< Delete				
1 Radio Allocation		Default	5			ОК С	ancel
Administration							
🕤 Connected 🛞 🕵 🥵 🕵 🙎 Administrator	Licensed to: demo Demo I	License					0,

- Go to Administration (1) > Mobile Client Profile (TRBOnet Communicator) (2).
- In the **Mobile Client Profile (TRBOnet Communicator)** pane, click **Edit** (3).
- In the dialog box that opens, click the **Add** link.
- In the table below, specify the Type, Caption, Severity/Status, and Custom Event for the button(s) you are adding.
- Once you have configured the profile, click **OK**.

# 6.4.20 Teltonika Profile

This section describes how to configure the profile for the Teltonika devices.

For information on how to register a Teltonika device, see section <u>6.4.32.5</u>, <u>Adding Teltonika</u>. For more details on TRBOnet Teltonika, refer to *TRBOnet Teltonika User Guide*.

• Go to Administration, Teltonika Profile.

You can see the default Teltonika Profile settings in the **Teltonika Profile** pane.

• In the **Teltonika Profile** pane, click the **Add** button.



Teltonika Profile			×
Profile Name: Teltonika 25	0		
Location Additional			
Use GPS location			
Periodic interval:	60	seconds	
Use Indoor location			
Periodic interval:	30	seconds	
iBeacon filter:			~
Positioning mode:	iBeacon Indoor/Ou	tdoor	-
		ОК	Cancel

### Use GPS location

Select this option to enable sending GPS data to TRBOnet Server.

### • Periodic interval

Specify the time interval, in seconds, that will be used to send GPS location data.

### Use Indoor location

Select this option to enable sending iBeacon data to TRBOnet Server.

### • Periodic interval

Specify the time interval, in seconds, used to send iBeacon location data.

## • Positioning mode

This option determines which GPS coordinates to show on the map and display in the device's movement history when TRBOnet Server receives a data packet containing both iBeacon and GPS data.

## ✓ iBeacon Indoor/Outdoor

The coordinates of the iBeacons will be positioned on the indoor and outdoor maps.

### ✓ iBeacon Indoor/GPS Outdoor

The coordinates of the iBeacons will be positioned on the indoor map while the coordinates of the device will be positioned on the outdoor map.

### ✓ iBeacon Indoor/No Outdoor

Only iBeacon-based location tracking will be used, GPS coordinates of devices and iBeacons will be ignored.

## • Click the **Additional** tab.

### **Events**

## Battery Level

Select this option so that the Teltonika device's battery level will be sent to the Dispatch Console.



Note: Teltonika devices send the battery information as soon as they are connected to TRBOnet. After successful connection, Teltonika devices pass the battery level to the server with every location update. Regardless of the device activity, the battery charge level will be logged on TRBOnet Server every time the level goes down to 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 15%, 10%, and 5%.

### Emergency Button

Select this option so that the Teltonika device will be able to send Emergency Alarms to the Dispatch Console.

Man Down

Select this option to send Man Down alerts to the Dispatch Console.

### Location

- Save GPS data to database
   Select this option so that GPS data is saved in TRBOnet database.
- Automatic error correction
   Select this option to enable automatic error correction to detect and correct invalid GPS data. Click the **Configure** link to specify the GPS parameters to be corrected.

# 6.4.21 Tools

On the **Tools** page, you can find some useful tools.

### 6.4.21.1 Templates for Extended Messages

The Templates can be used for Extended Messages and Extended Notes.

The **Extended Messages** feature is a special function allowing users to send detailed preconfigured templates containing necessary information to each other with the help of the special TRBOnet Dispatch Console application.

This service has been created especially for clients who need to use more detailed and structured messages in their work. If the standard messages are not enough to contain all required information, you may use the Extended Messages service.

• Go to **Administration** (1), **Tools > Templates** (2) to create a new template:



File View Map Tools Help		
Administration	Templates	ê 🐠 🖸
Swift Event Profiles  Generative Radio Statuses  Generative Tools  Constructed  Co		
Constant of the second se	Add From File Add - Edit Save To File Delete	۵
Location Tracking		
📅 Job Ticketing		
📝 Route Management	3 4	
RFID Tracker		
Contemporary Text Messages		
Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration	₩ ₩ 4 Record 1 of 1 → >> >> ₩ 4	Þ
🔂 127.0.0.1 🛞 🥵 🙎 Administrator 📑 Lie	censed to: demo Demo License	🕑 Active -

• Click Add From File (3) to add a template from a file.

Note: Before adding a template from a file, save the created template to a custom directory.

Select the directory where you saved the template and click **OK** to add the file.

• Click Add (4) to create a new template:

Name: New Form			×
Elements: A Labo V CheckBox Scrubobox Drog selected element to the workspace Template size: Width: 400 © Height: 500 © Background:	Template ID: 79/46/3754 20 Que Bindingo Accessible Name Accessible Name	Se6-40-0-ad7-6-794 109 192 Generate new. Default False Top_Left Nomal Top False Top ControlLight Light Top Top Top Default False Tue Top Default False Tue Sandard Sandard Top Sandard	

• Name (1)

Specify a name for the template to display in the Dispatch Console (1).

• Elements (2)

Select elements to add to the template. Drag and drop the selected element to the desired place on the mail template box.

- **Template size** (3) Specify the template dimensions and background color.
- Click an element on the template. On the right side of the **Template** dialog box, you can see the selected element properties.



For directions on how to send an extended message to a radio, see section <u>6.9.2.1, Send Extended Text Message to a Radio</u>.

# 6.4.21.2 Indoor 2D Map Converter

TRBOnet Dispatch Console provides the Map Converter to use custom images as Indoor 2D Floor plans. The tool allows converting images to the BMAP format that is supported in Indoor Positioning.

• Click Administration (1), Tools > Indoor 2D Map Converter (2).

Administration	Indoor 2D Map Converter	🔮 🛞 🕓
Mobie Clent Profile (TR80.505)     Mobie Clent Profile (TR80.et a)     Tennias Profile     Tools     Tools     Tools     Templates     Schedulers	Name: Floorplan 1 Image: D:Umages/Bings Folder: D:Umages/Bings 	
Voice Dispatch	Start	
Location Tracking		
🚰 Job Ticketing		
😿 Route Management		
🖂 Text Messages		
Voice Recording		
Event Viewer	1	
💫 Administration 🛛 🖌	ſ	

### • Name

Specify a name for the new Indoor 2D Map.

• Image

Click the ellipsis (...) button and locate the image file (PNG, JPG, TIFF, GIS) on your computer.

• Folder

Click the ellipsis (...) button and locate the folder where to save the converted Indoor 2D map on your computer.

• Click **Start** to convert the image.

## To use the converted map

• Click Location Tracking (1). On the Map menu, click Open New Map in Tab (2):



Dia.	View	Mar	To	-1-	Lista														
					Heip ve Map														_
_	atior				e Map (										9	1	Objects		
6	12 b		Map			Jata	-	ee	•0	✓ Inte	rcom		Gro	up 10	•) 🛋	Ø	11 E		
			Print							Grou	in 20			up 11	•				
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	٠	<u>~</u>		_	 Map in	Tab			0	Priva	ate Call						- 🛛 🥥		
	٠		_		Map in Map in		~	Floor plan									- 🛛 🍥		
•	D Poli					win	uow	🛆 • Filter:	883	@ <b>7</b>	Show 8	Beacons: All		- 🥖	Drawing Panel	» •	🖨 🗹 🦢 Map		
		2		ale Ear			e	📐 🛆 🏠	🕀 🏠 🙆	1 🗟 🗄	Custom Ob	ject +						Camera 1 Hospital	
4	Voice	~			te on G		e Earth 🕨			B		$\Delta \Lambda$			°40	_	- 🗹 💽		
		_			os on G	oogi	e Earth 🕨	. 2	(	liniya					æ		😑 📝 🦢 Map		
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0					_	Re	cent Calls	/Events						125	· · · ·				1
1	Voice	Reco	rding						Drint II	Daura d	đ Clear – 🔞	Reland To Fi	iltor Dy Da	dio 🗐	Grouping 🍸	Auto Eilte	or 🖒 Defaul	Sattings	>
						1	Date	Will Save - Ca	Radio Syster		ender	Recipient	-	Message	orouping [] /		Details	: Settings	
	Repor	rts				37		7 14:43:57	Radio System		erver	All			to 'Capacity Plus		Details		
Æ	Event	View	er					7 12:43:30	Capacity Plu		dministrator	11			'Administrator' ca		Members: Admi	nistrator, 125	
-								7 12:40:06	Capacity Plu	s 1 1	25	11	F	Radio '125'	calls group '11' (0	00:08)	Members: 125		
10	Radio	Alloc	ation				09.06.201		Capacity Plu		dministrator	11			'Administrator' ca				
-							09.06.201	7 12:38:34 ecord 1 of 305	Capacity Plu ► ₩ ₩ 4	s1 A	dministrator	Police	C	Dispatcher	'Administrator' ca	lls gr I	Members: Adm	nistrator	•
	Admir	nistra	tion				discussion discussed				alk Radio Sta	te Active Tasks	s Active	Routes	User Activity	Beacons	Beacon Ever	nts Tag List	
Eb 40	7001	0	al	<b>a</b> .				nsed to: demo						_					Active
012	7.0.0.1	0	3	<u>x</u> #	aminist	rator	Lice	ised to: demo											Active
				0													~		
				Se	lect	via	p										×		
							r												
				Μ	ap T	ype	:	Beacon2D									$\sim$		
				С	aptio	n:													
					·														
				A	vailat	ole I	Maps												
					Name			Path							Sta	te			
					Floor	plar	n 1	D:\In	nages (Br	naps (F	loorplan 1	.omap			Oł	<			

• From the **Map Type** list box, select 'Beacon 2D'.

Add Edit

- Click Add to and browse for the map you have converted.
- Click **OK** to open the Indoor map in the Map pane.

# 6.4.22 Schedulers

The dispatcher can create pre-defined schedules to be used as event sources in Alarm management, for database backup, and in job ticket templates.

Remove

OK Cancel

- Go to Administration (1), Schedulers (2).
- In the **Schedulers** pane, click **Add** (3).



File View Map Tools Help		
Administration	Scheduler	😫 🚳 🔽
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C Text Messages	Recurrence Range     Start: \$/21/2018 12:00 AM ▼	
🔮 Voice Recording	Stop:	
Reports	OK Cancel	
Radio Allocation	1	
Administration 🥓	((((((((((((((((((((((((((((((((((((((	Þ
访 Connected 🚷 🕵 🕵 🕵	Administrator Licensed to: demo Demo License	Active •

In the **Scheduler** dialog box, specify the following parameters:

Name

Enter the name of the scheduler.

### **Recurrence Pattern**

Choose one of the recurrence patterns for the scheduler:

Days of Week

Specify the time and select the day(s) of the week.

Monthly

Specify one of the following options:

• Specific Day

Specify the ordinal day of the month (in the range 1-31, or select **Last**).

• Day of Week

Specify the week number in a month (in the range 1-4, or **Last**) and select the day of the week.

One time

Specify the date and time.

Periodically

Specify the time interval, the repetition period (in seconds/minutes/hours), and select the day(s) of the week.

### **Recurrence Range**

Start

Specify the start date/time.

Stop

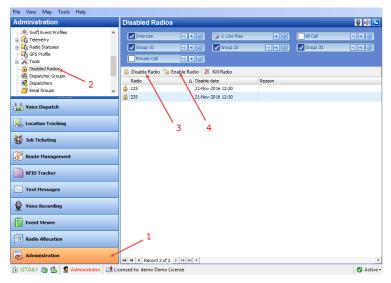
Specify the stop date/time.



# 6.4.23 Disabled Radios

TRBOnet Dispatch Console provides the **Disable** function that allows disabling a radio even when the radio is offline. The system will disable an offline radio as soon as it gets available.

- Note: The dispatcher can disable a radio when they have relevant Access Rights (for more details on adding and editing dispatchers, see section <u>6.4.25</u>, <u>Dispatchers</u> on page 261).
- Go to **Administration** (1), **Disabled Radios** (2) to disable/enable selected radio:



• Click **Disable Radio** (3) and in the dialog box that appears:

Disable Radio		×
Disable	Radio	
Radio:	😥 235 (Basil) 235	•
Enable:	No auto-enabling	-
Reason:		
Test		
	OK Cano	el

Radio

From the drop-down list, select the radio to be disabled.

Enable

Select the time period after which the radio will be enabled again.

Reason

Enter the reason for disabling the radio.

Click **OK** to disable the radio.



Message 1 of 3	×
235 Repeater #1: Slot #1 Disabling The command has been executed.	01-Nov-2016 17:48
Radio has been disabled	
Do not show this message next time	Show on map Request Location Close

The Radio is added to the Disabled Radios list and is marked as Disabled in the Voice Dispatch pane:

Voice Dispatch	
61 🗄 🗄 👶 % 🏹 🗇 🗗	8
🖃 🧟 Online Dispatchers (1)	<u> </u>
Administrator	
🗉 📙 Firemen	₽ =
125 (Pete) 125	9 🗞
235 (Basil) 235	9 10
Police	9 -

- Click Enable Radio (4) to enable selected radio.
- Select a radio from the drop-down list and specify the reason to enable.
- Click **OK** to enable the radio.

# 6.4.23.1 Kill Radio

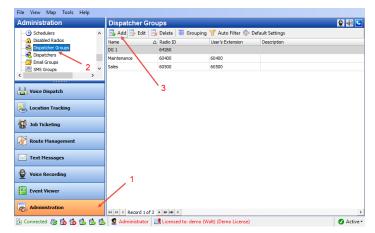
The Kill Radio feature is available only when a Capacity Max system is used.

Note: This operation is not reversible. If you kill a radio unit, it will be impossible to recover it.

# 6.4.24 Dispatcher Groups

The administrator can add, edit, and delete dispatcher groups in the system.

• Go to Administration (1), Dispatcher Groups (2).



• Click **Add** (3) to add a dispatcher group.



Dispatche	er Grou	p	×
General	Dispat	ch Group Call Request To Talk	
Name:		Maintenance	
Descrip	tion:	1	
		OK Cancel	

On the **General** tab, specify general parameters for the new dispatcher group.

• Name

Specify a name for the dispatcher group to display in the Dispatch Console.

• Description

Add a description for the dispatcher group.

On the **Dispatch Group Call** tab, specify the following parameters:

Dispatcher Group		×
General Dispatch Grou	p Call Request To Talk	_
Radio ID:	139	
Phone Call		
User's Extension:	7896	]
User Name:	7896	
User Password:	******	
	OK Cancel	

### Radio ID

Specify the Radio ID of the dispatcher group.

### Phone Call

• User's Extension

Enter the SIP extension number that will be used by the dispatcher group.



• User Name

Enter the SIP user name that will be used by the dispatcher group.

• User Password

Enter the password for the dispatcher group to be authenticated by the phone system.

On the **Request to Talk** tab, specify the parameters that will be used by radios to request a call from the dispatcher group:

Dispatcher Group		×
General Dispatch Group Call Request To Ta	lk	
Automatically by receiving Text Messag	e from a radio	
Message:		
Automatically by receiving Telemetry Co	mmand from a radio	
VIO: 1 🖨 Command:	Any event 👻	
Automatically by receiving DTMF comma	nd from a radio	
Command: 139	#139#	
Automatically by receiving Status Messa	ge from a radio	
Status: 0	-	
	OK Cancel	

- Automatically by receiving Text Message from a radio Select this option to request a call from the dispatcher group when a radio sends a predefined text message. If you select this option, specify a brief text message in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option to request a call from the dispatcher group when a radio sends a predefined telemetry command. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option to request a call from the dispatcher group when a radio sends the specified DTMF tones. If you select this option, specify a DTMF combination without the # characters in the **Command** box.
- Automatically by receiving Status Message from a radio Select this option to request a call from the dispatcher group when a radio sends the specified Status to TRBOnet Server, for instance, 1. If you select this option, specify the **Status**.

Once you have added the dispatcher group to the system, the appropriate PTT box will appear in the Radio Interface pane.



# 6.4.25 Dispatchers

The administrator can add, edit, and delete dispatchers in the system.

• Go to Administration (1), Dispatchers (2) to work with dispatchers:

File View Map Tools Help								
Administration	Registered Dispat	tchers						👲 🕸 💟
	1: Line free	•0	Intercom	•) • Ø	Maintenace		Sales	•
🔒 Disabled Radios	Group 10		disp		EMERGENCY GROUP		Regular GGR	OUP 💿 剩 🥥
	Slot 1	1) 46 Ø	Group 20		Slot 2		Al Cal	
	Group 11	•) • Ø	Group 22	2 🔊 📢 🥥	Group 1		Private Call	•) 🛋 📀
SMS Groups 2	Dispatchers Roles							
Logical Groups	🛃 Add 🔹 📑 Edit 📑	Delete 📑 Gr	ouping 🍸 A	Auto Filter 🍥 Default Se	ttings			
Radio Groups	User Name 2	\ Role		Display Name	Radio ID	User's Ext	tension	Description
	🖗 Disp 1	Dispatcher		Dispatcher 1	60100	60100		
Voice Dispatch	🖗 Disp 2	Dispatcher		Dispatcher 2	60200	60200		
	🧌 ivan	Dispatcher		ivan	25			
Location Tracking								
Job Ticketing		3						
💓 Route Management								
C Text Messages								
Voice Recording								
Reports								
Radio Allocation	-1							
😞 Administration 🛛 🔶	14 44 4 Record 1 of 3	• • • •						
🕉 Connected 次 🕵 🔂 🔂	🅵 🙎 Administrator	📑 Licensed to	: demo Demo	License				Active

• Click Add (3) to add a dispatcher.

lispatche	er				;
General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 1
Authen	tication:	TRB	Onet Authentica	tion	$\sim$
User Na	ame:	Disp	1		
Passwo	ord :	****	*****		
Repeat	password:	****	*****		
Display	Name:	Disp	1		
Descrip	tion:				
Dispato	her Role:	Disp	atcher		*
Inv	isible to all oth	er users			
Inv	isible to all exc	ept the as	signed groups		
Allo	w multiple sim	ultaneous l	ogons		
				ОК	Cancel

- On the **General** tab, specify general parameters for the new dispatcher.
  - Authentication

Select the Authentication method from the drop-down list. Select **TRBOnet Authentication** to log on as a user registered in TRBOnet Dispatch Console Users list.

Select **Windows Authentication** to log on using the PC name. The system automatically shows the PC name as User Name.

Note: The password is not required when Windows Authentication is used.



Note: For more details on user access to Allocation Console, see section <u>6.4.28</u>, <u>Users</u> (page 269).

### User Name

Specify a user name for the dispatcher registered in TRBOnet Dispatch Console Users list.

Password

Specify a password for the dispatcher.

## • Display Name

Specify a name for the dispatcher to display in the Dispatch Console.

- **Description** Add a description for the dispatcher.
- Dispatcher Role

Form the drop-down list, select the role of the dispatcher in the system (Administrator or Dispatcher).

Note: In addition to the Administrator and Dispatcher roles, you can also create custom dispatcher roles. To do this, in the **Dispatchers** pane, click the **Roles** tab, and then click **Add**.

### • Invisible to all other users

Select this option to make the dispatcher invisible to other users.

- Invisible to all except the assigned groups Select this option to make the dispatcher invisible to other users except for users belonging to the same group of dispatchers.
- Allow multiple simultaneous logons Select this option to allow the dispatcher to use multiple instances of Dispatch Console simultaneously.

On the **Permissions** tab, select the available modules and specify the available permissions for the dispatcher.



Dispatche	r					×
General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical	• •
Availabl	e Modules:	(All I	Modes)		*	^
Voice I	Dispatch Fea	tures				
🗹 Ena	ble Voice Disp	atch				
	Intercom calls					
	Telephone cal	s				
	Allow outgoing	private c	alls			
Viev	w all voice rec	ordings				
🗹 Play	y voice record	ings				
🗹 Sav	e voice record	lings				
🗹 Cha	ange control s	tation char	nels			
🗹 Cha	ange audio set	tings				
🗹 Ena	ble Tone and	PTT				
✓ Ser	id voice messa	iges				
Viev Viev	w System Brid	ge				
$\checkmark$	Enable Systen	n Bridge				
🗹 Ena	ible and disabl	e patching				
	ible and disabl					м
En:	ible Call Dreem	ntion mod	a for	20	minutes	*
				OK	Cance	9

On the **Systems** tab, specify the system(s) that will be available for the dispatcher.

Note: The dispatcher will not be able to make and receive voice calls over the radio channels of an unavailable system. The corresponding PTT boxes will be hidden for the dispatcher. However, radios' data (text messages, statuses, locations, etc.) will be available to the dispatcher.

Dispate	cher						×
Gener	al	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 4	F
		systems are a					
۲	Onl	y selected sy	stems are a	available			
		System				TX	
	-	CP1					
		IPSC 1: Slo					
		IPSC 1: Slo	t #2				
		Mobile 1					
		Teltonika					
	Sele	<u>ect All</u> <u>Clear</u>	All				
					ОК	Cancel	

• All systems are available

Choose this option to make all radio systems available for the dispatcher to transmit and receive Voice.

• Only selected systems are available Choose this option and specify which radio systems will be available to the dispatcher.



- Select the checkbox in the left column to add the corresponding radio system to the Radio Interface for the dispatcher.
- Select the checkbox in the **TX** column to allow the dispatcher to make Voice calls using the corresponding radio system. When the checkbox is cleared in the TX column, the dispatcher cannot use the corresponding radio system to transmit voice and data.

On the **Radio Groups** tab, specify the radio groups that will be available for the dispatcher.

Dispatche	er				×
General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical • •
			vailable		
Se	lect All <u>Clear</u>	All			
				OK	Cancel

• All groups are available

Choose this option to make all groups in the system available for the dispatcher.

• Only selected groups are available

Choose this option and specify which radio groups will be available to the dispatcher.

• In the list, select the groups to make them available for the dispatcher.

On the **Logical Groups** tab, select the logical groups that will be available for the dispatcher.



ispatcher					×
Permissions	Systems	Radio Groups	Dispatcher Groups	Logical Groups	••
	ups are av elected gro	ailable oups are availab	le		
Name			Description		
RBC			R B C		
~	Cleaners				
	Clear	ners 1	Cleaning in Departm	ient 1	
		iers 2	Cleaning in Departm	ient 2	
~	Security				
	Secur		Security in Departm		
	Secur	rity 2	Security in Departm	ent 2	
Select	All Clear	All			
			C	K Ca	ncel

On the **Dispatch Call** tab, specify Dispatch Call and SIP call settings for the dispatcher:

Radio Groups	Dispatch	ner Groups	Logical Groups	Dispatch Call	Request T 🔹
Radio ID:		61000	<b>•</b>		
Phone Num	ber:	123-4567			
Email:		billy@gma	il.com		
Phone C	all				
User's Ex	tension:	61000			
User Nam	ie:	61000			
User Pass	sword:	•••••			
Dial Plan:		Fedora			$\sim$

• Radio ID

Specify the Radio ID of the dispatcher.

- **Phone number** Specify the dispatcher's phone number (additional data).
- Email

Specify the dispatcher's Email (additional data).

## Phone Call

User's Extension

Enter the SIP extension number that will be used by the dispatcher.

User Name

Enter the SIP user name that will be used by the dispatcher.



### User Password

Enter the password for the dispatcher to be authenticated by the phone system.

Dial Plan

From the drop-down list, select the dial plan to use for the dispatcher.

On the **Request to Talk** tab, specify the parameters that will be used by radios to request a call from the dispatcher:

ispatcher				
Logical Groups	Dispatch Call	Request To Talk	Reports	•
	ically by receivi	ing Text Message f	rom a radio	
Message		ing rextrices uge i		
-		ing Telemetry Com	mand from a radio	
VIO:		Command:	High level	-
			-	<u> </u>
		ing DTMF command	-	
Comman	1		#60100#	
Automat		ing Status Message	from a radio	
Status:	0	*		

- Automatically by receiving Text Message from a radio Select this option to request a call from the dispatcher when a radio sends a predefined text message. If you select this option, specify a brief text message in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option to request a call from the dispatcher when a radio sends a predefined telemetry command. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option to request a call from the dispatcher when a radio sends the specified DTMF tones. If you select this option, specify a DTMF combination without the # characters in the **Command** box.
- Automatically by receiving Status Message from a radio Select this option to request a call from the dispatcher when a radio sends the specified Status to TRBOnet Server, for instance, 1. If you select this option, specify the **Status**.

On the **Reports** tab, specify the reports that will be available to the dispatcher.



Dispatcher				×
Dispatcher				^
Logical Groups	Dispatch Call	Request To Talk	Reports	• •
<ul> <li>All report</li> </ul>	ts are available			
Only sele	ected reports ar	re available		
📑 Ge	eneral Inform	ation		^
	📄 Registered	d Radios		
📑 Cu	rrent Report	s		
····· 🗹	🗊 Last Know	n Systems and Rac	dios	
····· 🗹	Presence a	and GPS Status		
····· ✓	Inactive R			
	🔲 Unregister			
🗊 Sy	stem Report			
	User Login			
	🔲 System Bri	-		
	Channel C	-		
Us	age Statistic	-		
	Messages			
	Radio Acti			
		dios (Summary)		
	-ur	dios (Detailed)		*
Select Al	Clear All			
			OK	Cancel

### • All reports are available

Choose this option so that all the reports will be available to the dispatcher.

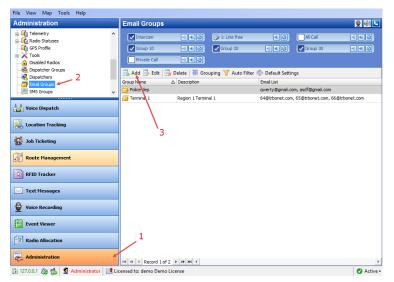
• Only selected reports are available

Choose this option and in the list below select/deselect the reports to include/exclude.

# 6.4.26 Email Groups

Email Groups are used in Alarm Management and Job Tickets configuration to send emails to dedicated recipient groups.

• Go to **Administration** (1), **Email Groups** (2) to add/edit/delete email groups in the system:



• Click Add (3) to create an email group.



dd/Edit Email G	roups	×
Name:	Terminal 1	
Description:	Region 1 Terminal 1	
Email list:	64@trbonet.com 65@trbonet.com 66@trbonet.com	
	Add Remove	
	OK Cancel	

#### Name

Specify a name for the email group.

Description

Add a description for the email group.

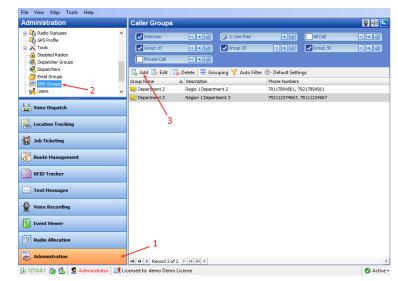
Email list

Click Add to add an email address to the Email list.

# 6.4.27 SMS Groups

SMS Groups are used in Alarm Management configuration to send SMS to dedicated SMS recipient groups.

• Go to **Administration** (1), **SMS Groups** (2) to add/edit/delete SMS groups in the system:



• Click Add to create a new SMS group:



Add/Edit SMS Gro	ups	×
Name:	Department 3	
Description:	Region 1 Department 3	
Phone Numbers:	792112374567 79111234567	
	Add Remove OK Car	cel

Name

Specify a name for the SMS group.

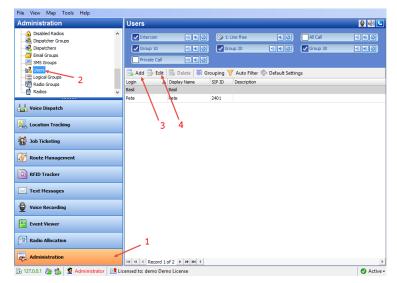
- Description Add a description for the SMS group;
- Phone Numbers

Click **Add** to add a phone number to the SMS group.

# 6.4.28 Users

The administrator can add/edit/delete users in the system. In addition, the dispatcher can export/import users (see section <u>6.3.4.3, Exporting/Importing</u> <u>Objects</u>).

• Go to **Administration** (1), **Users** (2) to add/edit/delete users in the system.



- Click either **Add** (3) to add a user to the system, or **Edit** (4) to edit the selected user.
- On the **General** tab, set general parameters for the user:



	Add/Edit	Radio Us	er				×
	General	Radios	Manage	ment	SIP Account	Logical Groups	Custom Fields
	Usernan	ne:		Basil			
	Passwor	d:		••••	••		
	Repeat	password	1:	•••	••		
	Display i	name:		Basil			
	Max nur	nber of ra	adios:	1	-		
	Descript	ion:		I.			
	Image:			_		4	
						6	
					b	oad Image	
						ОК	Cancel
_							

### Login

Specify the login for the user.

Password

Type in the individual password for the user.

Display Name

Specify a name for the user to display in the Dispatch Console.

Max number of radios

Select the maximum number of radios that the user can take.

Description

Add a description for the user.

Load Image

Click this button and browse for the photo or image to assign to the user.

• On the **Radios** tab, specify the radios that will be available to the user.



Add/Edit	Radio Us	er			×
General	Radios	Management	SIP Account	Logical Group	s Custom Fields
	adios				
Sele	ected radi	os			
RBC					
	4444				
1	5555				
1	Radio 27	,			
	Radio 12				
	Radio 14				
	Radio 15				
	Radio 20				
	Radio 21				
	Radio 23				
	Radio 23 Radio 23				
	- I	-			-
Selecte	ed: 2				
					<b>▼</b> • <b>!</b> ≡ •
				OK	Cancel

- All radios
  - Choose this option to allow using all radios in the system.
- Selected radios

Choose this option and specify which radios will be available to the user.

• On the **Management** tab, specify settings related to taking/returning radios:

General Radios	Management	SIP Account	Logical Groups	Custom Field
Disable radio o	n return			
Automatically r		t is offline		
Timeout:		5 🚔 minute	S	
Allow DTMF ma	anagement	_		
Take radio:				
Return radio:				
Allow Text Me	ssages manage	ement		
Take radio:	Bsil			
Return radio:	Bsilext			
🗌 Allow Sign In /	Sign Out mana	gement		
Sign-in ID:				
Allow beacon r	nanagement			
Major ID:		10 🜲		
Minor ID:	Í	20 ≑		
🗌 Send notificati	on to radio afte	er it is taken/re	turned	
Enable forced	check-in			

# Disable radio on return

Select this option so that a radio will be disabled after the users returns it.

### Automatically return radio if it is offline

Select this option so that a radio will be automatically returned if it is offline for the specified time interval.



### • Timeout

Specify the offline timeout period, in minutes.

#### Allow DTMF management

Select this option to allow taking/returning radios by sending the specified DTMF tones.

• Take radio

Specify DTMF tones to be sent by the user to take a radio.

• Return radio

Specify DTMF tones to be sent by the user to return a radio.

#### Allow Text Messages management

Select this option to allow taking/returning radios by sending specified text messages.

• Take radio

Specify the text of the message to be sent by the user to take a radio.

• Return radio

Specify the text of the message to be sent by the user to return a radio.

### Allow Sign In / Sign Out management

Select this option to allow taking radios when the user signs in to a radio.

• Sign-in ID

Specify the password that the user enters to sign in when they take a radio.

### Allow beacon management

Select this option and enter **Major ID** and **Minor ID** of the beacon that will be used for taking and returning radios. When a radio enters/leaves the range of the specified beacon, this radio will be considered taken/returned by the user.

Note: This functionality is available only if the radio is equipped with an option board.

### Send notification to radio after it is taken/returned

Select this option so that a notification is sent to a radio every time the user takes or returns it.

### Enable forced check-in

This option affects the Radio Allocation module. If enabled, the user will be able to return any radio, regardless of whether who has taken the radio. For more details on the Radio Allocation module, refer to *TRBOnet Enterprise/PLUS Radio Allocation User Guide*.

• On the **SIP Account** tab, specify a SIP Account for the user:



Add/Edit	Radio Us	er			>
General	Radios	Management	SIP Account	Logical Groups	Custom Fields
User's E	xtension:	2401			
User Na	me:	2401			
User Pa	ssword:	•••••			
Dial Plan	:				~
Blod	k incomin	g phone calls			
Blod	k outgoin	g phone calls			
				OK	Cancel

## User's Extension

Enter the SIP extension number that will be used by the user.

User Name

Enter the SIP user name that will be used by the user.

User Password

Enter the password for the user to be authenticated by the phone system.

- **Dial Plan** From the drop-down list, select the dial plan to use for the user.
- Block incoming phone calls
   Select this option to block all incoming SIP calls for the user.
- Block outgoing phone calls
   Select this option to block all outgoing SIP calls for the user.
- On the Logical Groups tab, specify logical groups for the user:
  - In the list of available groups, select desired group(s).
  - For more information about logical groups, see section <u>6.4.29</u>, <u>Logical</u> <u>Groups</u> (page 273).
- On the **Custom Fields** tab, specify the desired values for the custom fields (see section <u>6.4.6, Custom Fields</u>).

# 6.4.29 Logical Groups

TRBOnet Dispatch Console allows adding custom logical groups in addition to radio groups. You can create groups and subgroups and then assign radios/users/dispatchers to these groups.

• Go to Administration (1), Logical groups (2):



File View Map Tools Help				
Administration	Logical Groups			을 🚳 🕒
Departer Redos     Departer Groups     Departer Soups     SetS Coups     SetS Coups     SetS Coups     Coups	Intercom     Intercom     Intercom     Intercom     Intercom     Intercom     Intercom     Add     Intercom     Add as cost     Intercom     In	Description	Al Cal	
Voice Dispatch	Cleaning 2			
Location Tracking	Security Security 1 Security 2	Groups for Security		
🔡 Job Ticketing	3			
😿 Route Management				
RFID Tracker				
C Text Messages				
🔮 Voice Recording				
Event Viewer				
Radio Allocation	_1			
Administration		 		
访 127.0.0.1 🛞 🥵 🙎 Administrator 📑 📑 Li	ensed to: demo Demo License			🕑 Active -

- Click **Add** (3) to add a logical group.
  - Select **Add as root** to add a logical group as a root folder.
  - Select **Add as child** to add a logical group as a child folder.

Group properties		×
Name:	Cleaners	
Description:	Cleaning in Department 1	
External ID:		
	OK Cancel	

- Specify a **Name** and **Description** for the logical group.
- Click **OK** to add the logical group.

To display logical groups, enable the Logical Group view:



Voice Dispatch	
i= & 🕼 🕼 🦌 🍸 💱 🛠 🖅 🦳	
Cogical Groups     Online Dispatchers (1)	
Administrator	
😑 🏪 Cleaning	9
🗉 1 Cleaning 1	<b>P</b>
💰 🕒 125 (Pete) 125	9 🕫
Cleaning 2	<b>P</b>
Security	
Security 1	<b>P</b>
🚷 🕒 235 (Basil) 235	9 🕫
Contraction 2	ę
Voice Dispatch	
Location Tracking	
🔡 Job Ticketing	
😥 Route Management	
RFID Tracker	
C Text Messages	
🔮 Voice Recording	
Reports	

All created logical groups are displayed in the list of radios.

# 6.4.30 Radio Groups

• Go to **Administration** (1), **Radio Group** (2) to add/edit/delete Radio Groups in the system.

						👲 剩 🕻
^	Group 10	•) * 0 •) * 0	3: Line free Group 20	4:0 -) 4:0	Al Cal	) <b>.</b> 0
- 2 🗸	Add B Edit			MDC / Sel-5 (Hex)	Description	
	Firemen Police	20				
	3					
	1					
	- 2 .	Caupe 10     Coupe 10     Private Cal     Caupe 1     Caupe 1	Carreto and a construction of the constru	- 2 v Protection 0 10 20 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Coup 10 Coup 20 C	Careers     Careers

• Click Add (3) to add a radio group to the system:



Group Properties	×
Name:	Cleaners
Radio ID:	30 🗘 MDC ID: 5
Description:	Cleaning group
	file
	OK Cancel

### Name

Specify a name for the radio group in the system.

Radio ID

Specify the Radio ID for the radio group used to identify messages to/from the radio group.

## MDC / Select-5 / Quick Call I / Quick Call II

Set an ID for MDC 1200 or SELECT 5 signaling systems. This ID is used to identify and communicate with a target radio or group of radios depending on the call type. Or, select Quick Call I / Quick Call II signaling system and specify the appropriate parameters.

### Description

Add a description for the radio group.

### Use custom call tone

Select this option and browse for the audio file (WAV) that will be used as a custom tone when a group call is started by clicking the Tone and PTT button in the group's PTT box (see section <u>6.5.2, PTT</u> <u>Boxes</u>).

## Use Broadcast mode for calls

Select this option so that a group call will be made in the Broadcast mode. Receiving radios of this group call won't be able to answer (talk back) to this group call.

## Use Open Voice Channel mode for calls

Select this option so that a group call will be made in the Open Voice Channel mode. All radios on the channel that are capable of receiving OVCM calls will receive the group call rather than only the group participants.



Notes: The Broadcast and OVCM group calls are available on IPSC systems only. To use the Broadcast and OVCM group calls, the **Use NAI Voice** option must be enabled for the repeater (see section <u>5.10.2, Adding a</u> <u>MOTOTRBO Repeater</u>).

# 6.4.31 Device Lists

The Device Lists are used to dynamically group radios based on current needs.

# 6.4.31.1 Adding List Templates

- Go to Administration (1), Device Lists (2).
- In the **Device Lists** pane, select the **List Templates** tab, and click **Add** (3).

File View Map Tools H	lelp		
Administration	曼 Device Lists		👲 🚳
Logical Groups Edgical Groups Radio Groups Device Lists Radios 2	<ul> <li>↓ Line free</li> <li>✓ Slot 2</li> <li>✓ All Call</li> <li>✓ Police</li> </ul>	List Properties General Radios	
Voice Dispatch	List Templates	Radio 27     Radio 27     Radio 125     Radio 125     Radio 155	
Location Tracking	Name	Radio 230	
🚰 Job Ticketing	+ Group 2	Radio 235     Radio 240     Radio 16500000	
Route Management	3	(m) Radio 16500000	
Text Messages			
🔮 Voice Recording			
Reports		Selected: 3	
Event Viewer		D D	<b>Y</b> • <b>H</b> •
Radio Allocation	1	-	OK Cancel
Administration	HI II Record 1 of 2		
🐻 Connected 🛞 🔂 🔂	👆 🕵 🕵 💆 Administrator	📑 Licensed to: demo Demo License	🕑 Ac

- In the **List Properties** dialog box, enter a name and description for the list.
- Click the **Radios** tab (4), and select the radios (5) to include in the list.

# 6.4.31.2 Dynamic Regrouping

Note: The Dynamic Regrouping feature is available only for Capacity MAX systems.

To assign radios to dynamic groups:

- Go to Administration, Device Lists. In the Device Lists pane, select the Active Lists tab, and click Create. Or:
- On the **Tools** menu, click **Dynamic Regrouping**.



ynamic Regrou	iping			-		×
Action:	Assign to dynan	nic radio group	-	]		
Group:	Firemen		•	]		
Group Alias:	Firemen_1			]		
Radios Dyna	mic Groups					
Name		Active Group	State			
8 8 C		=	=			
0 0 0	đ			•	7 - 1	j -

In the **Dynamic Regrouping** dialog box, enter the following parameters:

Action

From the list, select the action (Assign to, or Exclude from dynamic group).

Group

From the list, select the radio group to which to assign (or, from which to exclude) radios.

Group Alias

Enter an alias for the radio group.

- In the list below, expand the group and select the desired radios.
- Click the **Execute** button.

# 6.4.32 Radios

The administrator can add/edit/delete radios in the system. In addition, the dispatcher can export/import radios (see section <u>6.3.4.3</u>, <u>Exporting/Importing</u> <u>Objects</u>).

### 6.4.32.1 Adding Digital Radio

• Go to Administration (1), Radios (2).



dministration	Radios						👲 🚭
	A Registered Unreg	gistered					
	💠 Add Group 📑	Add Digital Radio 🔜	Add Range 📑 A	dd TRBOnet Mobile 📃	🖌 Add TRBO.SOS 📑 Add V	/oC Radio 📑 Add	I WAVE 5000 📑 Edit
Email Groups	Radio Name	Type	△ Radio ID	MDC ID	User Extension/Login	Radio Groups	Logical Groups
🚝 SMS Groups 💦 Users	Radio 235	Digital Radio	235	0		Cleaners	
Logical Groups	💰 Radio 125	Digital Radio	125	0		Cleaners	
Radio Groups	Radio 100	Digital Radio	100	0		Cleaners	
1 Device Lists 2	2222	TRBO.SOS	2222	0	2222		
🔁 Radios	🛞 Radio 4444	TRBOnet Mobile	4444	0	4444		
>	✓ S 3333	TRBOnet Mobile	3333	0	3333		
>	\$ 5555	TRBOnet Mobile	5555	0	5555		
Location Tracking			3				
Location Tracking			3				
Location Tracking			3				
Location Tracking Job Ticketing			3				
Location Tracking Location Tracking Location Tracking Location Tracking Location Tracking Text Hessages			3				
Location Tracking Job Ticketing Route Hanagement Text Hessages Voke Recording	1		3				

Click Add Digital Radio (3) to add a new radio.
 On the General tab, specify general settings for the radio:

eneral Logical Grou	ps Additional SIP Account Cameras Teltonika
legion or or	
Radio Name:	125
Radio ID:	125 A MDC ID: 0
Radio Groups:	All 🗸 +
Home Group:	Cleaners 🗸 🔸
Use icon:	🚯 Portable Radios 🔍 🔸 –
Extended Device:	None V Test
Location Service	2
Location Source:	Built-in GPS receiver 🗸
Location Profile:	(Default) V +
	Location Enabled
Telemetry Servi	ice
TLM Source:	Built-in Telemetry 🗸
TLM Profile:	(Default) V +
Text Messages	Service
Hide Advanced Set	Standard V

# Radio Name

Enter a descriptive name for the radio to display in the Dispatch Console.

• Radio ID

Enter a Radio ID for the radio. This ID is used by other calling radios when addressing the radio, for instance, when making a private call or sending a text message.

# • MDC / Select-5 / Quick Call I / Quick Call II

Set an ID for MDC 1200 or SELECT 5 signaling systems. This ID is used to identify and communicate with a target radio or group of radios depending on the call type. Or, select Quick Call I / Quick Call II signaling system and specify the appropriate parameters.

## • Radio Groups

In the drop-down list, select a radio group(s) to which to assign the radio.



### • Home Group

In the drop-down list, select a home group for the radio.

• Use icon

From the drop-down list, select an icon for the radio.

• Extended Device

From the drop-down list, select the option board type the radio is equipped with.

## **Location Service**

- Location Source
  - Built-in GPS receiver
     Select if the radio has its own built-in GPS receiver to send GPS data.
  - Not equipped with GPS receiver Select if the radio cannot send GPS data.
  - **Extended device** Select if the radio is equipped with an option board.

## • Location Profile

From the drop-down list, select the default or preconfigured Location Profile. For more details on Location Profiles, see section <u>6.4.16</u>, <u>Location</u> <u>Profile</u> (page 236).

Location Enabled

Select/clear this checkbox to enable/disable the location trigger.

## **Telemetry Service**

- TLM Source
  - Not equipped with Telemetry
     Select if the radio cannot send Telemetry data.
  - Built-in Telemetry

Select if the radio has its own built-in Telemetry.

Extended device

Select if the radio is equipped with an option board.

• TLM Profile

From the drop-down list, select the default or preconfigured Telemetry Profile. For more details on Telemetry Profiles, see section <u>6.4.12</u>, <u>Telemetry</u> (page 227).

### **Text Messages Service**

- TMS Source
  - Not equipped with display
     Select if the radio is not equipped with a display.
  - Built-in Text Messages

Select if the radio has its own built-in Telemetry.



# • TMS Profile

From the drop-down list, select the default or preconfigured Text Message Profile. For more details on Text Message Profiles, see section <u>6.4.13, Text Messages</u> (page 230).

## **Job Tickets Service**

- JTS Type
  - None

Select if the radio is not equipped with a display.

MSI Proprietary

Select if the radio is equipped with a display and supports the Enhanced Job Ticket protocol.

Text Messages

Select if the radio is equipped with a display and supports the legacy Job Ticket protocol.

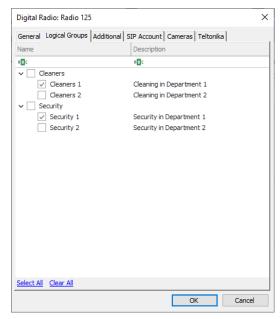
# **Radio Status Service**

RS Profile

From the drop-down list, select the default or preconfigured Radio Status profile.

For more details on Radio Status profiles, see section <u>6.4.15, Radio</u> <u>Statuses</u> (page 235).

On the **Logical Groups** tab, specify logical groups for the radio:



- In the list of available groups, select desired group(s).
- For more information about logical groups, see section <u>6.4.29</u>, <u>Logical</u> <u>Groups</u> (page 273).

On the **Additional** tab, specify additional information about the radio subscriber:



Digital Radio: Radio 125		×
General Logical Groups A	dditional SIP Account Cameras Teltonika	
Load Image	Max speed: 60 😒	
Name	♥ Value	
Name		
Description		
🖹 Car make	Hyundai	
Plate number	RAMBO 01	
S Phone	+7 911 123-4567	
🖂 Email	tester@gmail.com	
	OK Cance	el

• Max speed

Specify the maximum speed allowed for the vehicle, in kilometers per hour or in miles per hour, depending on the measurement system specified in TRBOnet server.

• Route Color

Specify a color to display the route passed by the radio on the map.

• Load Image

Click this button and browse for the photo or image to assign to the radio.

• In the table below, specify the desired values for the custom fields (see section <u>6.4.6</u>, <u>Custom Fields</u>).

Note: To automatically create and assign job tickets to the radio (see section <u>6.4.5.18</u>, <u>HotSOS (Email)</u>), there must be present at least one field with the 'Email' type.

On the **SIP Account** tab, specify a SIP Account for the radio:



Digital Radio: Radio 125		Х
General Logical Groups Ac	ditional SIP Account Cameras Teltonika	
User's Extension: User Name:	2401 2401	]
User Password:	•••••	
Dial Plan:	· · · · · · · · · · · · · · · · · · ·	
Block incoming phone Block outgoing phone		
	OK Cancel	

• User's Extension

Enter the SIP extension number that will be used by the radio.

• User Name

Enter the SIP user name that will be used by the radio.

- **User Password** Enter the password for the authentication.
- **Dial Plan** From the drop-down list, select the dial plan to use for the radio.
- Block incoming phone calls Select this option to block all incoming SIP calls for the radio.
- Block outgoing phone calls

Select this option to block all outgoing SIP calls for the radio.

On the **Cameras** tab, select the checkbox beside the camera that will be associated with the radio:



Digital Radio: Rad	dio 125 X
	Groups Additional SIP Account Cameras Teltonika
Name	Description
Camera 1	Disposal dump
Camera 2	
	OK Cancel
	Curter

Note: You can also register a radio from under the **Unregistered** tab. Just select a radio and click **Register**:

😫 Radios					
Registered Unregistered					
🔜 Register 🛛 🛃 Delete 🔨 Delete All 🛛 🚟 Grouping 🍸 Auto Filter 🐵 Default Settings					
Radio ID 🛛 🖄	MDC ID	Last Active Radio System			
35	0				
36 👞	0				
50	0				
52	0				
53	0				
54	0				



# 6.4.32.2 Adding TRBOnet Mobile

In addition to digital radios, you can create accounts for TRBOnet Mobile Clients that can connect to your radio systems.

• Click Add TRBOnet Mobile.

In the **TRBOnet Mobile** dialog box, enter the following parameters:

TRBOnet Mobile		×
General Logical Group	os Additional Cameras	
Radio Name:	5555	
Login:	5555	
Password:	•••••	
Password (repeat):		
Radio ID:	5555	
Profile:	TRBOnet Mobile #1 V +	
Use icon:	🚯 Portable Radios 🗸 🗸	
	OK Cancel	

### Radio Name

Enter a descriptive name for the Mobile Application user to display in the Dispatch Console.

Username

Enter the username for the Mobile Client app user.

Password

Enter the password for the Mobile Client app user to be authenticated by the TRBOnet system.

Radio ID

Specify a Radio ID for the Mobile Client user. This ID is used by other calling radios when addressing the Mobile Client user, for instance, when making a private call or sending a text message.

Profile

In the drop-down list, select the profile for the mobile client. Or, click the plus button on the right to create a profile.

Note: For directions on how to create/edit a Mobile Client Profile, see section <u>6.4.17.1</u>, <u>Adding TRBOnet Mobile</u> <u>Profile</u>.



# 6.4.32.3 Adding TRBO.SOS

In addition, you can create accounts for TRBO.SOS applications that can connect to your radio systems.

• Click Add TRBO.SOS.

In the **TRBO.SOS** dialog box, enter the following parameters:

TRBO.SO	S					×
General	Logical Group	s Additional	Cameras			
Login: Passw	vord:	2222 2222	•			
Radio	vord (repeat):	1	-			
Profile		• TRBOnet SOS			~ +	
Use ic	on:	觰 Portable F	Radios		~	
				OK	Cancel	

### Radio Name

Enter the descriptive name of the TRBO.SOS user to display in the Dispatch Console.

Login

Enter the Login that will be used by the TRBO.SOS user. Note that this is a case-sensitive value.

Password

Enter the password for the authentication.

Profile

Select the location profile for the mobile client. See section <u>6.4.18.1</u>, <u>Adding TRBO.SOS Profile</u>.



# 6.4.32.4 Adding WAVE Radio

If the WAVE 5000 Controller and/or WAVE OnCloud Gateway is connected, you can add WAVE radios to your radio systems.

• Click **Add WAVE 5000** or **Add WoC Radio** (depending on to which WAVE system the radio is being added).

Radio Name:	Wave 145				
Radio ID:	145	Wave ID:	145		
Radio Groups:	Eiremen		1.0		
Home Group:	Firemen				• •
Use icon:	(f) Portab	le Radios			× + -
		_			
Extended Device:	None	~		est	
Location Service	•				
Location Source:	Built-in GPS	receiver		$\sim$	
Location Profile:	(Default)			~ +	
	✓ Location	n Enabled			
Telemetry Servi	ice				
TLM Source:				$\sim$	
TLM Profile:				$\sim$ +	
Text Messages	Service				
TMS Type:				~	

In addition to **Radio ID**, the WAVE radio has the **Wave ID** parameter.

Radio ID

Specify a Radio ID for the WAVE radio. This ID is used by other calling radios when addressing the radio, for instance, when making a private call or sending a text message.

• WAVE ID

Enter the Wave ID that corresponds to the user registered in the WAVE server's user database.

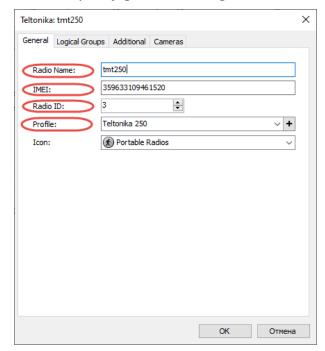


# 6.4.32.5 Adding Teltonika device

You can also add Teltonika devices.

• Click Add Teltonika.

On the **General** tab, specify general settings for the Teltonika device:



#### Radio Name

Enter a name for the Teltonika device.

IMEI

Enter the Teltonika device's IMEI number. The IMEI number is on the barcode sticker next to the serial number. You can also see the IMEI number in Teltonika Configurator.

Radio ID

Enter the Radio ID of the device.

Profile

Select the profile for the Teltonika device. See section <u>6.4.20, Teltonika</u> <u>Profile</u>.

To see the **IMEI** and **Teltonika Profile** columns in the table of registered devices, right-click on the table header, and from the context menu select **Column Chooser**. In the list of available columns, select the column and drag it to the desired position in the table.



## Linking Teltonika device to Radio

To link a registered Teltonika device to the radio:

• Right-click the desired radio in the list of registered radios and from the drop-down menu, select **Edit** (or, just double-click the desired radio in the list of radios).

Administration		Radios						🔞 🔞	٩
Logical Groups	^	Registered							
🛅 Radio Groups		🐈 Add Group	🛃 Add Digital Radio	🛛 🛃 Add Range	🛃 Add TRBC	Onet Mobile 📑 Add T	RBO.SOS   : 🕃 U	Inlink Teltonika	
Device Lists Radios		Radio Name	Туре	Radio ID	MDC ID	User's Extension	Radio Groups	Logical Groups	
Radios		🚷 tmt250	Teltonika	1	0		All		
٢	>	🚯 Radio 235	Digital Radio	235	0		11		
		3333	TRBOnet Mobile	3333	0	3333			
Voice Dispatch		4444	TRBOnet Mobile	4444	0	4444			
Location Tracking		🛞 Radio 125	Digital Radio	125	0		11		
<ul> <li>Dob Ticketing</li> <li>Route Management</li> <li>Text Messages</li> </ul>			Add Range Add TRBOnet Add TRBO.SO Add WoC Rac Add WAVE 50	S lio 00					
Reports			Add Teltonika						
Radio Allocation			Unlink Telton	ika	•				
Administration		144 44 4 Record 5	of5 > >> >> +> ++						

• In the dialog box that opens, click the **Teltonika** tab.

Digital Radio: Radio 12	5	×
General Logical Groups	Additional SIP Account Cameras Teltonika	I,
Device:	tmt250	~ +
Location Source:	Mixed mode	~
Positioning mode:	From radio's Location Profile	~
	From radio's Location Profile	
	From Teltonika Profile	
	OK	Отмена

#### Device

From the list, select the desired Teltonika device.

Location Source

From the list, select the desired source of location data.

• Teltonika

Select this item to use only location data received from the Teltonika device. In this case, location data received from the radio will be ignored, that is, they won't be recorded to the database and so won't be used in the reports.



## • Built-in GPS receiver (Radio)

Select this item to use only location data received from the radio. In this case, location data received from the Teltonika device will be ignored, that is, they won't be recorded to the database and so won't be used in the reports.

#### • Mixed mode

If this item is selected, location data received from both devices will be used.

#### Positioning mode

If **Mixed mode** is selected from the **Location Source** list, select from where the Positioning mode will be taken (radio's Location Profile or Teltonika Profile).

Once you have linked the Teltonika device, it will be grayed out in the list of registered devices.

#### **Unlinking Teltonika device from Radio**

To unlink the Teltonika device from the radio:

• Right-click the radio in the list of registered radios and from the dropdown menu, select **Unlink Teltonika** (or, just click the **Unlink Teltonika** button on the toolbar when the required radio is selected in the list).

dministration		Rad	ios						۵ 🔞
Logical Groups	^	IP .	gistered Unre		🗟 Add Range	🔜 Add TRBC	Onet Mobile 📑 Add T	RBO.SOS	Unlink Teltonika
1 Device Lists		R	adio Name	Туре	Radio ID	MDC ID	User's Extension	Radio Groups	Logical Groups
Radios	~	۵ ای	mt250	Teltonika	1	0		All	
	>	🛞 R	adio 235	Digital Radio	235	0		11	
		چ	333	TRBOnet Mobile	3333	0	3333		
Voice Dispatch		<b>(f)</b> 4	444	TRBOnet Mobile	4444	0	4444		
Location Tracking		🛃 R	adio 125	Dialtal Dadio	125	0		11	
Job Ticketing     Route Management     Text Messages				Add TRBC	Radio				
Reports				Add WAV					
Event Viewer				Delete	0 1				
Radio Allocation				Unlink Te	поліка				
Administration			<ul> <li>Record 5 of 5</li> </ul>	A 10 AV		-			

# 6.5 Voice Dispatch

When on the Voice Dispatch tab is selected, the dispatcher can make radio and phone calls, send text messages to radios and phone numbers, monitor recent calls and events, radio status, active tasks and routes and view selected map.

# 6.5.1 Radio List

## 6.5.1.1 View Options

The toolbar in the upper part of the Radio List pane provides buttons to change the appearance of the list:

# **TRBOnet Enterprise** — User Manual





- Click 📃 to view radios by radio list.
- Click 💁 to view radios by their statuses.
  - Yellow

A radio is online and enters the beacon coverage zone; has Indoor positioning lock.

Note: When GPS location is available and the radio enters the beacon coverage zone, the status will turn yellow from green.

#### Blue

A radio is online; GPS data is not available.

Green

A radio is online; GPS data is available. This status is shown if the server has received GPS data during the last 30 seconds (the time interval is set in Location Profile > Periodic updates).

Gray

A radio is offline.

- Click 💷 to view radios by radio groups.
- Click 💷 to view radios by logical groups.
- Click I, and select the radio list elements that will be displayed in the Radio List pane.



Voice Dispatch	
🗄 🚨 🖾 📾 🚼 🝸 🖇	l 🕺 🗇 🗇
Radio, Dispatchers, Dispatcher Group	p, Radio Group,
Type:	
🗹 Radio ᆽ	
Dispatchers	1
Dispatcher Group	<b>,</b>
🔽 Radio Group 🥢	2
Logical Group	
State:	
🖸 Online, Indoor 🖌	
💟 Online, GPS Fixed	2
Online, No GPS	13
Offline	
OK	Cancel

- Click the arrow button (1).
- Select the object types and the radio statuses (2) to filter radios.

For example, you may select to display only radios and radio groups that are online and have fixed GPS signal.

- Click **OK** (3) to apply filter settings.
- Click [1], and from the drop-down list, select how to sort the radios in the Radio List (Name, Radio ID, Status).
- Click *to open the Quick Actions dialog box to specify which quick buttons to display in the Radio List pane.*

Quick Actions	×
Dispatcher Buttons	
Send Message	Request To Talk
Send Push Notification	Private Call
E Phone Call	
Radio Buttons	
Find on Map	Private Call
Find on Google Earth	Phone / Full-Duplex Call
E Show Route	Send Message
Show Route on Google Earth	Send Push Notification
📰 Google Street View	📰 Request To Talk
Set Device Location	Disable/Enable Radio
Toggle Location Trigger	Track Radio
Remote Monitor	Check Presence
Radio Group Buttons	
📰 Send Message	Reset Location Trigger
Send Push Notification	Request To Talk
Logical Group Buttons	
E Send Message	Send Push Notification
Additional Options	
Use Check Box Filtering	Show Status of Location Trigger
Preview:	
😑 📃 🤶 User Group	<b>~</b>
Jonny	
B Radio Group	
Radio 1	📅 Q 寻 🗞 👱 🚽
	OK Cancel

#### Dispatcher Buttons

In this group, select the quick buttons to be displayed in the Radio List for dispatchers.

Radio Buttons

In this group, select the quick buttons to be displayed in the Radio List for radios.



## Radio Groups Buttons

In this group, select the quick buttons to be displayed in the Radio List for radio groups.

### Logical Group Buttons

In this group, select the quick buttons to be displayed in the Radio List for logical groups.

Note: For the preview, see the lower part of the **Settings** dialog box.

Additional Options

### • Use Check Box Filtering

Select this option to display checkboxes next to each radio and radio group. Selecting/clearing a checkbox will display/hide the corresponding radio/radio group on the map.

### • Show Status of Location Trigger

Select this option to display the Location trigger status for a radio in the Radio List pane.

🗉 📙 Firemen	₽ ^
111	GPS 📮 🔏
🐔 💌 125 (Pete)	
📌 🕑 222	GPS 루 🔇
🐔 🔊 235 (Basil)	GPS 📮 🔏
🐔 🧭 Radio 200	on GPS 📮 🔇
Radio 201	🛄 🖃 🎨 🔽

✓ Gray

A radio is offline.

✓ Blue + white dish

A radio sent ARS but didn't send GPS packets.

✓ Blue + red dish

A radio sent ARS and GPS packets without GPS data, that is the radio is out of GPS coverage.

✓ Green

A radio is fully online (has a GPS fix).

# 6.5.1.2 Quick Filter

Type in Radio ID or Radio name to filter the Radio List. Search results are displayed in the Radio List pane:





# 6.5.1.3 Radio Information Tooltip

The dispatcher can see the last received radio data in the Radio information tooltip. Select a radio in the Radio List and hover the mouse pointer over it:



The following information on the radio is displayed in this tooltip:

- 1. The current channel/radio system the radio is on.
- 2. The radio status (displayed only if the **Show latest note in Unit information details** option is selected in the **Advanced** tab of the **Options** dialog).
- 3. The current battery level, in percent (displayed only if the radio is equipped with an option board).
- 4. The User Activity list the radio is assigned to, if a User Activity task is activated.
- 5. The Lone Worker policy status, if a Lone Worker task is activated.
- 6. The route assigned to the selected radio, if a Route Management task is activated for the selected radio.
- 7. The associated job tickets.
- 8. The current GPS data and current location data.
- 9. The current location resolved to address.

While this pop-up window is open, the dispatcher can do the following:

- Click 🚾 to request the presence of the radio in the radio network.
- Click 🖼 to send a text message to the radio.
- Click 🔊 to request the radio's location.

#### 6.5.1.4 Radio Shortcut Menu

To open the radio's shortcut menu, right-click a radio in the Radio List pane: This shortcut menu contains the following items:



### Check Presence

Choose this menu item to send a Radio Check command. If the radio is online and is located in the coverage area, the dispatcher will see a message like this:

Message 1 of 1	×
125 Repeater #1: Slot #1 Checking Presence in Network The command has been executed.	14-Nov-2016 17:49
Radio is present in the network Agent: Radio Networks Radio System: Repeater #1: Slot #1/Peer 1002	
Do not show this message next time	Show on map Request Location
<< Prev Next >>	Close

# • Private Call

Choose this menu item to initiate a Private PTT Call to the selected radio.

• Phone Call/ Full-Duplex Call

Choose this menu item to initiate a phone call (full-duplex call) to the selected radio.

- **Request to Talk** Choose this menu item to send a talk request to the selected radio.
- Request Location

Choose this menu item to request the location of the selected radio (for radios with GPS module only).

#### • Send Message

Choose this menu item to send a text message to the selected radio (for radios with display only).

- In the dialog box that appears, specify the radio/radio group/dispatcher to send the text message to.
- Advanced > Remote Monitor (Open mic) Choose this menu item to activate the radio microphone in hidden mode (remote monitor duration – 30 sec.)
- Advanced > Change Location Update Settings Choose this menu item to customize the Location Update settings. When you reconnect to the Server or reassign a Location Profile to the radio, temporary settings will be updated to the Location Profile settings.



Change Location Update Settings	×				
Change Location Update Settings					
Restart location updates					
○ Turn off location updates					
Start location updates					
Change periodic update interval					
Interval: 30.0 seconds					
OK Cance	el				

- Restart/Turn off/Start location updates
   Choose which command to send to the radio.
- **Change periodic update interval** Select this option and specify the new location update interval.
- Advanced > Enable Radio Choose this menu item to enable the selected radio.
- Advanced > Disable Radio
   Choose this menu item to disable the selected radio.
- Advanced > Exit from Emergency mode Choose this menu item to cancel the Emergency mode on the selected radio.

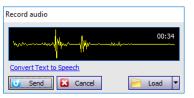
Note: This command is distinct from the Clear Alarm command ("x" button on the Alarm box) which just clears the radio's alarm status in the Dispatch Console. Also note that this command is applicable when the radio is used in Capacity MAX or DIMETRA Express systems only.

# • Advanced > Send Audio Record

Choose this menu item to send an audio record to the selected radio.



• Click **Start** and start talking to the microphone.



• Click **Send** to send the recorded message to the radio.



- You can also load your message from file, or from Saved Audio Files. Just click the **Load** button.
- Or, you can send a text message converted to speech. Just click the Convert Text to Speech link.

Convert Text to Speech	×
Text: Pete, get back at work	<u>^</u>
Listen	✓ OK Cancel

# • Advanced > Send Push Notification

Choose this menu item to send a push notification to the selected radio.

• In the dialog box that appears, specify the radio/radio group to send the push notification to.

Note: This menu item appears only if the radio is a mobile client app running on a smartphone.

# • Advanced > Send Coordinates To

Choose this menu item to send the coordinates of the selected radio to selected recipients.

Send Text Messag	e		×				
Destination:	Radio 235;						
Templates:			~ 🌗				
Text:	Radio 125 Latitude: 59°56' 30°16'47.64'' E	25.30" N; Longi	tude:				
			64				
Attachments:	Add File						
Select Radios and (	Groups						
Filter:	235		$\mathcal{P}$				
Radio 235     Solution Dispatchers							
Send copy as em	ail						
Send copy as SMS							
✓ Store and attempt to deliver if the user is offline ☐ Confirmed Group Text							
Hide Advanced C	ptions	SEND	Cancel				

 In the dialog box that appears, specify the radio/radio group/dispatcher to send the coordinates to.

# • Advanced > Send Email

Choose this menu item to send an Email message to the mailbox associated with the selected radio.



#### • Advanced > Shortcut - Private Call

Choose this menu item to assign a shortcut that will be used to make a private call to the selected radio. When the prompt appears, press the desired key or key combination.

Hot Key		Х
A.D	Click for the combination to spec the Hot Key or Esc to reset	ify

#### • Find on Google Earth

Choose this menu item to display the selected radio location on Google Earth.

#### • Show Route on Google Earth

Choose this menu item to display a route traveled by the selected radio on Google Earth for the specified time period.

Show Route	×
Radio:	125 (Pete) ~
From:	15-Nov-2016 0:00
To:	<last known="" location=""></last>
Color:	105, 105, 105
	✓ Optimize Route (group all nearest points)
	OK Cancel

Track Radio > Track in New Window
 Choose this menu item to open a new Map window for the selected radio.

#### • Track Radio > Video Tracking in New Window

Choose this menu item to open a new window with the IP camera(s) that will track the selected radio. The camera may be associated with the selected radio and/or with the beacon(s) when the radio enters the range of the beacon(s).

# • Track Radio > Google Street View

Choose this menu item to open Google Street View with the latest location and direction of the selected radio.

# Track Radio > Yandex Street View Choose this menu item to open Yandex Panorama with the latest location and direction of the selected radio.

#### • Set Location Profile

Click this menu item and select the location profile that will be associated with the radio.

#### • Select Status Colors

Choose this menu item to select to set individual parameters for the radio icons.





Charles	Color.				
	Color				
		Offline		*	+
Online, No		Online, No GPS		*	+
Online, GP	S Fixed 🚯 🤇	Online, GPS Fixed		*	+
Online, Ind	loor 🔗 🤅	Online, Indoor		*	+
Alarm	4 🌏	Alarm		Ŧ	+
				Re	eset
review				Re	set
review Offline	Online	Online (GPS)	Online (Beacon)		eset
	Online	Online (GPS)	Online (Beacon)		

- In the Status Colors dialog box, you can specify icons for the statuses of the selected radio. Select icons from the drop-down list. To set a custom color for the radio status icon, click the + button and select a color in the uniform color palette. Click the – button to delete a custom color.
- In the lower part of the dialog box, you can see the preview of the icons.
- To set default icons for the selected radio, click the **Reset** button.
- Set Radio Channel > Radio Active Select/deselect this menu item to make the selected radio active/inactive.
- Set Radio Channel > Channel Select the radio channel over which to make calls to the selected radio.
- Cameras >

Click this menu item and select a camera associated with the radio. As a result, a new window with the camera view will open.

• Set On Duty

Choose this menu item to assign the selected radio to the **On Duty** list. See also section <u>6.4.5.7</u>, <u>User Activity</u> (page 186).

# 6.5.2 PTT Boxes

The dispatcher can make voice calls from the Dispatch Console by using PTT boxes:



Control S	tation #1 💿 📧 🖉
PTT	Channel 1
PIT	All Call 🔻
	Session:
	Free channel
	Sender:
RX / TX	
u	

The following options are available for the PTT box:

- Click the 🗹 button to make the channel the default PTT channel.
- Click the (Tone and PTT) button to start transmitting after a tone sound.
- Click the 📧 (Solo) button to mute all channels except this one.
- Click the 🙆 (Mute) button to mute this channel.

Right-click on the selected PTT box to display the shortcut menu which contains the following commands:

#### • Default PTT channel

Select this menu item to make the channel the default PTT channel.

• Shortcut

Choose this menu item to assign a shortcut that will be used to transmit on this radio channel. When the prompt appears, press the desired key.

#### • Select External PTT

Select the external PTT device that will be associated with this PTT box.

#### • Select External Indicator

Select the external PTT indicator that will be associated with this PTT box.

#### • Add to New Group

Choose this menu item to add the channel/group associated with the selected PTT box to the Patch box. When two or more channels/groups are added to the Patch box, the dispatcher can click the **Create** link to create a patch group for the selected channels/groups.

• Tone and PTT

Click this menu item to start transmitting after playing a tone sound.

• Mute this channel

Click to mute the selected channel.

- Mute all channels except this Click to mute all channels except the selected one.
- Volume

Move the slider to specify the speaker volume level on the selected channel/group.



## • Microphone

Move the slider to specify the microphone volume level on the selected channel/group.

## • Configure channel

Click this menu item and, in the dialog box that opens specify the recorder, player, speaker, external PTT device, etc.

Slot 1	×
	Defaults
Recorder:	Default 💌
Player:	Default
Speaker:	Default
Volume:	$\odot$ $\bigcirc$ $\bigcirc$
External PTT:	Footswitch (Footswitch PTT)
Indicator:	Footswitch (RTS)
Theme:	Default
	OK Cancel

# • Open Voice Channel Mode

This option is available for Private PTT Boxes. If you select this mode, all radios on the channel that are capable of receiving OVCM calls will receive this call rather than only the designated call recipient.

Notes: The OVCM calls are available on IPSC systems only. To use the OVCM calls, the **Use NAI Voice** option must be enabled for the repeater (see section <u>5.10.2</u>, <u>Adding a</u> <u>MOTOTRBO Repeater</u>).

# • Select By Radio ID Mode

Select this mode to allow making calls by entering radio IDs from the PTT box.

- **Recipient** Select the call recipient for the PTT box.
- Terminate Transmission

Click this menu item to terminate the current transmission.

Note: The incoming transmission can also be interrupted and terminated by clicking the **Interrupt** button in the PTT box.





• Reset

Click this menu item to reset connection to the selected channel/group.

# • Minimize/Restore

Click to minimize/restore the PTT box size.

# 6.5.3 Voice Calls

The dispatcher can make the following types of calls:

# • Private Call

This is an individual call from the Dispatch Console to a radio via the radio channel.

All Call

This is a call from the Dispatch Console to all radio groups registered in the system.

• Group Call

This is a call from the Dispatch Console to a selected radio group registered in the system.

• Intercom Call

This is a call from the Dispatch Console to other dispatchers. There are three types of Intercom Call:

- Intercom Call to all dispatchers
- Group Intercom Call to a group of dispatchers
- Private Intercom Call to a selected dispatcher
- Phone Call

This is a call from the Dispatch Console to a selected phone number.

In addition, the dispatcher can send voice mails to offline radios.

# 6.5.3.1 Private calls

The dispatcher can make a call to any online radio registered in the system. To make an individual call from the Dispatch Console to a selected radio via the radio channel, do the following:

- Select the radio in the Radio List.
- Click the 🛄 button on the right.

Or:

- Right-click the radio in the Radio List.
- On the drop-down menu, click **Private Call**.

To terminate a private call, do the following:

• Click the PTT button on the PTT box.

Or:

• Click the 🛄 button in the Radio list.



Note: You can also create a special PTT box for Private Calls. For more details, see <u>View > Configure PTT Boxes</u> on page 112.

#### **Full-Diplex calls**

The dispatcher can also make full-duplex calls (phone calls) to online radios. To make a full-duplex call from the Dispatch Console to a selected radio, do the following:

- Select the radio in the Radio List.
- Click the 🔊 button on the right.

Or:

- Right-click the radio in the Radio List.
- On the drop-down menu, click Full-Duplex Call.

See also section <u>6.5.9</u>, Phone Calls.

#### 6.5.3.2 All calls

The dispatcher can make a call to all online radios registered in the system (for example, in the case of alarm). To make a call from the Dispatch Console to all radios registered in the system, do the following:

• From the drop-down list, select All Call.

Repeater	#1: Slot #2	0 🔹 🙆
	All Call	-
PTT	All Call	
	Police	
	Session:	
	Free channel	
$\bigcirc$	Sender:	

• Click the **PTT** button.

# 6.5.3.3 Group calls

To make a call from the Dispatch Console to a selected radio group registered in the system, do the following:

• From the drop-down list, select a group.

IP Site Co	nnect: Slot #1 🛛 🕕 🧭
	All Call 🔹
PTT	All Call Cleaners
	Firemen Police
	Free channel
	Sender:



• Click the **PTT** button.

Note: You can also create a special PTT box for Group Calls. For more details, see <u>View > Configure PTT Boxes</u> on page 112.

## 6.5.3.4 Intercom calls

The dispatcher can make calls to all dispatchers or to selected dispatchers in the system. To make an Intercom Call to dispatchers, do the following:

• On the Intercom PTT box, from the drop-down list, select either All Call, or a group of dispatchers, or an individual dispatcher.

•)) 📧 🧭 🔪
All Call 🔹
All Call
Group1 Offline: Dispatcher 2
Session:
Free channel
Sender:

• Click the **PTT** button.

# 6.5.4 Predefined Voice Messages

The dispatcher can send predefined voice messages (recorded or voice messages, or audio files) to a radio or a selected radio group:

bice Dispatch	Radio Interface							
🗄 h 👶 🗶 7 🗇 🗗 6	Radio Interface Rec	cent Calls/Events			, I			
			Active Calls		×	Quick Comman	ids (	
🚯 🕑 Radio 204 🛛 🔡 寻 🔪						Configure		
🚯 🛞 Radio 205 🛛 📟 📮 🔪						Pre-recorded Me	ssages	
Firemen E								
🛣 🧭 111 🔤 🖵 💙					^	🥥 Record 🔻 😰	File	
£ 🔊 125 (Pete)		lot #1 😐 🕷		Repeater #1: Slot #	2 🕺 🛒 🖉	To: Selected Channels		
		Call	-	All Call	•	Voice Mess		
😤 🔊 222				TT		Voice Message	aye	
🏂 🕒 235 (Basil) 🛛 🔛 寻 🔪						Voice Message		
🚷 🕑 Radio 200 🛛 🔛 💷 💙		ion:		Session:		Patch		
🚷 🧭 Radio 201 🛛 🐺 寻 🔪	Free	e channel		Free char	nnel			
🚯 🖓 Radio 202 🔤 🖬 📢						Drag and Drop PTT Box here t	o create new grou	
Voice Dispatch	Senc	der:		Sender:				
Voice Dispatch				<u>e</u>		Patch on Repeaters		
Location Tracking						Binary Patch		
Location maching	RX / TX		7a	RX / TX	~	Ē		
Job Ticketing						System Bridge		
					×	Repeater #1: Slot #2	PTT	
Route Management	Recent Calls/Events							
	🔲 🗐 Playback 🚽 Save 🕶	블 Print 📔 Paus	e 季 Clear 🗕 🦉	Reload 🛛 🎢 Filter	By Radio   📑 Grouping 🍸	Auto Filter 🗇 Default Setting	gs 🛛 🚰 Details	
RFID Tracker	Date	Radio System	Sender	Recipient	Message	Details	Note	
·	15-Nov-2016 15:43:52	Repeater #1: Sl			Private Call: Dispatcher 'Dispat	Members: Dispatcher 1, 125		
Text Messages	15-Nov-2016 13:28:52		235		Reset Geofencing Alarm			
	15-Nov-2016 13:28:48		235		The Geofencing - Monitor Area			
Voice Recording	15-Nov-2016 13:28:48 3 15-Nov-2016 13:28:48		235		Radio left allowed region 'My z Radio left allowed region 'My z			
	HI HI HI A Record 1 of 578	B <b>F FF FFI 4</b>	200	- All	Raulo lei calowed redion MV z			
Event Viewer	Recent Cale Events Rec	ent Calls Request :	to Talk Radio Str	te Active Tacks	Active Routes User Activity	Map Cameras		

- In the Queued Messages panel, click the **Voice Message** button.
- In the confirmation dialog box, click **Yes**.



# 6.5.5 Patches

# 6.5.5.1 Predefined Patch

The **Patch** function allows configuring the network to redirect calls. A predefined Patch can be created by the administrator only (see section <u>6.4.3.1</u>, <u>Radio Bridge</u>) and a dispatcher cannot configure it. A predefined Patch is displayed in the Patch panel by default. The Patch feature is intended to combine different radio channels in a single group to make voice calls from a dispatcher to radios and from radios to a dispatcher (for example, to connect a dispatcher with the firemen and cleaners).



# 6.5.5.2 Custom Patch

The dispatcher can create a custom Patch to connect selected PTT boxes (for example, the Emergency and Firemen radio groups). In addition, you can connect analogue and digital radios via a Patch.

Voice Dispatch	Radio Interface	<b>e</b> 4
🗏 💑 🕼 📾 🗄 🛛 🏹 😫 🛠	Radio Interface Telephony Recent Cals/Events Radios	
<b>0</b> ¢	Quick Comma	ands [
Online, GPS Fixed	E Send F	Push
Online, No GPS (1)	Configure	
Radio 27	Patch	
Radio 27	Intercom	Ŀ
1	X Dispatcher Group 1	-1
Voice Dispatch	PTT	Clear
Level and Tradition	All Call Dispatcher Group 1	
Location Tracking	🗸 🖉 Firemen - Clear	ners 🔊
	□ IPSC 1: Slot #1 □ IPSC 1: Slot #2 □ 0 € 0 □ IPSC 1: Slot #2	
1 Job Ticketing		Slot #2
🐕 Job Ticketing	Free channel	
	PTT Free channel PTT Free channel 2 PTT Free channel PTTT Free channel PTTT Free channel PTTT Free channel PTTT Free channel	
🔓 Job Ticketing 🛃 Route Management	PTT Free channel PTT Free channel 2 Free PTT Free PTT Free PTT Free PTT Free PTT PTT PTT PTT PTT PTT PTT PTT PTT P	
- 	PTT Free channel PTT Free channel 2 PTT Free channel PTTT Free channel PTTT Free channel PTTT Free channel PTTT Free channel	
Route Management	PTT Free channel PTT free cha	Slot #1
Route Management	Free channel	Slot #1
Route Management	Free channel Central Recent Calls/Events	Slot #1
Route Management Text Messages Voice Recording	Free channel       Free channel       Present         IPSC 1: 5       Centers       IPSC 1: 5         Prophack       Store * ©       Print       II Pause         Phyback       Store * ©       Print       II Pause         Plater       Store * Store *       Al Contexton to TPSC 1' has been lost	Slot #1
Route Hanagement       Text Hessages       Voice Recording       Reports	Free channel     Free channel       Concerto     Concerto       Recent Calls/Tvents     Concerto       Playback     Sover       Data     Recent Calls/Tvents       Concerto     Transmitting       Playback     Sover       Data     Concerton to TPSC 1 has been lost	Slot #1
Route Hanagement       Text Hessages       Voice Recording       Reports	Free channel     Free channel       Concers     Concers         Recent Calls/Terms     Print       Il Payback:     Save +       Print     Il Pause        Cancers     Concers         Print     Il Pause        Clearers         Pair Print     Il Pause        Clearers         Print     Il Pause        Clearers         Print     Il Pause        Clearers         Print     Il Pause        Clearers         Print       Il State-20 528:19H       Server       Al       Connection 10 TPSC 11 has been lost       Server       Al       Connection 10 TPSC 11 has been lost	Slot #1
	Precent Calls/Livents     Precent Calls/Livents     Precent Calls/Livents     Precent Calls/Livents       Recent Calls/Livents     Concerts     Concerts     Concerts       Public Calls     State     Concerts     Concerts       Date     Recent Calls/Livents     Print     II Pause        Public Calls     State     Recent Calls/Livents     Details       Date     Recent Calls/Livents     Print     II Pause        Public Calls/Livents     State     Recent     Message       Public Calls/Livents     State     Details     Details       Public Calls/Livents     State     Recent     Message       Public Calls/Livents     State     Details     Details       Public Calls/Livents     State     Nator     Details       Public Calls/Livents     State     All Connection to PSC I has been lost       Public Calls/Livents     State     All Connection to PSC I has been lost       Public Calls/Livents     State     All Connection to PSC I has been lost	Slot #1
Route Hanagement       Text Hessages       Voice Recording       Reports	Precent Calls/Line     Print     If Particle       Recent Calls/Line     Print     If Particle       Playback:     Save - © Print     If Conceton to PSC I has been lost       Playback:     Save - Ø     All Connecton to PSC I has been lost       Playback:     Save - Ø     All Connecton to PSC I has been lost       Playback:     Save - Ø     Connecton to PSC I has been lost	Slot #1
	Precent Calls/Livents     Precent Calls/Livents     Precent Calls/Livents     Precent Calls/Livents       Recent Calls/Livents     Concerts     Concerts     Concerts       Public Calls     State     Concerts     Concerts       Date     Recent Calls/Livents     Print     II Pause        Public Calls     State     Recent Calls/Livents     Details       Date     Recent Calls/Livents     Print     II Pause        Public Calls/Livents     State     Recent     Message       Public Calls/Livents     State     Details     Details       Public Calls/Livents     State     Recent     Message       Public Calls/Livents     State     Details     Details       Public Calls/Livents     State     Nator     Details       Public Calls/Livents     State     All Connection to PSC I has been lost       Public Calls/Livents     State     All Connection to PSC I has been lost       Public Calls/Livents     State     All Connection to PSC I has been lost	Slot #1

1. In the **Radio Interface** pane, click the desired PTT boxes and drag and drop them, one after another, to the empty **Patch** box (1).



2. Click the **Create** link (2) to create a custom Patch.

Note: Until you click the **Create** link, this patch will remain as a temporary patch that will be deleted after you reconnect to TRBOnet Server or restart TRBOnet Dispatch Console.

As a result, the new patch will be added to the Patch panel.

- Click the **Activate** button (1) to activate the patch.
- Click the checkbox on the left (2) to make the patch selected (default) so that the external PTT button can be used to start transmission.



# 6.5.6 Quick Commands

The dispatcher can create Quick Commands (Text Messages, Send Telemetry, Request Location, Send Voice Message, and some other commands) and display the Quick Commands panel in the Radio Interface pane. With these commands, the dispatcher can quickly send Text Message, Telemetry, Location Request, Voice Message, and some other commands to a radio by clicking the appropriate Quick Command button.

To configure the Quick Commands panel, do the following:

- Make sure **Show Quick Commands Panel** (2) is selected under the **View** menu.
- On the **Quick Commands** panel, click the **Configure** link (3).

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/oi	~	Show Navigation	R	adio Interface								<b>Q</b>
		Show Modules		Radio Interface	-	t Calls/Events						<u> </u>
1		Configure PTT Boxes		nuolo internoce	The contract of the contract o		tive Calls			X	Ouick Comn	nands 🛛 🗙
1		Configure Active Calls Panel									Configure	
4		Customize Hot Keys										
_		Add Radio Interface Page								2	Pre-recorded	Messages 🗙
4		Delete Radio Interface Page		(	ar can					^	🥥 Record 🔻	😰 File 🔻
4		Show Channel Selector Box		Firemen							To: Selected Ch	annels
	-	Audio Message Library			ree cha							
		Extended PTT Boxes	-	PTT	ree cha	innel						lessage
1		Large PTT Boxes			iremen		J				Voice Message	
•		Medium PTT Boxes 1									Pate	h 🗙
		Small PTT Boxes		Cleaners		•))	• 0					
Ð	-	Custom PTT Boxes			ree cha	annel					Drag and Drop PT create new	
<b>s</b>	~	Show Active Calls Panel		PTT								r groop
9		Show Quick Commands Panel			leaners					~		
•			R	ecent Calls/Event	s							
		Show Queued Messages Panel Show Patch Panel	6	🖗 Playback 📓 Sa	ve 🕶 블	Print II F	'ause 🛷 Cle	ear 🛛 🌀 Reli	oad 🛛 懫 Filt	er By Radio	🐺 Grouping 🍸	Auto Filter
٦	-			Date		Radio Syst	Sender	Recipient	Message		Details	Note
=		Show Telephony Tab	- 3	6 16-Nov-2016 10:2			Server	All	Connection t			
$\leq$		Show Extended Messages Tab				Repeater	Dispatcher 1				Members: Dispatcher	
		Show Radios Tab	- 6			Repeater	Dispatcher 1				Members: Dispatcher	
Đ.	Voic	e Recording	2	15-Nov-2016 18:2		Repeater	Dispatcher 1 Dispatcher 1				Members: Dispatcher 1 Members: Dispatcher 1	
-	_			e ecord 1		> H> HH 4	proposition 1	- Grean Cl B			nember of plabeterier .	Þ
-	Ever	nt Viewer	F	Recent Calls/Events	Recen	t Calls Requ	est to Talk F	Radio State	Active Tasks	Active Rout	tes User Activity	Map Cameras

• In the **Configure Quick Commands** dialog box, click the **Create** link.

#### Name

Specify a name for the quick command. This name will be displayed as the button name in the Quick Commands panel.

# 6.5.6.1 Send Text Message

Quick Comman	d	×
Name:	Test	
Command		
Command:	Send Text Message	•
Message:	This is a test	
C Send to Ra	dio Group	
Send to Ra	dio	
Recipient:		
		9
13		<b>^</b>
✓ € 125 ✓ € 235		
✓ (★) 235		
3333		0
☐ € 4444		
<b>(f)</b> 5555		<b>v</b>
Selected: 2		
đ		<b>▼ : : .</b>
		OK Cancel

#### Command

From the drop-down list, select **Send Text Message**.

Message

Enter the text of the message.

Send to Radio

Choose this option to send a predefined text message to individual radios registered in the system. In the **Recipient** box, select target radios.



#### Send to Radio Group

Choose this option to send the text message to radio groups registered in the system. In the **Recipient** box, select target groups.

### 6.5.6.2 Send Telemetry

Quick Command		×
Name:	Test	
Command		
Command:	Send Telemetry	•
VIO:	VIO 1  Command: High level	•
C Send to Rad	lio Group	
Send to Rad	lio	
Recipient:		
		9
13		*
125		
235		
555		U
★ 3333		
<b>6</b> 5555		-
Selected: 2		
đ		= -
	ОК С	ancel

### Command

From the drop-down list, select Send Telemetry.

VIO

Specify a VIO to which to send a telemetry command.

Command

From the drop-down list, select a telemetry command for the selected VIO.

Send to Radio Group

Choose this option to send the telemetry command to radio groups registered in the system. In the **Recipient** box, select target groups.

Send to Radio

Choose this option to send the telemetry command to individual radios registered in the system. In the **Recipient** box, select target radios.



# 6.5.6.3 Request Location

Quick Command	(
Name: Location of 125 and 235	
Command	
Command: Request Location	
Recipient	
9,	
13	
125	
<b>√</b> (€) 235	
<b>(f)</b> 555	
3333	
<b>(*)</b> 5555	
🗋 🚯 Radio 300	
Radio 333	
🗌 🛞 Radio 3662	
Selected: 2	
OK Cancel	

### Command

From the drop-down list, select **Request Location**.

### Recipient

Select radios to which to send a location request.

# 6.5.6.4 Send Voice Message

Quick Command	I			×
Name:	We are o	n fire		
Command				
Command:	Send V	oice Message		•
Load from	file			
Record me				
Play back i	<u>message</u>			
Call Type		Channel	Call Target	
Group Call		Capacity Plus #1	Firemen	•
🖶 Add 🗙	<u>Remove</u>			
Priority:	Normal			-
		[	ОК	Cancel

#### Command

From the drop-down list, select **Send Voice Message**.

Load from file

Click this link and locate the audio file on your PC.

### Record Message

Click this link to record a new voice message.



## Play back message

Click this link to play back the voice message.

- Specify **Call Type**, **Channel**, and **Call Target** for a voice message.
  - Note: To send a Voice Message to a subscriber from the phone book, click the ellipsis (...) button in the Call Target column and select a contact from the phone book.
- Priority

From the drop-down list, select the priority with which the voice message will be sent/queued. If this priority is higher than that of the current transmission, which is, in turn, allowed to be interrupted, the current transmission will be interrupted and the voice message will be sent instead.

# 6.5.6.5 Send Signaling

Quick Command			×
Name:	Signal 1		
Command			
Command:	Send Signaling		•
Radio System:	Capacity Plus #1		•
Target:	Firemen		• •
Type:	Custom		-
Freq. 1 (Hz		Duration (ms) 1000	Pause (ms)
	0.1	1 1000	•
Add X D	elete	Move U	p 😸 Move Down
		OK	Cancel

# Command

From the drop-down list, select **Send Signaling**.

Radio System

From the drop-down list, select the radio system.

Target

From the drop-down list, select the target group to which the signal will be sent.

• Туре

From the drop-down list, select the signaling system type (Quick Call I, Quick Call II, DTMF, or Custom).

If the **Custom** type is selected, specify the **Frequency 1**, **Frequency 2**, **Duration**, and **Pause** for the signal to be sent.



# 6.5.6.6 Send Command to Control Station

Quick Command		×
Name:	Command to Control 5	Station
Command		
Command:	Send command to C	Control Station
Control Statio	n	Command
TRBOnet Swif		<b>▼</b>
		PIN5 SET ON
		PIN6 SET ON
		PIN6 SET OFF PIN6 PULSE
		PIN6 PULSE
Add XD	<u>elete</u>	
		OK Cancel

#### Command

From the drop-down list, select **Send command to Control Station**.

Click Add

# • Control Station

From the drop-down list, select the Swift Agent connected to TRBOnet Server.

#### • Command

From the drop-down list, select the PIN number and its value.

# 6.5.6.7 Request To Talk

Quick Comman	ıd	×
Name:	RTT 1	
Command		
Command:	Request To Talk	•
C Send to R	adio Group	
Send to Radio	adio	
Recipient:		
		<u>_</u>
13		*
125		
235		
3333		
☐ € 4444		
5555		
🗌 🛞 Radio	300	-
Selected: 1		
đ		₹.
		OK Cancel

#### Command

From the drop-down list, select **Request To Talk**.



#### Send to Radio Group

Choose this option to send the request to talk to radio groups registered in the system. In the **Recipient** box, select target groups.

#### Send to Radio

Choose this option to send the request to talk to individual radios registered in the system. In the **Recipient** box, select target radios.

# 6.5.6.8 Custom Event

#### Command

From the drop-down list, select **Custom Event**.

Event ID

Specify the event ID.

#### 6.5.6.9 Send Swift Command

	nd		
Name:	Swift 1		
Command			
Command:	Send Swift Comm	and	 •
Swift Comm	and: Swift Command 1		•
Parameter 1	0	]	
Parameter 2	2: 0	3	
Send to F	adio Group		
C Send to R	Radio		
<ul> <li>Seria to F</li> </ul>			
Recipient:			 
Recipient: System	us #1	Group	<b>•</b>
Recipient:	us #1		<b>_</b>
Recipient: System			 <u> </u>

#### Command

From the drop-down list, select **Send Swift Command**.

#### Swift Command

From the drop-down list, select the appropriate Swift command.

Enter the required parameters, if any.

#### Send to Radio Group

Choose this option to send the Swift command to radio groups registered in the system. In the **Recipient** box, select target groups.

### Send to Radio

Choose this option to send the Swift command to individual radios registered in the system. In the **Recipient** box, select target radios.



# 6.5.6.10 Send Push Notification

Quick Comman	d	×
Name:	Send Push	
Command View	N	
Command:	Send Push Notification	Ŧ
Subject:	Info	
Message:	Check connection to J service	Information     Marning
Send to Di	spatcher Group	Alarm
C Send to Ra	adio	
Recipient:		
	er Group 1 er Group 2	
d d		
	OK	Cancel

### Command

From the drop-down list, select **Send Push Notification**.

Subject

Enter the subject of the notification. Click the button on the right, and select the message severity (Information, Warning, or Alarm).

Message

Enter the notification message to be displayed.

Send to Dispatcher Group

Choose this option to send the push notification to dispatcher groups registered in the system. In the **Recipient** box, select target dispatcher groups.

Send to Radio

Choose this option to send the push notification to individual radios registered in the system. In the **Recipient** box, select target radios.

# 6.5.7 Pre-recorded Messages

This feature enables dispatchers to send audio messages even if the channel is currently busy. The dispatcher records a message to be sent to a busy channel and then TRBOnet automatically forwards this message as soon as the channel becomes available:



File View Map Tools Help		
Voice Dispatch	Radio Interface	👲 🗐
📴 🗄 🗄 🗶 🍸 🗊 🗗 😒	Radio Interface Recent Calls/Events	
	Active Calls	Quick Commands 🛛 🗙 📤
An Contine Dispatchers     Dispatcher 1		Configure Pre-recorded Messages
🐵 🧟 Group1		🔘 Record 🔻 😰 File 🔻
🗉 📊 Cleaners 📮		To: Selected Channels
🖈 🧭 Radio 200 🛛 📟 🖵 📎	Firemen 🕖 🕷 🖉	
🖈 🛞 Radio 201 🔛 💷 💐 🚽	Free channel	Voice Message
	PTT	Voice Message
Les Voice Dispatch	Firemen	
Location Tracking	Cleaners el el Cleaners el Cle	Patch X Drag and Drop PTT Box here to create new group
🚰 Job Ticketing	Cleaners	
😥 Route Management	Recent Calls/Events	The Company of Auto Silver
	🏟 Playback 📓 Save 🗸 🕒 Print 🔢 Pause 🧭 Clear 🗸 🏐 Reload 🏾 🌋 Filter By Radio	- Grouping V Auto Filter
RFID Tracker	Date 🛆 Radio Syst Sender Recipient Message	Details Note
Text Messages	States and a second and a second seco	Number Dissection 1
Text Plessages	15-Nov-2016 18:26:28 Repeater Dispatcher 1 Cleaners Dispatcher Dispatcher     15-Nov-2016 18:26:36 Repeater Dispatcher 1 Firemen Dispatcher Dispatcher	
Proice Recording	Torrive 2016 10:22:05 Repeater Dispatcher 1 Prenerit Dispatcher	
		•
Event Viewer	M (4 4 Record 679 of 679 ) ) ) ) (4	>
	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Rout	
🚯 127.0.0.1 🔊 🛋 💁 😨 Dispatcher 1 📑	Licensed to: demo Demo License	🖸 Active -

To queue an audio message for delivery to the selected recipients, first record a message by clicking the Record button. Alternatively, you can select a WAV audio file from any storage location, or select a prerecorded message from the library.

# 6.5.7.1 Select Audio File

• Click File > Open Audio File and browse for the audio file on the local PC.



# 6.5.7.2 Audio Message Library

You can select an audio file from the Voice Message templates.

• Click File > Audio Message Library.

Add 🗙 Ren	nove 🍸 Filter Shor	tcut		
Filename	Description	Severity	Shortcut	Visibility
Alarm Tone		Alarm		Hidden
Bobby.mp3		Information		Button
Daisy.wav		Information		Link

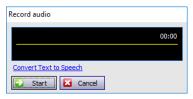
• Select an audio file in the list and click **OK** to use this file as a queued Voice Message.



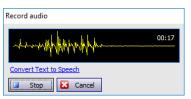
# 6.5.7.3 Record Audio File

You can record a voice message that can be sent to selected radios.

• Click **Record > Record audio** to open the recording tool:



• Click **Start** and start talking to the microphone.



• Click **Stop** to stop recording the message.

Record audio	
	00:25
Convert Text to Speech	
😈 Send 🔀 Cancel	🛃 Save 🔻

- Click **Send** to send the recorded message immediately.
- Click Save > Save as file to save the recorded file as an audio file on the PC.

Or:

 Click Save > Save as Saved Audio File to add the recorded file to a list of the Saved Audio Files.

# 6.5.8 Activity Monitor Panel

While in this panel, the dispatcher can perform a wide range of tasks, including:

- Monitoring and listening to recent calls and viewing system events
- Monitoring selected radio status
- Monitoring active tasks for selected radio
- Monitoring active routes for selected radio
- Enabling and disabling User Activity monitoring
- Displaying selected map in a compact view mode
- Monitoring cameras connected to Dispatch Console

# 6.5.8.1 Recent Calls/Events

In the **Recent Calls/Events** tab, the dispatcher can monitor recent Server events, view and listen to recent calls.



oice Dispatch	R	Radio Interface						ê
💑 🗄 🗇 🗄 🍸 💱 🛠 🛛	a - /	Radio Interface	Telephony Re	cent Calls/Events				
							X	Clock
nline Dispatchers (1)								Thursday, September 30
Administrator								
								<b>11:16</b> ам
Online, Indoor							^	Quick Commands
Online, GPS Fixed		Dispatcher 0	Sroup 2		Contact Dia	ler 📧 🕢		
Online, No GPS (2)								Configure
🚷 4444 🛛 😵 🗉	₽	PTT	Dispatcher G	oup 2		*	-	Pre-recorded Messages
🚯 Radio 125	2 E					Menu	1	
Offline (19)								Record + C File +
			Session:		Line 1	Line 2 Line 3		To: Selected Channels
Voice Dispatch			Free channel		Line 4	Line 5 Line 6		Patch
voice Dispatch								
Location Tracking			Sender:		1	2 3		Drag and Drop PTT Box here to create new group
, Eocadon Hacking					4	5 6		
Job Ticketing		ecent Calls/Events						
Sob Traceing			er an 🔒 Print		lear 🛪 🧐 Reload	🍸 Filter By Radio 🛛 🗮 Grouping 🍸 Au	to Filter 🖉 Details 🛄 Show Not	er 🔛 Add Note
Route Management		Date Date	System	Sender	Destination	Description	Details	Note
		30-Sep-21 11:12:46		Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Takers: Radio 125	1000
Text Messages		30-Sep-21 11:12:46		Radio 125	11	Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administrator	
		30-Sep-21 11:12:40	AM CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
Voice Recording		30-Sep-21 11:12:39	AM CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
		30-Sep-21 11:12:11	AM Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125	
Reports		30-Sep-21 11:10:52		4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Talkers: 4444	
		30-Sep-21 10:57:47		4444	Administrator	Private Call: '4444' called 'Administrator' (00:	Talkers: 4444, Administrator	
Event Viewer		2 30-Sep-21 10:57:27		Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
		2 30-Sep-21 10:57:20		Administrator		Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
		30-Sep-21 10:57:00		Administrator		All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator	
Padio Allocation				4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444	
Radio Allocation		30-Sep-21 10:56:10						
Radio Allocation		<ul> <li>30-Sep-21 10:56:10</li> <li>4 4 4 Record 2 of 1</li> <li>Recent Calls/Events</li> </ul>	3 1 14 14 4	_		e Routes User Activity Map Cameras		

### **Voice Recording**

#### Play back selected call(s)

Select the voice call recording you want to play back and click the
 Playback button on the left of the toolbar.

The Audio player box will appear.

🛍 Audio player	×
Duration:	00:03
Left:	00:02
Position	00:01
$\bigcirc$	
▶ Play    Pause Stop () Player ≫	📥 Open
All Call from dispatcher 'Administrator' (00:03)	
1	<u>Clear</u>
	<u>ciear</u>

- Click the **Play** button to play back the recording.
   Click the **Pause** button to make a pause.
   Click the **Stop** button to finish playing back the recording.
   Click the **Open** button to select a new audio file to play back.
- Note: You can play back multiple recordings in a row. Use the CTRL and/or SHIFT keys to select multiple recordings you want to play back. Then click the Playback button.

#### Save selected call(s)

• Select the voice call recording (or multiple recordings, with the help of CTRL/SHIFT keys) you want to save as an audio file.



 Click Save > Save Selection as Individual Files to save selected recordings in separate files.

Or

- Click Save > Save Selection as Single File to save selected recordings in a single file.
- In the **Save As** or **Browse For Folder** dialog box, browse for the folder where you want to save the file(s).

### **Recent Calls/Events Toolbar**

🕮 Playback 🚽 Save 🛛 🕘 Print | 💵 Pause 🛷 Clear 🔹 🎕 Reload | 🎬 Filter By Radio | 🐺 Grouping 🕎 Auto Filter 🐵 Default Settings | 👚 Details | 🚞 Show Notes 🧱 Add Note | 🖙 Add Message

Click the **Pause** button to pause updating the Recent Calls/Events log.

Click the **Clear** button to clear the Recent Calls/Events log records.

Click the **Reload** button to reload all log records.

Click the **Filter By Radio** button to filter log records by a selected radio/radio group. In the Radio List pane (the upper-left-pane of the main window), select a radio or radio group. The Recent Calls and Events for a selected radio will only be displayed in the Recent Calls/Events pane.

Click the **Grouping** button to group log records. Select the column you want to group log records by. Drag and drop the selected column header to the Grouping field.

Click the **Auto Filter** button to set a filter for the recent calls and events. You can filter the Recent Calls/Events list by any parameter. For example, to filter the list by a selected Sender, select the **Sender** column (1), and start typing the sender name (2).

Date	System	Sender 🗵 Destinatio		Details	Note
* <b>D</b> ¢	- D:	Rad C	1 <b>0</b> 0	4 <b>0</b> 0	* <b>D</b> c
30-Sep-21 11:12:46 AM	4 CP1	Kadio 125 22	Group Call: 'Radio 125' called '22' (00	:04) Talkers: Radio 125	
30-Sep-21 11:12:46 AM	4 CP1	Radio 125 11	Group Call: 'Radio 125' called '11' (00	:07) Talkers: Radio 125, Administrator	
30-Sep-21 11:12:40 AM		Radio 125 22	Group Call: 'Radio 125' called '22' (00	:04) Talkers: Radio 125	
30-Sep-21 11:12:39 AM		Radio 125 11	Group Call: 'Radio 125' called '11' (00		
30-Sep-21 10:52:59 AM	4 CP1	Radio 125 11	Group Call: 'Radio 125' called '11' (00	:04) Talkers: Radio 125	
30-5ep-21 10:52:59 An	4 GP1	Rado 125	Group Call: Radio 125 Called 11 (U	104) Taikers: Kadio 125	

Click the **Default Settings** button to apply default settings to all log records. Click the **Details** button to see voice call participants:

Date	System	Sender	Destination	Description	Details	
30-Sep-21 11:12:46 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
30-Sep-21 11:12:46 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (08:07)	Talkers: Radio 125, Administrator	
30-Sep-21 11:12:40 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
30-Sep-21 11:12:39 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
30-Sep-21 11:12:11 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125	
30-Sep-21 11:10:52 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Talkers: 4444	
30-Sep-21 10:57:47 AM	Mobile 1	4444	Administrator	Private Call: '4444' called 'Administrator' (00:02)	Talkers: 4444, Administrator	
30-Sep-21 10:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
30-Sep-21 10:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
30-Sep-21 10:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'Al' (00:01)	Talkers: Administrator	
30-Sep-21 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Takers: Radio 125, 4444	

Click the **Show Notes** button to enable the **Note** column. All notes added by the administrator and dispatchers for the recent calls and events will be shown



in the Notes column. So, you can mark recent calls and events to later find them by notes.

Click the **Add Note** button to add a note for the selected recording and/or event. The notes will be displayed in the Recent Calls/Events log if the **Show Notes** button stays pressed.

Click the **Add Event** button to add an event to the Recent Calls/Events log.

Add User Event			×
Destination: Severity:	All	-	٣
Description:	Test		<u>^</u>
	1	OK	Cancel

# Destination

Select either All or an individual dispatcher if you want to see the message.

Severity

Select the severity level to inform dispatchers about the level of importance.

Description

Enter the event description.

Click OK.

As a result, the event will be added to the Recent Calls/Events pane.

# 6.5.8.2 Recent Calls

Note: The **Recent Calls** tab is not displayed in the Active Monitor panel by default. To view this tab, go to **View > Additional Tabs**, and select the **Recent Calls** item.

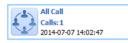
On the **Recent Calls** tab, the dispatcher can see and configure the latest Voice calls, including Private, Group, and Intercom calls:

Types: 2 Private	- Group	All Call	🍠 Clear 🏾 🍸 Filter		Call Number	Actions
- 27.04.2017 12:19		<b>\</b> 3			5	200
All Calls: 1 27.04.2		2	Group Call Calls: 3 27.04.2017 12:18	Calls: 27.04.		
+ 27.04.2017 12:03	235				1	20

- Click the **Private** button (1) to display the latest Private calls.
- Click the **Group** button (2) to display the latest Group calls.
- Click the **All Call** button (3) to display all call types, including Intercom calls.



In a Call Box, you can see the number of calls and the last call date and time:



Click the Sender-Radio (Radio is displayed in the Sender column).

Click the 💟 button to mark the calls as viewed.

Click the 送 button to clear the recent call history.

# 6.5.8.3 Requests To Talk

On the **Requests To Talk** tab, the dispatcher can see Missed Calls and Requests To Talk:

Call Types:	💐 Missed Call	🔔 Request To	o Talk 🛛 View: 🔛	Table 🔡 Tiles	🔰 🚿 Clear 📔 署	Grouping 🏾 🍸 Fil	ter 🛛 🎯 Default Setti	ngs   📑	Options
Fi	rst Call	Waiting Time	Call Type	Sender	Target	Queued By	Last Call	Count	
PTT 10	-Nov-20 2:19 PM	01:01	🔔 Request To Talk	낦 Walt	Администратор	Администратор	10-Nov-20 2:19 PM	3	× 🗸 🕽
									,

### **Call Types**

- Click the Missed Call button to display Missed Calls.
- Click the **Request to Talk** button to display Requests To Talk.

#### View

- Click the **Table** button to display calls/requests in a table view.
- Click the **Tiles** button to display calls/requests as a set of tiles.
- Click the **Clear** button to clear all the records.
- Click the **Filter** button to set a filter for the records. You can filter the records by any parameter. For example, to filter by the caller select the **Caller** column, click in the empty row and start typing the caller name.
- Click the **Options** button to specify options related to Request to Talk:
   For a description of the Request-To-Talk options, see section <u>6.4.14</u>, <u>Request To Talk</u>.

From within the **Request To Talk** table, you can do the following:

- Click the **PTT** button to start a private call to the call request sender.
- Click the **Finish** ( button to mark the RTT as processed and remove it from the table.
- Click the **Reject** ( ) button to reject the RTT for the dispatcher. Note that the RTT will keep showing to other dispatchers.



- Click the **Menu** () button and from the drop-down list select one of the following commands:
  - Click the Forward ( ) command to redirect the RTT to a different dispatcher/ dispatch group.
  - Click the Hide (S) command to hide the RTT for the dispatcher for the time period selected from the drop-down list. Note that the RTT will keep showing to other dispatchers.
  - Click the **Cancel** (<sup>12)</sup> command to reject the RTT for all dispatchers.

# 6.5.8.4 Radio Status

On the **Radio Status** tab, the dispatcher can see the log of radio statuses for the radio selected in the Radio List pane (the upper-left-pane of the main window):

125 (Pete)	🧰 Show Notes 🔛 Add	Note 👒 Add Message	
	Date	Dispatcher 🛆	State
Repeater #1: Slot #2	17-Nov-2016 11:35:22		Reset Geofencing Alarm
GPS: 17-Nov-2016 11:35:15	- 17-Nov-2016 11:35:15		Geofencing Alarm [GPS Date: 17-Nov-2016 11:35:15; Latitude: 59°56'27.78"N; Longitud
Speed: 0.4 km/h	17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
Altitude: Unknown	17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
Latitude: 59°56'27.78"N	16-Nov-2016 10:34:20		Radio Online
Longitude: 30°16'47.08"N	15-Nov-2016 18:47:22		Radio Offine
	15-Nov-2016 14:01:27		Radio Online
	15-Nov-2016 14:00:25		Radio Online
	15-Nov-2016 11:29:26		Radio Online

In the Radio Status pane, the dispatcher can do the following:

Click the **Show Notes** button to enable the **Note** column. All notes added by the administrator and dispatchers for the radio status records will be shown in the Notes column. So, you can mark radio status records to later find them by notes.

Click the **Add Note** button to add a note for the selected radio status record. The notes will be displayed in the Recent Calls/Events log if the **Show Notes** mode enabled:

Click the **Add Message** button to add a message for dispatchers to the Radio Status log.

# 6.5.8.5 Active Tasks

On the **Active Tasks** tab, the dispatcher can monitor all active tasks for the selected radio (for example, Lone Worker, Active Routes, and other tasks).

Active Tasks				
📕 Stop 📑 Grouping 🍸 Auto Filter 🗇 Default	t Settings			
Task	Radio		State	
Lone Worker 1	125 (Pete)		12:01 -	12:31
Timer	235 (Basil)		0.00:29:16 - Timer started.	
144 44 4 Record 1 of 2 + ++ ++ 4				Þ
Recent Calls/Events Recent Calls Request to Talk	Radio State Active Tasks	Active Routes User Activity Map	Cameras	

The dispatcher can manage active tasks as follows:

Click the **Stop** button to stop executing the selected task.



Click the **Grouping** button to group the tasks. Select the column you want to group tasks by. Drag and drop the selected column header to the Grouping field.

Click the **Auto Filter** button to set a filter for the active tasks. You can filter the tasks by any parameter. For example, to filter by selected radio select the **Radio** column, and start typing the radio name.

Click the **Default Settings** button to apply default settings to all active tasks.

# 6.5.8.6 Active Routes

On the **Active Routes** tab, the dispatcher can monitor all active routes.

Active Routes															
Start II	Pause	📕 Sto	p   [	🌛 Edit	Sector	ort - 🗧	Groupi	ng 🍸 Aut	o Filter 🌼 Defa	ult Settings					
Name					Route										
Route 1 235 (Basil) 17-Nov-2016 12	:20			00:01	12:21 Point 1	12:21 Point 2	10:00	10:40 Fire dep							
-															
44 4 Recor															
Recent Calls/Ev	ents	Recent C	alls	Reque	st to Talk	Radio	State	Active Tasks	Active Routes	User Activity	Мар	Cameras			

The dispatcher can manually set statuses for route checkpoints. To do this, right-click a route point and from the drop-down menu, select the desired status.

Waiting

The checkpoint is waiting to be attended.

- Attended The checkpoint has been attended on time.
- Unattended

The checkpoint hasn't been attended on time.

Alarm

The checkpoint is in Alarm mode.

Note

Click this item to add a note to the selected checkpoint. The note will be displayed in the pop-up window that appears when hovering the mouse pointer over the checkpoint.

# 6.5.8.7 User Activity

• Click the **User Activity** tab to monitor the activity of radio users:

OffDuty	ΔΤ		On D	 ∆ Time		User Activity #1	Δ Time	
£ 111		c	· 32	13:1	5:01	3 125	13:15:09	3
222				 				
🔊 Radio 200								
🔊 Radio 201								
🐒 Radio 202								
🐒 Radio 203			-					
🖈 Radio 204								

• Click the **Configure** button to configure the <u>User Activity</u> list:



#### 6.5.8.8 Map

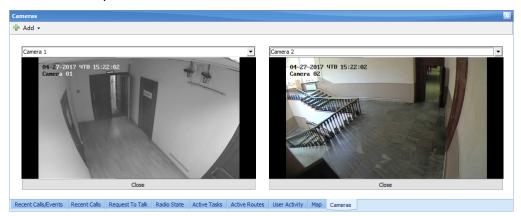
On the **Map** tab of the Activity Monitor panel, you can monitor location of radios on the map and simultaneously perform all available actions in the **Radio Interface** pane (make voice calls, send messages, disable and enable selected radios, and other actions):



For more details on map options, see section <u>6.6</u>, <u>Location Tracking</u> (page 325).

#### 6.5.8.9 Cameras

On the **Cameras** tab of the Activity Monitor panel, you can monitor cameras connected to Dispatch Console.



• Click the **Add** button and select a camera to be displayed on the tab.

Note: You can add up to four cameras to the Cameras tab view.

#### 6.5.9 Phone Calls

The Phone Connect feature allows making calls from phones to radios and vice versa.

The phone system must be previously configured by your TRBOnet administrator.

#### 6.5.9.1 Phone Calls from/to Dispatch Console

To make a phone call from the Dispatch Console:



🔇 Contact Dia	ler	2
Tel: 240	9 🖌	<b>•</b> ···
3	Menu	-
Line 1	Line 2	Line 3
Line 4	Line 5	Line 6
1	2	3
4	5	6
7	8	9
*	0	#

In the Contact Dialer box, select the Line (1), enter the phone number (2) and click the 
 (3) button.

#### Terminate a phone call

• In the Contact Dialer box, click the **end** button.

#### Select a destination from Contacts

- In the Contact Dialer box, click the ellipsis (...) button on the right of the dial string.
- In the **Call Destination** dialog box that opens select the desired contact and click **Call**.

#### Answer an incoming call

Walt		
-	Menu	•
Line 1	Line 2	Line 3
Line 4	Line 5	Line 6
1	2	3
4	5	6
7	8	9
*	0	#

• In the Contact Dialer box, click the [3] button.

#### Forward a call

• While in a call, click Menu > Manage Call.





• In the **Call** dialog box that opens, select the desired contact and click **Forward**.

The Forward Call dialog box opens.



• When the second call is established, click **OK**.

#### Create a conference call and add participants

- While in a call, click **Menu > Manage Call**.
- In the **Call** dialog box that opens, click **Conference**.
- In the **Conference** dialog box that opens, click **Add**.

Conference	×
Hold	*
Telephony @	
Add Ext	Close

• In the **Add to Conference** dialog box that opens, select the desired contact and click **Call**.

Add to Conference		×
All 👔	Specify text to searh	
-0	All Dispatchers	-
🙎 Dispatcher	🧟 dg3	
🎘 Disp. Group	R Dispatcher Group 1	
Radio	R Dispatcher Group 2	_
	4444	
Radio Group	a Eugene	
Phone	🥘 Julia Lopes 📃	
+ Favorites	🧼 Kirill Vavanov	
1 Pavonices	Imofey Kozhevnikov	
,	User Test	
	Vladimir Gorbachev	-
Call	Cancel	6

• When the second call is established, click **OK**.





#### 6.5.9.2 Making Phone Calls from Radios

#### Make a DTMF call

Note: Only 1.07.02 and higher firmware version for all radios equipped with dialing keyboard support DTMF.

To make a DTMF call, do the following:

- Press the PTT button on a portable radio and hold it.
- While holding the PTT button, dial a phone number and press # (For example, 0079521112233#).
- Release the PTT button. The server will automatically initiate a phone call.

#### Call by sending Text Message

To make a phone call, send a text message with the text **PrefixN** where:

- Prefix is a short text to define the special text message (for example, sip:);
- **N** the phone number.

For example, to initiate a call to a phone subscriber "123 456 7890", the following text message must be sent to TRBOnet Server: "sip:1234567890".

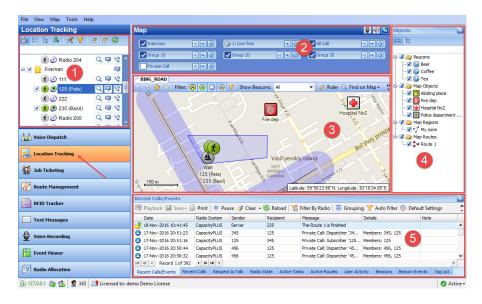
#### **Terminate a call**

To terminate the call, press the PTT button and then press # twice on the radio.

## 6.6 Location Tracking

In the **Location Tracking** tab, the dispatcher can monitor selected radio location on supported maps, open different maps in separate tabs and toggle between map tabs:





The main user interface elements are as follows:

- 1. Radio List pane
- 2. Voice panel
- 3. Map panel
- 4. Objects panel
- 5. Activity Monitor panel

While in the Activity Monitor panel, the dispatcher can perform a wide range of tasks, including:

- Monitoring and listening to recent calls and viewing system events
- Monitoring selected radio status
- Monitoring active tasks for selected radio
- Monitoring active routes for selected radio
- Enabling and disabling User Activity monitoring
- Monitor beacons and beacon events.

#### 6.6.1 Objects

On the Objects panel, the dispatcher can view and enable/disable the following objects:

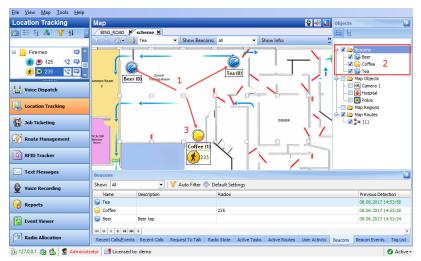
- **Beacons** all beacons connected to the system.
- **Map Objects** all manually created map objects and predefined objects created with the Map Drawing toolbar.
- **Map Regions** all map regions created with the Map Drawing toolbar (use the Add Polygon tool to create a map region).
- **Map Routes** all map routes created with the Map Drawing toolbar (use the Draw Route tool to create a map route).



In addition, the dispatcher can export and import these objects (see section <u>6.3.4.3, Exporting/Importing Objects</u>).

#### 6.6.1.1 Beacons

TRBOnet Dispatch Software provides the **Indoor Positioning** feature to monitor the location of radios inside a building where no GPS signal is available. This feature requires additional hardware (the beacons spread around the building and the option boards in radios). A radio user will be displayed on the indoor floor plan when the radio enters the beacon coverage area. The beacon icon on the map displays the number of radios that are currently in the beacon coverage area.



Beacons are displayed on the building floor plan (1) and in the list of beacons (2) in the Objects panel. When a radio comes into the range of a beacon, they both are highlighted in yellow on the floor plan/map (3).

For more details on beacons, see section <u>6.13</u>, <u>Beacons</u> (page 368)

#### 6.6.1.2 Map Objects

The dispatcher can create custom and predefined map objects using the Drawing Panel. The dispatcher can attach 2D or 3D floor plans for Indoor Positioning.

For more details on creating map objects, see section <u>6.6.2.8</u>, <u>Drawing Panel</u> (page 330).

#### 6.6.1.3 Map Regions

The dispatcher can create map regions that can be used for Geofencing rules. The map Regions can be created manually on the map (click any point on the map to select it as a region border) or, the dispatcher can add map points by GPS coordinates to create a region.

For more details on creating map regions, see section <u>Draw a Polygonal Region</u> (page 330).



#### 6.6.1.4 Map Routes

The dispatcher can create routes on the map that can be used for Geofencing rules.

For more details on creating map routes, see section <u>Draw a Route</u> (page 333).

## 6.6.2 Map Tools

The Map toolbar is located in the upper part of the Map pane:



## 6.6.2.1 Zoom in/out

- Click 🔍 to zoom in a map.
- Click 🔍 to zoom out a map.

## 6.6.2.2 Bookmarks

- Click 😭 to put a bookmark on the map.
- Click **Save as Bookmark** to save the map region as a bookmark.

Save as Boo	kmark		×
Name:	Prince garden		
		ОК	Cancel

• The dispatcher can create any number of the bookmarks. To open a bookmark, click 😭 and select the bookmark in the list.

#### 6.6.2.3 Default View

- Click and choose **Save as Default View** to save current map view as a default view. The dispatcher can save only one default view.
  - To open the default view, click 🙆 and choose **Show Default View**.

#### 6.6.2.4 Filters

Select the filters to display radios on the map:

- 😣 radio is online, beacons are detected;
- I radio is online, GPS data is received;
- 🖸 radio is online, no GPS data is received;



I radio is off, no GPS data is received.

All filters are enabled by default. Click the selected icon to disable selected radios on the map.

Click the **button** and select the visibility of the radios having **On Duty** and/or **Off Duty** statuses.

Click the  $\boxed{1}$  button and select which radios to hide according to the radio groups and/or logical groups they belong to, and the map regions they are currently in.

Click the solution to toggle showing object names on the map.

#### 6.6.2.5 Ruler

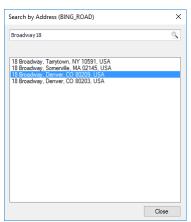
- Click 🖉 to enable the tool to measure distances on the map.
- Left-click a point on the map to start measuring. Left-click intermediate points and see the distance displayed at the mouse pointer.

#### 6.6.2.6 Search by Address

The dispatcher can search map objects by their address.

Note: For online maps, Internet access is required!

• Click **Click** Find on Map - and choose **Address** to find an address on the map.



• Click the address in the list to display it on the map.

#### 6.6.2.7 Search by Coordinates

You can also find an object by its exact coordinates.

- Click **Click Find on Map** and choose **Coordinates**.
- In the dialog box that opens, select a coordinate system, and enter the coordinates.



ocation Tracking	Мар					6	👌 🜒 🔽 🛛 Obj	iects
1 🗄 1: 🖧 🍸 24 💡	1: Line free	Inter	com 🔊 📢	0	oup 10		E	E .
Firemen 📮 🗖		•) €Ø ✓ Group			earch by Ad Broadway 18	dress (My Map)	×	Beacons · V @ Beer - V @ Coffee
Solution     Control Contro Control Control Control Control Control Control Contr	My Map 🗶 Floor plan		Show Beacons:		18 Broadway 18 Broadway 18 Broadway	Somerville, MA 02145, USA Tamytown, NY 10591, USA Lawrence, MA 01840, USA Park Ridge, NJ 07656, USA	-	- 2 Contect - 2 Contect - 2 Contects - 2 Contects - 2 Contect - 2 Police
Location Tracking	ourt st		Broadwar		18 Broadway 18 Broadway 18 Broadway 18 Broadway 18 Broadway 18 Broadway	Amitywile, NY 11701, USA Tsunton, MA 02780, USA Ashevile, NC 28801, USA Bayonne, NJ 07002, USA Newpott, RI 02840, USA Denville, NJ 07834, USA		Map Regions V V Region 1 Map Routes V 111
C Route Management	140		138					
RFID Tracker	90 m	138 . Fice 50	140	chool St				
Voice Recording	Recent Calls/Events		Clear - 🏀 Reload	Filter B			Close	tails Show Notes
Reports	Date	Radio System	Sender Server	Recipient		lessage Connection to 'Capacity Plus 1' has been.	Details	
Event Viewer	09.06.2017 12:43:30 09.06.2017 12:40:06	Capacity Plus 1 Capacity Plus 1	Administrator	11	1	Aspatcher 'Administrator' calls group '11. tadio '125' calls group '11' (00:08)		
Radio Allocation	09.06.2017 12:39:55	Capacity Plus 1 Capacity Plus 1	Administrator Administrator	11 Police	1	ispatcher 'Administrator' calls group '11. ispatcher 'Administrator' calls group 'Po.	Members: Adn	ninistrator
Administration	HI HI I Record 1 of 305	<b>F HH 4</b>		Tasks Activ				•

## 6.6.2.8 Drawing Panel

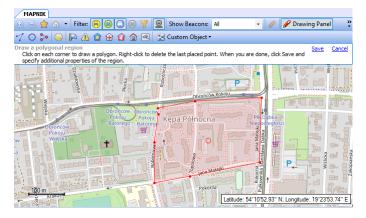
Click Prawing Panel to display the Drawing toolbar:



#### **Draw a Polygonal Region**

Draw a polygonal region manually

- Click 🗹 and choose **Draw on map**.
- Left-click points on the map to create the polygonal region.



• Once finished, click the **Save** link.



In the **Object on Map** dialog box that opens, specify the following parameters:

#### **General tab**

- Name Specify a name for the map region.
- ID

Enter the ID of the map region.

• **Description** Enter a description for the map region.

#### **Region tab**

Color

Select a color to display the region on the map.

#### Fill region area

Select this checkbox to fill in the region area on the map.

#### Transparency

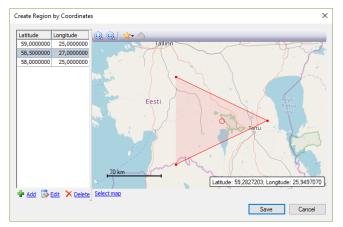
Specify the transparency level (in percent) for the fill color.

#### **Logical Groups tab**

• Select the Logical Groups that will be associated with the map region.

#### Draw a polygonal region by coordinates

• Click 🗹 and choose **Use coordinates**.



• Click the Add link to add a point.

Set Coordinates	_		×
Coordinate system: Coordinates	Decimal Degrees		~
Latitude:	59.9419768 <sup>°</sup> 30.2874584 <sup>°</sup>		
	ОК	Car	ncel



#### Coordinate system

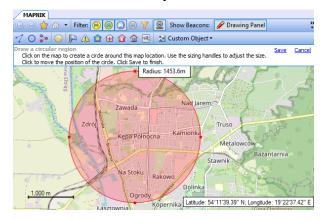
From the drop-down list, select the convenient format (for example, Decimal Degrees) for the coordinates.

- Latitude/Longitude Enter the coordinates of the point.
- Click **OK** to add the point.
- Click the Edit link to edit the selected point.
- Click the **Delete** link to delete the selected point.
- Once finished editing the region's points, click the **Save** button.

#### **Draw a Circular Region**

#### Draw a circular region manually

• Click 🙆 and choose **Draw on map**.



- Click on the map to place the center of the region. Drag the sizing handles to adjust the radius of the region. To change the center position of the region, click another place on the map.
- Once finished, click the **Save** link.

In the **Object on Map** dialog box that opens, specify the following parameters:

#### **General tab**

Name

Specify a name for the map region.

ID

Enter the ID of the map region.

Description

Enter a description for the map region.

#### **Region tab**

Color

Select a color to display the region on the map.



Fill area

Select this checkbox to fill in the region area on the map.

Transparency

Specify the transparency level (in percent) for the fill color.

#### **Logical Groups tab**

• Select the Logical Groups that will be associated with the map region.

#### Draw a circular region by coordinates

• Click 🙆 and choose **Use coordinates**.

In the **Circular Region** dialog box, specify the following parameters:

Circular Regio	on			_		×
Coordinate syste Coordinates	em:	Decimal D	)egrees			~
Latitude: Longitude:		59.94160 30.27930		]		
Radius:		600 🗘 n	n			
			0	К	Cance	el

#### Coordinate system

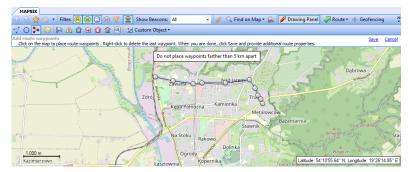
From the drop-down list, select the convenient format (for example, Decimal Degrees) for the coordinates.

- Latitude/Longitude Enter the coordinates of the circle's center.
- Radius

Enter the radius of the circle.

#### **Draw a Route**

• Click and then set route points one after another by clicking on the map.



- Once you have finished drawing a route, click the Save link.
- In the **Object on Map** dialog box, specify a name and description for the route.
- Click the **Route** tab.



Object on Map	×
General Route Logical Groups	
Color: 0, 0, 255	
✓ Fill area	
Transparency: 90 🔷 %	
Tolerance zone (m): 100	
d to	
OK Cancel	

#### Color

Select the color in which to display the route on the map.

Fill area

Select this checkbox to display a transparent edge around the route line. The edge width is specified by the value of the **Tolerance zone** parameter.

• Transparency

Specify the transparency, in percent, for the line edge.

Tolerance zone

Specify the corridor width (in meters or feet, depending on what is chosen in **Tools > Options > Advanced / Measurement system**). If a radio will pass out of this tolerance zone, the dispatcher will receive an alarm signal.

#### Add a Beacon

- Click 🥯 and choose **Position on map**.
- Click on the map where you want to place a beacon.
- Click the **Save** link.

The **Beacon properties** dialog box will appear.

• On the **General** tab, specify the following parameters:



Beacon propertie	25	×
General Logica	al Groups Cameras	
Type:	iBeacon 🔻	
Type.		
Name:	Coffee	
Major ID:	1	
Minor ID:	1	
Description:	Coffee shop at the corner	
	ОК	Cancel
	OK C	

• Туре

Select the beacon type from the drop-down list.

Name

Specify a name for the beacon.

Major ID and Minor ID

Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

Description

Add a description for the beacon.

On the **Logical Groups** tab, select logical groups that will be associated with the beacon.

On the **Cameras** tab, select the checkbox beside the camera that will be associated with the beacon.

Note: You can also place a beacon by specifying its coordinates. To

do this, click 🥯 and choose **Use coordinates**.

#### Add a Point of Interest

- Click **l** and choose **Position on map**.
- Click on the map where you want to place a POI.
- Click the **Save** link.

The **Object on Map** dialog box will appear.



Object on Map		×
General Beacon Map	Logical Groups Cameras	
Name:	School dep	
ID:	2	
Description:	Look after	
l	~	
Bind to PTT		
System:	Capacity Plus 1	
Group:	Firemen 💌	
	OK Cancel	
	OK Caricel	

Name

Specify a name for the new map region.

Description

Enter a description for the map region.

Bind to PTT

Select this option to connect the POI to a radio group in your radio system. Clicking the object's icon on the map will start a call on the selected radio group.

• System

From the drop-down list, select the radio system.

• Group

From the drop-down list, select the radio group.

On the **Logical Groups** tab, select logical groups that will be associated with the object.

On the **Cameras** tab, select the checkbox beside the camera that will be associated with the object.

Note: You can also place a POI by specifying its coordinates. To do this, click **P** and choose **Use coordinates**.

Note: Similarly, you can place other objects with predefined icons, such as Warning points, Police departments, Emergence departments, Fire departments, Houses, and Cameras. To do this, click one of the following icons on the toolbar:



#### **Create a Custom Object**

In addition to objects with predefined icons, you can create your own objects to be then placed on the map.

• Click Custom Object - and choose Add Custom Object.

				-
Custom Obje	ct on Ma	р		×
Name:	Clown's	s nook		
Select image	•			
D:\Images\F	<sup>o</sup> opov2.jpg			S 🗶
Preview				
16)	c 16	24 x 24	32 x 32	48 x 48*
8				
Advanced m	ode		OK	Cancel

#### Name

Specify a name for the object.

Select image

Click the Browse button and locate the image file you want to use as an icon for the object.

Note: You can also assign different images for different icon sizes. Click the **Advanced mode** link and select images for different sizes (16x16, 24x24, 32x32, 48x48).

After you create a custom object, the corresponding icon will appear along with other predefined icons on the Drawing Panel.

To delete a custom object, click Custom Object and choose
 Delete Custom Object.

#### 6.6.2.9 Route

#### **Show Route**

• Click Route and choose Show Route.



Fam		-	
<b>(6)</b> 111		meGreen 05, 105, 105	-
🔽 🚯 125 (Pet		ovalBlue	
222 (Bas		qua	
Radio 20		(yBlue	
Radio 20	1 Di	arkGray	
🗆 🛞 Radio 20	2 D	eepSkyBlue	
🗆 🛞 Radio 20		arkSlateBlue	
🗌 🛞 Radio 20		ghtGreen	
🗆 🚯 Radio 24	D mobile	ne	-
0			<b>Y</b> - E
Route Type:	Static		
	Show location history for the last:	48 📥 Hours	
From:	12/21/2022 12:00 AM		
To:	<last known="" location=""></last>		
	<last known="" location=""> Dots and lines with direction</last>	*	
	1	•	
	Dots and lines with direction	T	
	Dots and lines with direction	×	
To: Route Style:	Dots and lines with direction Merge co-located waypoints Automatic error correction	×	
	Dots and lines with direction Merge co-located waypoints Automatic error correction Configure	v	

- In the list of radios, select a radio and the color with which to display the route for the radio.
- Route Type

Select the route type, either Static or Dynamic.

#### Show location history for the last

If the Dynamic route type is selected, specify the time period, in hours, for which to show the route.

From/To

If the Static route type is selected, specify the start and end dates of the time period for which to show the route.

#### Route Style

Select the style in which to display the route on the map.

- Merge co-located waypoints
   Select this option to group all points in a 100-meter radius.
- Automatic error correction

Select this option to detect and correct invalid GPS data. Click the **Configure** link and select the maximum possible speed for your vehicles.

Show Events

Select this option to display TRBOnet Server events (telemetry, alarms, and other events).

#### Show CanLog Events

Select this option to display events that occurred in a vehicle (door opening, and other events).

#### **Export Route**

You can export the routes travelled by radio users in a GPX or KML files. To do

this, after you have performed a Show Route command, click Route and choose **Export Route > Export to GPX file/ Export to KML file**.



#### **Route Playback**

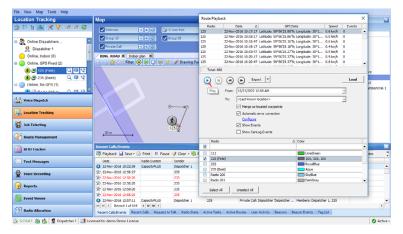
• Click Route and choose **Route Playback**.

Radio	Date 🛆	GPS Data	Speed	Events	
125	22-Nov-2016 10:17:17 Latitude:				
125	22-Nov-2016 10:18:17 Latitude:				1
125	22-Nov-2016 10:18:47 Latitude:				1
125	22-Nov-2016 10:19:17 Latitude:	59°56'25.18"N; Longitude: 30°	0.4 km/h	0	
125	22-Nov-2016 10:19:47 Latitude:	59°56'25.27"N; Longitude: 30°	0.9 km/h	0	
125	22-Nov-2016 10:20:17 Latitude:	59°56'25.37"N; Longitude: 30°	L 0.9 km/h	0	
125	22-Nov-2016 10:20:47 Latitude:	59°56'25.37"N; Longitude: 30°	L 0.8 km/h	0	
Total: 66					-
10tal: 66					
۰	Export V			Load	
Play	From: 12/21/2022 12:00 AM			*	
	To: <last known="" location=""></last>			*	
				_	
	Merge co-located way	/points			
	Automatic error corre				
		ction			
	Configure	ction			
		ction			
	Configure	ction			
Radio	Configure Show Events	∆ Color			
Radio	Configure Show Events				
2	Configure Show Events	∆ Color	0		
<ul> <li>111</li> </ul>	Configure Show Events Show CanLog Events	△ Color			
2	Configure Show Events Show CanLog Events	∆ Color	, 105		
<ul> <li>✓</li> <li>✓</li></ul>	Configure	△ Color LimeGree 105, 105 RoyalBlu	, 105		
<ul> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	Configure Show Events Show CarLog Events	△ Color	, 105		

- In the list of radios, select the radio and the color with which to display the route for the radio.
- From/To

Specify the start and end dates of the time period for which to show the route.

- Click the **Load** button.
- Once you have loaded the route points, click the Play button to play back the route on the map.



## 6.6.2.10 Geofencing

The Geofencing feature allows controlling the location and speed of radios relative to manually defined regions on the map.

The Geofencing monitoring consists of the manually defined regions and the tasks. The regions specify where to apply the rules, while the tasks specify how to apply the rules for the regions and radios.



• On the Map toolbar, click �� Geofencing.

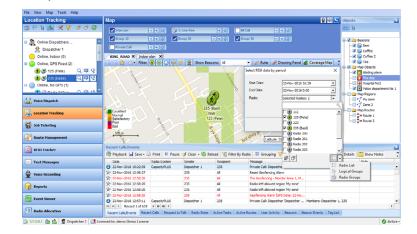
The administrator can **add/disable/delete** the rules for Geofencing as well as edit the currently selected rules:

- For more details on configuring Geofencing rules, see section <u>6.4.5.3</u>, <u>Geofencing</u>.
- To enable Geofencing rules, go to **Administration**, **Tasks**, and in the **Tasks** pane, select the checkbox next to **Geofencing**.

#### 6.6.2.11 Coverage Map

The Coverage Map option allows to see RSSI levels on the map.

• On the Map toolbar, click di Coverage Map.



For more details on configuring the Coverage Maps, see section <u>Coverage Map</u> (page 136).

#### 6.6.2.12 Select Map

• On the Map toolbar, click Select Map

Select Map				×
Map Type:	Online maps			~
Caption:	Му Мар			
Available Maps				
Name	Path			State
MAPNIK				ОК
CYCLE				ОК
TRANSPORT				ОК
LANDSCAPE				ОК
BING_ROAD				ОК
BING_AREA				OK
BING_HYBRID				ОК
Add	Edit	Remove	OK	Cancel

- Enter the **Caption** of the map that will be displayed in the active tab.
- In the list of **Available Maps**, choose the map to be displayed.



Note: For more details on available map types, see section <u>Map Types</u> (page 126).

#### 6.6.2.13 Google Earth

To open the Google Earth application:

• On the Map toolbar, click Scoogle Earth.

Note: Google Earth must be previously installed on the PC. To download Google Earth, go to the Google Earth website <u>https://www.google.com/intl/en/earth/desktop/</u>, and click **Download**.

## 6.7 Job Ticketing

TRBOnet Dispatch Console provides the **Job Ticketing** feature – the integrated ticketing system that allows dispatchers to create, assign, and track job tickets through the radio network.

Note: Before using the feature, make sure that your TRBOnet Dispatch Software license includes Job Ticketing.

• Click the **Job Ticketing** tab, and manage Job Tickets in the **Job Ticketing** pane.

File View Map Tools Help											
Job Ticketing	Job Ticke	eting								₽	ت (ی
💼 🗄 🗄 🍰 💱 🗶 🍟	1: Line 1	free			Interd	om					
	Group 1	0		: =	All Ca	1					
🛛 📴 Firemen 📮 🕇	Group 2	0			Group	11		0 .			
💰 😒 125 🔇 📮 🕏 235 🔇 📮 🗏	Group 2				Privat						
							-				
🛛 📑 Police 📮 🗖	Job Ticke					olates					
Voice Dispatch			it (F4) 🐒 Ass					uto Filter 🌼			ings 🗸
		ID	Text			Specified En					City
Location Tracking			Check the pipe			07.06.2017	15:-	10:00			Mo
	🌣 New	#A00007	Medium, Check	the							St
🚰 Job Ticketing 🛛 👡											
💓 Route Management											
	144 44 4 Rec		<b>F H H 4</b>								Þ
RFID Tracker	Processing ta	isks:									
	Status	ID			Start	Time		End Time			Specified
Context Messages	+ Accepted	#A00	800								
	→ Assigned	#A00	9009								
🔮 Voice Recording											
Reports											
Event Viewer	H4 44 4 Rec	ord 2 of 2	b 10 101 4								•
🔂 127.0.0.1 🙈 🔂 🖉 Administr							-		_		Active -

## 6.7.1 Adding Statuses for Job Ticketing

• In the **Job Ticketing** pane, click the **Statuses** tab to see the statuses available for job tickets.



Job Tick	eting Status	es Custom Fields Te	mplates
🛃 Add 📃	🕨 Edit 📑 De	lete	
Name 🔨	Action	Description	Status
New	New		☆ New
Cancelled	Cancel		× Cancelled
Assigned	Assign		→ Assigned
Accepted	Accept		+ Accepted
Rejected	Reject		- Rejected
Completed	Complete		✓ Completed
In Progress	In Progress		( In Progress

```
H4 44 4 Record 4 of 7 + H+ HH 4
```

Þ

• Click the **Add** button to add a Job Ticket status.

Job Ticket Status	×
Name:	Accepted
Description:	Accept
Action (CPS):	Accept
Status:	+ Accepted
	+ Accepted
	✓ Completed
	O In Progress
	- Rejected

#### Name

Specify a Job Ticket status name to display in the system.

#### Description

Add a description for the job ticket status.

#### Action (CPS)

Enter the action name as specified in MOTOTRBO CPS.

Note: The **Action (CPS)** value must match the value of the corresponding *Action/Response* field configured for a radio in *MOTOTRBO CPS, Job Tickets*.

Status

From the drop-down list, select the Job Ticket status (Accepted, Completed, In Progress, or Rejected).

## 6.7.2 Adding Custom Fields for Job Ticketing

In addition to the default fields (Priority, Deadline, etc.), you can add custom fields with pre-defined values to be used in tickets/ticket templates.

• In the **Job Ticketing** pane, click the **Custom Fields** tab to see the list of custom fields available for job tickets.



□ Add	
Name Values	
Town Kotka;Hamina;Loviisa	
Quality High;Low;Middle	

H H	Record 1 of 2	Þ	H	н	4
-----	---------------	---	---	---	---

الله الم

• Click the Add button.

Name:	Town		
Values			
Kotka			
Hamina			
Loviisa			
			Total: 3
🖶 <u>Add</u> 🗡	Delete		
<u></u>	Delete		

In the **Job Ticket Custom Field** dialog box, specify the following:

Name

Enter a name for the field.

Values

Click the **Add** link and enter a pre-defined value for the field.

## 6.7.3 Creating a Job Ticket

• In the Job Ticketing pane, click the Job Ticketing tab to see the list of created job tickets.

	Status	ID	Text				Pe	Cr	Specifi	ied End Time	Created By	Prio.	. (	 	Qu.
¢	New	#A00007	Medium, C	Cheo	k the	e pi	_	07			Administrator	Medi.	_	 	-
⋭	New	#A00010	Medium %	6Cit	y%			07			Administrator	Medi.			High
	44 4 Re ocessing	ecord 2 of 2	• • • •								 			 	
						5	Start Tim	ne		End Time	 Specified End	Time		 	
ro	ocessing	tasks:			_	5	Start Tin	ne		End Time	 Specified End	Time	_	 	

• Click the **Add** button to create a job ticket.



Note: To create a ticket from a template, click the arrow on the right of the **Add** button to select from the available ticket templates. For directions on how to create templates, see section <u>6.7.4, Creating a Ticket Template</u>.

Job Ticket		×
Ticket ID:	#A00000	
Priority:	Medium	~
Deadline:	21.04.2017 11:54	•
	<u>+5min +10min +30min +1hour</u>	_
Predefined Texts:		▼ 1 + -
Text:	Check the pipe	^
		111 ~
Variables:	Priority Due Date Due Time	
	Notify on status changes	
	Notify if ticket is not accepted by	
	21.04.2017 11:49	Ŧ
	Notification List	
Comment:		~
		~
Hide Advanced Or	otions OK	Cancel
	011	55.1001

In the **Job Ticket** dialog box, specify the following parameters:

Ticket ID

This value will be set automatically once the ticket has been created.

Priority

From the drop-down list, select the task priority.

Deadline

Select this option and in the box to the right, enter a due date and time for the task.

Predefined Texts

From the drop-down list, select a predefined text for the Job Ticket.

• Click the 🔊 button to edit the predefined text.

Predifined Text Editing	×
Name:	
Text	
Check the pipeline	
Check the toll fare	
	Total: 2
🖶 Add 🗙 Delete	Priority Due Date Due Time
	OK Cancel

• Click the **Add** link and type the text in the line that appears. In addition, you can also add to this text:



#### ✓ Priority

Click this link to add the ticket priority to the text.

✓ Due date

Click this link to add the ticket due date to the text.

✓ Due time

Click this link to add the ticket due time to the text.

Text

Enter the text message in this box.

Notify on status changes

Select this option to send notifications to Dispatchers, Email and/or SMS groups when a Job Ticket status changes.

#### Notify if ticket is not accepted by

Select this option to send notifications to dispatchers, Email and/or SMS groups if a radio does not accept the Job Ticket at the time specified in the box below.

#### Notification List

Click this link and choose the recipients of selected notifications.

Notification List	×
Dispatchers Email SMS Radios Radio Groups	_
Dispatchers       Motify Dispatchers       Administrator       Oppatcher 1       Dispatcher 2	
OK Cancel	

You can notify dispatchers with the help of notifications in the Dispatch Console (on the **Dispatchers** tab, check **Notify Dispatchers**, and select dispatchers), Email groups by sending Emails to dedicated Email groups (click the **Email** tab, check **Notify by Email**, and select Email groups) and phone users by sending SMS to dedicated SMS groups (click the **SMS** tab, check **Notify by SMS**, and select SMS groups).

#### Comment

Add a comment for the ticket.

## 6.7.4 Creating a Ticket Template

You can create ticket templates in advance to then use them when creating tickets.



Job Tic	cketing	Statuses C	Custom Fields Templates	5			
🛃 Add	📑 Ed	it 🔜 Binding	📑 Default Template	😽 Delete 🛛 🚟	Grouping 🍸 Auto Filter 🌼 🛛	efault Settings	
Name 🔪		Priority	Text		Specified End Time	Comment	Bin
Towns		Medium	%PRIORITY% in %City%				
Cleaning		Medium	Do cleaning in %Town%				
		$\mathbf{i}$					

141 41 4 Record 1 of 2	h hh hhi d	1
199 99 9 Record 1 of 2	P 144 44 4	

- Click the **Templates** tab to see the list of templates available for job tickets.
- Click the **Add** button to create a ticket template.
- In the **Job Ticket Template** dialog box, fill in the desired fields, and click **OK**.

In addition, you can enable automatic creation of the template-based tickets by using a scheduler. To do this, go to **Create Automatically by Scheduler**, click the arrow down button and select the corresponding scheduler. Or, click the plus button on the right, and create a new scheduler.

#### 6.7.5 Selecting Ticket Status Color

You can also color tickets based on their statuses.

• Click the **Job Ticketing** tab, and on the toolbar, click the **Status Colors** button.

	Job Ticke	ting Sta	tuses Custom Fie	lds	Те	mplates					
	Add (F2)	🗕 📑 Ed	it (F4) 🐒 Assign	(F5)		🛛 Grouping 🍸 Auto Filter		Stat	us (	Colo	rs
	Status	ID	Text △			Specified End Time	Γ				Town
☆	New	#A00010	Medium %City%								Kotka
☆	New	#A00007	Medium, Check			/					St.Peter.

In the Select Job Status Color dialog box that opens:

Status	Color
New	YellowGreen 🗧
Cancelled	Custom Web System
Assigned	DarkKhaki
Accepted	Beige
Rejected	LightGoldenrodYellow
Completed	Olive
Progress	Yellow LightYellow
Expiring Job Ticket	Ivory OliveDrab
Time to complete Job Ticket (minute	DarkOliveGreen
Color:	GreenYellow
	Chartreuse
	Default

Note: For information about the fields, see section <u>6.7.3</u>, <u>Creating a Job Ticket</u>.



• Click the arrow on the right, and from the drop-down list, pick the color for the selected status.

## 6.7.6 Assigning a Job Ticket

• Select a job ticket in the list, and click the **Assign** button. Or, right-click the job ticket and choose **Assign**.

Ξò	Add (F2	2) 🔻 📑 Edit	(F4) 🍾	A A	ssign (F5)	🖶 Gro	uping	g 🍸 Au	uto Filter 🌼 De	fault Setti	ngs 📰 Statu	s Colors	i i		,
	Status	ID	Text			Pe	Cr	Specifi	ied End Time		Created By	Prio	C	 Qu.	
⋩	New	#A00007	Media	-			h				Administrator	Medi			
*	New	#A00010	Medi	2	Assign						Administrator	Medi		 High	h
		ecord 1 of 2	• •			ed on									1
	ocessing	tasks:	• •	Ø	Cancel	ed on	-		End Time		Specified End	Time			•
Pro		tasks: ID			Cancel Archive Create Bas		•		End Time	•••	Specified End			 	

Þ

In the **Assign Job Ticket** dialog box that appears:

Assign Job	Ticket		×
🐒 Ass	ign Job Ticket		
Radio:			9,
	235 x		î
	3333		U
	√ € 4444 □ € 5555		
	C 🛠 8555		-
	Selected: 2		
	<b>d</b>		<b>7</b> • <b>H</b> •
		OK	Cancel

- In the list, select a radio or multiple radios, radio group(s), or logical group(s) to which to assign the job ticket. To switch between the Radio List, Radio Groups, and Logical Groups, click the is button and select the desired list.
- Click **OK** to assign the ticket to the selected radio(s)/radio group(s)/logical group(s).

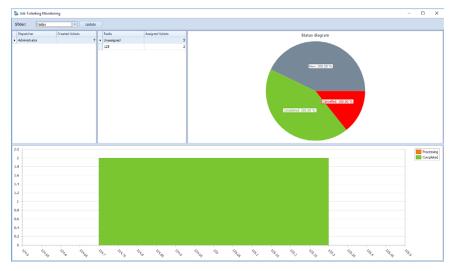
As a result, the selected radio(s)/radio group(s)/logical group(s) will receive the job ticket.



Note: When you assign the job ticket to multiple radios and the first radio accepts the ticket, the behavior of other radios depends on the <u>Job Ticketing Service</u> type configured for these radios. If the **Text Messages** type is configured for the radios, all other radios will receive a corresponding text notification. If the **MSI Proprietary** type is configured for the radios (or Mobile Client is used as a radio), the ticket will be cancelled on all other radios (Mobile Clients).

## 6.7.7 Viewing Job Ticketing Statistics

• On the main menu, select **Tools**, then click **Job Ticketing Monitoring** to see the Job Ticketing statistic diagram:



For more details on the statistics, see <u>Job Ticketing Monitoring</u>.

## 6.7.8 Viewing Job Ticketing Reports

- To view a job ticketing report, go to **Reports** (1), and select **Usage Statistics Reports** (2) **Job Ticketing** (3).
- On the **Usage Statistics Reports** pane, click the **Report Settings** tab, and specify the appropriate parameters and then click **Generate Report**.
- Click the **Job Ticketing** tab to see the generated report.



ports	Usage	Statistics	Reports								ê
🗊 System Bridges 🗊 Channel Changes	^ Inte	rcom		🔉 1: Line free	<b>.</b>				Group 10	•) •• Ø	
Usage Statistics Reports	Grou	p 20		Group 30	•) 🛋 🕻	Privati	e Call	0 .			
Messages Radio Activity Radio Status		Settings Jo	b Ticketing 🗶 % 🔻 🔍   14	A <	₽• ��• @	<b>⊡</b> • ⊠•					
Radio Status Summary  User Messages and Notes  Radio Allocation  Disabled Radios  Telemetry  Lone Worker Activities  Job Ticketing	2	Job T	icketing								
Job Ticket Statuse	~	from 06-Ju	-2016 0:00 to 21-	Nov-2016 0:00	1	Creation		1	Specified End		
Voice Dispatch	• • • •	Ticket ID				Time			Time		
Location Tracking	3	#A00000	%PRIORITY%% PRIORITY%		New	07-Nov-2016 14:04:31			07-Nov-2016 14:19:00	Administrator	Medium
Job Ticketing		#A00001	%PRIORITY%		Accepted	07-Nov-2016 14:04:58		07-Nov-2016 14:49:55		Administrator	Medium
Route Management		#A00002	%DATE%		Assigned	07-Nov-2016 14:25:12		07-Nov-2016 14:50:09		Administrator	Medium
RFID Tracker		#A00003	%TIME%		Accepted	07-Nov-2016 14:25:25		07-Nov-2016 15:00:35		Administrator	Medium
Text Messages		#A00004	jkg		Assigned	07-Nov-2016 15:01:59		07-Nov-2016 15:17:57		Administrator	Medium
Voice Recording		#A00005	Abc		Assigned	07-Nov-2016 15:18:13		07-Nov-2016 15:21:07		Administrator	Medium
Reports	-1	#A00006	123	125 (Cleaning 1)	Completed	07-Nov-2016 15:29:19		07-Nov-2016 15:35:02		Administrator	Medium
Event Viewer		#A00007	456		New	07-Nov-2016 15:38:32				Administrator	Medium
Radio Allocation		#A00008	Visit mortre		Completed	07-Nov-2016 15:38:39	07-Nov-2016 17:58:21	07-Nov-2016 17:58:49		Administrator	Medium
		Duration					02:19:41				
Administration		Duration	Z:					00:00:28			

## 6.8 Guard Tour / Route Management

The Guard Tour / Route Management feature allows the user to create routes and assign them to selected radio subscribers or dispatchers.

File View Map Tools Help	
Route Management	Route Management 🔮 🆓 🕒
Start II Pause Stop	
Route 1 00 235 31.05.2017 14:58	Group 22 •1) €Ø Private Cal •1) €Ø
	Management Montoring
Uoice Dispatch	Name         Route           Route 1         15:00         15:15         15:30         16:00
Location Tracking	Test route Coffee Hospital Tes Police
🙀 Job Ticketing	
💓 Route Management 🛛 🔸	1
RFID Tracker	
C Text Messages	141 44 4 Record 1 of 1 1 1 14 141 4
Voice Recording	Active Routes
Reports	Start         II         Pause         Stop         Elit         Stop         Elit         Grouping         Auto Filter         Default Settings           Name         Route         Route
Event Viewer	P Route 1         00:00         15:10         16:00           235         235         236         <
1 Telemetry	
Radio Allocation	
访 127.0.0.1 🛞 🥵 🙎 Administrato	r 📑 Licensed to: demo 🧭 Active

• Click the **Route Management** tab (1).

## 6.8.1 Creating a Route

• In the **Route Management** pane on the right, select the **Management** tab, then click the **Create** button (2) to create a new route.



ute		>
Name:	Route 1	
Description:	Test route	
Rule:	All checkpoints, strict order, strict schedule	•
Start/Stop Rules	Route Points Checkpoint Statuses Notifications Tags Logical Groups	
Start Route		*
Manually by d	ispatcher	
Automatically	by receiving Text Message from a radio	
Message:	12	
Automatically	by receiving Telemetry Command from a radio	
VIO:	1 🗘 Command: Any event 💌	
Automatically	by receiving DTMF command from a radio	
Command:	123 #123#	
Automatically	by receiving Status from a radio	I
Status:	0	
U Wait for cor	nfirmation from a radio	
Pause Route		×
Resume Route		*
Finish Route		*
Manually by d	lispatcher	I
Automatically	by receiving Text Message from a radio	I
Message:		I
Automatically	by receiving Telemetry Command from a radio	I
VIO:	1 🗘 Command: Any event 💌	
Automatically	by receiving DTMF command from a radio	I
Command:		I
Automatically	by receiving Status from a radio	I
Status:	0	I
Automatically	after all points have been attended	
Limit route	processing time	
Max. Time:	0 h 0 m	
	OK	Cancel

• Name

Specify a name for the route to display in the route list.

• Description

Add a description for the route.

• Rule

Select the type of the rule from the drop-down-list:

- All checkpoints, strict order, strict schedule
   Checkpoints are to be attended in the specified order, each within a specified time range.
- All checkpoints, strict order, loose schedule Checkpoints are to be attended in the specified order. The time for attending each checkpoint is not limited.
- All checkpoints, loose order, loose schedule
   Checkpoints can be attended in any order, each at any time.
- Click the Start/Stop Rules tab.

#### **Start Route**

Specify the rules to start the route.

Manually by dispatcher

This option is enabled by default and cannot be edited. This option enables the dispatcher to start the route by clicking the **Start** button in the **Route Management** tab or in the **Active Routes** pane.

# Automatically by receiving Text Message from a radio The route starts when the radio sends a specific text message to TRBOnet Server. If you select this option, then specify the text message the radio will send in the Message box.



- Automatically by receiving Telemetry Command from a radio
   The route starts when the user presses a preconfigured button on the
   radio and TRBOnet Server receives a telemetry command from the
   user's radio. If you select this option, specify the VIO contact, and from
   the Command drop-down list, select the signal level at which the
   user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio
   The route starts when the user sends a specific DTMF command to
   TRBOnet Server, for instance, #11#. If you select this option, specify a
   DTMF combination without the # characters in the Command box.
- Automatically by receiving Status Message from a radio
   The route starts when the user sends a specific Status to TRBOnet
   Server, for instance, 1. If you select this option, specify the Status.
- Wait for confirmation from a radio

Select this option to start the route after the TRBOnet Server receives a confirmation from the radio. In this case, the route is assigned to the radio or user and paused. The route will be resumed after a confirmation is received.

#### **Pause Route**

Specify the rules to pause the route.

#### **Resume Route**

Specify the rules to resume the route.

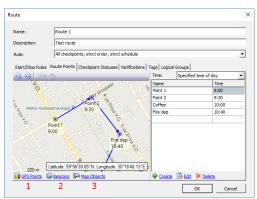
#### **Finish Route**

Specify the rules to finish or stop the route.

- Automatically after all points have been attended
   Select this option so that the route is finished automatically after all checkpoints have been attended.
- Limit route processing time

Select this option, and specify the maximum allowed time in the **Max. Time** box. If the time is exceeded, the route will stop automatically. All unattended checkpoints automatically change their statuses from 'Waiting' to 'Not Attended'.

• In the **Route** dialog box, click the **Route Points** tab.





Map Type:	Online maps		
Caption:	Му Мар		
Available Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK

• Click the **GPS Points** link (1) to add points to the selected map:

- Select the map. For more details on map types, see section <u>Map Types</u>
- Click the **Create** link or double-click a selected point on the map to create a new route point:

oint properties		×
Name:	Bank	
Location:	Latitude: 59°56'35.20"N; Longitude: 30°	16'4 🔻
Radius:	10 meters	
Intermediate	e way point (not served)	
Time:	15:00	
Time delta:	5 minutes	
	ОК	Cancel

#### Name

(page 126).

Specify a name for new point to display on the map.

#### Location

This box displays the current GPS coordinates of new point.

Radius

Specify the radius within which to consider the point as attended.

Intermediate way point (not served)

Select this option to exclude the point from being used as a checkpoint.

Time

Specify the time the point is to be attended at.

Time delta

Specify the time accuracy to attend the point.

- Click **OK** to add the new point.
- Click the **Beacons** link (2) to add a beacon as a checkpoint.



Note: To enable the **Indoor** feature, make sure your license includes **Indoor Positioning** (see section <u>5.1 License</u> <u>Information</u> on page 11) and **Indoor Service** is selected in the list of available services (see section <u>5.10.1</u> <u>Services</u> on page 31).

Name:	Route 1		
Description:	Test route		
Rule:	All checkpoints, strict order, strict sche	dule	
Start/Stop Rule	Route Points Checkpoint Statuses Notif	fications   Tags   Logical Groups	
🖗 Beer		Time: Specifi	ed time of day
Coffee		Name	Time
🥝 Tea		Point 1	9:00
		Point 2	9:30
		Coffee	10:00
		Fire dep	10:40
		Tea	10:50
	🞯 Reacons 🕞 Map Objects	+ Create B Edd	<b>X</b> -11

• Click the **Create** link and then click a beacon in the list.

Point proper	des		×
Name:	Coffee		
Beacon:	i Coffee		-
Radius:		+ meters	
∏ Interm	ediate way point (not s	erved)	
Time:	10:00	÷	
Time delta	a: 5	🔹 minutes	
		ОК	Cancel

• Click the **Map Objects** link to add a map object as a checkpoint.

Route				×
Name:	Route 1			
Description:	Test route			
Rule:	All checkpoints, strict order, strict schedule			•
Start/Stop Rules	Route Points Checkpoint Statuses Notifications	Tags Logical	Groups	
Abiding place		Time:	Specified time of	day 💌
Fire dep		Name		Time
Hospital No2		Point 1		9:00
Police departm	ent No 1	Point 2		9:30
		Coffee		10:00
		Fire dep		10:40
GPS Points	Beacons 🗭 Map Objects	Create	📑 Edit 🗙 Del	ete
			ОК	Cancel

• Click the **Create** link and then click an object in the list.

Point properties		$\times$
Name:	Fire dep	
Map Object:	🛐 Fire dep	-
Radius:	10 neters	
Intermediate	e way point (not served)	
Time:	10:40	
Time delta:	5 📩 minutes	
	OK	Cancel

• In the **Route** dialog box, click the **Checkpoint Statuses** tab.



Route	>
Name:	Route 1
Description:	Test route
Rule:	All checkpoints, strict order, strict schedule
Start/Stop Rules R	oute Points Checkpoint Statuses Notifications Tags Logical Groups
Set status	to Attended:
C When radio	enters the point area
	n when radio is in the point area
	atically by receiving Text Message from a radio
Messa	
Autom	atically by receiving Telemetry Command from a radio
VIO:	1 🔹 Command: Any event 💌
Autom	atically by receiving DTMF command from a radio
Comm	and:
Autom	atically by receiving Status from a radio
Status	
Statuses th	waiting, Attended, U •
🗹 Set status	to Alarm:
Autom	atically by receiving Text Message from a radio
Messa	ge:
Autom	atically by receiving Telemetry Command from a radio
VIO:	1 🗘 Command: Any event 💌
Autom	atically by receiving DTMF command from a radio
Comm	and: 5 #5#
Autom	atically by receiving Emergency from a radio
Emg. 1	
Autom	atically by receiving Status from a radio
Status	
	OK Cancel

#### • Set status to Attended

Select this option so that TRBOnet Server will change the checkpoint status to 'Attended' based on the information from the radio.

#### When the radio enters the point area

Choose this option so that the radio detects the closest beacon and sends location data to TRBOnet Server. The respective checkpoint changes its status to 'Attended ' automatically.

#### By condition when the radio is in the point area

If this option is chosen, the radio sends a preconfigured command to TRBOnet Server. The last detected checkpoint changes its status to 'Attended ' by this command. Configure the preferred command(s):

- Automatically by receiving Text Message from a radio Select this option so that the checkpoint is considered to be attended after the dispatcher receives a specific text message from the radio. If you select this option, then specify the text message the radio will send in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option so that the checkpoint is considered to be attended after the dispatcher receives a specific telemetry command from the radio. If you select this option, specify the VIO contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio Select this option so that the checkpoint is considered to be attended after the dispatcher receives a specific DTMF command from the radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the **Command** box.



• Automatically by receiving Status Message from a radio Select this option so that the checkpoint is considered to be attended after the dispatcher receives a specific Status from the radio. If you select this option, specify the **Status**.

#### • Statuses that can be set by dispatcher

Select this option to allow the Dispatch Control operator to manually change the status of checkpoints in the **Active Routes** panel. In the drop-down list, select the checkpoint statuses to be available for the operator: Waiting, Attended, Unattended, and Alarm.

#### • Set status to Alarm

Select this option to allow the radio to set an alarm on the attended checkpoint. Configure the command(s) that can set the checkpoint status to 'Alarm'.

- Automatically by receiving Text Message from a radio
   Select this option to set the point to alarm mode after the dispatcher receives a specific text message from the radio. If you select this option, then specify the text message the radio will send in the Message box.
- Automatically by receiving Telemetry Command from a radio
   Select this option to set the point to alarm mode after the dispatcher receives a specific telemetry command from the radio. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio
   Select this option to set the point to alarm mode after the dispatcher receives a specific DTMF command from the radio. If you select this option, specify a DTMF combination without the # characters in the Command box.
- Automatically by receiving Emergency from a radio
   Select this option to set the point to alarm mode after the dispatcher receives an Emergency from the radio.
  - **Emg. Type** Select the Emergency type from the drop-down list.
- Automatically by receiving Status Message from a radio
   Select this option to set the point to alarm mode after the dispatcher receives a specific Status from the radio. If you select this option, specify the Status.
- In the **Route** dialog box, click the **Notifications** tab to manage notifications to a radio.



oute						
Name:	oute 1					
Description:	est route					
Rule:	I checkpoints,	strict order, strict	schedule			
Start/Stop Rules Rou			Nouncauons:   Tags	Logical Gr	oups	
You can use varia {RouteName}, {Pi			intName}, {NextPoi	intTime}		
Send a Text Mes	sage on route	assign to radio				
Text Message:	Ā	ssign {RouteName	:}			
Send a Text Mes	sage on route :	start				
Text Message:	s	tart {RouteName}				
Send a Text Mes	sage on route	suspend				
Text Message:	Т	he {RouteName} i	s suspended			
Send a Text Mes	sage on route	resume				
Text Message:	П	he {RouteName} i	s resumed			
Send a Text Mes	sage on route	finish				
Text Message:	П	he (RouteName) i	s finished			
Send a Text Mes	sage when app	proaching attenda	nce time			
Time before att	endance: 5	÷	minutes			
Text Message:	s	erve {PointName}	at {PointTime}			
Send a Text Mes	sage after poir	nt is attended				
Text Message:	П	The {PointName} is served. Next is {NextPointName} at {NextPointTime}				
For the last poir						
Send a Text Mes	sage if point is	not attended				
Text Message:	Π	he {PointName} is	not served			
Send a Text Mes	sage if point is	in alarm mode				
Text Message:	A	larm on {PointNan	ne}			
					ОК	Cancel

- Note: To enable an option, select the checkbox. The Text Message boxes already include text. If necessary, replace the text with your own text, using variables as placeholders that will be substituted with actual data.
- Send a Text Message on route assign
   Select this option to inform a radio holder that the route is assigned to.
- Send a Text Message on route start
   Select this option to inform a radio holder that the route started.
- Send a Text Message on route suspend Select this option to inform a radio holder that the route is suspended.
- Send a Text Message on route resume Select this option to inform a radio holder that the route is resumed.
- Send a Text Message on route finish Select this option to inform a radio holder that the route is finished.
- Send a Text Message when approaching attendance time Select this option to inform a radio holder that the next checkpoint is expected in the time interval specified in the Time before attendance box. This message is only available for routes with the specified attendance time.
- Send a Text Message after point is attended Select this option to confirm attending a checkpoint.
- Send a Text Message if point is not attended Select this option to notify a radio holder if the point was not attended.
- Send a Text Message if point is in alarm mode Select this option to notify radio holder if the point is in alarm mode.
- In the **Route** dialog box, click the **Logical Groups** tab.



Route 1	
produce 2	
Test route	
All checkpoints, strict order, strict sc	nedule
Route Points   Checkpoint Statuses   No	tifications Tags Logical Groups
	Description
ing 1 ing 2	Cleaning in Department 1
	Groups for Security
ity 1	
ity 2	
oups to a radio when the route starts	
	All deedpoints, strict order, strict ad All deedpoints, strict order, strict ad lioute Points   Checkpoint Statuses   No ling 1 ling 2 lity 1 lity 1

- Select a logical group(s) in the list of available groups.
- Assign Logical Groups to a radio when the route starts
   Select this checkbox so that when the route is assigned to a radio, the selected logical group(s) will automatically be assigned to the radio.

Note: For more information about logical groups, see section <u>6.4.29, Logical Groups</u> (page 273).

• Click **OK** to save settings.

The new route is now added to the route list (1):

#### 6.8.2 Starting a Route

File View Map Tools Help	
Route Management	Route Management 🔮 🆓 🕓
Start II Pause Stop	🔉 1: Line free 🔹 Ø 🗸 Intercom 🗉 🕊 Ø 🗹 Group 10 🔹 🕷 Ø
Route 1 00:07 235 31.05.2017 14:58	# At Cal         E W Col         # Color 20         E W Col         # Color 21         E W Col           # Group 22         E W Col         Private Cal         E W Col         E W Col         E W Col
	Management Monitoring           Start         B         Create         Creat
Voice Dispatch	Name Route Route 1 15:00 15:15 15:30 16:00
Location Tracking	Test route Coffee Hospital Tea Police
📸 Job Ticketing	
💓 Route Management	1 2
RFID Tracker	
C Text Messages	
🔮 Voice Recording	44         4         Record 1 of 1         >         >>>>>         4           Active Routes         >         >         >         >         >
Reports	▶ Start II Pause ■ Stop → Edit ④ Export → 몸 Grouping ♥ Auto Filter ۞ Default Settings Name Route
Event Viewer	Route 1         00:07         15:00         15:15         15:30         16:400           235         236
1 Telemetry	
Radio Allocation	•••         •
🔂 127.0.0.1 🍇 🕵 🧕 Administrator	Licensed to: demo

• Click the **Start** button (2) to start the route:



Start Route		×
Name:	Route 1	_
Start Date:	14-Oct-2016 10:58	•
Route:	Route 1	•
	Create Route Modify	
Radio:	🚯 125 (Pete) 125	•
Radio Owner:		•
Dispatcher:	All	•
	OK Cancel	

In the **Start Route** dialog box, specify the following parameters:

Name

Enter a name for the route to be started. This name will be displayed in the **Active Routes** pane.

Start Date

Select a date to start the route on.

Route

From the drop-down list, select the route to start. Click the **Create Route** button to create a new route based on the selected route. Click the **Modify** button to modify selected route parameters.

Radio

From the drop-down list, select the radio to assign the route to.

Radio Owner

From the drop-down list, select the <u>Users</u> to assign the route to.

Note: Select only one of the two (**Radio** or **Radio Owner**) to prevent an incorrect route.

Dispatcher

From the drop-down list, select the dispatcher to monitor the route.

• Click **OK** to start the route.

The active route appears (1) in the **Active Routes** panel.

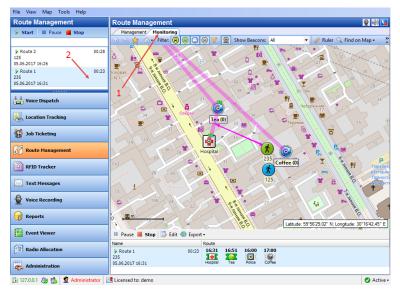
File View Map Tools Help	
Route Management	Route Management 🔮 🆓 🕓
🕨 Start 🛛 II Pause 📕 Stop	I: Line free         €         Ø         Intercom         N         €         Ø         N         €         Ø
▶ Route 1 00:37 235 31.05.2017 14:58	M Call     C. H.O.     Corop 20     C. H.O.     Corop 11     C. H.O.       Corop 22     C. H.O.     Private Call     C. H.O.     C. H.O.
	Management Monitoring           Start         Screate         Edit         Copy         Export +         Report +
Voice Dispatch	Name         Route           Route 1         15:00         15:15         15:30         16:00
Location Tracking	Test route Coffee Hospital Tea Police
Job Ticketing	
RFID Tracker	
C Text Messages	
Uvice Recording	iiii (iiii + Record 1 of 1 + Record 1
😪 Reports	▶ Start         III Paue         ■ Stop         ⇒ Edit ④ Export •         ■ Grouping ♥ Auto Filter ۞ Default Settings           Name         Route
Event Viewer	PRoute 1         00:37         15:08         15:15         15:30         16:00           235         31:05:2017 14:58         Image: Conference Mapping         Im
Telemetry	
(19) Radio Allocation	i≪ ≪ 4 Record 1 of 1 ▶ I≫ II 4
🚯 127.0.0.1 🛞 🕵 🕱 Administrator	Licensed to: demo 🔮 Active -



If a route point is attended in time, it is displayed in green (2) If a route point is not attended in time, it is displayed in red (3). For more operations with checkpoints, see section <u>6.5.8.6</u>, <u>Active Routes</u> (page 321).

# 6.8.3 Tracing Active Route on Map

• In the **Route Management** pane, click the **Monitoring** tab (1).



• In the upper-left pane, select the route (2) to be traced on the map.

# 6.8.4 Stopping a Route

Depending on the route configuration settings, a route/guard tour can be stopped automatically:

- by a command sent from the radio;
- when all checkpoints are attended;
- when the route time is elapsed.

To manually stop the route:

• Click the **Stop** button to stop the route. Once the route is stopped, it will disappear from the **Active Routes** panel.

After the route is stopped, the checkpoint statuses cannot be modified neither automatically, nor manually.

## 6.8.5 Generating Route Reports

The administrator can generate reports on the finished routes.

 Click the Reports (1) tab, and in the Reports pane select Common reports > Completed Routes (2):



File View Map Tools Help							
Reports	Common reports	🔮 🐠 🔽					
Lone Worker Activities     A     CAN Graphics	🔉 1: Line free 📧 🕢 Intercom 🐠 🖷 🖉 Maintenace						
CAN Messages	Sales 🛛 📢 🖉 Group 10 👘 📢 🖉 disp						
Job Ticketing 2	EMERGENCY GROUP 1) . Group 20						
Job Ticket Assignments	Al Cal 0 Group 11 0 C Group 22						
Completed Routes	Group 1 🐠 🖷 🖉 📄 Private Call 🐠 🖷 🧭						
Security reports	Report Settings						
Indoor reports	Completed Routes						
Movement Details V	Saved Profiles:Not defined						
Voice Dispatch	Select data by period:						
Location Tracking	Start Date: 10/10/2016 12:00 AM ▼ End Date:  Maximum date > ▼						
	End Date:						
📅 Job Ticketing	Radio:Not defined						
Route Management	Logical Group:Not defined						
-	Radio ID (e.g. 22,33,40-55,88 ):						
Contemporary Text Messages							
Voice Recording	User: Not defined						
¥ '	Dispatcher:Not defined						
Reports	Route Name:						
Event Viewer	Show routes with exceptions only						
	Print detailed data						
Radio Allocation	1						
Administration	Generate Report Save Report Profile Delete Report Profile						
10							
💽 Connected 🦓 🔥 🔂 🛛 💆 Ac	Iministrator 🔣 Licensed to: demo Demo License	Active •					

# 6.9 Text Messages

In the Text Messages tab, the dispatcher can review and send text messages to other dispatchers, individual radio subscribers and radio groups:

File View Map Tools Help		
Text Messages	Text Messages	👲 🕪 💆
d: 🗄 1: 💩 🛠 🍸 🗇 🗇	V Intercom 刘 🕊 🥥 🔉 1: Line free 🗨 🕢 🖓 All Call	•
🗆 🧟 Online Dispatchers (1)	✓ Group 10     () (#) (0)     ✓ Group 20     () (#) (0)     ✓ Group 20     () (#) (0)     ✓ Private Call     () (#) (0)	• • 0
🙎 Dispatcher 1 🛛 👔		
Online, Indoor (0)	Simple Extended	
Online, GPS Fixed (2)	🝼 Clear 🥘 Reload 📑 Inbox 🚅 Sent	
💰 🔊 125 (Pete) 🛛 📮 📎	The Point 1 is not served	^
🐔 🕭 235 (Basil) 📮 义	18-Nov-2016 14:05:10 Sent from Server to 125 The Point 2 is not served	
Voice Dispatch	21-Nov-2016 11:08:18 Sent from Server to 125 The Point 1 is served	
Location Tracking	21-Nov-2016 11:08:19 Sent from Server to 125 The Point 2 is served	
🚰 Job Ticketing	21-Nov-2016 12:30:04 Sent from Server to 125 The Route 1is finished 22-Nov-2016 12:20:04 Sent from Server to 125	
💓 Route Management	22-409-2016 17:20149 Sent from Server to 125 Call 5578: Cannot detect channel to execute this operation 22-409-2016 17:21:03 Sent from Server to 125	
RFID Tracker	Call 5578: Cannot detect channel to execute this operation 222-Nov-2016 17:21:15 Sent from Server to 125	- 1
🖂 Text Messages 🛛 🛶	Call 5678: Cannot detect channel to execute this operation	
<b>.</b>	22-Nov-2016 17:21:30 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	~
Voice Recording	Recipient: 🤱 125 (Pete) \cdots 🗈 Send 🎚 Attach File	
Reports	Pete, you're	
Event Viewer		
Radio Allocation	3	113
🚯 127.0.0.1 🔊 🔂 🦉 Dispatcher 1	Licensed to: demo Demo License	Active -

1. Radio List

displays dispatchers and radio subscribers available for text communication.

Note: Radios must be equipped with a display to receive Text Messages.

- 2. Text Messages panel displays the latest messages transmitted via a radio channel.
- 3. New Message panel provides you with text sending options.



4. Calls Panel in compact mode allows making voice calls.

## 6.9.1 Sending Text Messages

The dispatcher can send a text message to:

- Selected Radio
- Selected Radio Group
- Selected Logical Group
- Selected Dispatcher
- All Online Dispatchers or a group of dispatchers

The dispatcher can send a text message to selected subscribers from:

- New Message panel
- Radio List

#### 6.9.1.1 New Message panel

• In the New Message panel, click the ellipsis (...) button.

File View Map Tools Help		
Text Messages	Text Messages	😫 🕪 🕒
🚹 🗄 🗄 👶 🛠 🏹 🗇 🗇 🍟	🗸 Intercom 🕘 🐗 🥥 🔊 1: Line free 🛛 📢 💽 Al Cal	
	▼ Group 10 +0) +€ ② ▼ Group 20 +0) +€ ② ▼ Group 30	
😑 📙 Firemen 📮 🗅		
🕏 🕑 111 🔍 🔍		
💰 💌 125 (Pete) 🛛 🖵 🚫		
🎓 🌚 222 🛛 📮 😒	Select Destination ×	
💰 🕭 235 (Basil) 🛛 📮 😒		^
👔 🛞 Radio 200 🛛 📮 🔇 🖬	18-14 Real Online Dispatchers	
Voice Dispatch	21-N Croup1	
	Altren the cleaners	
Location Tracking	21-N 22 Police	
-	- 8 111	
📅 Job Ticketing	21-N & 125 (Pete)	
😿 Route Management	22-14 235 (Basil)	
Koute management	4 💈 Radio 200	
RFID Tracker	22-W & Radio 201	
	Radio 203	
Text Messages	22-M C Radio 203	
Prote Recording	22-N OK Cancel	
. Voice Recording	C Caliber	
Reports	Destination: 🍰 Firemen \cdots 🗈 Send 🖉 Attach File	•
-	Destination: A Firemen Send Attach File	
Event Viewer	Shack # 10h me	
Telemetry		
1 Telemetry		
Radio Allocation		
		106
🔂 127.0.0.1 🊷 🕵 🙎 Dispatcher 1 📑	Licensed to: demo Demo License	🕑 Active -

- In the **Select Destination** dialog box, select the radio, radio group or dispatcher and click **OK**.
- Type the text message you want to send.

Note: The size of a text message is restricted to 125 characters.

- Click the **Attach File** button if you want to attach a file to the message being sent.
- Click the **Send** button.

The text message will be displayed in the Text Messages panel.



The message details highlighted in red indicates that the message recipient is offline and the message will be delivered as soon as the recipient gets back online again.

The message details in gray indicate that the message has been delivered.

#### 6.9.1.2 Radio List

• On the Radio List, right-click the radio/radio group/dispatcher you want to send a text message to, and choose **Send Message**.



• In the **Send Text Message** dialog box that appears, specify the following parameters:

Send Text Messag	je X					
Destination:	Firemen; Online Dispatchers;					
Templates:						
Text:	Shack # 1 is on fire					
	105					
Attachments:	0 Add File					
Select Radios and	Groups					
Filter:	P					
E the Cleaners						
🔲 🍰 Dorf						
<ul> <li>✓ <sup>1</sup>/<sub>2</sub> Firemen</li> <li>✓ <sup>3</sup>/<sub>2</sub> Online Dispatchers</li> </ul>						
Section 2						
Send copy as en	nail					
Send copy as SN	IS					
Store and attem	pt to deliver if the user is offline					
Confirmed Group Text						
Hide Advanced C	Options SEND Cancel					

#### Destination

This box displays the destination of the message.

- In the **Text** box, type the message text. You can also insert a template text from the **Templates** list box. Note that the size of a text message is restricted to 125 characters.
- In the Destination list, add recipients of the text message by selecting radios/radio groups/logical groups/dispatchers.
- Store and attempt to deliver if the user is offline
   Select this option to store the message on the server if a radio is offline, and to send it as soon as the radio becomes online.



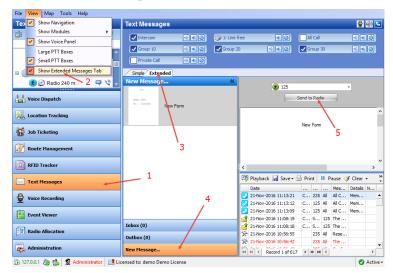
- Note: The storage time is set in TRBOnet Server's <u>Advanced</u> <u>Settings</u> > **Text Message Passive timeout** (Unlimited, by default).
- Click Send.

## 6.9.2 Extended Messages

The **Extended Messages** service is a special function allowing users to send/receive detailed preconfigured templates containing necessary information.

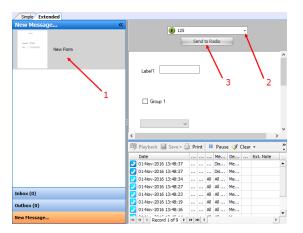
This service was created especially for clients who need to use more detailed and structured messages in their work. If the standard messages are not enough to contain all the information you need to send, you may use the Extended Messages service. Also note that an extended message can only be viewed on a Dispatch Console.

#### 6.9.2.1 Send Extended Text Message to a Radio



- Click the **Text Messages** tab (1).
- Click the View menu, and select Show Extended Messages Tab (2).
- In the **Text Messages** pane, click the **Extended** tab (3), and **New** message (4).





- Select the template in the list (1). For instructions on how to create templates, see section <u>6.4.21.1, Templates for Extended Messages</u>.
- From the drop-down list (2), select the radio to which to send the extended message.
- Click **Send to Radio** (3) to send the extended message to the selected radio.

# 6.10 Voice Recording

On the **Voice Recording** tab, the dispatcher can display the list of voice calls recordings according to certain criteria, listen to the voice recordings and save them to a file.

The trans         The trans <t< th=""><th>ce Recording</th><th>Voice Recording</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>_</th><th></th></t<>	ce Recording	Voice Recording								_	
Bart         Call Date         Ca	ime Oppose	🕮 Playback 🖬 Save	+ 😑 Print+	- Grouping	🍸 Auto Filter 🍥 D	efault Settings					
Open         Open <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>											
Nore         Nore <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>ж</td><td></td><td></td><td></td><td></td></th<>							ж				
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Operate Housement         94-by-12 50977M         0007         01         Group Cal         3333         11         Success           Text Heasages         Mady 12 30977M         0007         01         Group Cal         3333         12         Success           Text Heasages         Mady 12 30977M         0007         01         Group Cal         3333         12         Success           Web Recording         Mady 12 30977M         0007         01         Group Cal         Rade 125         11         Success           Web Recording         Mady 12 Success         Mady 12 Success	Job Ticketing	13-May-21 6:09:53 PM	00:03	CP1	Group Call	Radio 125		11		Success	
Description         Disk (12) (2007)         Disk (12) (2007) <thdisk (12)="" (2007)<="" th=""> <thdisk (12)="" (2007)<="" th=""></thdisk></thdisk>		13-May-21 6:09:54 PM	00:03	CP1	Group Call	Radio 125		22		Success	
Text Reseages         States/12:32:21 PM         D0:03         Of 1         Grap Cal         Rade 125         11         Receives           Voice Recording         will () Record 22:01 SS         will ()         mill ()         mill ()         Records         faller         State         State <td>Route Management</td> <td>18-May-21 2:09:07 PM</td> <td>00:07</td> <td>CP1</td> <td>Group Call</td> <td>3333</td> <td></td> <td>11</td> <td></td> <td>Success</td> <td></td>	Route Management	18-May-21 2:09:07 PM	00:07	CP1	Group Call	3333		11		Success	
Note Recording         Description         Coll Transmission         Coll Transmission         List (Coll Transmission)         Li		18-May-21 2:09:07 PM	00:07	CP1	Group Call	3333		22		Success	
Vecke Recording         Call Tree: 13/497-21 12/0107 PM         Tabler         Status         Start         Duration         System           Prevents         Call Tree: 13/497-21 12/0107 PM         3333         ranging         00000         0000         071	Text Messages	18-May-21 2:39:21 PM	00:03	CP1	Group Call	Radio 125		11		Success	
Caller: 3333 Call'me: 13/43y-21 12/605 PM 3333 Ringing 00:00 00:00 CP1		144 44 4 Record 22 of 3	83 1 10 101 4								
Caller: 3333 Call Time: 1344y-21 128/05 PM 3333 Ringing 00:00 00:00 CP1	Voice Recording					1 vetter	(111) I	10000	D and D and	Custom	
		Caller:	3333	Call Time: 13-	May-21 1:26:05 PM						
	Reports	Destination:	Radio 125	176	Playback 🖬 Save						
333 Taking 00:00 00:00 0P1		N			1						
Event Viewer Private Cal: 33337 coled Radio 125 Radio 125 Radio 125 Talling 00000 0000 CP1	Event Viewer				/	Radio 125	Talking	00:00	00:00	CP1	
		1			3						
Radio Allocation	Radio Allocation	N 1			<b>~</b>						

- Click the Voice Recording tab (1).
- In the **Voice Recording** panel, specify the criteria according to which you want to display call recordings, and click **Load Data** (2).
- In the right pane, you will see the list of calls according to the criteria you have specified.
- To play back a recording, select it in the list and click **Playback** (3).



Note: For more actions available in the **Voice Recording** panel, see section <u>6.5.8.1, Recent Calls/Events, Voice Recording</u>.

# 6.11 Reports

The Reports tool provides you with various printing forms with monitored radio network activity data.

• Click the **Reports** tab.

Reports	Usage Statistics Reports	🐁 ብ 🚨
Density Monutan     Department Bedow     Depar	Compart Settings  Usage Statistics Reports  There report product information on version activities that occurred in the redo system during a specified line re      Default data formation      Contract table schemace      Outries table schemace      Default data schemace      Default da	
Massages Rado Activity Colles Bados Sermany	Details Status Jammire     Dates Lotter and Inteles     Details Allocation	
Location Tracking	The Loop Mandem Activities The Research to Link The Mann Exception	
Route Management	To but Interim     To but Inter Setures     To but Inter Setures     To but Inter Seture Internal     To but Inter Assignments	
Text Messages     Voice Recording	Considerat Rooten     Considerat Rooten     Considerat Rooten     Considerat Rooten     Considerat Rooten	
Reports		
Radio Allocation		

# 6.11.1 Report Types

TRBOnet Dispatch Console supports the following report types:

• General Information

These reports contain general information on the radio systems registered in TRBOnet.

• Current Reports

These reports contain current information on the radio systems registered in TRBOnet.

• System Reports

These reports contain system information on the radio systems registered in TRBOnet.

• Usage Statistics Reports

These reports provide information on various activities that occurred in the radio systems during a specified time range. The reported information may include information about Messages, Radio Statuses, User Events and Notes, Allocated Radios, Disabled Radios, Job Ticketing, Completed Routes etc.

• Location History

These reports contain movement details for GPS and Indoor Positioning, for a selected time period.

• Security Reports

These reports contain information related to security issues that may affect the radio systems connected to TRBOnet.



#### • Data Export

This report contains information on extended notes in the messages. The report can be generated in XLS or XML format.

## 6.11.2 Main Report Parameters

To generate a report, go to **Reports** section and select a report type you want to generate.

When generating a report, you might need to specify the parameters listed below:

#### **Time Range**

#### • Start

The date from which to start the report.

• End

The date on which to end the report.

#### **Filter Content**

#### • Message Type

Select available message types from the drop-down list (All Messages, Talk Sessions, Text Messages, and other message types).

• Radio System

In the drop-down list, select the system(s) to include in a report.

• Radio

In the drop-down list, select the radio(s) to include in a report.

• Radio Group

In the drop-down list, select the radio group(s) to include in a report.

Logical Group

In the drop-down list, select the logical group(s) to include in a report.

• Dispatcher

In the drop-down list, select the dispatcher(s) to include in a report.

- Radio ID Enter the Radio ID or multiple Radio IDs.
- Find Text

Enter the text to filter by.

# 6.11.3 Common Command Buttons

Below are the buttons common for all reports that you generate:

• Generate Report Click this button to generate a report according to the selected report settings.

## • Save Report Profile

Click this button to save the current report settings as a report profile.



#### • Delete Report Profile

Click this button to delete the currently selected report profile.

# 6.12 Radio Allocation

The radio can be assigned to a selected employee registered in the system.

All available radios are disabled and an employee will need to type in a username and password to take and enable the selected radio. When an employee returns the allocated radio, it gets disabled again.

• Click the **Radio Allocation** tab (1) to assign radios to users:

File View Map Tools Help						
Radio Allocation	Radio Allocation					👲 🕪 🕒
💼 🗄 🛔 👶 🛠 🍸 🗇 🗗 🍟	1: Line free		Intercom		All Call	• • 0
🐔 🛞 125 (Pete) 🔷	Group 10		Group 20		Group 30	• • 0
(*) (2) 222	Private Call	0 💌 🖉				
💰 🔊 235 (Basil)	🛃 Take/Return Radio		Data 🗸 📑 Grouping	🍸 Auto Filter 🎯		» •
Voice Dispatch	Callsign △	Taken by User	Group Firemen, Police	Vehide Make	Plate Number	Drivers
Voice Dispatch		Pete	Firemen			
Location Tracking	£ 222		Firemen, Police			
8- <b>8</b>	- ·	Basi	Eiremen			
📅 Job Ticketing	Radio 200		Al			
🕖 Route Management	<ul> <li>Radio 201</li> <li>Radio 202</li> </ul>		All			
Route Hanagement	Radio 202	<u>\</u>	All			
RFID Tracker	Radio 203		Al			
C Text Messages		\_		3		
🔮 Voice Recording		-		-		
Reports						
Event Viewer						
付 Radio Allocation 🔶	1					
administration	H4 44 4 Record 2 of 9	▶ ₩ ₩ <				Þ
🐻 127.0.0.1 🏀 🥵 💆 Administrator 📗	Licensed to: demo Dem	o License				🕑 Active -

• Select the radio in the list and click the **Take/Return Radio** button (2):

Take Radio		×
Radio:	125	
User:	Pete	•
Password:	*****	
	Take Radio	Cancel

#### Radio

This box displays the selected radio.

User

From the drop-down list, select the user to allocate the radio to.

Password

Enter the password for the selected user.

Note: For more details on user access to Allocation Console, see section <u>6.4.28 Users</u> (page 269).

• Click the Take Radio button to assign the radio to the selected user.



You can also add required allocation data by clicking the **Add Missing Data** button (3) and selecting either **Manually** or **From File** from the drop-down menu.

Note: If you select **From File**, the CSV file must contain 4 fields: Radio ID, User's display name, Date/Time taken, Date/Time returned. For example, 1,John,2024-04-27 12:00,2024-04-27 16:00 2,Tim,2024-04-27 12:00,2024-04-27 16:00

In addition, the administrator can generate reports on the allocated radios.

Click the Reports (1) tab, and in the Reports pane, select
 Usage Statistics Reports > Radio Allocation (2):

File View Map Tools Help					
Reports	Usage Statistics Repo	rts			🔮 🐠 🕒
System Bridges Channel Changes Usage Statistics Reports					
Messages Radio Activity Radio Status	✓ IPSC 1: Slot #1	PSC 1: Slot #2			
Radio Status Summary     User Messages and Notes     Radio Alocation	Group 20				
Disabled Radios	Radio Allocation	on on the allocated radios (radio, us	r, time the radio was taken	Saved Profiles:No /returned) within the specified tim	
Voice Dispatch	Time Range: From: 23-Sep-	19 12:00 AM 💌			
Location Tracking	To:    Filter:	um date> 💌 …			
Job Ticketing	Radio:Not de Logical Group:Not de				
Route Management	Radio ID (e.g. 22,33,40-55,88	3):			
Reports	User:Not de	fined			
Event Viewer	Group by: By radio	s <u>•</u>			
Radio Allocation	Generate Report			Save Report Profile	Delete Report Profile
Administration	<	demo Demo License			> Active -

# 6.13 Beacons

TRBOnet Dispatch Console provides the **Indoor Positioning** feature to monitor the location of radios inside a building where GPS signals are not present. The feature requires additional hardware (beacons located around the building and Bluetooth modules/option boards installed in radios).

Note: To enable the **Indoor Location Tracking** feature, your license must include **Indoor Positioning** (see section <u>5.1, License</u> <u>Information</u>) and **Indoor Service** is selected in the list of available services (see section <u>5.10.1, Services</u>).

A radio unit will be displayed on the indoor floor plan at the beacon location as soon as the radio enters the beacon's coverage area.

If the **Show last known indoor locations of online radios** option is selected in **Tools** > **Options** > **Map**, online radios will remain displayed at the beacon location after they left the beacon's coverage area and have not yet detected another beacon.



Hovering over the beacon icon on the map will provide a count of the number of radios (mobile devices) that are currently in this beacon's coverage area (for example, Room 1(3) - there are 3 radios in Room 1).

In addition, you can view devices that were last seen near the beacon. Rightclick the beacon on the map and, on the shortcut menu that appears, choose **Show Nearby Devices**. As a result, you will see the list of devices that were last seen near this beacon and have not yet detected another beacon. If you select the lower checkbox, this list won't contain last seen devices that have already sent a new GPS fix.

Nearby Devices (Major: 26610, Mino	r: 21140) ×					
	s beacon. They have not sent a new					
Device	Last seen 🔹					
Radio 65535	17.06.2022 16:38:25					
7777	17.06.2022 14:21:34					
Remove from the list if a device sends a new GPS fix						
Update Last updated: 17.06.2022 17:23:38						
	Radio 65535 7777 ] Remove from the list if a device sends a					

# 6.13.1 Adding a Floorplan

Click the **Location Tracking** tab (1), then click **Map** (2) and choose **Open New Map in Tab**:

TRBOnet Enterprise 5.2 / Dispatch	Console	- 🗆 X
File View Map Tools Help		
Location Tracking	Map 🔮 🚳 🖸	o Objects
Ci := t: 🖧 🍸 24 🍟	(>) 1: Ine free €(0) ✓ Intercom €(€(0))	111 H
🗉 🦲 Firemen 🛛 📮 🏊		E-V Beacons
2 💰 🔊 125 👒 📮	Group 20     (1) ● Group 11     (1) ● Group 11	- 🗹 🎯 Coffee
💰 🔊 235 🛛 💐 📮 🗮	Group 22 🜒 🕊 🖉 Private Call 🕘 🕊 🖉	💷 🖉 🍥 Tea
	Му Мар	🐵 📝 📴 Map Objects
Hispatch	🔍 🔍 🚖 🏠 🖌 Filter: 🛞 🞯 💭 🞯 🍸 🧟 Show Beacons: 🖋 Drawing Panel	👻 🗹 📑 Hospital
Location Tracking 🔶	Select Map X Map Type: Bescon2D	🔲 🦢 Map Regions 📝 🦢 Map Routes
🐮 Job Ticketing	See Caption:	L 🖉 🗫 111
📝 Route Management	Available Maps	
RFID Tracker	Name Path State scheme Dityckene.bmap OK	3
V Text Messages		
🔮 Voice Recording	4 5	f
Reports	Recent Calls/Events	
Event Viewer	Playback 🚽 Save	Auto Filter *
[19] Radio Allocation	Ø 09.06.2017 10:39:0         Add         Edit         Remove         OK         Cancel           Ø 09.06.2017 10:38:5         OK         Cancel         OK         Cancel	Members: 235 A Members: 125
Administration	iiii iii iiiiiiiiiiiiiiiiiiiiiiiiiiii	acons Beacon Events Tag List
🔂 127.0.0.1 🚷 🥵 🙎 Administr	ator 📑 Licensed to: demo	Active

#### • Мар Туре

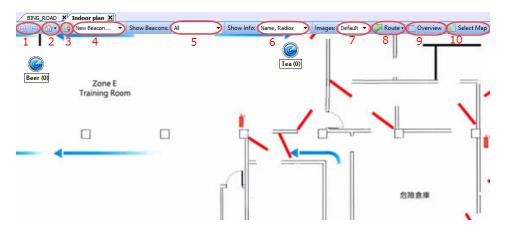
From the drop-down list, select 'Beacon 2D' to enable 2D floor plan, or 'Beacon 3D' to enable 3D floor plan (3).

- Click Add (4), and browse for the required map on your PC.
- Click **OK** (5) to add the map.

## 6.13.1.1 Floor Plan Toolbar

The Floor Plan pane's toolbar is located in the upper part of the Floor Plan pane:





#### 1. Zoom in/out

Click the Zoom buttons to zoom in/out the floor plan.

#### 2. Default View

Click the arrow beside and choose **Save as Default View** to save current floor plan as a default view. The dispatcher can save only one default view.

To open the default view, click the arrow beside (and choose **Show Default View**.

3. Set Location

Click the **Set Location** button to manually set a beacon on the floor plan.

4. Available beacons drop-down list

Select a beacon from the list and click the **Set Location** button to put the selected beacon on the floor plan. If you are going to add a beacon, select 'New Beacon' from the drop-down list and click the **Set Location** button to add a beacon to the floor plan.

5. Show Beacons

The dispatcher can select which beacon types to display on the floor plan.

- All all beacons are displayed on the map.
- With Radios beacons with attached radios are displayed on the map.
- Without Radios beacons without radios are displayed on the map.
- **In Alarm** beacons in Alarm mode are displayed on the map.
- **No** all beacons are hidden on the map.
- 6. Show Info

From the drop-down list, select which information to display for beacons.

7. Images

From the drop-down list, select an image size for beacon icons.

- 8. Route
  - Click Route > Show Route to display a route traveled by the radio for the selected time period.

# **TRBOnet Enterprise** — User Manual



Show Route	×
Radio:	125 (Pete) ~
From:	15-Nov-2016 0:00
To:	<last known="" location=""></last>
Color:	105, 105, 105
	Optimize Route (group all nearest points)
	OK Cancel

• Radio

Select the radio to display the route for.

- From/To Specify the time period to show the route for.
- Color

Select a color to display the route with.

- Click **OK** to show the route for the selected radio.
- Click Route > Play Back Route.

Radio		Beacon	Date	State
Radio 240 mobi	ile	Coffee	21-Nov-2016 15:16:48	Detected
Radio 240 mobi	ile	Tea	21-Nov-2016 15:16:54	Detected
Radio 240 mobi	ile	Coffee	21-Nov-2016 15:16:54	Lost
Radio 240 mobi	ile	Tea	21-Nov-2016 15:16:58	Lost
Radio 240 mobi	ile	Beer	21-Nov-2016 15:17:03	Detected
				Load
	• From:	21-Nov-2016 0:00		Load
•			1>	Load v
Radio 201	From:	21-Nov-2016 0:00	1>	Load v
Radio 201 Radio 202	From:	21-Nov-2016 0:00	1>	<b>v</b>
Radio 201 Radio 202 Radio 203	From:	21-Nov-2016 0:00	<۲	<b>•</b>
Radio 201 Radio 202 Radio 203 Radio 203	From: To:	21-Nov-2016 0:00	1>	<b>v</b>
Radio 201 Radio 202 Radio 203	From: To:	21-Nov-2016 0:00	>	• •

- Select the time period to request data for.
- Select the radio(s) to request data for. Click **Select All** to display history for all radios registered in the system. Click **Clear All** to cancel radio selection.
- Click **Load** to load the history.

#### 9. Overview

Click this button to view the entire floor plan.

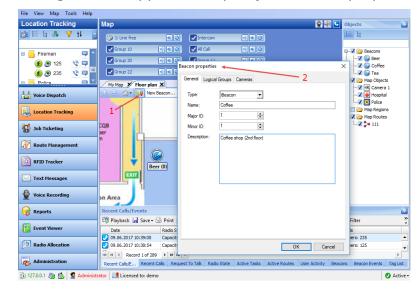
#### 10. Select Map

Click this button to change the map displayed in the current tab.



# 6.13.2 Adding a Beacon to the Floor Plan

- Click the **Set Location** button (1) and then click on the map to point the location of a physical beacon on the floor.
- In the dialog box that appears (2), specify the beacon properties.



#### • Туре

Select the beacon type from the drop-down list (K-Term or iBeacon).

Name

Specify a name for the beacon.

Major ID and Minor ID

Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

Or, if a **K-Term** beacon is being added:

Beacon ID

Enter the beacon's ID exactly as specified on the K-Term device.

Description

Add a description for the beacon.

## 6.13.3 Editing Beacon Parameters

• Select a beacon in the **Objects** panel and double-click to edit its parameters.

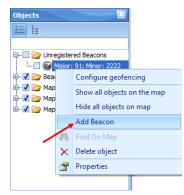




- In the **Beacon properties** dialog box that appears, edit the desired properties.
  - Note: For more details on K-Term beacons, see the following article at <u>https://trbonet.com/kb/how-to-find-out-a-beacon-id/</u>.

# 6.13.4 Unregistered Beacons

If the radio detects an unregistered beacon, this beacon will appear in the **Unregistered Beacons** folder at the top of the **Objects** pane.



To add an unregistered beacon to the Dispatch Console, right-click it and choose **Add Beacon** on the shortcut menu.



# 7 TRBOnet Web Console

TRBOnet Web Console is a special online application. It is an extension for TRBOnet Dispatch Software which allows dispatchers to get access to the system via a Web browser. The Web Console is the best solution for carriers, operators and systems with a huge number of users.

This application allows you to monitor your system without any special software installed on your computer.

# 7.1 Installing Web Console

- Click Start>Control Panel>Programs and Features.
- Click the Turn Windows features on or off link.

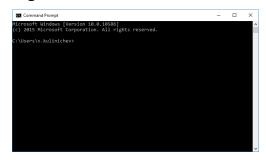
anel Home alled updates idows features on or program from the	Uninstall or change a program To uninstall a program, select it from the list and then Organize  Vininstall/Change	click Uninstall, Change, or Repair.		
dows features on or		click Uninstall, Change, or Repair.		
1	Organize 👻 Uninstall/Change			
rogram from the	Organize 💌 Uninstall/Change			
rogram from the			855	- 0
	Name	Publisher	Installed On	Size
	TRBOnet Enterprise 5.1	Neocom Software	21-Oct-2016	51(
	TRBOnet.Watch 2.3	Neocom Software	02-Sep-2016	111
· \	G Unity Web Player	Unity Technologies ApS	25-Aug-20	12.0
	4 Unlocker 1.9.2	Cedrick Collomb	09-Dec-2015	
	Visual Studio 2010 Prerequisites - English	Microsoft Corporation	23-Nov-20	47.1
	Mindows Driver Package - Google, Inc. (WinUSB) An	Google, Inc.	22-Dec-2015	
	🕿 Windows Driver Package - Motorola Solutions, Inc. (f	Motorola Solutions, Inc.	18-Nov-20	
	💐 Windows Driver Package - Motorola Solutions, Inc. N	Motorola Solutions, Inc.	18-Nov-20	
	🕿 Windows Driver Package - Nokia pccsmcfd LegacyDr	Nokia	25-Aug-20	
	₩inPcap 4.1.3	Riverbed Technology, Inc.	12-Sep-2016	
	Wireshark 2.2.0 (64-bit)	The Wireshark developer comm	15-Sep-2016	171
	III XnView 2.33	Gougelet Pierre-e	07-Sep-2015	16.3
	Служба автоматического обновления программ	Mail.Ru	12-Sep-2016	
	💋 Центр управления мышью и клавиатурой (Micros	Корпорация Майкрософт (Міс…	25-Nov-20	37.3
	🗒 Языковой пакет Microsoft Visual Studio 2010 Tools д	Microsoft Corporation	03-Nov-20	14.6
	<			>
		Служба автоматического обновления программ (Дентр управления мышью и клавиатурой (Micros (Дя Языкосой пакет Microsoft Visual Studio 2010 Tools д с	<ul> <li>Служба автоматического обновления программ</li> <li>Маіl.Ru</li> <li>Центр управления мышью и клавиатурой (Micros</li> <li>Корпорация Майкрософт (Mic</li> </ul>	© Служба автоматического обновления программ Маї.Ru 12-5ер-2016 © Центр управления мышько и клавиатурой (Місток. Корпорация Майкрософт (Міс. 25-Nov-20 ) Языковой пакет Microsoft Visual Studio 2010 Tools д Microsoft Corporation 03-Nov-20 <

- In the **Windows Features** dialog box, expand **Internet Information Services**:
  - Expand Web Management Tools and make sure that IIS Management Console is selected.
  - Go to World Wide Web Services>Application Development Features and make sure all of them are selected.
  - In addition, expand Common HTTP Features and make sure that Static Content is selected.



🔯 Windows Features —		×
Turn Windows features on or off		?
To turn a feature on, select its check box. To turn a feature check box. A filled box means that only part of the feature		
Internet Information Services		^
FTP Server		
🗉 🔳 📴 Web Management Tools		
IIS 6 Management Compatibility		
IIS Management Console 🛻		100
IIS Management Scripts and Tools		
IIS Management Service		
🖃 🔳 📙 World Wide Web Services		
Application Development Features		
.NET Extensibility 3.5		
.NET Extensibility 4.7		
Application Initialization		
ASP		
ASP ASP ASP.NET 3.5 ASP.NET 4.7 CCI SAPP.IEt.47 ISAPI Extensions SAPI Fitters		
ASP.NET 4.7		
CGI		
ISAPI Extensions		
Server-Side Includes		
WebSocket Protocol		
Common HTTP Features		
Default Document		
Directory Browsing		
HTTP Redirection	-	
Static Content		
WebDAV Publishing		
- WOODAV Publishing	_	
ОК	Cance	el

- Restart your PC.
- Click Start>All Programs>Accessories>Command Prompt.



• For 32-bit systems:

Go to This PC>Local Disk (C: )> Windows > Microsoft.NET > Framework > v4.0.30319/aspnet\_regiis.

For 64-bit systems:

Go to This PC>Local Disk (C: )> Windows > Microsoft.NET > Framework64 > v4.0.30319/aspnet\_regiis.

🕑 📑 =	Application Tools v4.0.303	19			-	- x
File Home Share $\rightarrow \checkmark \uparrow \square \rightarrow Th$	view Manage is PC → Local Disk (C:) → Windows → N	ficrosoft.NET > Framework	> v4.0.30319	Search v	4.0.30319	و ا
Desktop # ^	Name	Date modified		Size		
Documents #	adonetdiag.mof	30-Oct-2015 10:19	MOF File	8 KB		
Downloads #	adonetdiag.mof.uninstall	30-Oct-2015 10:19	UNINSTALL File	2 KB		
	alink.dll	30-Oct-2015 10:19	Application extens	116 KB		
E Pictures 🖈	AppLaunch	30-Oct-2015 10:19	Application	95 KB		
Images	applaunch.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		
pictures	Aspect	13-Jan-2014 23:28	XML Configuratio	1 KB		
TRBOnet_5.1	aspnet_compiler	30-Oct-2015 10:19	Application	55 KB		
Ttt	aspnet filter.dll	30-Oct-2015 10:19	Application extens	35 KB		
	aspnet_isapi.dll	30-Oct-2015 10:19	Application extens	25 KB		
ConeDrive	Aspnet.perf.dll	24-Feb-2016 5:12	Application extens	41 KB		
This PC	aspnet.perf.h	30-Oct-2015 10:19	H File	8 KB		
Desktop	aspnet.perf	30-Oct-2015 10:19	Notepad++ Docu	975 KB		
Decuments	aspnet perf2	30-Oct-2015 10:19	Notepad++ Docu	973 KR		
12	aspnet_rc.dll	30-Oct-2015 10:19	Application extens	90 KB		
🕹 Downloads	aspnet_regbrowsers	30-Oct-2015 10:19	Application	44 KB		
Music	aspnet regiis	30-Oct-2015 10:19	Application	40 KB		
Pictures	aspnet_regsal	30-Oct-2015 10:19	Application	124 KB		
Videos	sonet state	30-Oct-2015 10:19	Application	45 KB		
Local Disk (C:)	aspnet_state_perf.h	30-Oct-2015 10:19	H File	1 KB		
Local Disk (D:)	aspnet state perf	30-Oct-2015 10:19	Notepad++ Docu	42 KB		
	aspnet wp	24-Feb-2016 5:12	Application	43 KB		
Network	CasPol	30-Oct-2015 10:19	Application	105 KB		
	Caspol.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		

• Drag the **aspnet\_regiis** file into the **Command Prompt** then press the space bar and add the **-i** key. Then press the **Enter** key:



Command Prompt				-		$\times$
crosoft Windows [Versi ) 2015 Microsoft Corpo	on 10.0.10586] Dration. All right	s reserved.				ĺ
\Users\v.kulinichev>C:	\Windows\Microsof	t.NET\Framework	\v4.0.30319\asp	net_regii	s.exe	-i
_						

- Go to Control Panel > Administrative Tools.
- Double-click the **Internet Information Services (IIS) Manager** shortcut and double-click **ISAPI and CGI Restrictions**.

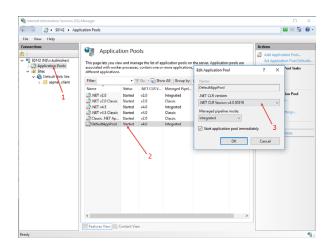
Internet Information Services (II)	5) Manager	– 🗆 X
← → ♥] + \$0142 +		🖬 🗟 🔞 •
File View Help		
Connections	\$0142 Home	Actions
S0142 (NS\v.kulinichev)	30142 Home	Open Feature
<ul> <li>Appleaten Pools</li> <li>Stee</li> </ul>	Pier     Image: Configure All Strong Pier, Area       ADD/ATI       ADD/ATI	Mage Sever 2 Relation 2 Rela
	Reatures View 😨 Content View	
Ready		• <u>1</u>

• In the **Restriction** column, set **Allowed** in all lines.

Sinternet Information Services (IIS	i) Manager		– 🗆 X
← → ♥] + \$0142 +			🖬 🖂 🔂 🕢 -
File View Help			
Far Ven Italp Connection ≥ \$\$ 5012 (2000 kulmichen) → \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	ISAPI and CGI Re Use the feature to specify the IAPI Group by: No Group by: Anter Swere PL API NT Co.S. Allowed API NT Co.S. Allowed API NT Co.S. Allowed	Strictions and CB extensions that can non on the Web serve. Path Sweed-Filiageteen Director Large and Sweed-Filiageteen Director Large and Stripton and Stripton Sweed-Filiageteen Director Large and Stripton and Stripton Sweed-Filiageteen Director Stripton and Stripton and Stripton Stripton Stripton and Stripton and Stripton and Stripton and Stripton Stripton and Stripton and	Actions Add- Dery Edd- Edd- Edd- Edd- Edd- Edd- Edd- Edd
	<	,	
Configuration: 'localhost' application	hHost.config		•a.:

- Copy the Web Site archive WebConsole to Computer > Local Disc (C: )
   >inetpub to create a folder for the Web Console.
- Go to **Application Pools** (1). Double-click **DefaultAppPool** (2) and check the **.Net CLR Version** (3):





• Click Sites (1), right-click **Default Web Site** (2) and choose **View Applications** (3):

Sinternet Information Services (IIS)	Manager					– 🗆 X
(← → 30 + \$0142 + \$ites	•					🖬 🗟 🖓 🔞 •
File View Help						
Connections	0					Alerts
2	Sites					This site has multiple bindings
Application Pools	Name	*	Status	All Group by: No Grouping .	Path	Actions
Opfault Web Site     Site     Site	Default Web Site	1	Startard (b) Add Website	*:80.04to),808:* (net.tcp),localhos		Add Website Set Website Defaults
1	2		Set Website Defau Bindings Basic Settings	alts		Edit Site Bindings Basic Settings
	2	20 X	Explore Edit Permissions Remove			Explore     Edit Permissions     Remove     Rename
			Rename View Application;			View Applications View Virtual Directories
	<      Features View	2 Content V	View Virtual Direc Manage Website Help		>	Manage Website         (a)           C Ratati         > Seat           > Seat         Bronse Website           (a)         Bronse *80 (http)           Advanced Settings         Configure           Limita         Limita           (a)         Help
Ready						•a.

• Click the Add Application link.

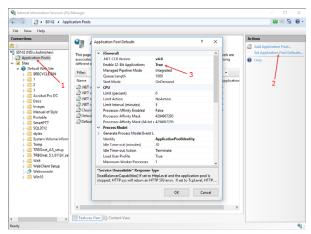
Internet Information Services (IIS)	Manager				– 🗆 X
← →	Default Web Site	•			🔟 🖂 🔂 😡 •
File View Help					
Connections	Applic This page lets you Filter:	Actions           Add Application			
Souther Set (1998)	Vintui Path	Physical Path	Ste	Application Pc	
Ready	Features View	Content View			4

• Specify the **Alias** and **Physical path** for the application:



Add Application			?	×
Site name: De Path: /	fault Web Site			
Alias:		Application pool:		
TRBOnet		DefaultAppPool	Select	
Physical path: C:\inetpub\WebC Pass-through aut				
Connect as	Test Settings			
		ОК	Cancel	

- Browse for the folder with unarchived Web Console.
- Click OK.
- Select **Application Pools** (1) and click the **Set Application Pool Defaults** link (2):



• Set Enable 32-Bit Applications to True (3).

The Web Console will be added as an application to under the Default Web Site:



Note: Make sure your account has sysadmin privileges (for more details, see <u>Appendix B: Configuring SQL Server</u> <u>2012 for Local System Account</u> on page 390, and <u>Appendix C: Granting Sysadmin Role to Local System in</u> <u>SQL Server 2012</u> on page 393) and the database connection is successful (see section <u>5.2, TRBOnet</u> <u>Server Database</u> on page 14).



# 7.2 Configuring Web Console

• If TRBOnet Server is not installed on your PC, select the application and click **Application Settings**:



• Specify the **IP address** and **Port** of the PC with installed TRBOnet Server:

Sinternet Information Services (IIS) M	anager						-		×
(← → () + S0142 + Sites +	Default Web Site 🔸	TRBOnet +					-	2	•
File View Help									
Connections					Act	ions			
2	Applicati	on Settings				Add			
S0142 (NS\v.kulinichev)  Application Pools	Use this feature to store	e name and value pairs that	managed code applications can use	at runtime.		Edit Remove			
🗸 😼 Sites	Group by: No Grouping *								
V 💿 Default Web Site	Name	Value	Entry Type	^		Help			
> aspnet_client	CorrectRoute	False	Local						
> Account	dateTimeFormat		Local						
App_Theme	GoogleClientId		Local						
> - 🔛 Audio	GoogleSignature		Local						
> 🔛 bin	GpsAccuracyOnRo	50 10.10.100.99	Local						
> - Controls	ip MaxSpeedOnRoute	10.10.100.99	Local						
> CustomData	port	4021	Local						
> Docs	ThunderForestApiK	1021	Local						
S - GeocodingS	UdGetCoordinates		Local	~					
> - Images									
<	🛐 Features View 🔐 Co	ontent View							
Configuration: 'Default Web Site/TRBOn	et' web.config								4

• Right click **TRBOnet Web Console** and choose **Edit Permissions**.

Internet Information Services (IIS) Manager	– 🗆 X
← → ② + S0142 + Sites + Default Web Site + TR8Onet +	🖬 🗟 🔞 🔞
File View Help	
Connections (D) (TD D C) (1)	Actions
/TRBOnet Home	Displore
Sold2 (NS/v.kulinichev)     Filter     ·      Go -      Show All Group by: Area     ·      ·	Edit Permissions
Application Pools	Basic Settings
	View Virtual Directories
v- I Default Web Site >- a spnet_client	Manage Application
TRBOnct .NET .NET .NET Error .NET Profile .NET Roles     Orages Globalization	Browse Application
A record a report	Browse *:80 (http)
Audi Audi	Advanced Settings
Mine Section Add Application     ers Application Connection Machine Key Pages and     Add Virtual Directory     Settings Strings Controls	Help
Custr	
> C Docs Manage Application	
> Form in Refresh tate SMTP E-mail	
Remove	
Switch to Content View Intent View	
leady	•

• Click the **Security** tab and then click the **Edit** button to edit permissions:

WebConsole Properties ×
General Sharing Security Previous Versions Customize
Object name: C:\WebConsole
Group or user names:
Authenticated Users
SYSTEM .
Administrators (S0142\Administrators)
Solution (S0142\Users)
To change permissions, click Edit.
Permissions for Authenticated Allow Deny
Full control
Modify 🗸
Read & execute
List folder contents
Read 🗸
Write 🗸 🗸
For special permissions or advanced settings, Advanced click Advanced.
OK Cancel Apply



• Select **User** in the Users list. In the **Allow** column, select **Write**:

Permissions for WebConsole		×
Security		
Object name: C:\WebConsole		
Group or user names:		
Authenticated Users		
SYSTEM .		
Administrators (S0142\Admin	nistrators)	
Solution (S0142\Users)		
		_
	Add	Remove
Permissions for Пользователи	Allow	Deny
Read & execute	$\checkmark$	
List folder contents	· ·	
Read		
Write		
Special permissions	, in the second	
		•
OK	Cancel	Apply

- Click Apply.
- Click OK.

To open TRBOnet Web Console:

- Go to Internet Information Services (IIS) Manager > Connections
   >Sites > Default Web Site > TRBOnet
- Right-click it and choose **Manage Application > Browse**.



TRBOnet Web Console is now ready for operation.

# 7.3 Using Web Console

## 7.3.1 Connecting to TRBOnet Server

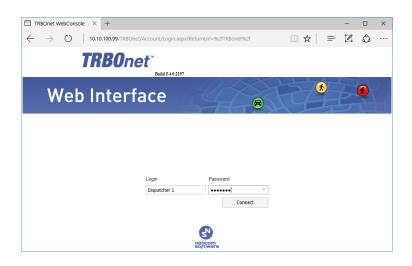
- Launch the browser.
- In the browser's address bar, enter the IP address of the PC with the installed TRBOnet Web Console, and the path (for example, *10.10.100.99/TRBOnet*).

Note: For the path, see section <u>7.1, Installing Web Console</u>, **IIS Manager>Add Application>Alias** 

As a result, the TRBOnet Login page will open:

# **TRBOnet Enterprise** — User Manual





• Login

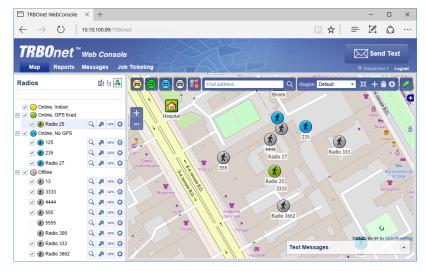
Enter the User Name registered in the TRBOnet Dispatch Console Users list.

• Password

Enter the user password.

• Click Connect.

Once you have connected to TRBOnet Server, you will see a window like this.



## 7.3.2 Radio List

The Radio List pane is located on the left and contains the list of radios. From this pane, you can perform the following tasks.

Click the  $\bigcirc$  button to see the selected radio in the center of the map.

Click the Abutton to button to display a route traveled by the selected radio on the map.



	oute		
<ul> <li>(</li> </ul>	125		^
			- 1
			- 1
			- 1
			- 1
		Select All	v Deselect Al
From:	24-Nov-2016 0:00	Select All	⊽ Deselect Al
From: To:	24-Nov-2016 0:00 24-Nov-2016 18:41	Select All	
			**

Specify the **From** and **To** date and time. Select the **Optimize Route** option to group all points in a 100-meter radius.

Click the <sup>ess</sup> button to request a location of the selected radio.



Click the 🖄 button to display the selected radio properties.



## 7.3.2.1 Disabling a radio

To disable a radio:

- Right-click the desired radio in the Radio List pane.
- In the shortcut menu that opens, click **Disable**.
- Enter the **Reason** and click **OK**.

Note: The dispatcher can disable a radio when they have relevant Access Rights.

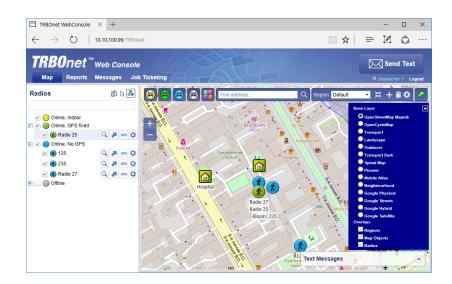
# 7.3.3 Map

#### 7.3.3.1 Map Layers

- Click the small plus button on the right of the Map pane.
- Choose the map layer to display in the Map pane.
- In the Overlays list, select whether to display Regions, Map Objects and Radios on the map. Just select/clear the corresponding checkbox.

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#### 7.3.3.2 Zoom In/Out

- Click the large plus button on the left of the Map pane to zoom in the map.
- Click the large minus button on the left of the Map pane to zoom out the map.

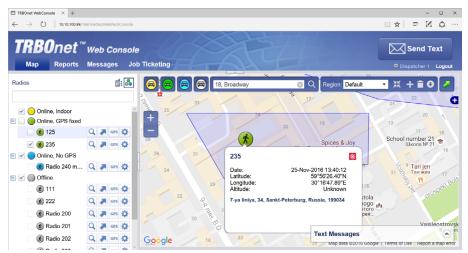
Or:

• Use the mouse wheel to zoom in/out the map.

#### 7.3.3.3 Radio Coordinates and Address

• In the Map pane, click the radio you want to inspect.

As a result, a window will appear displaying the coordinates and address of the inspected radio.



## 7.3.3.4 Filter Radios

You can filter the display of radios on the map. To do this, use the colored car buttons at the top of the Map pane.



- Click et al.
   Click to remove radios that are online and have a detected beacon position from the map view. Click this button again to bring them back to be displayed.
- Click 😇 to remove radios that are online and have a detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 🖾 to remove radios that are online and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 🖾 to remove radios that are offline and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 📴 and select the visibility of the radios having On Duty and/or Off Duty statuses.

#### 7.3.3.5 Search by address

- In the Find Address box, enter the address you want to locate on the map.
- Click the lens button on the right.
- In the Found addresses window, click the address to locate it on the map.



## 7.3.4 Text Messages

With TRBOnet Web Console, you can send text messages to radios/radio groups/dispatchers.

- Click the **Messages** tab at the top of the window.
- Click the **Send Text** button.

# **TRBOnet Enterprise — User Manual**



<b>TRBOnet</b> <sup>™</sup> Web Console				Send Text
Map Reports Messages Job	Ticketing		HI SEA	Dispatcher 1 Log
35 ➡ All	Send Text	Message	×	25-No
kay 25 → All	Text			18-No
kay	See you		1/2	10-110
25 → All		8	222	18-No
k		2		
25 → All G		-	235	18-No
3		8	Radio 200	
		8	Radio 201	
		8	Radio 202	
	-		n- Ji- 202	
	Send 1	to Offline		
			Send Cancel	

In the Send Text Message window that appears:

- Enter the text of the message.
- Select the radios/radio groups/dispatchers to send the message to.
- Select the Send to Offline option to send the message to offline radios.

## 7.3.5 Job Ticketing

With TRBOnet Web Console, you can create, assign, and track job tickets through the radio network.

• Click the **Job Ticketing** tab at the top of the window.

TRE	80net™	Web Cons	sole				Send Te	ext
Мар	Reports	Messages	Job Ticketing	-6			Dispatcher 1	Logout
🛃 Add	📑 Edit	🐒 Assign	🛃 Archive					
	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	s
	۹	Q	۹	Q	۹	٩	٩	(
	New	#A00011	Check the pipe		07-Nov-2016 16:27:42			0
$\checkmark$	New	#A00017	Get out of there		25-Nov-2016 14:10:25			
🛃 Add	Edit	🐒 Assign	🎪 Resend 📑 Archiv	ve 🖉 Cancel				
Eð Yuu		a rasign	Vicacita Arctin	Ve Cancer				
	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	S
	Q	Q	۹	Q	م	۹	Q	
	Assigned	#A00007	456		07-Nov-2016 15:38:32			
	Assigned	#A00010	Stop smoking		07-Nov-2016 15:42:27			
	Rejected	#A00014	To be done on %DATE%		07-Nov-2016 16:36:00		07-Nov-2016 16:36:33	3

In the upper pane, you see the list of created job tickets. In the lower pane, there are assigned job tickets.

#### 7.3.5.1 Add a Job Ticket

• Click the **Add** button.



Job Ticket - Micros	ioft Edge — 🗆
10.10.100.99/TR	8Onet%20Web%20Console/Forms/A
Ticket ID:	#A00000
Text:	Check the pipe
	Enable Deadline
End Time:	25-Nov-2016 14
Priority:	Medium
Comment:	
	OK Cancel

#### • Ticket ID

This value will be set automatically once the ticket has been created.

• Text

Enter the text message in this box.

• Enable Deadline

Select this option and in the **End Time** box, specify a due date and time for the task.

• Priority

From the drop-down list, select the task priority level.

• Comment

Enter a comment for the ticket.

• Click OK.

Once you have added a ticket, it will appear in the list of tickets in the upper pane.

#### 7.3.5.2 Assign a Job Ticket

Select the job ticket in the upper pane, and click the **Assign** button.

Recipients	×
Cleaners	~
📃 🚞 Firemen	
Police	
🗌 🛞 111	
🗹 😥 125	
222	_
235 🕜 🖉	
Radio 200	
Radio 201	
🗌 🛞 Radio 202	
🗌 🛞 Radio 203	
Radio 204	
Radio 240 mobile	
🔄 🕘 Walt	$\sim$
	OK Cancel

- In the list, select a radio(s), radio or logical group to which to assign the job ticket.
- Click **OK** to assign the task to selected radio(s).

As a result, the selected radio will receive the job ticket. The assigned job ticket will appear in the upper pane.



## 7.3.6 Reports

• Click the **Reports** tab at the top of the window.



• In the right pane, select report parameters and click **Generate Report**. Once the report is generated, you will see it in a separate tab of your Web browser.

TRBOnet WebConsole	E Location for period $\times$ +											-		
$\rightarrow$ 0	10.10.100.99/TRBOnet%20Web%20Console/R	iports/GPSByFilter/GPS	ByFilterResult.aspx?rac	dio=08:minInterval=0	8.showStreetNames=fa	alse&unit=18:start	Date=18/11/	2016+11:2	18:endDate	$\Rightarrow$	=	$\mathbb{Z}$	۵	
1 <b>4</b> 1	🥵 🖾 🚽 Page <mark>1</mark>	▼ of	337	N 🗒	Pdf	~								
	for period 6 11:21 to 25-Nov-2016 11:21													
Radio: 125 (C	leaning 1)													
		Altitude (meter)	Accuracy (meter)											
18-Nov-2016 11:21:29	Latitude: 59°56'25.95"N Longitude: 30°16'47.96"E	Unknown	37	0.0	0	<u>on map</u>								
18-Nov-2016 11:22:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.91"E	Unknown	35	0.0	0	<u>on map</u>								
18-Nov-2016 11:22:59	Latitude: 59°56'25.96"N Longitude: 30°16'47.90"E	Unknown	46	0.2	0	<u>on map</u>								
18-Nov-2016 11:23:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
18-Nov-2016 11:23:59	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
18-Nov-2016 11:24:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
18-Nov-2016 11:25:01	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
18-Nov-2016 11:25:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>								
18-Nov-2016	Latitude: 59°56'26.23"N													

You can print the report, save it as a file, and so forth.

## 7.3.7 Alarms

When an alarm is received from a radio, the radio icon will turn red, and a corresponding Information window will pop up displaying the radio's name, coordinates, and speed.



adios	🛯 🗄 💑		Find address	Q Region: Default	- ₩ + 🖹 🛛 🖓	United Kingdom
<ul> <li>Online, Indoor</li> <li>Online, GPS fixed</li> </ul>		+				Fran
🖌 🦲 Online, No GPS		+	11 J 1	12		
🗹 💰 Cap Max 230	Q 🔎 GFS 🛱	_	United States			España
Offline						
🛞 app	Q 🔎 GPS 🛱					Algérie
🗹 🛞 Cap Max 135	Q 🔎 ors 🛱				Information	-C
🛞 Radio 1	Q 🐊 crs 🛱		México		Cap Max 230	
Radio 2	Q 🐊 ars 🛱				×	3/2021, 7:12:15 PM
🛞 Radio 4002	Q 🚚 GFS 🛱				Emergency Call	5/2021, 7:12:15 PM
🗹 🛞 Radio 4010	Q 🛪 ars 🛱			Sec. Carrie	GPS Date: 3/1/2021, 10:12	:16 AM
Radio 888	Q 🚚 ars 🛱			Colombia	Latitude: 59°56'25.07" N Longitude: 30°16'45.76" E	
					Speed: 0.0 km/h	
				a particular	< <prev 1="" 1<="" message="" of="" td=""><td>Next&gt;&gt;</td></prev>	Next>>
				Perú		



# **Appendix A: SQL Server Edition Considerations**

How to select SQL Server							
	0 - 200 subscriber units	200 + subscriber units					
Windows 7, Windows Server 2008	MS SQL 2008 Express	MS SQL 2008 Standard					
Windows 8, Windows Server 2012	MS SQL 2012 Express	MS SQL 2012 Standard					
Windows 10, Windows Server 2016	MS SQL 2016 Express	MS SQL 2016 Standard					



# Appendix B: Configuring SQL Server 2012 for Local System Account

During installation of MS SQL Server 2012, you can grant the required role to Windows **Local System** account in advance. On the configuration setup, click **Database Engine Configuration**:

😭 SQL Server 2012 Setup					
Database Engine Conf Specify Database Engine auth	-	administrators and	data directories		
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration <b>Database Engine Configuration</b> Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration Specify the authent Authentication Moc Windows authen Mixed Mode (SQ Specify the password: Confirm password: Specify SQL Server a DIM_WIN7_002Nadm Add Current User	ication mode and de	administrators fo	or the Database F	in)
		(	< Back	Next >	Cancel Help

# Windows Authentication mode

- Click Add to add an additional account to MS SQL Server administrators.
- In the **Select Users or Groups** dialog box, click the **Advanced** button in the **Enter the object names to select** box to find a required user name.

Select this object type:	
Users, Groups, or Built-in security principals	Object Types
From this location:	
VM_WIN7_002	Locations
Enter the object names to select (examples):	
	Check Names
	(

• Click the **Find Now** button and select LOCAL SERVICE account. Click **OK** to add the user and close the window.

# **TRBOnet Enterprise — User Manual**



elect Users or Groups		<u>? ×</u>
Select this object type: Users, Groups, or Built-in security principals		Object Types
From this location:		
MITYA		Locations
Common Queries		
Name: Starts with 💌		Columns
		Find Now
Description: Starts with		Find Now
Disabled accounts		Stop
Non expiring password		
Days since last logon:		
Search results:		OK Cancel
Vame (RDN)	In Folder	
	MITYA	
INTERACTIVE		
LIUSR		
LOCAL SERVICE		
NETWORK		
NETWORK SERVICE		-
OWNER RIGHTS		
restore	MITYA	
SERVICE		
SQLServer2005SQLBrowserUser\$MITYA	MITYA	

• NT AUTHORITY\LOCAL SERVICE (LOCAL SERVICE) will be added to the list of SQL administrators:

Specify Database Engine authe	ntication security mode, administrators and data directories.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration         Data Directories         User Instances         FILESTREAM           Specify the authentication mode and administrators for the Database Engine.         Authentication Mode         Image: Configuration of the Database Engine.           Windows authentication mode         Image: Configuration of the Database Engine.         Image: Configuration of the Database Engine.           Mixed Mode (SQL Server authentication and Windows authentication)         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server administrators         Image: Configuration of the SQL Server administrator (sa) account.         Image: Configuration of the SQL Server administrators         Image: Configuration of the SQL Server administrators <td< th=""></td<>
	VM_WINZ_002vadmin (edmin)     SQL Server administrator       NT_AUTHORITYLOCAL SERVICE (LOCAL SERVICE)     have unrestricted access to the Database Engine.       Add Current User     Add

• Click **Next** and follow the prompts to finish the installation.



# Mixed Authentication mode

Setup Support Rules	Server Configuration Data Directories FILESTREAM	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration <b>Database Engine Configuration</b> <b>Database Engine Configuration</b> Ready to Install Installation Configuration Rules Ready to Install Installation Progress Complete	Specify the authentication mode and administrators for the Databa Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows authentic Specify the password for the SQL Server system administrator (sa) a Enter password: Confirm password: Specify SQL Server administrators	ation
	TRBOnet-PC\Adminuser Add Current User Add Remove	SQL Server administrators have unrestricted access to the Database Engine.

- Click Mixed Mode (SQL Server authentication and Windows authentication).
- Enter and confirm the password for SA SQL user in the **Enter password** and **Confirm password** boxes.
- Click the Add Current User button (unless it is already there).

Note: Once you have added the SA account, you'll be able to use this SA account to connect to SQL Server with administrator privileges as an alternative to a Windows user account.



# Appendix C: Granting Sysadmin Role to Local System in SQL Server 2012

If you have already installed MS SQL 2012, you need to grant **sysadmin** role to **Local System** account in MS SQL Server 2012.

- From the Start menu, run SQL Server Management Studio.
- Connect to your database instance where TRBOnet database is created.
- Go to **Security** node and select **Logins**.



- Right-click NT AUTHORITY\SYSTEM login and choose Properties.
- In the Login Properties window, select Server Roles and select the sysadmin checkbox.

elect a page		
P General	📓 Script 🔻 🚺 Help	
P Server Roles		
Ver Mapping	Server role is used to grant server-wide security privileges to a user.	
P Securables		
Status		
	Server roles:	
1	Dukadmin bukadmin	
1	diskadmin	
1	processadmin	
1	V public	
	ecurityadmin	
· · ·	serveradmin	
	setupadmin	
	💟 sysadmin	
	R	
onnection		
Server:		
/M_WIN7_002\SQLEXPRESS	N	
Connection:		
/M_WIN7_002\admin		
Wew connection properties		
THEN CONTRACTOR OF THE		
rogress		
Ready		
0		

• Click **OK** to add **sysadmin** privileges to the selected user.



# Appendix D: Backing up and Restoring Database and Audio Recordings

# **Configure Backup**

TRBOnet Dispatch Software has an automatic mechanism for database and audio recordings backup. Initially, it defaults to two paths to store database and audio recordings.

For TRBOnet Enterprise:

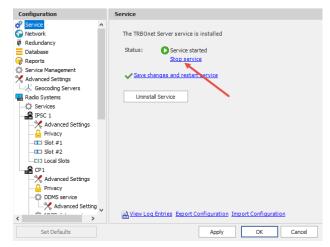
%ProgramData%\Neocom Software\TRBOnet.Enterprise\Backups and %ProgramData%\Neocom Software\TRBOnet.Enterprise\Audio.

For TRBOnet Plus:

%ProgramData%\Neocom Software\TRBOnet.Plus\Backups and %ProgramData%\Neocom Software\TRBOnet.Plus\Audio.

For your convenience, the default paths can be changed:

• Open TRBOnet Server and stop the TRBOnet Server service.



- To customize these backup folders, on the Configuration pane, select Database, then select the Save database backups to and Save audio recordings to options. Next, enter the new (custom) folder for the backup database (for example, C:\TRBOnet\Backup\DB) and custom folder for the audio files (for example, C:\TRBOnet\Backup\Audio). The database and audio backups will be stored in the selected directories.
  - Note: Older backups are not deleted automatically. It is recommended that you regularly delete the files you no longer need to avoid running out of storage space.



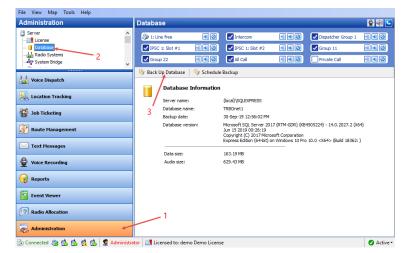
Configuration		Database		
💣 Service	^			
S Network		SQL Server:	(local)\SC	QLEXPRESS -
Redundancy		Database:	TRBOnet	*
Remote Access Restriction		Authentication:	Windows	
Database		na chaocadonn	Windows	
😪 Reports		Username:		
Service Management		Password:		
🔀 Advanced Settings				
		Save database ba	ckups to	
掘 Radio Systems			- 	
Services		Folder:	C:\IRBO	Inet\Backup\DB
		Save audio record	lings to	
IPSC 1		Folder:	C-\TPBO	net\Backup\Audio
Advanced Settings		Poluer:	C. (INDOI	
Privacy		Save attachments	; to	
<b>II</b> Slot #1		Folder:		
<b>III</b> Slot #2		1 GIGCI I		
Local Slots				
CP1		Test Conne	ection	
		Upgrade Data	hase	<b>•</b>
Privacy	•			+
< >>		Create Datab	oase	•
Set Defaults				Apply OK Cancel

• Save your changes and restart the service.

# Back up Database and Audio Recordings

To back up the database and audio recordings, do the following:

- In the Dispatch Console go to Administration (1), and select Database
   (2) in the Navigation tree.
- Click the Back Up Database (3) button:



• Specify the backup details:



ack Up Database		>
Remove old data and shrink da	tabase	
Path: C:\ProgramData\Neocom Software\TRB0	Onet.Enterprise\Backups	
🗹 Back up data		
Back up audio		
Remove		
Remove all data older than date:	27-Nov-19	Ŧ
Audio files		_
Data		
	OK	Cancel

Back up audio

Select to back up audio recordings.

Remove

Select to remove audio files and data from the database.

- Remove all data older than date
   Specify the date to remove data older than that specified date.
- Audio Files
   Select to remove audio files.
- Data

Select to remove data.

• Click **OK** to run the backup procedure.

The Backup progress bar will be displayed in the lower-right corner.

1. In a while, a ZIP archive will be created in two possible directories:

For TRBOnet Enterprise:

- The default directory is %ProgramData%\Neocom Software\TRBOnet.Enterprise\Audio for Audio files and %ProgramData%\Neocom Software\TRBOnet.Enterprise\Backups for backup files.
- The custom directory is specified in TRBOnet Server settings.

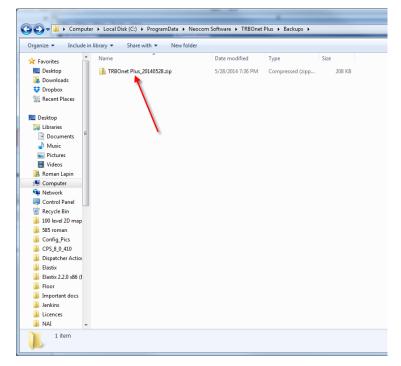
For TRBOnet Plus:

- The default directory is %ProgramData%\Neocom Software\TRBOnet.Plus\Audio for Audio files and %ProgramData%\Neocom Software\TRBOnet.Plus\Backups for backup files.
- The custom directory is specified in TRBOnet Server settings.
- 2. The archive includes the database backup file and audio recordings files. The archive name contains the date of backup. New backup files will be placed in the same directory.



		C. 0			_		
Computer + Loc	al Disk (C:) + ProgramData + Neoc	com Software + TRBOnet.	Enterprise + Backups	• •	- 69	Search	Bac
Organize • Include in library •	Share with  New folder				8==	• 🗆	
🚖 Favorites 📫 Name	<u>^</u>	Date modified	Туре	Size			
📃 Desktop 🛛 🗎 Tr	80net.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
🐌 Downloads	<b>*</b>						
Secent Places	1						
Cesktop	\ \						
Cibraries							
Documents							
Music  Pictures =							
Videos							
Roman Lapin							
Computer							
Network							
Control Panel							
Recycle Bin							
CP5_8_0_410							
Elastix							
Important docs							
🇼 Pics							
SASPlanet_12080k							
1 item							
1 nem							

For TRBOnet.Plus:



## **Restore Database**

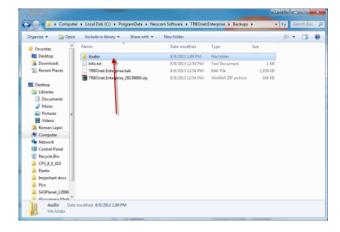
#### To restore the database

• Open TRBOnet Server and stop the TRBOnet Server service.

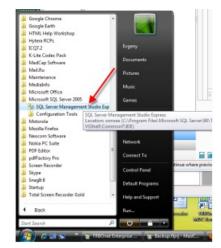


Configuration	Service		
Computation         Computation	The TRBOnet Server service is installed Status: Service started Stop service Save changes and restart nervice Uninstal Service	D Import Configurati	20
Set Defaults	Apply	ОК	Cancel

• Unzip the backup archive and open the folder:



• Run **SQL Server Management Studio** with sufficient rights to manage databases.



• Select **Database** in the navigation tree (for example, **TRBOnet**):



Be Life Yere Rebug Iorb Window Help 	
Chiet Explore + 9 X	
Connect * 2 2 = 7 2 3	
III B YM_WW/G02/SQLEPRESS (SQL Serve	
🕞 🧊 Databases	
🖂 🎑 System Databases	
🕱 📋 master 🗄 间 model	
a moute	
II Tar Security	
III im Replication	
10 🚘 Maragement	
· ·	
Ready	
🚯 🥝 🛗 🐧 🕵 📖	- 4 5 9

• Right-click the selected database, and go to **Tasks/Restore/Database**:

No backupset selected to be res	itored.		
Select a page	Script - Help		
😤 General 🚰 Files	Source		
P Options	Detabase:		
	O Device:		
	Ogtabases		
	Destination		
	Database	TRBOnet	
	-		
	Bestore to:		
	Restore plan		
	Backup sets to restores		
Connection			
Connection  VM_WB/7_002/SQLEXPRESS [VM_WB/7_002/sdmin]			
WM_WIN7_002\SQLEXPRESS			
VM_WDR_002\SQLEXPRESS [VM_WDR_002\wdmin]			
WM_WIN7_002\sQLEXPRESS [VM_WIN7_002\admin]	xW		Yerify Backup Media

Select Database backup properties:

- In the **Destination** group, type in or select **Database** name to back up to from the drop-down list (for example, **TRBOnet**).
- In the **Source** group, click **Device**.
- Click the ellipsis (...) button to select the directory with database backup:

1 Restore Database - TRBOnet		0.01
No backupset selected to be rest	tored.	
Select a page	Script - Help	
∰ General ∰ Files ∰ Options	Source © Ontobase ® Opvice Database	
	Destination Detaipase	TREOver
	Bestore to:	Indice
	S -> Select hackup device Specify the backup med Backup media type Backup media type Backup media	da se da konton to yaz retore gonsten <u>File</u> <u>Add</u> Demon
Connection		Coripetta
VM_WN7_002(SQLE0PRESS (VM_WIN7_002(admin))		
View connection properties		
Progress		QK Cancel Help +
O Ready	L	QK Cancel Hulp *
		OK Cancel Help



• Click **Add** and select the directory to which you unarchived the database backup (for example, **C:\TRBOnet\Backup\DB**).

Specify the backup media an	its location for your restore operation	on.
Backup media type:	File	•
Backup media:		
		Add
		Remove
		Contents

Note: Select the **\***.**bak** file type.

• Click **OK** to add the directory.

∰ Files ∰ Options	Source - Database	
∰ Files ∰ Options	Source © Dotobase © Dovice: Dotobase: Destination	
	Bestore to: Specify the backup device Specify the backup residence Backup media type: Backup gedia:	TBOH
Connection VMUNDE 012/SQLEXPRESS (VM_WINE_012/sdumin) View connection properties		
Programa		
O Ready		Cancal Help

• Click OK.

The database is added to the list of restored databases.

Restore Database - TRBOnet								
Ready								
elect a page	Script -	Help						
General Files								
Options	Source							
options	O Datai	base						-
	Devic		C\Pro	gramData/Neocom 1	ioftware\TR	BOnet.Ent	erprise\Backup\TRB	
		Database	TRBC	in at				
		n Transac	mbro	aner.				
	Destination							
	Databas	e	TRBO	net				
	Bestore	to	Thela	est backup taken (Tue	sday, Augus	# 06, 2013	11:21:27 .	Timeline
	Restore pla							
		ts to restore:						
	Heatore [2]	Name Component Database		S001\SQLEXPRESS	Database		Pirst LSN 24000000021800037	Last LSN 240000000
		$\backslash$						
onnection		<b>`</b>						
VM_W0N7_002\SQLEXPRESS [VM_W0N7_002\admin]								
few connection properties					۱			
rogress								
Oone Done							Yerify 8	eckup Media
					_			

- Select the checkbox and click **OK** to restore the database.
- In the **Configuration** pane, select **Database**.



• From the **Database** drop-down list, select the restored database.

Configuration		Database				
💣 Service	^					
Network		SQL Server:	(local)\SQL	EXPRESS		-
🛱 Redundancy		Database:	TRBOnet1	1		-
Remote Access Restriction		Authentication:	TRBOnet	•		
Database		Autrientication;	TRBOnet1			
😪 Reports		Username:	TRBOnet2			
Service Management		Password:	TRBOnet5			
🔀 Advanced Settings			TRBOnetW	atch		
Geocoding Servers		Save database bac				
Radio Systems		Folder:	TRBOnetW			
🗘 Services		rouer.	TROOHELW	atunz		· ·
- 🛃 System #1		Save audio recordin	ngs to			
PSC 1		Folder:				
-X Advanced Settings						
Privacy		Save attachments t	to			
		Folder:				
Local Slots				_		
CP1		Test Connec	tion			
Advanced Settings		Upgrade Databa	ase	*		
Privacy	~	Create Databa		-		
< >		Create Databa	150			
Set Defaults				Apply	ОК	Cancel

- Click **Test Connection** to check the connection to the database.
- Click **Upgrade Database** to upgrade the database if the current database was restored from the database version lower than current.
- Click the Save changes and restart service link.

Configuration	Service
Configuration	The TRBOnet Server service is installed Status: Stop service Save changes and restart service Uninstall Service
<	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

# **Restore Audio Recordings**

To restore the audio file:

• Launch TRBOnet Server and stop the TRBOnet Server service.



Configuration	Service
Service     S	The TRBOnet Server service is installed Status: Service started Status: Save changes and restart hervice Uninstall Service Uninstall Service
Set Defaults	Apply OK Cancel

Go to Database section in the navigation tree and specify custom directory for audio files (for example, for TRBOnet Enterprise
 C:\TRBOnet.Enterprise\Backup\Audio; for TRBOnet Plus:
 C:\TRBOnet.Plus\Backup\Audio).

Configuration	Database	
💣 Service 🔨 🔨		
S Network	SQL Server:	(local)\SQLEXPRESS +
🕸 Redundancy	Database:	TRBOnet1 -
Database     Reports	Authentication:	Windows
🔅 Service Management	Login:	
Advanced Settings	Password:	
Radio Systems	Specify the path for	or database archives
PSC 1	Path:	C:\TRBOnet\Backup\DB ····
Advanced Settings	✓ Use custom folder	for audio files
Privacy	Path:	C:\TRBOnet\Backup\Audio
<b>III</b> Slot #2	Use custom folder	to store file attachments
CP1	Path:	
Advanced Settings		
····· 🔒 Privacy	Test Connec	tion
DDMS service	Upgrade Datab	ase 👻
Advanced Setting	Create Databa	
Set Defaults		Apply OK Cancel

- Go to the directory you specified to store backup audio files.
- Unzip the backup archive:

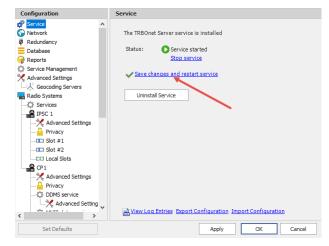
Organize 👻 🛛 🏹 O	pen	Include in library      Share with	New folder			800	· 🗇	
🔆 Favorites	*	Name	Date modified	Туре	Size			
E Desktop		🕌 Audio	8/9/2013 1:09 PM	File folder				
🗼 Downloads		info.txt	8/9/2013 12:54 PM	Text Document	1 KB			
3 Recent Places		TRBOnet.Ente prise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
		TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Cesktop								
Calibraries								
Documents								
Music								
Pictures	=							
Videos								
Roman Lapin								
Computer								
Network								
Control Panel								
Recycle Bin								
CPS_8_0_410								
Elastix								
limportant docs								
Pics	-							
SASPlanet 12080								
Mean manual Mart	-							



 Copy unarchived audio files to the folder specified in TRBOnet Server settings (for example, C:\ProgramData\TRBOnet Dispatch Software \Audio):

Drganize • Include	in library      Share with      New	folder	1	ii • 🖬 🖲
Downloads	Name	Date modified	Type Size	
Recent Places	2012 01 31 12	1/31/2012 12:27 PM	File folder	
	2012 01 31 18	1/31/2012 6:06 PM	File folder	
E Desktop	2012 01 31 20	1/31/2012 813 PM	File folder	
Cibraries	2012 02 01 10	2/1/2012 10:48 AM	File folder	
Documents	2012 02 01 18	2/1/2012 6:55 PM	File folder	
J Music	2012 02 01 19	2/1/2012 7/56 PM	File folder	
Pictures	2012 02 01 20	2/1/2012 8:20 PM	File folder	
Videos	2012 02 02 17	2/2/2012 5:29 PM	File folder	
🔏 Roman Lapin	2012 02 03 15	2/3/2012 3:53 PM	File folder	
Computer	2012 02 03 16	2/3/2012 4:10 PM	File folder	
🗣 Network 💡	2012 02 03 18	2/3/2012 643 PM	File folder	
Control Panel	2012 02 06 15	2/6/2012 3:58 PM	File folder	
Recycle Bin	2012 02 06 16	2/6/2012 4-54 PM	File folder	
CP5_8_0_410	2012 02 06 17	2/6/2012 5:24 PM	File folder	
🎍 Electix	2012 02 06 18	2/6/2012 6:02 PM	File folder	
Important docs	2012 02 07 13	2/7/2012 1-35 PM	File folder	
Pics	2012 02 07 15	2/7/2012 3:45 PM	File folder	
SASPlanet_12080	2012 02 07 16	2/7/2012-4:06 PM	File folder	
🎍 Искодники Маф	2012 02 07 18	2/7/2012 6:34 PM	File folder	
🎍 @eno	2012 02 08 13	2/8/2012 1:47 PM	File folder	
	1 2012 02 08 14	2/0/2012 2:40 014	Ella da blaz	

• Click the Save changes and restart service link.



Thus, the audio files will be restored.

#### Schedule Backups

To set a scheduled backup for the database and audio recordings, do the following:

- In the Dispatch Console, go to **Administration** section and select **Database** in the Navigation tree:
- Click the Schedule Backup button:



File View Map Tools Help						
Administration	Database					👲 🚸 🔽
Server  Subbase  Sub	<ul> <li>I: Line free</li> <li>IPSC 1: Slot #</li> <li>Group 22</li> <li>Back Up Datab.</li> </ul>		Intercom IPSC 1: Slot #2 Intercom IPSC 1: Slot #2 Intercom	1) # 0 1) # 0	Dispatcher Group 1 Group 11 Private Call	1) # 0 1) # 0
Voice Dispatch		ase Information	< <u> </u>			
Location Tracking	Server n		(local)\SQLEXPRESS			
🚰 Job Ticketing	Databas Backup (		TRBOnet1 30-Sep-19 12:56:02 PM			
😥 Route Management	Databas	e version:	Jun 15 2019 00:26:19 Copyright (C) 2017 Micros	oft Corporation	10.0 <x64> (Build 18362; )</x64>	
C Text Messages	Data siz	70:	163.19 MB		10.0 < X042 (build 16362. )	
Voice Recording	Audio s	ize:	629.43 MB			
😪 Reports						
Event Viewer						
8 Radio Allocation						
Administration						
🖒 Connected 🦓 🔂 🔂 🔂 🔂 Administra	tor Licensed to:	demo Demo Licen	ie .			Active -

• In the dialog box that appears, specify the Backup details:

Enable scheduler	
Scheduler:	Database Backup v •
Backup data	(Select Al)
Backup audio	adf
Remove	ghj
Remove all data	rty
Audio files	old qwaty
Data	OK Cance _

#### • Enable scheduler

Check to enable the database backup scheduler.

#### • Scheduler

Click the arrow button on the right, and on the drop-down list select the required scheduler(s). Or, click the plus button on the right, and create a new scheduler.

For directions on how to create schedulers, see section <u>6.4.22</u>, <u>Schedulers</u>.

Backup data

Check to back up data.

- **Backup audio** Check to back up audio recording.
- Remove

Check to remove audio files and data from the database.

Remove all data older than [X] days
 Select the number of days to remove all data.



# Audio Files Charle to remove out

Check to remove audio files.

- Data
  - Check to remove data.
- Click **OK** to run the backup procedure.



# **Appendix E: SIP Setup for Motorola Phone System**

The native MOTOTRBO phone system is supported in the case of a direct IP connection to the repeater. MOTOTRBO Phone system is recommended for IP Site Connect mode.

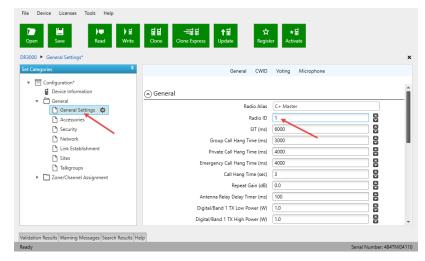
Note: No extra license per repeater is required for Digital Phone Patch from Motorola.

#### **TRBOnet Software and Repeaters**

TRBOnet Server requires a specific setup for a repeater in the IP Site Connect mode as well as for SIP in order to make the phone system work properly.

Note: MOTOTRBO Phone System is available for repeaters in IP Site Connect mode. For a system based on the control stations, use TRBOnet Phone System.

Launch **MOTOTRBO CPS** and go to Repeater's **General > General Settings**:



The **Radio ID** of the repeaters in CPS must differ from the TRBOnet Peer ID. TRBOnet Dispatch Console acts as another virtual peer repeater with a Peer ID. For example, given an IPSC network consisting of 1 master and 3 peers, the repeaters' IDs (Radio IDs in CPS codeplugs for the repeaters) in this example would be 1, 2, 3, 4. The TRBOnet Peer ID must not be a value of 1, 2, 3, or 4, and must differ from all the repeaters (the master and all peers), otherwise a conflict will happen in the network as there are multiple peers with the same ID. The default TRBOnet Radio ID is 64250.

- Open TRBOnet Dispatch Console.
- Go to Administration (1), Phone Calls (2), Configuration (3), Configure (4) and set Access code and Deaccess code (5) to 0 and #, respectively:



dministration	Phone Calls			율 🕸
Server A	Configuration Extensions Call Redirection Phone Co Radio Call Configuration 3 Access code: Deacess code: Callback Request Options	antacts Dial Plans Radio Call Configuration Access code: Descress code: 5	×	-
(III) Clother Pelds     (III) Pelds     (	Allow relates to make adopting calls: Gend a Disc moment of programs a callador: Sand a text mensage to request a callador: Sant to mension: <b>Calls to Radios and PAC Devices</b> Sant to mension: Max mg time: Orex, if the radio is available before making a call: Call unotifications: Play a time when PTT is presed or released: Contract	Callack Request Options Callack Request Options Source and a DTHF command to request a Source and a DTHF command to request a Source and a text message to request a Use this prefix in text messages: Start transmission: Calls to Radios and PoC Devices Start transmission: Maxing thre:		
Text Hessages       Voice Recording       Reports	Inbound Call Configuration Inbound Call Control Call to Dispatch Centers: Call to unregistered number: Do not establich call until Called party responds:	Check if the radio is available before mu Call notifications Play a tone when PTT is pressed or rele Tone volume level:	sking a cal	
Event Viewer Telemetry Administration	Interactive Voice Response (IVR) Options Do not wait for Accept code: Maximum number of digits: Accept code: Number	# Destration	OK Cancel	

# **Programming Radios**

A special setup is required for radios in MOTOTRBO CPS.

Read a subscriber's radio in CPS and go to Systems > Phone Systems > System (1):

Dr H )	료료 극료료 ↑료 ☆ Clone Clone Express Update Registe	★ 🖬 r Activate
P4801e + Phone Systems + Sys1* iet Categories	Genera	I DTMF
Configuration*     Device Information	General     General     General     General     Second and a	
General     Job Tickets	2 System Name	Sys1
<ul> <li>Systems</li> <li>Signaling Systems</li> </ul>	Gateway ID	0
User Defined 5 Tone	Deaccess Code	#
MDC Systems	⊙ DTMF	
Quik-Call II Systems     Digital Emergency Systems	Pretime (ms)	500
Digital Emergency Systems     Capacity Plus Emergency System	TX Tone Duration (ms)	120
Copucity Has chargency system     Phone Systems	TX Tone Interval (ms)	80
Sys1 🔯	Pause Duration (ms)	4000
< >		

- Make sure that **Gateway ID** (2) is equal to **TRBOnet Peer ID** in the Repeater settings of TRBOnet Server.
- Set Access Code to 0 and Deaccess Code to #, respectively (3).
- Go to Zone/Channel Assignment >...> Zone> Channel (1) and select the Phone System you have previously specified (2):



File Device Licenses Tools Help			
Open Save Read	)∎ ⊒⊒ Write Clone	-=립립 ▲ ▲ ☆ Clone Express Update Regist	
DP4801e Zone Zone1 Zone Items	R. C.		×
Set Categories	*	Gener	al RX/TX
▼	â		
Device Information	1	Voice Announcement File	None
General		Dual Capacity Direct Mode	
Job Tickets		Timing Leader Preference	Eligible
<ul> <li>Systems</li> </ul>		Scan/Roam List	None
Encoder		Auto Scan	No
Decoder     Contacts		Color Code	5
Contacts      RX Group Lists			Disabled
<ul> <li>Zone/Channel Assignment</li> </ul>		-	Disabled
▼ D Zone		Inbound Color Code	1
Sane1		Outbound Color Code	1
Channel Pool		Repeater/Time Slot	1
Scan Lists		Phone System	Sys1
Capacity Plus Lists	w	ARS	On System Change
•	Þ	Enhanced GNSS	<u> </u>
Validation Results Warning Messages Search	Results Help		
Ready			Serial Number: 871TSHF956



# **Appendix F: NAI VOICE & DATA Support**

TRBOnet Dispatch Software supports MOTOTRBO Network Application Interface (NAI) VOICE and DATA.

NAI protocol allows operating with MOTOTRBO Capacity Plus and MOTOTRBO Linked Capacity Plus repeaters over IP (Wireline Dispatch Console).

Voice Repeaters must have NAI VOICE and NAI DATA license activated. Data Revert repeaters must have NAI DATA license activated. A repeater must have 32 Mb memory.

# Voice and Data Flow 1

TRBOnet Server PC Voice only MS SQL Server LCP/Cap+ Data TRBOnet Server Dispatcher MNIS (Data DDMS Geteway) (Presence Notifier)

TRBOnet Voice and Data flow for NAI is represented on the following scheme:

# Voice and Data Flow 2

MNIS is responsible for sending/receiving Data Packages and forwarding them to TRBOnet Server.

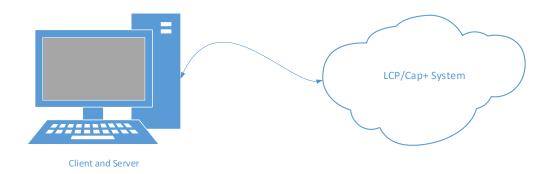
DDMS (aka Presence Notifier) is responsible for ARS and notifies TRBOnet Server when a radio is turned on/off. For more details, see *NAI\_RM\_Training\_v02.pdf*.

All the repeaters in all sites should be available for TRBOnet Server, which normally requires Port Forwarding rules on routers. For more details, see <u>MOTOTRBO Linked Capacity Plus (LCP) - HP MSR 20-20 Router Configuration Guide</u>.

# Single PC Installation

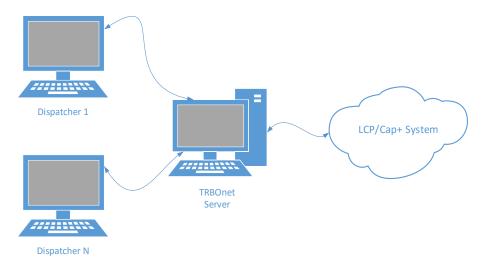
TRBOnet Server and Dispatch Console can be installed on the same computer.





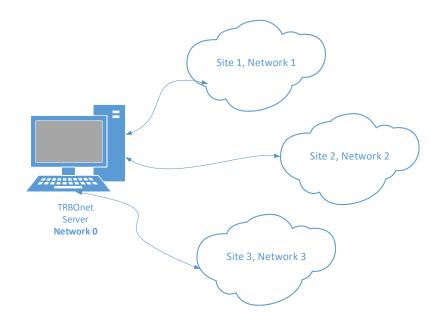
# **Client-Server Installation**

For the systems with 2 and more dispatch positions, it is recommended to have a dedicated server computer (could be a virtual machine).



TRBOnet Server and all the LCP sites must be in different networks, behind their corresponding routers:

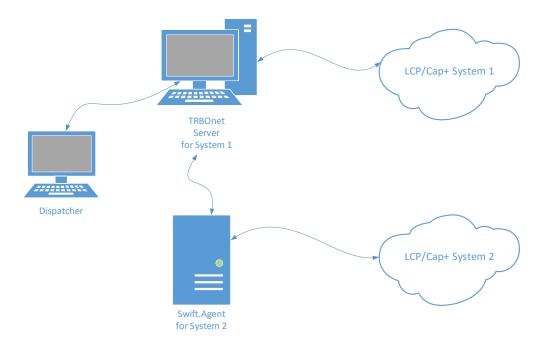




Use the recommended Routers only.

#### Notes:

- One TRBOnet Server computer is for one LCP System.
- It is possible to connect two or more LCP systems (System Bridging).
- TRBOnet System Bridging supports Group and Individual Calls.
- It is possible to use a Virtual machine as a Server.





## Limitations

- Logging of Radio-to-Radio TEXT is **NOT SUPPORTED**.
- Phone Connect is available with some limitations.
- Local Talk Group IDs must be unique per system.

# Radio Subscriber Configuration

# **Network Settings**

Open Save Read	) ध <mark>सिंघ</mark> ≔सिंध ∱सिं ☆ ★सि Write Clone Cione Express Update Register Activate	
P4801e 🕨 Network		
et Categories	General Radio Network Services Control Station IP Site Connect Bluetooth	
<ul> <li>Configuration</li> </ul>	Bluetooth Serial Port Profile Data Routing USB HID Data Routing WAVE 5000 WAVE OnCloud	
Device Information		
▼		
Welcome Bitmap	ARS Radio ID 64250	
Language Packs	ARS IP 13.0.250.250	
General Settings	ARS UDP Port 4005	
Accessories	TMS Radio ID 64250	
Control Buttons	-	
Text Messages	TMS IP 13.0.250.250	
Telemetry	TMS UDP Port 4007	
Menu	User Defined UDP Port 1 0 - Disabled	
Security	User Defined UDP Port 2 0 - Disabled	
Wi-Fi Network	User Defined UDP Port 3 0 - Disabled	
Voice Announcement	XCMP Server ID 0 - (Blank)	
Indoor Location	XCMP Server IP 0.0.0	
Job Tickets		
<ul> <li>Systems</li> </ul>	Battery Management Server ID 0 - (Blank)	
Encoder	Battery Management Server IP 0.0.0.0	
Decoder	Control Station	
Contacts	Voice Only	
RX Group Lists	Data Modem System Type None	
<ul> <li>Zone/Channel Assignment</li> <li>Scan Lists</li> </ul>	Data Modern Window Size 5	
Capacity Plus Lists		
- Capacity Plus Lists		
	Repeater Longitude (degree) 180.01 - (Blank)	
	ARS Monitoring ID 0 - (Blank)	
<	ARS Monitoring IP 0.0.0.0	



# Personality Settings – 1

	별 별별 ᆕ팀팀 ←팀 ☆ ★팀 rite Clone Express Update Register Activate	,
Set Categories R	General RX/TX	
	General     General	Î
General     Job Tickets	Channel Type Capacity Plus Personality (Linked)	
Systems	Channel Name Personality_1	- 1
Encoder	Voice Announcement File None	- 1
Decoder	ARS On System/Site Change	- 1
Contacts     RX Group Lists	Privacy	1
▼ ☐ Zone/Channel Assignment	Privacy Alias None	
v D Zone	Fixed Privacy Key Decryption No	
🚍 Zone1 🔅	Ignore Rx Clear Voice/Packet Data No	
😚 Channel Pool	RAS Alias None	
Scan Lists     Capacity Plus Lists	Option Board	
	Lone Worker No	
	Messaging Delay (ms) 60	
	Compressed UDP Data Header DMR Standard	
<	Over-the-Air Battery Management 🗌 Auto Roam 🖌	
	Auto Noam	
Validation Results Warning Messages Search Resu	lits Help	
Ready	Serial Number: 8711	SHF95

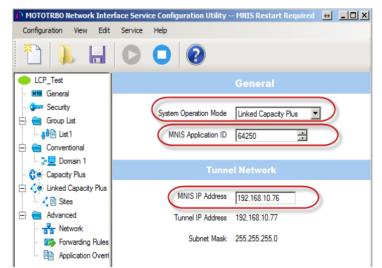
# Personality Settings – 2

		RX/TX	General	
		TX	_	 
Call1	Contact Name			
	Emergency System			
	VOX			
	Power Level			
	TOT (sec)			
0	TOT Rekey Delay (sec)			
	Allow Interruption			
	TX Interruptible Frequencies			
Color Code Free	Admit Criteria			
Follow Admit Criteria	In Call Criteria			
-124	RSSI Threshold (dBm)			
	Private Call Confirmed			
	Data Call Confirmed			

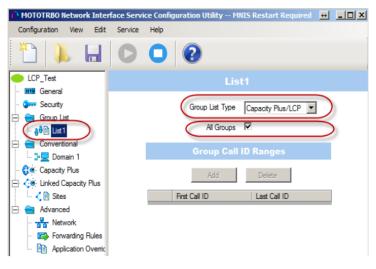


# MNIS and DDMS Settings

#### **General Settings**

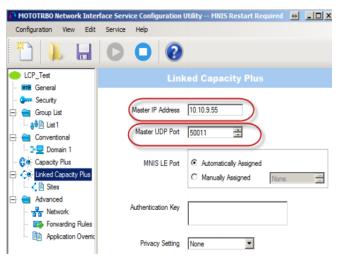


#### **Talk Group Settings**

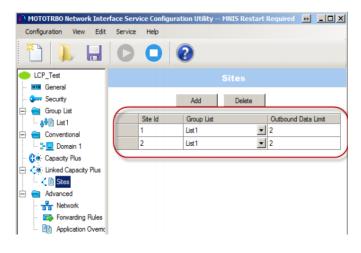




#### **Master Repeater Settings**



#### **LCP Sites Settings**



#### **Advanced Settings**





#### **Network Settings**

MOTOTRBO Network Interfa	ce Service Configurati	ion Utility *		_		×
Configuration View Edit	Service Help				_	
1		?				
Untitled     General						
··· 🕬 Security		CAI Network	12 ≑			
⊟ 😑 Group List		CAI Group Network	225			
📄 💼 Conventional		S	ervices			
Gapacity Plus		ARS UDP Port	4005			
Advanced		TMS UDP Port	4007			
- 🕞 Forwarding Rules		Telemetry UDP Port	4008			
Application Oven		Location Server UDP Port	4001 ≑			
		Battery Management UDP Port	4012 🜲			
		User Defined UDP Port 1	Disabled 💂			
		User Defined UDP Port 2	Disabled 🚔			
		User Defined UDP Port 3	Disabled 🖨			
		XCMP Enable				
		XCMP Server UDP Port	4004			
		ARS Monitor				
		ARS Monitor ID	None 🜲			
		Device Discover	ry and Mobility Service			
		Server Address	127.0.0.1			
		Watcher Port	3000 🖨			

# **DDMS Settings**

The **DeviceRefreshTime** parameter defines how often radios should send ARS to TRBOnet Dispatch Software. The value depends on the number of radios and channels.

🐊 MOTOTRBO DDMS		+ _ D ×
File Action Help		
Service	ARS Settings	
E V Interfaces	PortSU	4005
🔄 ARS Settings	PassiveMode	Off
- Watcher Settings	DeviceRefreshTime	30
Clogging	Deregistration TO	120
	PersistenceTO	12000
		in minutes, rounded up to the nearest 30
Settings for ARS/SU interface	minute interval.Range: 0 - 64	-bu (u≓orever) :



# ARS TRBOnet Settings

Configuration	Service Management
💣 Service	
🕤 Network	Presence service
🛱 Redundancy	Auto request presence timeout: 5 ‡ minutes
Remote Access Restriction	ARS refresh interval:
Database	
Reports	Ignore unregistered Radios
Service Management X Advanced Settings	Location service
上人 Geocoding Servers	Dispatch Console update interval: 5
Radio Systems	Send last known locations of radios in alarm
🛒 PTT over Cellular	
👫 Teltonika	For the last:
🔂 Remote Agents	○ GPS points: 10
Friendly Servers	Indoor service
Phone Connect	Remove offline radio from beacon
internal PBX Server	Don't use beacon location if radio in alarm has GPS fix (K-TERM only)
↓ Data Sources	
🔀 Email	
SMS Notifications	
Push Notifications	
📮 License	
Set Defaults	Apply OK Cancel

#### • Auto request presence timeout

Set this parameter to the value of the **DeviceRefreshTime** parameter in MOTOTRBO DDMS.

#### • ARS refresh interval

Set this parameter to the value of the **PersistenceTO** parameter in MOTOTRBO DDMS.

# LCP Repeater Settings

Configuration		Repeater #1				
🛷 Service	^					
S Network		System Name:	Repeater #1			
🛱 Redundancy		TRBOnet Peer ID:	100	÷		
Database		TRBOnet Radio ID:	64250	*		
😪 Reports				*		
Service Management		TRBOnet Local Port:	50001	÷		
Advanced Settings		Master Repeater Con	nection Info:			
Geocoding Servers		Master IP Address:	10.10.101.139	-		
Radio Systems		Master UDP Port:	50000	<u>^</u>	Test	
Services					Test	
Repeater #1		Authentication Key:	55555			
Advanced Settings		System Type:	Linked Capacity Plu	JS		-
Privacy		System Identifier:		~		
DDMS service		-,				
Advanced Setting		Use NAI Voice				
MNIS data service		🗸 Use NAI Data (MNIS a	nd DDMS)			
Advanced Setting		Use RCM for control ra	dio activity			
PTT over Cellular						
Advanced Settings						
TRBOnet.Mobile gateway	¥					
< >						
Set Defaults			Apply		ОК	Cancel

Special settings:

- TRBOnet Peer ID any unique value.
- **TRBOnet Radio ID** the default TRBOnet ID.
- **TRBOnet Local Port** any free port on the PC.



## **Audio Paths**

Configuration	Audio Paths		
Service     A     Network	Load Groups Map		
🛱 Redundancy	Call Type	Group ID	Site ID
Database	Group Call	10	Wide
Reports	Group Call	20	Wide
<ul> <li>Service Management</li> <li>Advanced Settings</li> </ul>	Private Call		
Geocoding Servers	All Call		
Radio Systems			
Services Repeater #1 Advanced Settings Privacy MNIS data service Advanced Setting Advanced Setting Advanced Setting Advanced Setting PTT over Cellular			
Advanced Settings	Add Delete		Configure
Set Defaults		Apply	OK Cancel

#### **Special settings**

- Load Groups from Master Repeater;
- Add Local Groups manually.



# **Appendix G: Redundant Server**

TRBOnet Server supports a redundant (secondary/backup) configuration which allows automatic switching from the primary to the redundant (secondary/backup) server in case of failure of the primary server.

There are two modes of running the Redundant server: Passive mode and Active mode.

## Overview

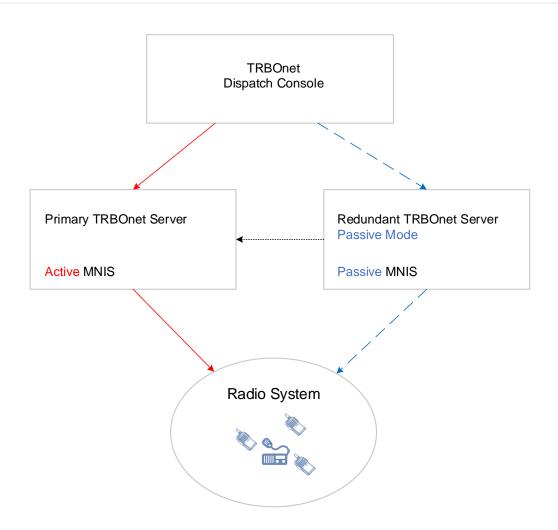
- The radio system's master repeater supports up to 4 simultaneously connected Software Peers (for example, MNIS, RDAC, TRBOnet Enterprise/PLUS or TRBOnet Watch).
- The databases on both servers are not synchronized. Before making a copy of the primary server's database and deploying it on the redundant server, make sure that all the appropriate information, such as radios, radio groups, map objects, etc., have been entered into the primary server's configuration.
- The dispatch console will connect to the redundant server when one of the following happens:
  - The primary server is unavailable.
  - All radio systems are unavailable for the primary server (except for Phone Connect or POC systems).
- Connection to the redundant server takes up to 2 minutes.
- The dispatch console will reconnect to the primary server when the primary server is available again and the radio system is available for it.
- It's a good practice to configure an Alarm Management rule to send emails to desired addresses whenever the primary server gets disconnected/reconnected, and/or the radio system gets disconnected/reconnected.

# **Passive Mode**

The scheme below shows how the Redundant server is used in the Passive mode.

In the scheme, a red solid line means a connection to the primary server. A blue dash line means a connection to the redundant server that will be established once the primary server fails. A black dotted line means a heartbeat connection between the redundant and primary servers.





- The primary and redundant servers are configured identically. Note that both servers may have equal **TRBOnet Peer ID** because the redundant server is not connected to the radio system until the primary server fails. The redundant server is constantly monitoring the primary server's status.
  - Note: In the case of Capacity Max, **TRBOnet Peer ID** is not used and some special settings are required in MOTOTRBO Radio Management for the secondary MNIS Data Gateway. For information on how to configure the secondary MNIS Data Gateway, refer to MOTOROLA Capacity Max Installation and Configuration Guide.
- When the primary server fails, the redundant server gets activated, starts its MNIS service, and connects to the radio system. The dispatch console will connect to the redundant server automatically.
- Once the failed primary server is back online, the dispatch console will automatically reconnect to the primary server.

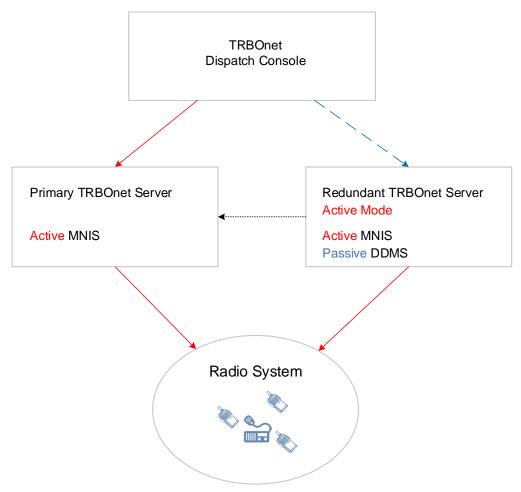


• Note that the databases on both servers are not synchronized. The redundant server's database will have data only for the time period the primary server is down. Once the primary server is restored, the redundant server will stop adding data to its database. Thus, there will be no data in the primary server's database for the time period the primary server is down.

## Active Mode

The scheme below shows how the Redundant server is used in the Active mode.

In the scheme, a red solid line means a connection to the primary server. A blue dash line means a connection to the redundant server that will be established once the primary server fails. A black dotted line means a heartbeat connection between the redundant and primary servers.



• The primary and redundant servers are configured identically, except for **TRBOnet Peer ID** which must be unique for each server. The redundant server is constantly monitoring the primary server's status.



- When the primary server fails, the dispatch console will connect to the redundant server.
- When the dispatch console connects to the redundant server, the DDMS service running for the redundant server must be manually set to the active mode (MOTOTRBO DDMS > ARS Settings > PassiveMode set to OFF). To prevent channel collisions when multiple ARS packets are transmitted at the same time, it is recommended that the ARS Initialization Delay (min) parameter be set to 30 min for each radio subscriber (see MOTOTRBO CPS\RM reference guide). When the dispatch console is reconnected to the primary server, the DDMS service running for the redundant server must be manually set to the passive mode (MOTOTRBO DDMS > ARS Settings > PassiveMode set to ON).
- Note that two TRBOnet Servers and two MNIS services are connected to the radio system's master repeater, thus occupying all four available peer connections. As a result, no additional software, such as TRBOnet Watch or RDAC application, can be connected in such a scheme.
- Note that the databases on both servers are not synchronized when the redundant server is active and the primary server is inactive. The redundant server's database will always have the full set of data. The primary server's database won't have data for the time period it was down.

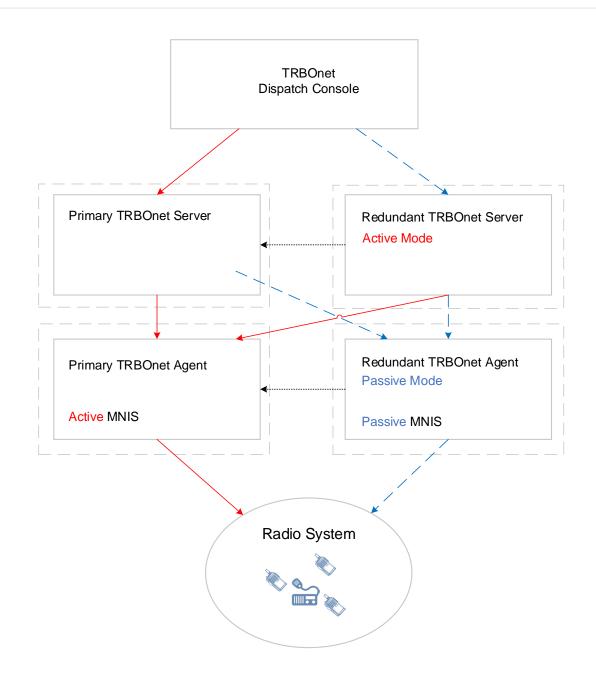
## Active mode and TRBOnet Agents

The scheme below shows how the Redundant Server is used when running in the Active mode and being connected to Radio Systems via Primary and Redundant TRBOnet Agents.

In such a scheme, one TRBOnet Server and one MNIS service are simultaneously connected to the radio system's master repeater, thus occupying only two of the four available peer connections, and consequently you can additionally connect TRBOnet Watch or an RDAC application, or an additional TRBOnet Server.

Note that in the scheme, a red solid line means a connection to the primary server. A blue dash line means a connection to the redundant server that will be established once the primary server fails. A black dotted line means a heartbeat connection between the redundant and primary servers (agents).





• Note that this is the only feasible solution for running the redundant server in the Active mode when a Capacity Max system is used.

# **Redundant Server Configuration**

• In the **Configuration** pane, select **Redundancy**.



	_				
Configuration	Re	edunda	ncy		
Service     Network     Redundancy     Remote Access Restriction     Database	Re		ndant server mode icy Mode: ervers:	Passive	*
Reports			IP Address		Port
Service Management     Advanced Settings		1 🗸	172.20.40.24		4021
Geocoding Servers Radio Systems PTT over Cellular Teltonika Remote Agents					
Friendly Servers  Phone Connect  Advanced Settings  Internal PBX Server					
<ul> <li>↓<sup>2</sup> Data Sources</li> <li>★ Email</li> <li>► SMS Notifications</li> <li>⊕ Push Notifications</li> <li>➡ License</li> </ul>		Add	Edit	Delete	Test 🔺 🔻
Set Defaults				Apply	OK Cancel

• In the **Redundancy** pane, select **Redundant server mode**.

#### • Redundancy Mode

- Select the mode for a redundant server from the drop-down list.
- To add a primary server, click **Add**.

Server Propert	ies	×
IP Address:	172.20.40.24	
Port:	4021	
ОК	Cancel	Test

#### • IP Address

Type the IP address of the primary server.

• Port

Enter the same port number as specified for the Command port.

#### Synchronizing server configurations

To copy the configuration of the primary server to the redundant server, do the following:

- In the **Redundancy** pane, click **Test**.
- In the **Primary Server** dialog box that opens, click the **Copy configuration** link.



Primary server	×
Remote Server information 172.20.40.24:4021	
Server is available	
IP Site Connect LCP_home: Slot #1 Serial number: 484TQ51117 Firmware version: 20.20.1.6 IP Site Connect LCP_home: Slot #2 Serial number: 484TQ51117 Firmware version: 20.20.1.6	
Copy configuration	Close

• Verify that the settings in the **Network**, **Redundancy**, and **Database** tabs are correct.

# **Dispatch Console Configuration**

To add a server to the list of servers:

 Launch TRBOnet Dispatch Console to open the Connect to TRBOnet Server dialog box, or on the File menu, click Connect to TRBOnet Server.

Connect to TRBOnet Ser	ver X
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 Configure
Authentication:	/
Method:	TRBOnet Authentication V
User Name:	admin
Password:	******
Connect on startup	
	OK Cancel

• Click **Configure** to register the new primary server:



Register TRE	Onet Servers			$\times$
🛃 Add 📃	> Edit 🛛 🛃 Delete			
Server Label		Server Address	Port	
Server1		10.10.164.45	4021	
Server?	Register TRBOnet	Server		×
1	Label:	Server 3		
	Address:	127.0.0.1		
	Port:	4021		
	Redundant ser	vers:		
	Add	ress	Port	
			/	
	Add	Delete	ок	Cancel

- Click Add to add a new TRBOnet Server:
  - Label enter a name for the new primary server.
  - Address enter the primary server's IP Address.
  - **Port** specify the command port of the primary server.
  - Add click and specify the IP address and port of the redundant (backup) server for the primary server being registered.
  - Click **OK** to save settings and close the dialog box.

#### Connecting Dispatch Console to Servers

 Go to File > Connect to TRBOnet Server, and from the drop-down list select the primary server you created:

Connect to TRBOnet Ser	ver X
Connect to:	
Address:	Main
Port:	Server1 Server2
Authentication:	Main
Method:	TRBOnet Authentication $~~$
User Name:	admin
Password:	******
Connect on startup	
	OK Cancel

• Click **OK** to connect to the primary server.

Now you are connected to the primary server. In case of a lost connection to the primary server, the Console will try to restore the connection within 30 seconds. After 30 seconds have passed, the console will change connection to the redundant server automatically. When the primary server is restored, the Dispatch Console will reconnect to the primary server automatically.