





TRBOnet Enterprise User Manual

Version 6.3

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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 5			
HDD	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		ndows Server 2 le/Feature insta	016/2019/2022 requires alled.	Desktop Experience			
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				



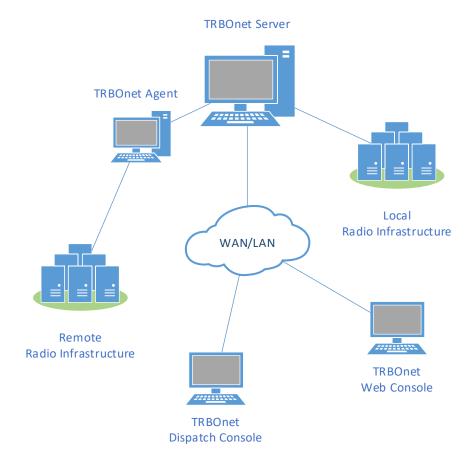
3 System Architecture Overview

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.





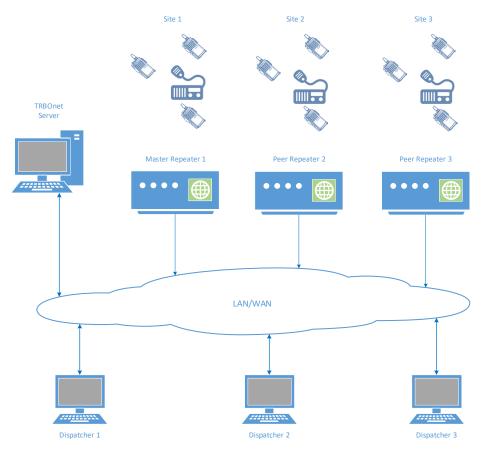
3.2 MOTOTRBO Radio Systems

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

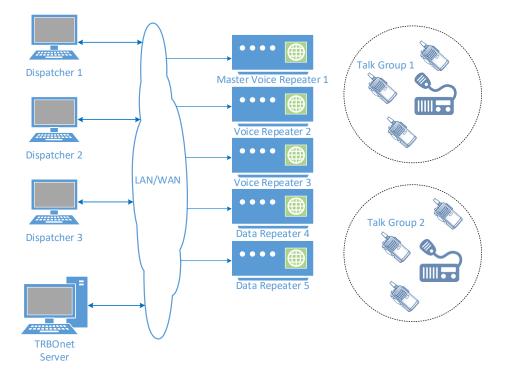
An IP Site Connect (IPSC) system is a digital conventional two-way MOTOTRBO system that provides two wide-area channels to increase your communications RF coverage area. It is possible to connect up to 15 repeaters (each geographical location of a repeater is called a "site") into one system using an 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

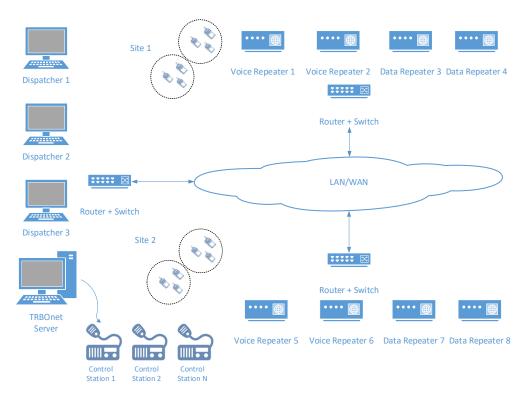
Capacity Plus (also known as Capacity Plus Single Site) is a digital trunked twoway MOTOTRBO system that is designed for high volume communications at a single site location. The system is designed to provide communications among a large number of users within a building, a set of buildings, or a single 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.



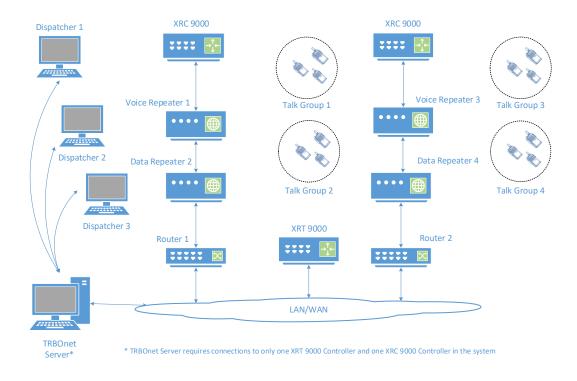


3.2.5 Connect Plus

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.

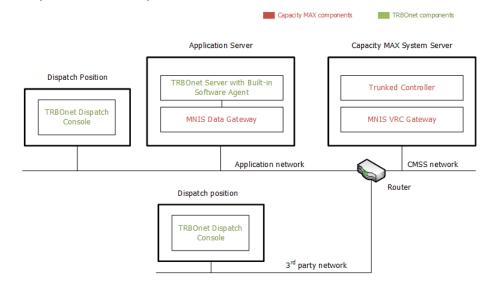
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3.2.6 Capacity Max

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.

For TRBOnet Enterprise/PLUS Network Performance Requirements, refer to our Knowledge Base at <u>https://trbonet.com/kb/system-requirements</u>.

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 14.

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 1	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	. TRBO 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\	ftware\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.

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Configuration		License			
	^				
		License is valid License ID: 95589aaf-7714-4889	05440-07-	44-	
		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				
💣 Service	^					
S Network		SQL Server:	(local)\SC	LEXPRESS		-
🛱 Redundancy		Database:	TRBOnet	11		-
Remote Access Restriction		Authentication:				
Database		Authentication:	Windows			-
Storage Locations		Username:				
🚔 File Formats		Password:				
😪 Reports						
Service Management						
X Advanced Settings						
Geocoding Servers						
Radio Systems						
Services						
🖵 PTT over Cellular						
👫 Teltonika						
Remote Agents						
Friendly Servers						
Phone Connect		Test Connec	rtion			
Advanced Settings						
internal PBX Server		Upgrade Datab	oase	-		
↓ Data Sources		Create Databa	ase	-		
Email	¥					
Set Defaults				Apply	ОК	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 14).

Username and Password

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

- 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.

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Configuration	Database		
💣 Service \land			
S Network	SQL Server:	(local)\SQLEXPRESS	*
🕏 Redundancy	Database:	TRBOnet11	-
Particition Restriction	Authentication:	Windows	
Database	Autrientication:		· ·
Storage Locations	Username:	Windows	
🖀 File Formats	Password:	SQL Server	
😪 Reports			
Service Management			
X Advanced Settings			
Geocoding Servers			
Radio Systems			
Services			
TT over Cellular			
Teltonika			
🔂 Remote Agents			
Friendly Servers			
Phone Connect	Test Conne	stion	
Thernal PBX Server	Upgrade Data	base 👻	
↓ Data Sources	Create Datab	ase 🔹	
🔀 Email 🗸			
Set Defaults		Apply OK	Cancel

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	^			
S Network		SQL Server:	(local)\SQLEXPRESS	*
🛱 Redundancy		Database:	TRBOnet11	*
🔤 Remote Access Restriction		Authentication:		=
Database		Authentication:	SQL Server	*
Storage Locations		Username:	sa	
File Formats		Password:	•••••	
😪 Reports				
Service Management				
🔀 Advanced Settings				
Geocoding Servers				
🔚 Radio Systems				
Services				
TT over Cellular				
Teltonika				
🔂 Remote Agents				
Friendly Servers				
Phone Connect		Test Conner	ction	
1 Internal PBX Server		Upgrade Datab	base *	
↓ Data Sources		Create Databa	ase 🔹	
🔀 Email	~			
0-1 D-5-10-				-
Set Defaults			Apply OK Can	cel



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

http://technet.microsoft.com/en-us/library/aa337562.aspx

5.3 TRBOnet Server Service

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

Configuration		Service
Service Service Network Redundancy Catabase Storage Locations	^	Service 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:
 File Formats Reports Service Management Advanced Settings Geocoding Servers Radio Systems Services PTT over Cellular Teltonika Remote Agents Friendly Servers Phone Connect Advanced Settings 		Logon as Local System (Recommended) Logon as User User name: TRBONET\v.kulinichev Password: Install Service Server password:
☆ Internal PBX Server ↓ Data Sources ★ Email Set Defaults	~	Set password Turn off password

- 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 14) 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		watch PM port:	
Storage Locations		RTSP port:	4015 ‡
File Formats		First VoIP port:	4022
Reports			
Service Management		VoIP protocol:	UDP -
X Advanced Settings		Data protocol:	UDP -
Geocoding Servers		Use broadcast mode for audio	
Radio Systems		Broadcast port:	5000
Services		broaucast port:	5000 +
PTT over Cellular		 Use proxy server 	
Carl Teltonika		Configure	
Friendly Servers		En en en barte broffe beburen en	una and diante
Phone Connect		Encrypt data traffic between serv	ver and cients
Advanced Settings		Server Certificate:	
Thernal PBX Server			- \$ × …
↓ Data Sources			
Email		Port usage	
	~		
Set Defaults			Apply OK 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 **127.0.01** (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.

RTSP

Enter the port number that will be used for multimedia streaming.



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	e proxy server	×
Use an alt Settings	ernative server	
Address:	177.71.134.70	
Port:	80 🜲	
Authenticati Use auth Username: Password:	hentication	
	ОК	Cancel

• 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.

Server Certificate

Select a valid certificate that is signed by a trusted Certificate Authority.

Port usage

Click this link to see which ports are configured for specific services. Note that some services use dynamically allocated port numbers and don't appear in this list. See also <u>5.12.1, Services</u>.

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	^			
S Network		Redundant server mode		
🛱 Redundancy		Redundancy Mode:	Passive	*
Remote Access Restriction				
Database		Primary servers:		
Storage Locations		IP Address		Port
🚔 File Formats		1 🗸 172.20.40.24		4021
😪 Reports				
🔅 Service Management				
🔀 Advanced Settings				
Geocoding Servers				
Radio Systems				
🖵 PTT over Cellular				
🗱 Teltonika				
Remote Agents				
Friendly Servers				
Phone Connect				
Advanced Settings				
Thernal PBX Server				
↓ Data Sources				
K Email				
SMS Notifications	¥	Add Edit	Delete	Test 🔺 🔻
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 Properties			
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 424).

5.6 Remote Access Restriction

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

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

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Configuration	Remote Access Restriction	
Service A Network	✓ Use restricted access	
· · · · · · · · · · · · · · · · · · ·		
🕏 Redundancy	Allowed connections:	
Remote Access Restriction	IP Address Password	
Database	10.10.201.99	
Storage Locations		
File Formats	10.10.109.203	_
😪 Reports		
Service Management		
X Advanced Settings		
Geocoding Servers		
🔛 Radio Systems		
TT over Cellular		
🗱 Teltonika		
Remote Agents		
Friendly Servers		
Phone Connect		
Advanced Settings		
Thernal PBX Server		
↓ Data Sources		
Email		
SMS Notifications	Add Delete	
· · · · · · · · · · · · · · · · · · ·		
Set Defaults	Apply OK Canc	el

- 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 Storage Locations

• In the **Configuration** pane, select **Storage Locations**.



Configuration		Storage Locations
🛷 Service 🎧 Network	^	Select save locations for different file types
Redundancy Remote Access Restriction		Database backups
Database		C:\ProgramData\Neocom Software\TRBOnet.Enterprise\Backups 🕤
Storage Locations		Message attachments
Reports		C: \ProgramData \Weocom Software \TRBOnet.Enterprise \Files 😏
Service Management Advanced Settings		Audio and video recordings Voice recordings
🔜 Radio Systems		C: \ProgramData \Weocom Software \TRBOnet.Enterprise \Audio 😏
Services		Video recordings
- 🛃 LCP Ent		C:\ProgramData\Weocom Software\TRBOnet.Enterprise\Audio 🕤
		Folder and file name template
TRBOnet Swift Agent #1		%YEAR%_%MONTH%_%DAY%_%HOUR%\%MINUTE%_%SE
TT over Cellular		
PoC Gateway #1	¥	
Set Defaults		Apply OK Cancel

• In the **Storage Locations** pane, select locations where the database backups and stored files (voice records, video recordings, and message attachments) will be saved:

Database backups

Click the ellipsis (...) button and in the **Browse For Folder** dialog box locate the appropriate path where database backups will be stored.

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.

Message attachments

Click the ellipsis (...) button and in the **Browse For Folder** dialog box locate the appropriate path where text message attachments will be stored.

Audio and Video recordings

Voice recordings

Click the ellipsis (...) button in the **Browse For Folder** dialog box locate the appropriate path where voice recordings will be stored.

Video recordings

Click the ellipsis (...) button and in the **Browse For Folder** dialog box locate the appropriate path where video recordings will be stored.

Folder and file name template

Click the ellipsis (...) button and in the dialog box that opens:

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older and File Name Template	×
Use this template to customize folder and file names	
%YEAR%_%MONTH%_%DAY%_%HOUR%\%MINUTE%_%SECOND%_ %MILLISECOND%	
Call ID 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:	
2024 09 17 10\49 04 729 xxx.wav	
OK Cance	I

• Enter the information (by clicking the appropriate links below: Year, Month, Day, etc.) that will be used to generate the file/folder names for voice and video recordings.

5.8 File Formats

• In the **Configuration** pane, select **File Formats**.

Configuration	File Formats	
💣 Service 🗸	^	
S Network	Voice recording format:	WAV - Waveform Audio File 👻
🛱 Redundancy	Audio codec:	G.711µ-Law/8000 -
Remote Access Restriction	Ar las analysis	
Database	Video recording:	Enabled 👻
Storage Locations		 Add audio to video
🚔 File Formats		Add text to video
Reports		
Service Management		
🔀 Advanced Settings		
Geocoding Servers		
🔛 Radio Systems		
Services		
TT over Cellular		
👫 Teltonika		
Remote Agents		
Friendly Servers		
Phone Connect		
internal PBX Server		
↓ Data Sources		
🔀 Email	~	
Set Defaults		Apply OK Cancel

- In the **File Formats** pane, select the file types for which to change default folders:
 - Voice 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 codec

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

Video recording

From the drop-down list, select Enabled or Disabled. If video recording is enabled, select if to **Add audio to video** and **Add text to video**.

5.9 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 re	-	
🕏 Redundancy	Folder:	D: Reports	
Remote Access Restriction	Format:	PDF -	
Storage Locations	Lana		
File Formats	Logo:		
Reports	Softv	om	
 Service Management Advanced Settings 	Sort	Vare	
Geocoding Servers	Select	Default	
Radio Systems			
Services			
IPSC 1			
🛃 LCP Ent			
TRBOnet Swift Agent #1			
Advanced Settings			
🗰 🤯 Redundancy			
PTT over Cellular			
PoC Gateway #1			
*** = 1			
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.



5.10 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		
🛱 Redundancy		Auto request presence timeout:	5 ‡	minutes
Remote Access Restriction		ARS refresh interval:	1440	minutes
Database		ARS remesh interval;	1110 +	minutes
Storage Locations		Ignore unregistered Radios		
🛎 File Formats				
😪 Reports		Location service		
Service Management		Dispatch Console update interval:	5 ‡	seconds
🔀 Advanced Settings		Send last known locations of radius	dios in alarm	-
Geocoding Servers				7
Radio Systems		For the last:	10 🗘	minutes
TT over Cellular		O GPS points:	10 ‡	
🗱 Teltonika		Indoor service		-
Remote Agents		Remove offline radio from beac		
Friendly Servers		Remove offline radio from beaco	n	
Phone Connect		Don't use beacon location if rad	io in alarm has GPS fi	x (K-TERM only)
Advanced Settings				
Thernal PBX Server				
↓ Data Sources				
🔀 Email				
SMS Notifications	v			
■ - · · · · ·	•			
Set Defaults			Apply	OK Cancel

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

5.10.1 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.

5.10.2 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.



5.10.3 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.

5.11 Advanced Settings

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

Configuration		Advanced Settings	
💣 Service	^		
S Network		Language:	English -
🕏 Redundancy		Logging level:	Normal -
Remote Access Restriction		Administrator account:	Enabled -
Database		Administrator account.	Reset password
Storage Locations			
File Formats		Text-to-speech voice:	Default 👻
Reports		Measurement system:	Metric -
Service Management		Coordinate format:	Dearees, Minutes, Seconds 🗸
Advanced Settings			
Geocoding Servers		TX Passive timeout:	Unlimited 🗘 hours
Radio Systems		Voice message expiry time:	Unlimited 🗘 hours
PTT over Cellular		Number of messages:	Unlimited ‡
Californika		_	
Remote Agents		Text message expiry time:	
Friendly Servers		Number of messages:	Unlimited 🗘
Phone Connect			
Advanced Settings			
1 Internal PBX Server			
↓ Data Sources			
🔀 Email	4		
Set Defaults			Apply OK Cancel

- 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.

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.

5.11.1 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.

5.11.1.1 Configuring Geocoding Servers

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

Configuration	Geocoding Servers
Configuration	Geocoding Servers
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	×
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.

5.12 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>5.15, 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		
Service Service Network Redundancy	🖌 Enable Radio Systems		
Remote Access Restriction Database Storage Locations	CAI Network: 12 CAI Group Network: 22		*
Elle Formats	Registered Radio Systems	Address	Radio ID
Service Management Advanced Settings Geocoding Servers	✓ IPSC 1 ✓ LCP Ent	10.12.110.29 192.168.0.100	64250 64250
Radio Systems	Control Station #1	192.168.10.1 10.12.107.105	64250 60250
TPSC 1 Advanced Settings Privacy DDNS service Xdvanced Setting MNIS data service		1	
Advanced Setting	Add Delete App	ly OK	Test

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

CAI Network

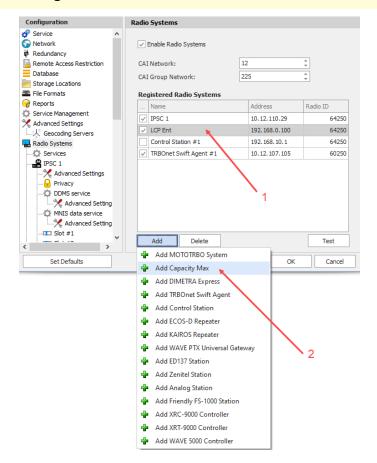
The CAI (Common Air Interface) Network is a value that is combined with the Radio ID to produce the individual radio's air interface network IP address. All radios must use the same CAI Network ID to be able to exchange data. It is recommended that the default value of 12 is used.



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).

5.12.1 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).

5.12.2 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	^					
😚 Network		System Name:	Repeater #1			
🛱 Redundancy		TRBOnet Peer ID:	100	Ĵ		
Remote Access Restriction Database		TRBOnet Radio ID:	64250	÷		
Storage Locations		TRBOnet Local Port:	50000	÷		
File Formats		Master Repeater Con	nection Informa	tion:		
Reports		IP Address:	10.10.133.5	*		
Service Management Advanced Settings		UDP Port:	50501	* *	Test	
Geocoding Servers		Authentication Key:	951			
Radio Systems		System Type:	IP Site Connect			*
Services		System Identifier:	Department 1			
Advanced Settings		Use NAI Voice				
		Use NAI Data (MNIS ar	nd DDMS)			
		Use RCM to monitor ra	-			
III Slot #2			alo acavicy			
Local Slots						
🛒 PTT over Cellular						
🚛 Teltonika						
Remote Agents	¥					
Set Defaults			Apply		OK Ca	ncel

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 414).

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 414).

• 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.

5.12.2.1 Advanced Settings

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

Configuration		Advanced Settings			
♂ Service Network	^	Call Hangtime (ms):			
T		Call Hangtime (ms): Group Call: Private Call: Emergency Call: TX Preamble: TX Timeout: Phone System: TX Interrupt Mode: Allow CSBK Data	3000 4000 4000 120 60 Motorola Phone System MSI Proprietary	4 + 4 + 4 + 4 + 1 + 1 + 1 + 1 + 1 + 1 +	seconds v
Central Centra	•				
Set Defaults			Apply	Ľ	OK 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 411).

• 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.

5.12.2.2 Privacy

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

Configuration		Privacy						
Configuration Configuration Service Redundancy Remote Access Restriction Configuration	^	Privacy Type: Basic Privacy Key ID Enhanced Privacy Ke Algorithm	ID 1	Enhar 1	Name	* * *	Value	
PTT over Cellular	~	Add	Remo	ve				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.



5.12.2.3 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	
Remote Access Restriction	Service IP Address: 127.0.0.1	Test
Database	Service port: 3000	
Storage Locations		
File Formats	Authentication Port: 5055 ‡	
Reports	Redundant services:	
Service Management	Service IP Address Service port	Local port
Advanced Settings		
Geocoding Servers	1 10.10.101.207 3000	0
Radio Systems		
Services		
Repeater # 1		
Advanced Settings		
Privacy		
DDMS service		
Advanced Setting		
MNIS data service		
PTT over Cellular		
PTT over Cellular	Add Delete	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				
Network	Radio ID range:	1-200		?
🛱 Redundancy	Events:	All		
Remote Access Restriction				
Database	External sites:	1		
Storage Locations	Site ID	Presence	Voice	Data
E File Formats	251	~	✓	~
😪 Reports				
Service Management				
X Advanced Settings				
Geocoding Servers				
Radio Systems				
Services				
Repeater # 1				
DDMS service				
Advanced Setting				
MNIS data service				
Audio Paths				
TT over Cellular				
< >	Add	elete		
Set Defaults		Apply	ОК	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".

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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).

5.12.2.4 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 🔨			
S Network	 Use Data Gateway 		
🕏 Redundancy	Service is on a local	host	
Remote Access Restriction	IP Address:	172.16.10.2 - 🕫	
Database		•	
Storage Locations	Control port:	55000 ‡	Test
File Formats	MNIS Service:	MOTOTRBO Network Inter	face Service 🚽 🧭 💡
Reports	Redundant services:		
Service Management	IP Address	Control port	Local port
X Advanced Settings			
Geocoding Servers	1 🗸 10.10.102.10	55000	0
Radio Systems			
Services			
Repeater # 1			
X Advanced Settings			
Privacy			
DDMS service			
Advanced Setting			
···· 💭 MNIS data service			
Advanced Setting			
Audio Paths	Add De	ete	Test 🔺 🔻
< >		ete	
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 Redundancy Remote Access Restriction Database Storage Locations File Formats Reports Service Management Advanced Settings Services Radio Systems Services Privacy ODMS service MNIS data service Advanced Settings ODMS service Advanced Settings A	Send data over control port Add network routes to the Windows routing table Add port forwarding rules to the remote MNIS service Unit parallel tasks Max count: Unlimited Radio Range: 1 0 16777215 0
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.
- Limit parallel tasks Select this option to limit the number of tasks to be sent in parallel.
- Radio Range

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

5.12.2.5 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	5	ilot #1	
M	^	✓ Slot #1	
S Network			-
🕏 Redundancy		Name:	Slot 1
Remote Access Restriction		Messaging Delay:	Normal -
Database		Lise slot for PV data on	ly (GPS Revert or Data Revert)
Storage Locations			in the second balance of y
🚔 File Formats		Use Privacy	
😪 Reports		Privacy Key:	Ψ
Service Management		Allow interruption	
🔀 Advanced Settings		Always transmit when	the PTT is pressed ("Impolite" channel access)
Geocoding Servers		Data Call Confirmed	
🔛 Radio Systems		Private call confirmed	
Services		Emergency Alarm Ack	
Repeater # 1			
		Emergency Call/Alarm I	Indication
Privacy			
I Slot #1			
Islot #2			
Local Slots			
🖵 PTT over Cellular			
Teltonika			
Remote Agents	J		
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.



5.12.2.6 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				
M	^ Loar	d Peers Ma				
S Network			-			
🕏 Redundancy		Name			Peer ID	Peer Slot
Remote Access Restriction		Local Brine	s		1002	Slot #1 -
Database						
Storage Locations						
File Formats						
😪 Reports						
Service Management						
🔀 Advanced Settings						
→ K Geocoding Servers						
🔛 Radio Systems						
Services						
Repeater # 1						
Advanced Settings						
Local Slots						
TT over Cellular						
Teltonika						
Remote Agents	, I L	Add	Remove			Configure
Set Defaults				Apply	OK	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**.



TX Configuration	X
Name:	Local Brine's
Messaging Delay:	Normal 👻
Use slot for RX data o	nly (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
	OK Cancel

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

5.12.2.7 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
Storage Locations		Wide
File Formats	Private Call	
🕞 Reports	All Call	
Service Management		
🔀 Advanced Settings		
Geocoding Servers		
🖶 Radio Systems		
Services		
Repeater # 1		
X Advanced Settings		
DDMS service		
Advanced Setting		
MNIS data service		
Advanced Setting		
Audio Paths		
<	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>.

5.12.3 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*.

5.12.4 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*.

5.12.5 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**.



	_					
Configuration		TRBOnet Swift Agent #	‡1			
🚰 Service	^					
🕤 Network		Name:	TRBOnet Swift Ag	jent #1		
🛱 Redundancy		Radio ID:	60250	÷		
Remote Access Restriction		IP Address:	10, 12, 107, 105			
Database		IP Address:	10.12.107.105			
Storage Locations		Port:	8002	÷	Test	
🚔 File Formats		TRBOnet Local Port:	50001	÷		
😪 Reports			Circle Control Oto			
🔅 Service Management		Mode:	Single Control Sta	tion		*
🔀 Advanced Settings		System Identifier:	Department 2			
Geocoding Servers		Use radio for RX data	anhy (CDC Deverte	- Data Da	u art)	
🔚 Radio Systems			a only (GPS Revert o		evert)	
Services		VoIP port:	4000	÷		
TRBOnet Swift Agent #1		Audio Format:	PCM 8 kHz 16 bit			-
Redundancy						
🖵 PTT over Cellular						
🛛 💥 Advanced Settings						
PoC Gateway #1						
🗱 Teltonika						
Remote Agents						
Friendly Servers						
<u> </u>	× .					
Set Defaults			Apply		OK	Cancel
	1		L			

• 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>5.12.6.1, Control</u> <u>Station Connection Modes</u> (page 55).

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.

5.12.5.1 Advanced Settings

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

Configuration	Advanced Settings	
Service Service Network Redundancy Redundancy Database Storage Locations File Formats Reports Service Management Advanced Settings Services Radio Systems Services Redundancy PTT over Cellular Advanced Settings PT oc Gateway #1 Teltonika	 ✓ Automatically reset alarm mode ✓ Emergency Call/Alarm Indication Always transmit when the PTT is pressed ("Impolite" channel access) TX Timeout: 60 ⁺ seconds ✓ Mic delay time: 600 ⁺ milliseconds 	×
Remote Agents	Apply OK Can	cel

- 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.

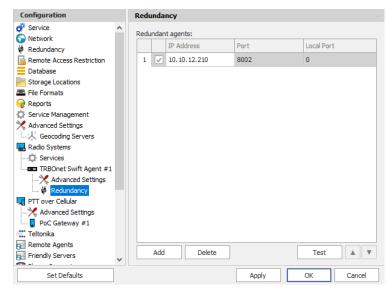
• Quick Call II MOTOTRBO

When this system is selected, the parameters are configured for the radio units via the MOTOTRBO CPS.

5.12.5.2 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.

5.12.6 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		TD Addresses	192.168.10.2 - \$	Test		
Database		IP Address:	192.100.10.2 * \$	Test		
Storage Locations		Mode:	Single Control Station			*
File Formats		System Identifier:	Department 1			_
Reports						
Service Management		Use radio for RX data	only (GPS Revert or Data Re	evert)		
Advanced Settings		Playback device:	Speakers (Logitech USB He	adset)	*	ø
Geocoding Servers		Recording device:	Microphone (Logitech USB I	Headset)	*	ø
Radio Systems						
Control Station #1						
Advanced Settings						
TT over Cellular						
PoC Gateway #1						
Teltonika						
📑 Remote Agents						
Friendly Servers						
Phone Connect	~					
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>5.12.6.1, Control</u> <u>Station Connection Modes</u> (page 55).

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.

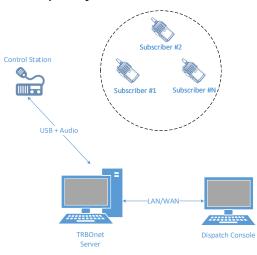
Recording device

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.

5.12.6.1 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.



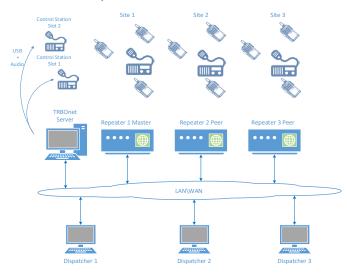


IP Site Connect

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.

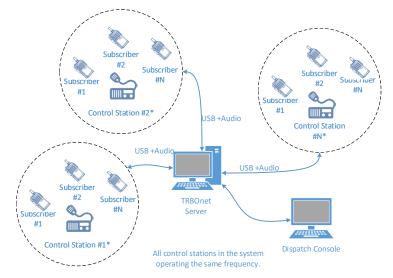
The signal filtering is performed based on the "first packet", that is, only the signal coming first to the server is played back and recorded, while the remaining signals are discarded.

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.

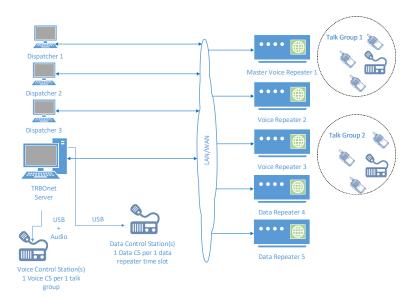


Capacity Plus/Linked Capacity Plus

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.





5.12.6.2 Advanced Settings

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

Configuration	Advanced Settings
💣 Service \land	
S Network	 Automatically reset alarm mode
Redundancy	✓ Automatically handle call alert
Remote Access Restriction	Emergency Call/Alarm indication
Database	Use front microphone
Storage Locations	Always transmit when the PTT is pressed ("Impolite" channel access)
🚔 File Formats	
😪 Reports	Use serial port for PTT device
Service Management	Serial port:
🔀 Advanced Settings	TX Timeout: 60 🌲 seconds
Geocoding Servers	Mic delay time: 600
🔛 Radio Systems	Vilc delay ume:
🔅 Services	✓ Roger beep: D:\WAV\RingMobile.wav × ···
Control Station #1	Signaling System: None Configure
Advanced Settings	contraine contraine
TT over Cellular	Allow CSBK Data
PoC Gateway #1	
Carlonika	
🔂 Remote Agents	
Friendly Servers	
The Phone Connect	
Set Defaults	Apply OK Cancel

- In the **Advanced Settings** pane, specify the following control stationrelated 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.



/oice Calls				*
Call Type	Telegram ID	Source ID	Target ID	
Private Call:	1 🗘 Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		
Group Call:	1 ‡ Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		
All Call:	1 ‡ Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		Ţ
heck Radio				×
Call Alert				×
inable Radio				¥
Disable Radio				×

• **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	1 ms
Tone 1:	1000	t ms
Tone 2:	1000	¢ ms
Long Tone:	4000	¢ ms
Pause:	200	¢ ms
Tuuse.	200	→ 1113
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.

5.12.6.3 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		
S Network	Site ID: 1	
🕏 Redundancy	Call Type	Group ID Site
Remote Access Restriction	Group Call	10 Wide
Database		
Storage Locations	Group Call	20 Wide
File Formats	Private Call	*
😪 Reports	All Call	
Service Management		
X Advanced Settings		
Geocoding Servers		
🖶 Radio Systems		
Services		
Control Station #1		
Advanced Settings		
TT over Cellular		
🛛 🔀 Advanced Settings		
PoC Gateway #1		
🗱 Teltonika		
Remote Agents		
Friendly Servers	Add Delete	
Set Defaults	App	oly 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.

5.12.7 Adding an ECOS-D Repeater

The **ECOS-D** repeater is configured as a stand-alone repeater which supports connections to MOTOTRBO[™] 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.



Configuration		ECOS-D #1				
🗬 Service	^					
S Network		Name:	ECOS	D #1		
🛱 Redundancy		Radio ID:	64250		\$	
🔤 Remote Access Restriction			Distal		•	
Database		Repeater Mode:	Digital			Ŧ
Storage Locations						
🚔 File Formats						
😪 Reports						
Service Management						
💥 Advanced Settings						
Geocoding Servers						
🔛 Radio Systems						
Services						
I Slot #1						
III Slot #2						
TT over Cellular						
PoC Gateway #1						
Teltonika						
Remote Agents						
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>.

5.12.7.1 Advanced Settings

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

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Configuration		Advanced Settings				
🔗 Service	^					
S Network		Keep Alive Interval:	10	÷	seconds	
Redundancy		TX Timeout:	60	* *	seconds	
Database		Audio Frame Size:	20	÷	ms	
Storage Locations						
File Formats						
😪 Reports						
Service Management						
🔀 Advanced Settings						
Geocoding Servers						
🖶 Radio Systems						
Services						
ECOS-D #1						
X Advanced Settings						
Slot #2						
PTT over Cellular						
🛛 💥 Advanced Settings						
PoC Gateway #1						
Teltonika						
Remote Agents	~					
Set Defaults				Apply	ОК	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.

5.12.7.2 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**.



Configuration		Slot #1
💣 Service	^	
🕤 Network		✓ Slot #1
🛱 Redundancy		Name: Slot 1
Remote Access Restriction		TRBOnet IP Address: 10.12.97.7 - 🕫 Port: 6080 🗘
Database		ECOS-D IP Address: 10,10,9,30 - Port: 6080 -
Storage Locations		10.10.9.30 · · · · · · · · · · · · · · · · · · ·
File Formats		Test
😪 Reports		
Service Management		Use gateway for RX data only (GPS Revert or Data Revert)
💥 Advanced Settings		Use Encryption
Geocoding Servers		Always transmit when the PTT is pressed ("Impolite" channel access)
🖶 Radio Systems		✓ Data Call Confirmed
🛱 Services		✓ Private call confirmed
Islot #2		
🖵 PTT over Cellular		
📃 PoC Gateway #1		
🚛 Teltonika		
🔂 Remote Agents	v	
	1	
Set Defaults		Apply OK 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.



5.12.7.3 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							
🕸 Redundancy		Name:	Tier III				
Remote Access Restriction		TRBOnet IP Address:	10.12.97.7	- ¢	Port:	6080	÷
Database		ECOS-D IP Address:			Port:	6000	*
Storage Locations		ECOS-D IP Address:	10.10.9.30	*	POL	6080	Ŧ
File Formats			Test				
😪 Reports							
Service Management		Use gateway for RX da	ta only (GPS Revert o	or Dat	a Reve	rt)	
🔀 Advanced Settings		Use Encryption					
Geocoding Servers		Always transmit when	the PTT is pressed ("I	mpolit	e" char	nnel acci	ess)
🔛 Radio Systems		Data Call Confirmed					
Services		Private call confirmed					
ECOS-D #1							
Tier III							
Audio Paths							
🖵 PTT over Cellular							
🛛 💥 Advanced Settings							
PoC Gateway #1							
Teltonika							
Remote Agents	•						
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	^		
S Network		Call Type	Group ID
Redundancy		Group Call	10
Remote Access Restriction		Group Call	20
Database		✓ Private Call ✓	
Storage Locations			
File Formats		All Call	
Reports			
Service Management			
Advanced Settings			
Radio Systems			
Services			
ECOS-D #1			
Advanced Settings			
Tier III			
Audio Paths			
T PTT over Cellular			
Advanced Settings			
PoC Gateway #1			
🗱 Teltonika			
Remote Agents	~	Add Delete	
Set Defaults		Apply OK	C 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.

5.12.7.4 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	
Configuration	~	Analog Name: TRBOnet IP Address: 10.12.97.7 + (2) Port: ECOS-D IP Address: 10.10.9.30 + Port: ECOS-D IP Address: Use gateway for RX data only (GPS Revert or Data Revert) Use Encryption Always transmit when the PTT is pressed ("Impolite" channel access) Data Call Confirmed Private call confirmed	
Set Defaults		Apply OK Can	cel



• 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).

5.12.8 Adding a KAIROS Repeater

The **Radio Activity Kairos** repeater is configured as a stand-alone repeater which supports connections to MOTOTRBO[™] 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	^	
S Network	Name:	Kairos #1
🛊 Redundancy	IP Address:	10.10.155.130 -
Remote Access Restriction	User Name:	kairos
Database		Kali OS
Storage Locations	Password:	•••••
File Formats		Test
😪 Reports		
Service Management	Radio ID:	64250
X Advanced Settings	Repeater Mode:	Mixed (Analog and Digital)
Geocoding Servers		
🔛 Radio Systems		
Services		
Kairos #1		
Advanced Settings		
Analog		
PTT over Cellular		
Carlonika		
Remote Agents		
Friendly Servers	¥	
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.

5.12.8.1 Advanced Settings

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

Configuration		Advanced Settings		
🛷 Service	^			
😚 Network		Keep Alive Interval:	10 ‡	seconds
🛱 Redundancy		TX Timeout:	60	seconds
Remote Access Restriction				
Database		Call Hangtime (ms):		
Storage Locations		Group Call:	3000 ‡	
File Formats		Private Call:		
🕞 Reports		Private Call:	4000	
Service Management		Emergency Call:	4000 🇘	
🔀 Advanced Settings				
Geocoding Servers				
Radio Systems				
🗘 Services				
Kairos #1				
X Advanced Settings				
III Slot #1				
Analog				
🖵 PTT over Cellular				
Carl Teltonika				
Remote Agents				
Friendly Servers	~			
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.

5.12.8.2 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.711 µ-Law/8000			*
Storage Locations		Audio port KAIROS:	40000	÷		
File Formats		Audio port TRBOnet:	40000	÷		
😪 Reports		Data port KAIROS:	40001	÷		
💥 Advanced Settings		Data port TRBOnet:	40001	+		
Geocoding Servers						
Radio Systems						
Services						
Kairos #1						
🕂 🕺 Advanced Settings						
Slot #2						
Analog						
🖵 PTT over Cellular						
Teltonika						
Remote Agents						
Friendly Servers	¥					
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.

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.

5.12.9 Adding a WAVE PTX Universal Gateway

WAVE PTX 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 PTX Universal Gateway.
- In the **Wave Universal PTX Gateway** pane, specify the following Wave gateway-related parameters:
 - Name

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

Service API FQDN

Enter the fully-qualified domain name of the service API.

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.

5.12.10 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 Station #1		
🛱 Redundancy		Local Interface:	10.12.97.7		- ¢
Remote Access Restriction				7	-
Database		Local Port:	0		
Storage Locations		Station Radio User:	900		
File Formats		✓ Use Control Port:	3008		
Reports			3000 -		
Service Management		Separate receiver and	transmitter		
X Advanced Settings		Receiver:			
Geocoding Servers		IP Address:	10, 10, 123, 145		
Radio Systems		IP Address;		٦ [
Services		Port:	5060		
ED137 Station #1		Transmitter:			
TT over Cellular		IP Address:	10.10.123.158		
👫 Teltonika		Port:	5060		
🔂 Remote Agents					
Friendly Servers					
Phone Connect					
Internal PBX Server	~				
Set Defaults			Apply	OK Can	cel

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

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).

5.12.11 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).

5.12.12 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		Control Station #1				
🛷 Service	^					
Network		Name:	Analog	Control Station		
Redundancy				·		
Remote Access Restriction		Playback device:	Digital	Audio (S/PDIF) (2	2- High Definitior	nAu ≠ ¢¢
Database		Recording device:	Microp	hone (Logitech U	SB Headset)	- ¢
Storage Locations						
File Formats		Serial port:	COM1		-	
😪 Reports						
Service Management		Always transmit whe	en the PTT	is pressed ("Imp	olite" channel ac	cess)
X Advanced Settings		TX Timeout:	60		seconds	
人 Geocoding Servers					·	
Radio Systems		Mic delay time:	600		milliseconds	
Services		Roger beep:	D:\WA	V\RingMobile.wa	v	× …
Analog Control Station						
TT over Cellular		Extended protocol:	None			
🗱 Teltonika						
Remote Agents		Signaling System:	Quick (Call I		*
Friendly Servers			<u>Confic</u>	lure		
Phone Connect						
🛛 🔀 Advanced Settings						
🔞 Internal PBX Server						
Data Sources						
Set Defaults				Apply	OK	Cancel



• In the **Control Station** pane, specify the following Analog Control Stationrelated 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.



5.12.12.1 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				*		
Database		Parity:	None	*		
Figure 2 Storage Locations		Stop Bits:	1	-		
File Formats				-1		
😪 Reports		Handshake:	None	*		
Service Management						
🔀 Advanced Settings						
Geocoding Servers						
🖶 Radio Systems						
Services						
Analog Control Station						
Serial Port						
TT over Cellular						
👫 Teltonika						
🔂 Remote Agents						
Friendly Servers						
2 Phone Connect						
Internal PBX Server	~					
Set Defaults			Apply		ОК	Cancel

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

5.12.13 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.

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Configuration		Controller #1					
💣 Service	^						
S Network		Name:	Contro	oller #1			
🛱 Redundancy		IP Address:	10.12	. 100. 101	-	Test	
Remote Access Restriction					•	Test	
Database		System Identifier:	Conne	ect Plus 1			
Storage Locations							
🚔 File Formats							
😪 Reports							
Service Management							
🔀 Advanced Settings							
Geocoding Servers							
🔚 Radio Systems							
Services							
Controller #1							
Services							
🛛 💥 Advanced Settings							
🗰 🛱 Redundancy							
🖵 PTT over Cellular							
🚛 Teltonika							
🔂 Remote Agents							
Friendly Servers							
2 Phone Connect	~						
T & # 1.1	-				-		
Set Defaults				Apply		OK	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.

5.12.13.1 Services

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

Configuration		Services
🛷 Service	^	
S Network		 Automatic Registration service (ARS)
Redundancy		Controller port: 4005
Remote Access Restriction		
Database		Local port: 0
Storage Locations		✓ Location service (GPS / Indoor)
File Formats		Controller port: 4001
Reports		
Service Management		Local port: 4001
X Advanced Settings		Use adaptive location updates
Geocoding Servers		
Radio Systems		✓ Text Messages service (TMS)
Services		Controller port: 4007
Services		Local port: 4007
Advanced Settings		Dispatcher ID: 64250
Redundancy		Dispatcher ID: 04230
PTT over Cellular		Multi Gate connection
C Teltonika		Subscribe ID: 1
Remote Agents		
Friendly Servers		
Phone Connect		
	¥	
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>5.10.2</u>, <u>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 updates

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.

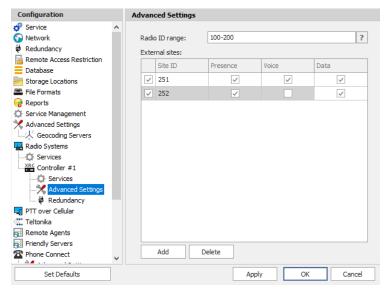
Multi Gate connection

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



5.12.13.2 Advanced Settings

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



• In the **Advanced Settings** pane, specify the following XRC controllerrelated services:

Radio ID range

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.

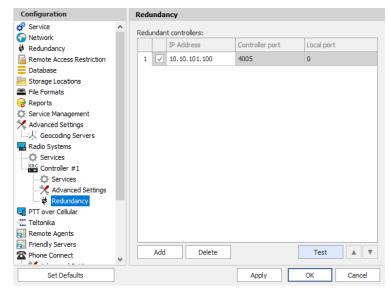
 Click the Add button and add a site by specifying its Site ID and selecting the appropriate data types (Presence, Voice, and/or Data).

5.12.13.3 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**.



- 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.

5.12.14 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.

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Configuration		Controller #1						
💣 Service	^							
🕤 Network		System Name:	Control	er #1				
🛱 Redundancy		Radio ID:	64250		÷			
Remote Access Restriction		Start Local Port:	0		*			
Database			-		Ŧ			
Storage Locations		XRT-9000 Controller						
File Formats		Controller IP Address:	10.10.1	11.102	*			
Reports		Controller TCP Port:	10001		¢	Test		
Service Management		User Name:	Admin					_
X Advanced Settings			Autilit					_
Geocoding Servers		Password:	•••••					
🔚 Radio Systems		System Identifier:	Connec	t Plus 1				
Services								
Controller #1		Monitor voice calls (n	o audio re	cordings)				
Services								
Redundancy								
XRT Controller #1								
😳 Data Path								
Audio Paths								
Redundancy	¥							
Set Defaults	1		Γ	Apply		ок	Can	cel
Ser Defaults				мрргу		UK	Can	cel

• 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.

5.12.14.1 Privacy

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

Configuration		Privacy						
💣 Service	^							
S Network		Privacy Type:		Enhan	iced	Ŧ		
Redundancy		Basic Privacy Key ID:		1		÷		
Remote Access Restriction		Enhanced Privacy Ke				÷		
Database			·				1	
Storage Locations		Algorithm	ID		Name		Value	
🚔 File Formats		ARC4 (40 bit) 👻	1					
🕞 Reports		ARC4 (40 bit)						
Service Management		AES (256 bit)	Т.					
🔀 Advanced Settings		AES (256 bit) Legacy	, I.					
Geocoding Servers			-					
Radio Systems								
Services								
Controller #1								
🗰 🛱 Redundancy								
XRT Controller #1								
💭 Data Path								
Audio Paths								File
Redundancy	¥	Add F	lemo	ve				- 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.



5.12.14.2 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**.

Configuration	Data Path		
💣 Service 🧳			
S Network	Data Service:	Extended Data service	*
🛱 Redundancy	Radio ID:	64251	
Remote Access Restriction	Kodio 15.	*	
Database			
Storage Locations			
🛎 File Formats			
😪 Reports			
Service Management			
🔀 Advanced Settings			
Geocoding Servers			
🔛 Radio Systems			
Services			
Controller #1			
Services			
X Advanced Settings			
🔤 🛱 Redundancy			
Controller #1			
Privacy			
🗘 Data Path			
Audio Paths			
🗰 🕏 Redundancy	,		
Set Defaults		Apply OK	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.

5.12.14.3 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	Audio Paths		
💣 Service 🔺			
S Network	Call Type	Source ID	Target ID
Redundancy	Group Call		10
Remote Access Restriction	Group Call		20
Database	Private Call	- 64250	
Storage Locations		0 1250	
File Formats	All Call		
Reports			
Service Management			
🔀 Advanced Settings			
·····································			
🔛 Radio Systems			
Services			
Services			
Redundancy			
XRT Controller #1			
💭 Data Path			
Audio Paths			
🐺 Redundancy	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 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.

5.12.14.4 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		Redu	ında	ncy		
Service	^	Redu	ındar	it controllers:		
 Network Redundancy 				Controller IP Address	Controller TCP Port	Start Local Port
Remote Access Restriction		1		10.10.112.99	10001	0
Database		1		101101112100	10001	Ŭ
Storage Locations						
File Formats						
Reports						
Service Management						
🔀 Advanced Settings						
Geocoding Servers						
🔚 Radio Systems						
Services						
Controller #1						
Services						
Redundancy						
Controller #1						
Privacy Data Path						
Redundancy	~		Add	Delete		Test 🔺 🔻
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.

5.12.15 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 contro	ller #1		
🕏 Redundancy		Connection:				
Remote Access Restriction		Use proxy for connect	tion			
Database						
Figure Storage Locations		Controller IP Address:	10.10.150.110	*		
🚔 File Formats		Controller Port:	4502	÷		
😪 Reports		TRBOnet Local Port:	0	*		
🔅 Service Management				*		
🔀 Advanced Settings		User Name:	test4			
↓ Geocoding Servers		Password:	•••••			
掘 Radio Systems		Profile:	all-channels			
Services						
WAVE 5000 controller #1			Test			
🛒 PTT over Cellular						
🗱 Teltonika						
🔂 Remote Agents						
Friendly Servers						
Phone Connect						
🛛 🔀 Advanced Settings						
Thernal PBX Server						
↓ Data Sources						
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.



5.13 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**.

Configuration	PTT over Cellular	
Radio Systems A Services System #1	Enable PoC service Registered PoC Gateways	
IPSC 1 CP1 Advanced Settings DDMS service Advanced Setting	Name TRBOnet.Mobile gateway #1	Port 5070
MNIS data service Advanced Setting Audio Paths PTT over Cellular Advanced Settings TBOnet.Mobile gateway TElonika		
Remote Agents Friendly Servers Phone Connect Advanced Settings	Add Delete	
Set Defaults	Apply	OK Cancel

5.13.1 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.

5.13.2 Adding a Mobile Gateway

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



Configuration		PoC Gateway #1		
Tile Formats	^	FOC Gateway #1		
Reports		Name:	PoC Gateway #1	
Service Management		System Identifier:	Mobile 1	
Advanced Settings		Local Interface:	10.12.97.7	- ¢
Radio Systems		Local Port:	5070	
Services		Public Address/Domain:	80.92.204.214	
LCP Ent		First VoIP port:	Default ‡	
Control Station #1				
Advanced Settings				
Redundancy				
🛒 PTT over Cellular				
Advanced Settings				
PoC Gateway #1 Teltonika				
Remote Agents				
Friendly Servers				
Phone Connect				
Advanced Settings	¥			
< >				
Set Defaults			Apply OK C	ancel

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).

Enable encryption

Select this option to enable encryption of voice and data.

Note: Encryption is only supported on the Mobile Client app version 3.3 and newer.

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	ıblic IP Address over STUN server	
STUN Server:	stun.ekiga.net	•
Port:	3478 ‡	
IP Address detected:	80.246.253.115	
Detect	OK Cano	el

• 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>.

5.14 Teltonika

To integrate Teltonika devices into TRBOnet software:

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

Configuration	Teltonika
Privacy DDMS service Advanced Setting Advanced Setting Advanced Setting TRBOnet.Mobile gateway Tettonia Remote Agents Friendly Servers Advanced Settings Phone Connect Advanced Settings External PBX Server External P	✓ Enable Teltonika service Local Interface: 10.10.100.99
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.

5.15 Remote Agents

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

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



Configuration	Remo	te Agents				
Advanced Setting A	Regi	istered remo	te Agents:			
Advanced Setting		Agent Nam	e	IP Address	Port	Redundancy
Audio Paths		Agent #1		10.10.110.190	4020	No
PTT over Cellular		-		1		
Advanced Settings						
TRBOnet.Mobile gateway						
C Teltonika						
Remote Agents						
Agent #1						
Redundancy						
Friendly Servers						
Phone Connect						
X Advanced Settings						
Internal PBX Server						
Advanced Settings						
∲ Data Sources						
🔀 Email						
SMS Notifications						
Push Notifications						
📮 License						
< >		Add	Delete			Test
Set Defaults				Apply	ОК	Cancel

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

Configuration	Agent #1			
Advanced Setting 🔺				
MNIS data service	Agent Name:	Agent #1		
Advanced Setting	IP Address:	10.10.110.190		
Audio Paths				
PTT over Cellular	Port:	4020 🗘		
	Password:		Test	
TRBOnet.Mobile gateway	<u></u>			1
Carlonika	 Use all services 			
🔂 Remote Agents	Use selected service	vices		
Agent #1				
Redundancy				
Friendly Servers				
Phone Connect				
Thernal PBX Server				
Advanced Settings				
∲ Data Sources				
Email				
SMS Notifications				
Push Notifications				
÷ v	Load services fr	rom agent		
< >				
Set Defaults		Apply	ОК С	ancel

• 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.

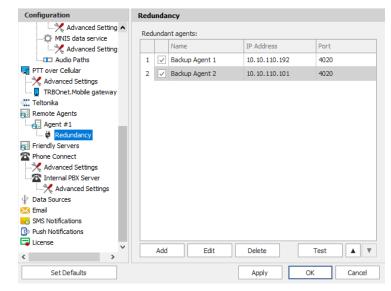
• Use selected services

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

5.15.1 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**.

Remote Agent		×
Agent Name:	Backup Agent 2	
IP Address:	10.10.110.101	
Port:	4020 ‡	
Password:		Test
Use all service Use selected s	ervices	
Load service:	from agent	
Load Service:		
	OK	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

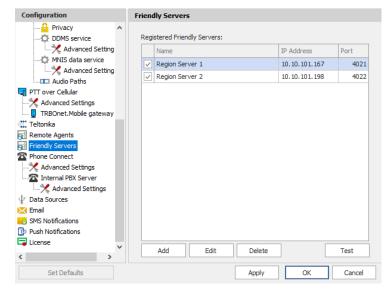
Choose this option and click the **Load services from agent** link to load services available on redundant the remote agent.

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

5.16 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**.



• In the Friendly Servers pane, click Add.

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

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• 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

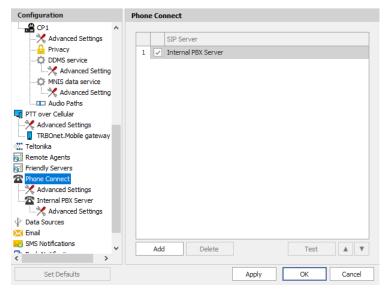
Enter the password, if the connection to the friendly server is password-protected.

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

5.17 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**.



5.17.1 Advanced Settings

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



Configuration		Advanced Settings			
Configuration CP1 Advanced Settings Privacy DDMS service Advanced Setting Advanced Setting TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Phone Connect Advanced Settings Thetmal PBX Server Advanced Settings Themal PBX Server Advanced Settings Themal PBX Server Advanced Settings Themal PBX Server Connect Conn	^	Advanced Settings SIP Ringing Timeout: Max Call Duration: Public Address: Phone Owner Address:	30 ÷ 10 ÷ 84.52.107.217 Take from database	seconds minutes	••• Configure
A 1 40 00 10	~				
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 p	ublic 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.

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ddress format	×
Address format:	
, %HOUSE_NUMBER%, %STREET_NAME%	•
Availablefields: %HOUSE NUMBER% %FLAT NUMBER% %STREET NAME% %COMMUNITY NAME	<u>=%</u>
%STATE NAME% %POSTCODE% %COUNTRY NAME% %EXTRA INFO%	
ОК	Cancel

• Add the required fields to the address information.

5.17.2 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
Geocoding Servers	^	
掘 Radio Systems		✓ Use Internal PBX Server
Services		Local IP: 10.12.97.7 🗸 🕫 Port: 5060 🌻
Repeater #1		
		Transport: UDP 👻
Privacy		Disastel Castas
Slot #1		Dispatch Center
Slot #2		User's Extension: 1234
Local Slots		User Name: 1234
🖵 PTT over Cellular		
Teltonika		
Remote Agents		
Friendly Servers		
Phone Connect		
Advanced Settings		
Internal PBX Server		
Advanced Settings		
Ψ Data Sources		
🔀 Email		
SMS Notifications		
Push Notifications		
📮 License	×	
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).

Transport

In the drop-down list, select one or more transport protocols (UDP, TCP, and/or TLS). Note that if **TLS** is selected, make sure that a valid certificate is specified in **Network > Server Certificate** (see section 5.4, Network Parameters).

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.

5.17.2.1 Advanced Settings

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

Configuration		Advanced Settings	
Geocoding Servers	^		
🔛 Radio Systems		Packet time (ms):	60 ‡
Services		Audio codecs:	G711µ,G711a,OPUS,G729 -
Repeater #1			
		Video codecs:	VP8 -
Privacy		Registration Interval (sec):	3600 ‡
I Slot #1		DTME Send Mode:	RFC 2833
Slot #2			
Local Slots		First VoIP port:	Default 🌲
🖵 PTT over Cellular		Use VoIP ports:	All -
Teltonika			·
Remote Agents			
Friendly Servers			
Phone Connect			
Thernal PBX Server			
Advanced Settings			
↓ Data Sources			
🔀 Email			
SMS Notifications			
Push Notifications			
📮 License	¥		
Set Defaults			Apply OK Cancel

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

Enter the packet length, in milliseconds.

Audio codecs

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

Video codecs

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



5.17.3 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	E	External PBX Server
CP1	^	Use External PBX Server
DDMS service		Provider options
Advanced Setting		Address: yourprovider.com UDP -
MNIS data service		Port: 5060 C 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:
Advanced Settings		Test Call
Advanced Settings		
Advanced Settings		
<pre>fr B + C</pre>	*	
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.

• 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.

5.17.3.1 Advanced Settings

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

- 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 411).



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.

SIF	SIP Authentication Users X		
	User's Extension 🛛 🔺	Authorization User Name	
+	010101	User 1	
-	Add XDelete		
-		OK Cancel	

• 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

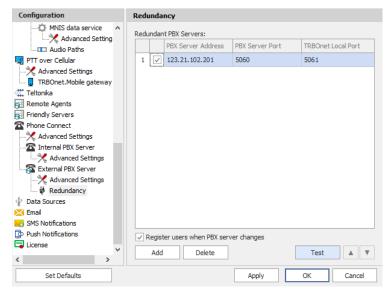
Enter the range of SIP phone numbers that will be available for outgoing calls.



5.17.3.2 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**.



- 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.

5.18 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**.

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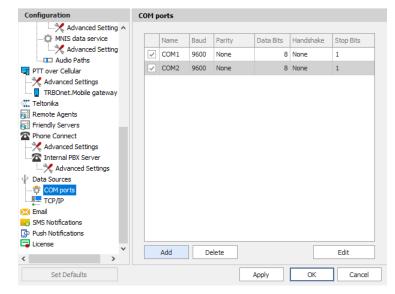
Configuration	Data Sources
Advanced Setting MIIS data service Advanced Setting Advanced Setting Audio Paths	Enable Data Sources
PTT over Cellular X Advanced Settings TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Phone Connect Advanced Settings Thermal PBX Server	
Advanced Settings	
Set Defaults	Apply OK Cancel

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

5.18.1 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.



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.

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.

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.

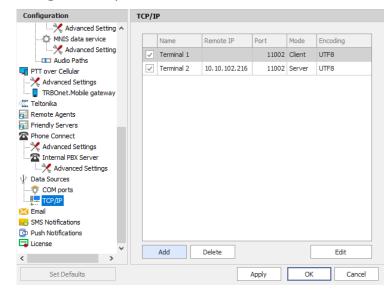


• Click **OK** to save settings and close the dialog box.

5.18.2 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.

5.19 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**.

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Configuration	Email
Advanced Setting 🗸	
MNIS data service	✓ Enable Email Server
Advanced Setting	
Audio Paths	
TT over Cellular	
TRBOnet.Mobile gateway	
Remote Agents	
Friendly Servers	
🕿 Phone Connect	
Advanced Settings	
External PBX Server	
🔀 Email	
Incoming Mail Server	
Outgoing Mail Server	
SMS Notifications	
Push Notifications	
🖵 License	
< >	
Set Defaults	Apply OK Cancel

5.19.1 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 mailrelated 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.

5.19.2 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 TT over Cellular TRBOnet.Mobile gateway Teltonika TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Advanced Settings Triendly Servers Advanced Settings External PBX Server Advanced Settings External PBX Server Data Sources Email 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.com Explicit (TLS) \$87 \$87 OAuth 2.0 Office 365 • Image: Comparison of the state o
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.

5.20 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 Notifications		
Advanced Setting A	Enable SMS Service		
TT over Cellular			
	Connection to GSM via:	Vianett service (www	/.vianett.com) 🗸 🗸
TRBOnet.Mobile gateway	Sender:		
Teltonika	Sender:		
Remote Agents	Username:	login@yourcompany.	com
Friendly Servers	Password:		
The Phone Connect	Password:	•••••	
	Send Test	MMS	Send Test SMS
Thernal PBX Server			
Advanced Settings			
∲ Data Sources			
COM ports			
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 www.vianett.com



• 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 **Username** 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>

MailingVox

Select this item to use an account on MailingVox service. In addition to the **Username** and **Password**, you'll have to specify the **API ID**.

For more details on MailingVox service, see www.mailingvox.com/sms/

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.



5.21 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 Advanced Setting A Advanced Settings TRBOnet.Mobile gateway TRBOnet.Mobile gateway Teltonika Remote Agents Friendly Servers Advanced Settings Thetrnal PBX Server Advanced Settings COM ports COM ports	<pre>✓ Enable Push Service Server: push.trbonet.com Port: 8081 Test</pre>
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 17).
- 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 17).

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

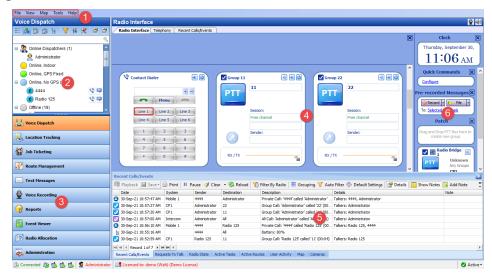
Select this option to have the Dispatch Console application remember your password.

• 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.





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 110).

• 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.

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:

• Туре

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 💿 📧 🥥
OTT	Channel 1
PTT	All Call 🔻
	Session:
	Free channel
	Sender:
	sender:
RX / TX	
\sim	

• 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 of	- t t	Call Destination: Select by Dispatche Selected from list	,
Execute call or Execute call o Execute call o	n all available cha		
J		OF	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.



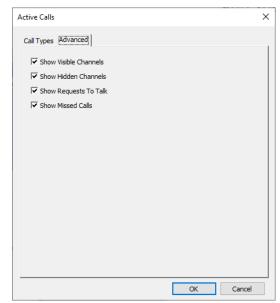
Note: For the visibility of channels, see <u>Configure PTT boxes</u>, <u>View Mode</u>.

• 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:

bice Dispatch	Radio Interface					<u> </u>
i 🗄 🗄 👶 🛠 🏹 😒	Radio Interface Recer	nt Calls/Events				
	Control Station #		e Calls		Quick C	ommands
🧟 Online Dispatchers (1)	Control Station #				Configure	
Administrator	PTT Administrator				Dro-rocom	led Message
Firemen E)				-
Police						🔻 🎦 File
	Intercom	0 🖬 🙆	Control Stat	ion #1 🛛 🔟 📧 🥥	To: Selected	Channels
	All C	all		Channel 4	р	atch
	PTT		PTT	Police 👻	Drag and Dr	op PTT Box here
Voice Dispatch				onee		e new group
	Session	1:	-1	Session:		
GPS Positioning	Free d	hannel		Group Call		
Job Ticketing				Police		
Sob Treketing	Sender	:		Sender:		
Route Management				Administrator		
RFID Tracker	RX / TX		RX / TX —			
					· •	
Text Messages	Recent Calls/Events					
Voice Recording	🎒 Playback 📓 Save 🛛 🤄	Print 🔢 Pause 🍼 🤇	lear 🗕 🏐 Reload 📘	🔓 Filter By Radio 🛛 🚟 Grou	iping 🍸 Auto Filter 🧇	Default Setting
Force Recording	Date	Radio System Sender	Recipient	Message	Details	Note
Reports	29-Sep-2016 17:03:17	Control Station Adminis		Dispatcher 'Administrator'		
	29-Sep-2016 17:02:37	Control Station Adminis		Dispatcher 'Administrator'		
Event Viewer	29-Sep-2016 17:02:23 29-Sep-2016 17:02:00	Control Station Adminis Control Station Adminis		Dispatcher 'Administrator' Dispatcher 'Administrator'		
	29-Sep-2016 17:01:47	Control Station Adminis		Dispatcher 'Administrator'		
Radio Allocation	29-Sep-2016 17:01:25	Intercom Adminis		Intercom Call: Dispatcher '		
	H4 44 4 Record 1 of 312	F HH 44 4				
Administration	m m m Kecord 101 312					

• View > Customize Shortcuts

Choose this menu item to configure shortcuts for the actions on the selected channels.

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Change Shortcut Set	tings		×	<
Show shortcut but	tons			
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	
HI II Record 4 d	of11 ⊧⊭⊮i∢		Þ	
🖶 Create 📑 Edit			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 selected PTT channels), click the **Create** link to make the changes:

Action		×
Caption:	Mute Mode	
Shortcut:	Ctrl	
Device Button:	Mone (Footswitch PTT)	*
Action:	Mute channels	-
Channels:		
 ✓ Telephony ✓ Intercom □ DG 1 □ IPSC 1: Slot #1 □ IPSC 1: Slot #2 		
Group 11		
Group 22		_
	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.



 \checkmark 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 shortcut buttons** 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			
Туре	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.

/oice Dispatch	Radio Interface						5	
🚹 🗄 🗄 🕺 🛠 🍸 🚳	Radio Interface Radio	Interface #1	Recent Calls/Ev	ents Radios	1			
	Terminate all Transmit	K			-		Quick Commands	
🛛 🤵 Online Dispatchers (1)			Active C	alls		×	Configure	_
Administrator								-
ei 10	_					Pro	e-recorded Mes	
	7						🥥 Recorc 🔻 😰 File	-
- Police	₽			`		<u>^</u> (-	To: Selected Channels	
	Intercom			Control Sta	ation #1 🕕 🛋		Patch	
							Pattin	
		all		PTT	Channel 4		rag and Drop PTT Box h to create new group	
Voice Dispatch					All Call	-	to create new group	
GPS Positioning	Sessi				Session:			
	Free	channel			Free channel			
📅 Job Ticketing	Sende				Sender:			
~		r:			Sender:			
Route Management								
3				DV (70)				
RFID Tracker	RX / TX			RX / TX -				
-								
Text Messages	Recent Calls/Events							
Voice Recording	🖾 Playback 🚽 Save 🗸 🤅	🚽 Print 📔 Pai	use 🦪 Clear	🕶 🧐 Reload	懫 Filter By Radio 🛛 🗮 G	irouping 🍸 Aut	o Filter	
	Date	Radio System	Sender	Recipient	Message	Details	Note	
Reports	30-Sep-2016 10:48:54	Intercom	Administrator	All	Intercom Call: Dispatche	Members: Adminis	trator	
	29-Sep-2016 18:15:42	Intercom	Administrator	All	Intercom Call: Dispatche		trator	
Event Viewer	29-Sep-2016 17:53:22		RadioServer	All	Connection to 'Control S			
	29-Sep-2016 17:27:01	Intercom	Administrator	All	Intercom Call: Dispatche			
Radio Allocation	29-Sep-2016 17:27:00	Control Statio Intercom	Administrator	Police	Dispatcher 'Administrato Intercom Call: Dispatche			
Radio Allocation			Automistrator	~	antercom call: Dispatche	Members: Adminis		Þ
Badio Allocation	H4 44 4 Record 1 of 303							

• 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.



	-
Intercom	
IP Site Conne	ct: Slot #1
IP Site Conne	ct: Slot #2
_	, <u> </u>
	Session:
\bigcirc	Sender:
	nannel not selected
u	lannel 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 Cor	All Call v Radio Grp Num List
	Session: Free channel
	Sender:
RX / TX	

• View > Show Keypad Panel

Select this menu item to display the Keypad panel in PTT boxes.

P	T	0 Radio	Grp	Num	▼
				\smile	
(1	2		3	
	4	5		6	
	7	8		9	
	С	0		<	V
\sim					-

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>.



_	Add 🗙 Remove				
	Filename	Description	Severity	Shortcut	Visibility
	Alarm Tone		Alarm		Hidden
Þ	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 Tran	ismit						Quick Commands 🛛 🗙
		Active	Calls			×	Configure
					1 2		Pre-recorded Messages
							🥥 Record 🔻 😰 File 💌
						\sim	To: Selected Channels
Intercom	=))	I	Control S	tation #1	0 🖬 🙆		Daisy.mp3
PTT	All Call		PTT	Chan	nel 4		Bobby.mp3
				All Call	-		To: All Channels
	Session:			Session:			Patch X
	Free channel			Free channel			Drag and Drop PTT Box here to create new group
							dicate new group
	Sender:	_		Sender:			
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	Defaults	Preview:	arge PTT Boxes	
Channel discon Free channel Free channel Free ministratus All Call Frengency Private Call All Call Group	Tak / Mosed Call	~		tation / Channel Channel Recipients Session: Free channel Sender:	
Select Colors: Title Text:		Defaults +	RX / TX		
Background:	255, 213, 213	*			
Outer Border:		•			
Text:	108, 0, 0	٣			
Field Borders:		×			
Indicator Backgrou	ind:	*			
Status Bar Text:		*			
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, 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).

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Location	Select Active Map.						👲 🐠	C Objects		1
l 🗄 E	Save Online Map [Data		_		_		1- 1.		
911 - L.	Map Content	ee	•0	Intercom		Group 10	• 🖉			
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Text Mess	ker sages	Recent Calls/Events		Hospital Pause 🧭 Clear - 👹	Reload 🎦 Fil	125 59°56'27,63" N; Lo ter By Radio	ngitude: 30°16'49,88	to Filter 🗇 Default S	ettings	
C Text Mess	ker sages	Recent Calls/Events	Print II Radio System	Hospital Pause I Clear - I m Sender	Reload Ti Fil	125 59°56'27.63" N: Lo ter By Radio	ngitude: 30°16'49,88 Grouping 🍸 Au	to Filter 🗇 Default S Details	ettings	
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Text Mess	ker sages ording	Date 90.06.2017 14:43:57 09.06.2017 12:43:30	Radio System Capacity Plu	Hospital Pause I Clear - I m Sender Server is 1 Administrator	Reload Ti Fil	ter By Radio Message Connection Dispatcher	ngitude: 30°16'49,88 Grouping 🍸 Au to 'Capacity Plus 1' 'Administrator' calls :	to Filter 💮 Default S Details h gr Members: Adminis	-	
Voice Rec Reports	ker sages ording wer	Recent Calls/Events Playback Save Date 09.06.2017 14:43:57	Radio System	Hospital Pause Clear - m Sender Server Is Administrator Is 1 225	Reload Fil Recipient Al 11	ter By Radio	ngitude: 30°16'49,88 Grouping Y Au to 'Capacity Plus 1' 'Administrator' calls calls group '11' (00:	to Filter 💮 Default S Details h	strator, 125	
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Voice Rec Reports	ker sages ording wer cation	Date 90.6.2017 14:43:57 90.9.6.2017 14:43:57 90.9.6.2017 12:43:30 90.9.6.2017 12:43:30 90.9.6.2017 12:43:30 90.9.6.2017 12:43:30	Radio System Capacity Plu Capacity Plu Capacity Plu Capacity Plu Capacity Plu Capacity Plu Capacity Plu	Hospital Pause Clear - Server is 1 Administrator is 1 125 is 1 Administrator is 1 Administrator	Reload T Fi Recipient Al 11 11 11 11 Police	ter By Radio	ngitude: 30°16'49,81 Grouping Y Au to 'Capacity Plus 1' 'Administrator' calls 'Administrator' calls 'Administrator' calls	to Filter 🛞 Default S Details h 08) Members: Adminis 08) Members: 125 gr Members: Adminis	strator, 125 strator strator	

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.

MAPNIK CYCLE		
CYCLE		OK
		OK
TRANSPORT		
LANDSCAPE		OK
BING_ROAD		OK
BING_AREA		OK
BING_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.

lame: Nap Type:	Map 1 WMS (Web Map S	ervice)		
JRL:		del.edu:80/geoserver/DGS_Sufficial_and_Conta	ct_Geolog	y/wms
~ ~				Get Capabilities
Map Title	Identifier	Description	Style	
US-DE DGS	US-DE_DGS	. This map shows the surficial geology of D	DGS Stat	ewide Geologic Map .
US-DE DGS	US-DE_DGS	. This map shows the surficial geology cont	DGS Geo	logic Statewide Map .

• 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*3	2.29" E030"17'59.68" to N59"56'	13.91" E03	0°17'19.	45"
Tile expiration, days: 30	÷			
Refresh all tiles				
	Zoom level: 16 Tiles to download: 23			
Status: Finished Loading zoom level: 16 Loaded from the web: 0 Updated from the web: 0 Local: 23 Failed: 0				
Preview tiles Show of				
	Loaded: 23 of 23 (100 %)			
	St	tart	Close	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.

Online Map			-		×
Map cache					
Cache folder:					
D:\Temp\Maps					
				Change	
Update:	Never	\sim			
Map Type:	BING_ROAD				~
Bing key:					
http://msdn.microso	ft.com/en-us/library/ff428642	aspx			
		C	K	Cano	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 127).

<Map Provider> key

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: https://trbonet.com/kb/how-do-i-create-a-custom-map-for-trbonet/

- 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>5.11.1.1, Configuring Geocoding Servers</u> (page 29).

• Map > Open New Map in Tab

Click this menu item to add a new map tab to the Map pane.

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Map Type:	Online maps		
Caption:	My Map		
Available Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK
Add	Edit	 ОК	Cancel

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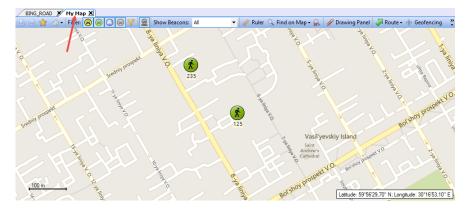
From the drop-down list, select the map type.

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:

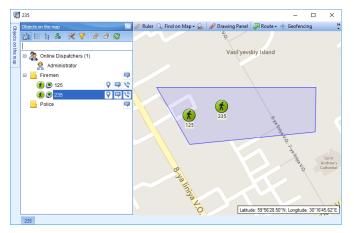


• Map > Open New Map in Window

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.

Bete V System Sector Destination Destination Destination Destination (i) 30 Sep-21 11112:04 MI FR Rado 125 22 Group Cell: Table 125 Called 127 (000-00) Tablers: Rado 125 Additional 127 (000-00) Tablers: Rado 126 Add	es					ig 🍸 Auto Filter 🍥 Default Settings 🛛	
0 30:56-21 111:25 M/H 0/2 Reine Technic 12 Technic 12 Technic Technic 12 Technic Technic 12 Technic Technic 12 Technic 12 Technic 12 Technic Technic 12 Technic Technic 12 Tech	e			Sender	Destination	Description	Details
Open Open Open Open Open Takes Redu 125 (i) 0.5 dep.11 L11:2:94 M 0FL Redu 235 1.1 Orage Calt: Naiso 112 called 22 (00.04) Takes: Redu 125 (i) 0.5 dep.11 L11:2:94 M Noise I 4:44 Redu 235 Provide Call: Naiso 112 called 121 (00.04) Takes: Redu 125 (ii) 0.5 dep.11 L11:5:21 M Mole I 4:44 Redu 235 Provide Call: Naiso 112 called 125 (00.01) Takes: Redu 125 (iii) 0.5 dep.11 L11:5:21 M Mole I 4:44 Redu 235 Provide Call: Naiso 132 called 125 (00.01) Takes: 4:444 Attemptates (iii) 0.5 dep.11 L11:5:21 M Mole I 4:44 Attemptates Provide Call: Naisos 123 called 127 (00.00) Takes: 4:444 Attemptates (iii) 0.5 dep.11 L15:5:21 M Obl I Attemptates All Call: Administrates							
db 0 30 -dot-21 11:12:12:14 Mole: Note 0:13 11 crosp Cdit Tedo 127 colored 11 (00:00) Index: Note 0:13 0 30 -dot-21 11:12:12:14 Mole: Note 0:12 Provide 12							
9 0.00000000000000000000000000000000000							
U 30-592-11 1121114 Mole 1 event in the state of							
Image: State 10:57-07 Million Model 1 4444 Administrator Administrator Image: State 2: 10:57-07 Million P1 Administrator Congo Call: Mediministrator Tables: 4444, Administrator Image: State 2: 10:57-07 Million P1 Administrator Congo Call: Mediministrator Tables: 4444, Administrator Image: State 2: 10:57-07 Million P1 Administrator Congo Call: Memoritar Administrator Tables: 4444, Administrator Image: State 2: 10:57-07 Million P1 Administrator Administra							
(1) 959-921 1057:024 (P1 Administrative (2) 959-921 1057:0244 (P1 Administrative (2) 959-921 1057:0244 (P1 Administrative (P1 (2) 959-921 1057:0244 (P1 Administrative (P1 Administrative (2) 959-921 1057:0344 (P1 Administrative (P1 (P1<							
50 30 59-69-21 10:57:00 M/ 0*1 Administratur II 0 coup Call Administratur Called VI (00:00) Tabless: Administratur II 30 56-90-21 10:57:00 AM Intercon Administratur II All Call X-deministratur Called VI (00:00) Tabless: Administratur II 30 56-90-21 10:57:00 AM Intercon Administratur II All Call X-deministratur Called VI (00:00) Tabless: Administratur II 30 56-90-21 10:57:59 AM Orl II Administratur II Group Call Radio 125 (00:04) Tabless: Radio 125 (444) 30 56-90-21 10:57:59 AM Orl II Administratur II Group Call Radio 125 (00:05) Tabless: Radio 125 (444) 30 56-90-21 10:57:59 AM Orl II Administratur II Group Call Administratur Call VI (00:06) Tabless: Administratur Call VI (00:07) Tabless: Admin							
U) 30-5qp-21:05:70:24 /r Fire Administrum 11 Group Call: Administrum Call 10:0000 Takes: Administrum Vall U) 30-5qp-21:05:70:24 /r Fire Administrum Vall All Call: Administrum Vall Call: Administrum Vall All Call: Administru	005	30-Sep-21 10:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator
I) 30 - 6p-21 105-51:04 Mobb 1 444 Rado 125 Private Call: Vehicle Caller Vehicle Ve	a geo	30-Sep-21 10:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator
30 5-69-21 10:51:99 Mor P1 Radio 125 11 Orox Onl: Robit 125 Onlef 11 (100:76) Takers Bado 125 31 5-69-21 4:50:197 Mor P1 Administrator of Administrator of Administrator of Administrator of Onlef 100:003 Takers Ended 125 31 5-69-21 4:50:197 Mor P1 Administrator of Onle 1000 Takers Ended 125 31 5-69-21 4:50:197 Mor P1 Administrator of Onle 1000 Takers Ended 126 31 5-69-21 4:50:197 Mor P1 Administrator of Onle 10000 Takers Ended 126 31 5-69-21 4:50:197 Mor P1 Administrator of Onle 100000 Takers Ended 126 31 5-69-21 4:50:197 Mor P1 Administrator Onle 100000 Takers Ended 126 31 5-69-21 4:50:197 Mor P1 Onle 000000 Takers Ended 126 31 5-69-21 4:50:197 Mor P1 Onle 0000000 Takers Enderstator 31 2469-21 4:50:208 Mor P1 Onle 000000000000000000000000000000000000		30-Sep-21 10:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator
<u>0</u> 24-569-24 +05:107M CP1 Administrator I Adding Administrator I Administrator I Administrator I 24-569-21 +05:107M CP1 Administrator I Cole (Administrator Cale) Administrator I Cole (Administrator Cale) I Cole (Administrator I Cole (Administr		30-Sep-21 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444
O 21-59-21 43:01.09 (C1) Administratory 11 Corp. Call Administratory Call (C1) (2000) Tablers Administratory Ad (Call Administratory Call (C1) (2000) Tablers Adm		30-Sep-21 10:52:59 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125
21-Sep-21-4:00.10 PM Intercom Administrator Depatcher Group 1 Group Call: Administrator Called Dispatcher. Tallers: Administrator 21-Sep-21-4:00.10 PM Intercom 21-Sep-21-4:00.10 PM Intercom		21-Sep-21 4:30:10 PM	CP1	Administrator	All	All Call: 'Administrator' called 'All' (00:03)	Talkers: Administrator
0 21-56-21-40-30-9M Internet Administrator All Al Call-Mainteature Called XI (00:0) Tablers Administrator Called XI (00:0) 0 21-56-21-40-30-9M Administrator Called XI (00:0) Tablers Administrator Called XI (00:0) 0 21-56-21-40-30-9M Administrator Called XI (00:0) Tablers Administrator Called XI (00:0) 0 21-56-21-42-33-20M P1 Administrator 22 Forug Call Molecular Called XI (00:0) 0 21-56-21-42-33-20M P1 Administrator 22 Forug Call Molecular Called XI (00:0)		1 21-Sep-21 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 Takens: Administrator 21-5ep-21-4:33:23 PM CP1 Administrator 22 Group Call: Administrator called 22 (200-0) Takens: Administrator 22 Group Call: Administrator called 22 (200-0) Takens: Administrator		1 21-Sep-21 4:30:10 PM	Intercom	Administrator	Dispatcher Group 1	Group Call: 'Administrator' called 'Dispatche	Talkers: Administrator
21-Sep-214:28:32 PM CP1 Administrator 22 Group Cal: 'Administrator' called '22' (00:04) Takers: Administrator		1 21-Sep-21 4:30:10 PM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:02)	Talkers: Administrator
The second secon		1 21-Sep-21 4:30:10 PM	Intercom	Administrator	Dispatcher Group 2	Group Call: 'Administrator' called 'Dispatche	Talkers: Administrator
W W K Record 2 of 212 P W H K		21-Sep-21 4:28:32 PM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:04)	Talkers: Administrator
		HI HI I Record 2 of 212	F # # 4	******		encode industriance and a first feet on a	wallingen aufertetenten
		Destination:	11				📧 Playback 🙀 Save 🔣 Ad
Destination: 11 E3 Elayback 🛃 Save 📖 Ad		Group Call: 'Radio 125' cal Talkers: Radio 125, Admin		17)			

• Tools > Recent Calls/Events in Window Click this menu item to open Recent Calls/Events in a new window.

	Date	System	Sender	Destination	Description	Details	N
Ì	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' (00:07)	Talkers: Radio 125, Administr	
	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)	Takers: 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 'All' (00:01)	Talkers: Administrator	
	30-Sep-21 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444	
	30-Sep-21 10:55:16 AM		4444	All	Battery: 80%		
	30-Sep-21 10:52:59 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
4	4 4 Record 1 of 391	▶ } 					Þ
	Sender:	Radio 125				Date: 30-Sep-21 11:12:4	6 AM
	Z Destination:	22				Playback 🧱 Add	Note

- 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.

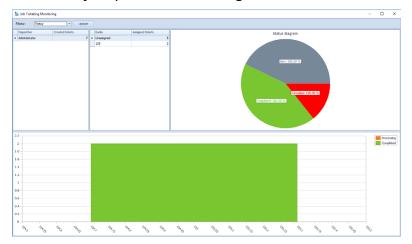
• Click Add Note to add a note to the selected event.

	×
	-
014	Cancel
	ОК

- 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.



🗑 Radios		- 🗆 X
Filter: Statuses: (Online, Indoor), (Online)	Radio Groups:	All V (Select All) V Police Firemen
125	235	✓ Cleaners ✓ 11 ✓ 22 ✓ Mobile Client ✓ ✓ ✓ Cancel ✓
& Ę	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

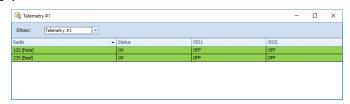
Click this menu item to open a new window that displays Phone Calls available in the system.

Sphone	Calls					-	• ×
1	🗢 Finish	Walt			•		c 🐠
	Hold Forward	00:15			1	2	3
2				1	4	5	6
		Line free			7	8	9
	📞 Call				С	0	<
3				1	<u></u>	Call	
	Call	Line free	Contacts -		Dispa	tcher Gr	oup 2
			/		Dispa	tcher Gr	oup 1
4		Line free	Shortcuts	[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 230).

• Tools > Text Messages in Window Click this menu item to open a new window to manage text messages.

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🖼 Text Messages	- 0	×
📴 🗄 🗄 🗶 🍸 🗇 🗗 😒	🍼 Clear 🍪 Reload 📑 Inbox 🚅 Sent	
	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	
😑 📙 Firemen 📮	05-Oct-2016 18:06:04 Received from 125 to 235 no g	
觰 🕒 125 📮 🔇	05-Oct-2016 18:10:53 Sent from Administrator to Police	
😥 💌 235 📃 🔍	Stop making me fool	
Police 🤤		
	Recipient: 🍓 Police \cdots 🗈 Send 🎚 Attach File	
	1	
		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 354).

• 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 223).

• 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.

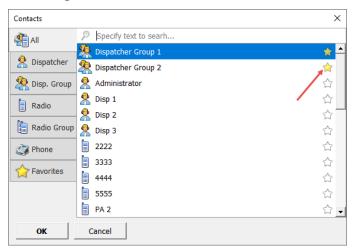
• Tools > Terminate All Transmissions

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.

TRBOnet Enterprise — User Manual



Contacts		×
All 🕄	Specify text to searh	
A Diseatches	Dispatcher Group 1	👄 🖈
😤 Dispatcher	😤 Dispatcher Group 2	e 🔎
🖄 Disp. Group	Eugene	
Radio	🥥 Walt	
Radio Group		
🧿 Phone		
A 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**.

ption	IS						
ound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Calls
0	Cor	nfigure the Sound	Notification				
- 	se Sound	Notifications					
 To o	onfigure	specific sound no	tifications, si	elect the corr	espondir	na notific	ation
ever	nt, and f	rom the Sound list	, select the o	desired sound	l file		
4	🕘 Tak	permit					
9	Ø Tak	end					
9	🕘 Line	busy					
4	🕘 Alarr	n or Emergency C	all i				
4	🕘 Text	message received	1				
4	🕘 Infor	rmation received					
4	🕘 Warr	ning received					
9	🕘 Alarr	n received					
4	🕘 Systi	em error					
4	🕘 Alarr	n Tone					
4	🕘 Priva	ate call					
4	🕗 Requ	uest To Talk / Miss	ed call				
4	🗞 Radi	o Online					
4	🇞 Radi	o Offine					
Sour	nd:						
(Sou	and by d	efault)			~	Se	lect
Alarr	m or Eme	ergency Call durat	on:	5 🗘	second	ls	
					0		Cancel

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.



- Click 🕨 to 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.

Configure the image parameters that are shown on the map Map refresh interval: Show rado names: Show rado names: Show map object names: Show rado names: Show r	Sound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Cal
Show directions: Show and names: Show map object ames: Show map object ames: Group nearby icons: Show PTat non map: Degrees, Mnutes, Seconds Show coordinates on map: Degrees, Mnutes, Seconds Select maps size: Select default mape type: Select default mape		Con	figure the image p	oarameters t	hat are show	n on the	map	
Show radio names: Show mado names: Show mado names: Show may object names: Coup nearby icons: Show last hown locations of online radios: Show PTT on map: Parkat Namp Fiter: Show courdinates on map: Decrees, Minutes, Seconds: Show courdinates on map: Decrees, Minutes, Seconds: Sect mage size: Status and the data trage type: Show and the data trage type: Sh	Map n	efresh in	terval:		30 韋	secor	nds	
Show map object names: Hde overlapping names of objects: Group nearby icons: Show latt icons loadsons of online radios: Show IZTI on map: Pados Map Objects Show coordinates on map: Pados Map Objects Pados Map Object	Show	direction	15:					
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And to be added and the second	Show	map obj	ect names:					
Show last known locations of online rados: Show PTT on map: Defadt Nap Fifer: Show condinates on map: Decrees, Minutes, Seconds Select finage size: 32 x 32 pixels Select diffault mage type: The images below will be shown on the map: The images below will be shown on the map: The images below will be shown on the map: Show Conditions The images below will be shown on the map:	Hide o	verlappi	ing names of obje	cts:				
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Select default mage type: The images below will be shown on the map: Image bype: Image bype: Image: Im	Defau	it Map F	iter:		8		8	
Select default image type: (6) Portable Radios - The images below will be shown on the map: (7) (7) (7) (7) (7) (7) (7) (7) (7) (7)	Show	coordina	ates on map:		Degrees, M	inutes, S	Seconds	*
The mages below will be shown on the map:	Select	image s	ize:		32 x 32 pix	els		*
	Select	default	image type:		🛞 Portabl	e Radios		- + -
Rath to Google Earth eve file	The in	nages be	slow will be shown	on the map				
Path to Google Earth exe file	Ŕ) (<u>k</u>	K				
Path to Google Earth exe file								
	Path t	o Google	e Earth exe file					×
I	1							

• 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.

You can also create your own radio icons. Click + on the right and in the dialog box that opens, enter the following information.

Custom Devic	e Image			×
Name:	First aid 1			
Select image				
D:\Images\Wo	odpecker.png			S 🗶
Draw back	ground			
Preview				
16 x 16	20 x 20	24 x 24	32 x 32	48 x 48*
۲	•	?	1	
Advanced mod	<u>le</u>		ОК	Cancel

✓ Name

Enter a name for the icon.

✓ Select image

Click the Browse button and locate the image file you want to use as an icon.

✓ Draw background

Select this option so that the transparent background will be colored according to the radio status. The image file formats that support transparency are: .png, .gif, and .ico.

Note: You can also assign different images for different icon sizes. Click the **Advanced mode** link and select images for different sizes (16x16, 20x20, 24x24, 32x32, 48x48).

• 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

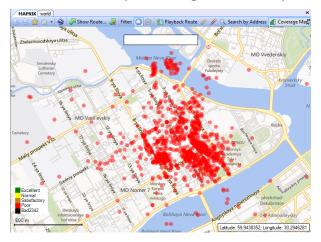
TRBOnet Dispatch Console allows displaying RSSI levels on a map. The RSSI is a received signal strength indicator. It measures the power level of the RX signal at a repeater's receiver. The RSSI maps can be used by radio system engineers to plan further extension of their radio networks.

• In the **Options** dialog box, click the **Coverage Map** tab.

•	Show coverage z		m)			
	_					
		V Descr		Co		
•		55 Excell			Green	
		B1 Norma			Orang	
_		97 Satisf	actory		_	oldenrod
		13 Poor			DarkM	lagenta
		co Bad			Red	
	Add	Delete	_		Def	ault
	Add	Delete			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.



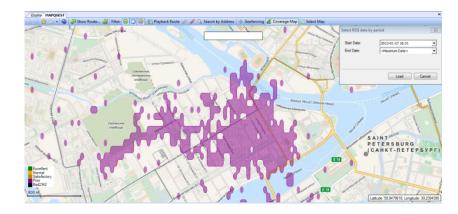
Show coverage zones

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.

oun	d Map	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Ca
X		ernal hardware op tswitch or a fist mi					nt such as a
	Jse signali	ng device					
	Serial port		COM1				
			Config	gure			
Exte	rnal Devic	es:	1.				
÷	Name			escription			
v	Micropho			BOnet Mic A			
-	Keyboard			red Kevboar			
	- 🕮 📘	edit 💙 Delata IRBOnet Micropi		ter			
irst	Vo == 1	IRBOnet Microp IRBOnet Media [Dock 2000				
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irst irst	Vo == 1 IP (* 1 Jse (* 1 Jse (* 1	IRBOnet Microp IRBOnet Media I IRBOnet Footswi IRBOnet Footswi HID	Dock 2000 itch (RS232)				
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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.

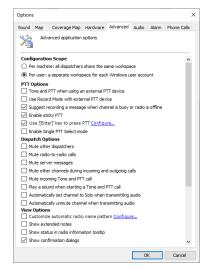
✓ Click the **Configure** link to specify the alternative server settings.

Configure the proxy server	×
Use an alternative server Settings	
Address: 177.71.134.70	
Port: 80	
Authentication	
Username: User	
Password: ••••	
OK 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.

Dispatch 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 server messages

Select this option to mute server messages as they are being played back.

- 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	×
Radio display name: MANAME96 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 Ca	ncel



• Radio display name

Click the ellipsis (...) button and in the **Format** dialog box pick the fields to display for a radio.

%NAME% (%CHANNEL%)		
Example: My Radio (Control Statio	n / Channel)	
Add Field:		
Radio Name		
Radio Owner's name		
Radio ID		
Active Channel		
		-
	OK	Cance

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	V	Radio System	Sender	Recipient	Message	Ext. Note	Note
🔆 7/7/2014	1 3:49:56 AM		Radio 11	Ali	Geofencing Alarm [Dat		
⅔ 7/7/2014	1 3:49:56 AM		Radio 11	All	Radio left allowed region		· / .
🚽 7/7/2014	4 3:47:52 AM	Repeater #1 Slot 1	Radio 105	Dispatcher	Administrator Accept		1
🔆 7/7/2014	4 3:41:24 AM	Repeater #1 Slot 1	RadioServer	Radio 105	Telemetry status cann		
7/7/2014	4 3:40:16 AM		Administrator	All	test		
7/7/2014	1 3:39:08 AM	Repeater #1 Slot 1	Radio 105	Unknown group: 1010	Radio 'Radio 105' calls	View	
🔆 7/7/2014	1 3:32:55 AM		Administrator	Radio 105	Dispatcher 'Administra		
🔆 7/7/2014	4 3:18:43 AM		105	All	On Duty		> 2
7/7/2014	12:56:40 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		12
7/4/2014	4:01:35 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		
C [24] 20.	ecord 54 of 83	Takapang	a durante de la companya de la comp	40			

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 <u>6.5.1.3</u>, <u>Radio Information Tooltip</u>).



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.

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arage Map Hardware Advanced Audio Alarm Phone Ca	all:
evices: Configu	re
	~
Default Audio Device	~
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Defaults	
Default	
Default -	
Default	
+	
T: Foot (Footswitch PTT)	
Default	
annel 🛛 👻	
*	
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s 🎽 👻	
*	
¥	J
vices to default Mapage Custom Mode	85
nnnel 🏾 🐳 S S S S S S S S S S S S S S S S S S S	

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.



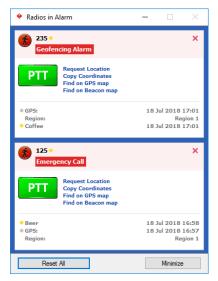
und Map	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Cal
Conf	igure display opti	ons for radio	os in alarm m	ode		
Alarm Panel:	Main W	indow				Ŧ
Call Button:	None					*
🗹 Always sh	ow radio on map					
🗌 Display ca	mera in new wini	dow				
🗌 Display ra	dio in new windo	"				
Map: MAP						
Select map	Þ					

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).



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.

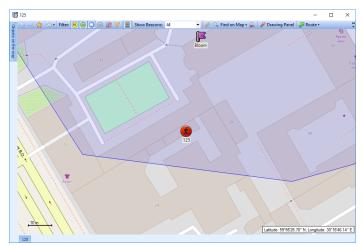


Display radio in new window

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 default GPS map** link and specify the outdoor map on which to display a radio in alarm mode.



Note: If a radio in alarm mode has a detected beacon, the appropriate indoor map will be displayed in this window.

Phone Calls

• In the **Options** dialog box, click the **Phone Calls** tab.



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.

Video calls

• Start a video call using this camera

Select this option so that a video call is started with the selected camera turned on.

• Camera

Select a camera that will be used for video calls.

• Screen to share

Select a monitor that will be used to share screen while in a video call.

- Video profiles
 - ✓ Phone

Click the **Configure** link to configure the settings that will be used for video calls in the Phone system (camera/monitor format, scale, bit rate, frame rate).

TRBOnet PoC System

Click the **Configure** link to configure the settings that will be used for video calls in the PoC system (camera/monitor format, scale, bit rate, frame rate).

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:

Ob	ojects:		Radios	F					
Ra	dio ID	Radio	Map Objects Map Regions	ame	SipContact:UserExtension	Block incoming calls	Block ou	utgoing ca	alls
R B	c	88C	Map Regions (circles)		8 <mark>8</mark> C	R B C	80C		Γ
~	235	Radio	Map Routes Phone Contacts			False	False		ſ
~	4444	Radio	Radio Users		4444	False	False		1
\checkmark	125		Radios	-		False	False		-
\checkmark	3333	3333			3333	False	False		
\checkmark	100	Radio	100			False	False		- F
4									ī,

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 X
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		×
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.

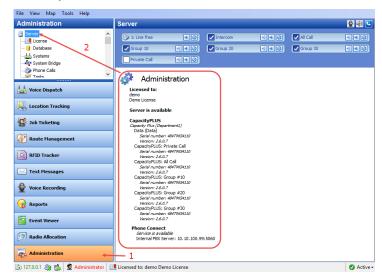
• Help > About

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:



6.4.1 Database

• Go to **Administration** (1), **Database** (2) to see the full overview of the database:



File View Map Tools Help					
Administration	Database				ê
Server	>>>>>>>>>>>>>>>>>>>>>>>>>>>>		9 40 9 40 9 40	Dispatcher Group 1 Group 11 Private Cal	• • •
Voice Dispatch		ыскар			
Location Tracking	Database Information Server name: Database name:	(local)\SQLEXPRESS			
📅 Job Ticketing	Backup date:	30-Sep-19 12:56:02 PM			
Route Management	Database version:	Microsoft SQL Server 2017 (Jun 15 2019 00:26:19 Copyright (C) 2017 Microsof Express Edition (64-bit) on V	t Corporation		
Text Messages	Data size:	163, 19 MB			
Voice Recording	Audio size:	629.43 MB			
Reports					
Event Viewer					
(19) Radio Allocation	1				
Administration					
访 Connected 🍇 🔂 🔂 🙀 🔂 💆 Adminis	rator 🛛 📑 Licensed to: demo Demo Licens	e			Active

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 399).

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:

Administration		Systems			🔁 🕪 🍓
🚦 Server	^	🚰 Properties			
		System type	System ID	Caption	
📒 Database		🗸 Intercom		Intercom	
- 🔐 Systems - 🎝 System Bridge		V Phone		Telephony	
- System triage 2		Capacity Plus		CP1	
Tacke	~	of TRBOnet PoC System	Mobile 1	Mobile 1	
Hoice Dispatch		Announcement System		Announcement	
location Tracking					
😸 Job Ticketing					
😿 Route Management					
RFID Tracker					
Text Messages					
🔮 Voice Recording					
😪 Reports					
Event Viewer					
19 Radio Allocation		1			
administration	_	r			

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.

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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		Systems					🔮 🚸 🕓
Server	^	1: Line free	•0	Intercom		All Call	
📒 Database		Group 10	• • •	Group 20		Group 30	
- Age System Bridging - Age Telephony	Ļ	Properties					
Tacke		System ype	S	ystem ID	Capt		
Hoice Dispatch		Intercom Phone			Inter Telep		
Location Tracking		Capacity Plus	D	epartment1		cityPLUS	
🙀 Job Ticketing			<hr/>				
💓 Route Management			\				
RFID Tracker							
C Text Messages							
🔮 Voice Recording							
Reports							
Event Viewer		2					
Radio Allocation		1					
Administration		44 4 Record 1 of 3	F HH 4				Þ
🔂 127.0.0.1 🚷 🛃 🙎 Administr	ator	Licensed to: demo Den	no License				🕑 Active -
Reset Properties							

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:

R	epeater #1: Slot #	1	\times
	Description Char	nnels Transmits	
	System Type:	IP Site Connect	
	System ID:	Department 1	
	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	eset	
Name	Voice	Data
Repeater #1: Slot #1	RX, TX	RX, TX
Channel for private and phone calls:		
Charnes for private and priorie calas		•
1		
	OK	Cancel

• Click the **Properties** button to see the channel additional data:

Repeater #1: S	ilot #1		×
Description	Talk groups	Volume	
ID:	8ccc8f1	8-a3e6-4b4f-b8e7-581e19debceb	
Name:	Repeat	er #1: Slot #1	
Type:	мотот	RBO Repeater	
Mode:	IP Site	Connect	
Connect	ed		
Serial N	Number:	484TMG4110	
Firmwa	re version:	2.6.0.7	
		OK Cance	1

ID

Default registration number (manufacturer's number);

Name

System element's name in the system;

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• 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>5.12.6.1, Control</u> <u>Station Connection Modes</u> (page 55).

- 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:

Repeate	er #1: Slot #1	\times
_		
Descr	ription Talk groups Volume	_
Spe	ecify available talk groups	
	All Call	1
	Police	
- L-		1
		-
	OK Cancel	

• 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:

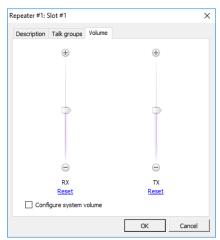


Repeater	#1: Slot #2	
PTT	All Call All Call Firemen Police Session: Free channel	
	Sender:	
RX/TX -		

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:



- 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:

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epeater #1: Slot #1		×
Description Channels	Extras	
🗹 Enable Voice Re	cording	
Use DTMF comm traffic from the	ands to mute and unmute inc channel in consoles	oming audio
Mute:	123	
Unmute:	321]

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.

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	
🗹 Enabl	e Voice Rec	ording		
Call Han	gtime (ms	;):		
Group Ca	l:	3000	-	
Private C	all:	4000	-	
TX Timeou	ut:	60	÷ se	conds
🗸 Alway	ıs transmit v	vhen the PTT is pres	sed	
			OK	Cancel
			UK	Cancel

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).

TRBOnet Enterprise 5.3 / Dispatch	h Console	-	o ×
File View Map Tools Help			
Administration	System Bridge		🔮 🚳 🕓
Server A) . 0	
- Hone Calls	Sot 1 MEO Group 20 MEO Sot 2 MEO At Cal Group 11 Group 22 Group 1 Group 1	0) 4 : 0	
Voice Dispatch	Add Dendy		Δ
Location Tracking	Binary Patch (for IPSC Systems only) Radio Bridge Private calls		
30b Ticketing	Radio Bridge Radio Bridge		
Route Management	3		
C Text Messages			
🔮 Voice Recording			
Reports			
Event Viewer			
Radio Allocation	1		
Administration	144 4 Record 2 of 3 > 149 149 4		Þ
🐻 Connected 次 🅵 🕵 🕵	🗴 🙎 Administrator 🛛 📑 Licensed to: demo (Walt) Demo License	2 🔁	🕑 Active -

• Click the **Add** button, and from the drop-down menu, select the System Bridge type (3).

6.4.3.1 Radio Bridge

Radio Bridge			×
Name:	Radio Bridge		
Bridge Mode:	Channels redirect calls to each	ach other	•
PTT Button:	Always Enabled		*
Channels Parame	ters Initialization		
Channels to redire	t calls		
System	Group		Mode
IPSC 1: Slot #1	Cleaners		Always
CP1	🝷 Any Groups 🛛 🔪		Always 🛌
	2	3	4
Add X Delete			
L		OK	Cancel

• 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 161).

PTT Button

From the drop-down list, select how to display the PTT button in the System Bridge box. There are 3 options available:

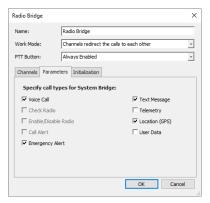
- Enabled when Bridge is activated
- Always Enabled
- Invisible
- On the Channels tab, click the Add button (1) to add a channel to the list.
- In the System column, select a radio channel from the drop-down list (2).
- In the **Group** column, select available group for the radio channel (3).
- In the **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:



- 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:



Name:	Radio Bridge		
Work Mode:	Channels redirect th	ne calls to each other	
PTT Button:	Always Enabled		
Channels Para	eters Initialization		
Specify call	ources for System I	Bridae:	
Call from di			
	oatcher	3	-
🔽 Call from di	(Any)		Ŧ
Call from di Dispatcher	(Any)		v
Call from di Dispatcher	er bridge (Any) (Any)		v v

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		РТТ					
	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		~		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	

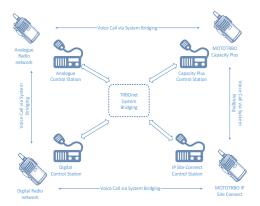
Radio Bridge Types

1. Channels redirect calls to each other

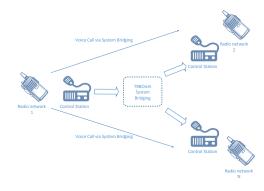
This is the most common type of System Bridge when data exchanges between the channels set in the System Bridge settings. Thus, there is a common channel for all the radios of the specified control stations: To create this type of System Bridge, add a System Bridge and set the

Work Mode as **Channels redirect calls to each other**.



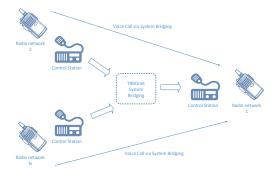


2. Channel redirects calls to multiple channels



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 Patch			
Rules				
Rule 1 of 2				
Slot: Slot 1			Voice	🗸 Data
All Calls		Private Calls	Group Calls	
Groups: (All Gr	oups)			
Repeaters: (Al	Repeaters)			
Rule 2 of 2				
Slot: Slot 2			Voice	🗌 Data
All Calls	\checkmark	Private Calls	Group Calls	
Groups: (All Gr	oups)			
Repeaters: (Al	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.

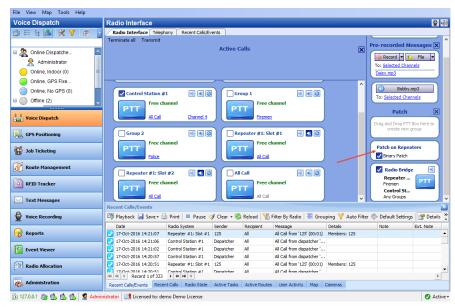
- Select the type of data: **Voice** and/or **Data**.
- Select the call types: All Calls, Private Calls, and/or Group Calls.
- Groups

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:





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 Cor	ntacts Dial Plans	
			^
📋 Database	Radio Call Configuration 3		
- LI Systems	Access code:	0	
System Bridge	Deaccess code:		
🔊 Phone Calls	Callback Request Options		
- 💕 Tasks	Allow radios to make outgoing calls:	Yes	
- B Custom Fields	Send a DTMF command to request a caliback:	Yes	
Virtual Modbus Devices 2	Send a text message to request a calback:	Yes, Prefix: 'sip:'	
	Start transmission:	res, rrenx: sp: Wait for answer	
- 4H Public Announcements		wait for answer	
- Alarm Management	Calls to Radios and PoC Devices		
Telemetry	Start transmission:	Immediately	
Text Messages	Max ring time:	Unimited	
Request To Talk	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		
- Contraction of the American America American American Ameri American American Ameri America	4		
Mobile Client Profile (TRBOnet Communicator)	Inbound Call Configuration		
- 🧃 Teltonika Profile	Inbound Call Control		
I Tools	Call to Dispatch Center:	Redirect to online dispatchers	
- Schedulers	Call to unregistered number:	Reject	
- G Disabled Radios		-	
	Do not establish call until called party responds:	No	
	Interactive Voice Response (IVR) Options		
Cital Groups	Do not wait for Accept code:	Yes	
1.1	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		
-			
Route Management	Conference Configuration		
~	Max Call Duration:	60 minutes	
Text Messages	Automatic Voice Detection:	No	
	Automatic Gain Control:	No.	
🚭 Voice Recording		No	
	Automatic Noise Reduction:	100	
Reports	Configure		
B Reports	6		
	Voice Message Loop Settings		
Event Viewer			
	 Play intro message: 	No	
付 Radio Allocation	Play voice message this many times:	2	
	Set delay between voice messages:	Yes	
Administration	Configure 7		
🐻 Connected 🛞 🔂 🔂 🔂 🔂 🕵 Admini	strator 📃 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:

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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:	

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>5.12.2, 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:

s below is dialed
• below is dialed
: below is dialed
below is dialed
s below is dialed
>



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 numb	er	
C Dynamic nu	nber	
Number:	123456	
Call Type:	Call Group]
Channel:	IPSC 1: Slot #1]
Group:	Cleaners]
Priority:	Normal]
	OK 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.

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Extension number	×
C Static number ⓒ Dynamic number	
Prefix: 123	
Call Type: Call Radio	-
Channel: Auto Detect	v
Radio: Detected by Radio ID	~
Priority: Normal	•
	OK Cancel

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

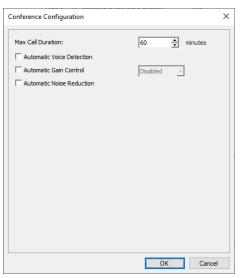
Select the channel to make a group phone call through (available for group calls only).

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

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).



Administration		Phone Calls						6
Server	^	Configuration Exb			Contacts Dial I			
License		🔁 🗛 🖶 Edit 🛛 🗙	Delete 🛛 📸 Inter	nal Numbers 🗧	🛿 Grouping 🍸	Auto Filter 🌼 D	efault Settings	
间 Database		Туре	User Extension	User Name	First Name	Last Name	Display Name	Logical Groups
- 🔐 Systems - 🛷 System Bridge	4	📃 Dispatch Cente	1234	1234			Internal PBX	
		🗙 🔊 SIP Phone	2408	John	John	Bingham	John B.	
Tasks		🗙 🔊 SIP Phone	2409	2409			Walt	
		X 🔊 SIP Phone	Phone User			×	Eugene	
🍓 Modbus TCP Connections	2	X 🔊 SIP Phone	Phone oser			^	Prune	
🌟 Virtual Modbus Devices	-		General Logic	al Groups Cust	om Fields			
P IP Cameras		3						
		U V	User's Extens	on: 2408				
Telemetry			User Name:	John				
	~							
s	>		User Passwor	d; ••••••				
Voice Dispatch			Password (rep	eat): •••••				
······································				2.1.				
🗼 Location Tracking			First Name:	John				
location Tracking			Last Name:	Bingham				
🙀 Job Ticketing			Display Name:	John B.				
e								
😿 Route Management								
-								
🖂 Text Messages								
					OK	Cancel		
🔓 Voice Recording			L					
T								
😪 Reports								
-		-						
Event Viewer								
		-						
🖄 Radio Allocation		- 1						
Administration	-	HI 41 4 Record 1 of 5	F 100 101					

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.
- 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).



File View Map Tools Help		
Administration	Phone Calls	🖪 🕪 🔞
Server Se	Configuration Extensions Call Redirection Phone Contacts Dial Plans Add Edit X Delete S Grouping Auto Filter Default Settings Calto Redirect Call Redirect Call Redirect Call Redirect to:	
Voice Dispatch	Type: Radio Group	
Location Tracking	System: CP1	
😸 Job Ticketing	Priority: Normal v	
💓 Route Management		
C Text Messages		
🔮 Voice Recording		
Reports		
Event Viewer	OK Cancel	
付 Radio Allocation	_1	
Administration	(4€ 4€ Record D of D >)→)→ (4)	×
🐻 Connected 🛞 🕵 🥵 💆 Administra	tor 📑 Licensed to: demo (Walt) (Demo License)	🕑 Active 🕶

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).

Administration	Phone Calls					₽
Vdministration Server Licrae Licrae System Bridge System Bridge System Bridge System Bridge Prior California Voice Dispatch Location Tracking Job Ticketing Route Hanagement Text Hessages Voice Recording	Phone Calls Configuration Configuration List and Configuration Science Science Science Science Science Science Science Science Science Science Science Science	Extensions Call Redir Delete Here Group User Name Phone Contact	ection Phone Capt ing Phone Capt Pirst Name Custom Fields S548 Pip Pip Phip (Wison P. Wilson	Default Settings	Display Name Walt Eugene 3	Logical Groups
Reports				OK Cancel		
Event Viewer		-				
8 Radio Allocation	1					

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).

dministration	Phone Calls	😫 🍕
Server	Configuration Extensions Call Redirection Phone Contacts Dial Plans Add	
Systems Systems Systems Systems Systems System S	Name Dial Plan X 3 Male General Patterns Inheritance X 4 Name: Droite Description: Restrict daing for Bob's group Restrict daing Restrict daing Restrict daing	
Location Tracking		
Route Management	Apply to Incoming calk (Caller number) P Apply to Incoming calk (Destination number) F Apply to Incoming calk (Destination number)	
Text Messages Voice Recording	Apply to Outgoing calls (Destination number)	
Reports	OK Cancel	
9 Radio Allocation	1	
Administration	H4 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.

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General Patter	ns Inheritance	
	dcard characters in pattern:	
* - any number ? - one characte		
	of numbers from xxx to yyy	
If pattern starts	s with ^ the following number will b	e excluded
1		
*411???		×
-		
Call Priority:	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	lan			×
Gene	ral Patterns	[nh	neritance	
	Call Priority		Dial Plan	
\checkmark	Inherit	-	Fedora	
	Inherit		1	
	Emergency			
	High			
	Normal			
	Low			
			_	
			OK Cancel	

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.



File View Map Tools Help						
Administration	😫 Tasks					🔮 🚳 🔽
Server Conse Cons	1: Line free Slot 2	• 0	Group 11	0 E Ø	Slot 1) # Ø
Systems	Al Cal		Private Call	• • 0	Firemen	
→ Phone Calls Tasks ← 2 v	Police	🔊 🛋 🥝	Group 10	•) •(0	Group 20	<u>)</u>
Voice Dispatch	Task Name	nce Control	- 3			2
Location Tracking	Export to SWD -	Location of radio				
📸 Job Ticketing	Ide Time					
😿 Route Management	CMS and Email no	otifications				
V Text Messages						
🔮 Voice Recording	4					
Reports						
Event Viewer						
Radio Allocation	-1					
Administration	H4 44 4 Record 3 of 7	F HF HF 4				•
🖒 Connected 🦓 🛱 🔂 🔂 🔂 🔂 🖓 Admir	nistrator 📑 Licensed to	: demo Demo Lic	ense			Active

• 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 iminutes 30 iminutes
All Dispatchers Selected Dispatchers Dispatchers: Notifications	v
	OK Cancel

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 r	adio				×
Connection Radios					
SWD Server Address: TRBOnet Server Address:	swd.trbonet.com ports.trbonet.com	Port: Port:	5000	A A	
		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 Cor	ntrol	×
Rules	General Time Range Location Speed Regions Radios Lone Worker	
Monitor Area 1 Monitor Area 3	Select the general parameters of the rule	
	Name: Monitor Area 3]
4	Description: Watch out for the strangers	
	After the rule is triggered: After the rule conditions are no longer met	
Rerun the ryles after ead	2 3 h rule modification server restart, and at the start of each scheduled time window (not recommended Disable Rule Delete Rule OK Cance	

- 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	X
Rules General Time Range Location	i legong regions: er only r : ode
Rerun the rules after each rule modification, server restart, and at the Add Rule Disable Rule Disable Rule Delete Rule	start of each scheduled time window (not recommended) ()
	on conce



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

Geofencing and Speed Control		×
Rules	General Time Range Location Speed Re Define the radio's motion attributes whic actions to perform when the is exect Trigger this rule when radio: Moves faster than:	ch will trigger the rule and choose specific
	Moves slower than: Remains motionless longer than: Monitor speed in relation to regions:	10 € km/h 90 € seconds Everywhere ▼
	Perform the following actions: d Activate Alarm mode Notify source radio Send RTT to source radio	
Rerun the rules after each rule mod	ification, server restart, and at the start of ea	ich scheduled time window (not recommended) (i)
Add Rule * Disable	e Rule Delete Rule	OK Cancel



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 Control	×
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	O All regions
	Selected regions
	Regions /
	456789
	My zone
	Route 1
	Route 2 Zone 2
	Select All Deselect All
Rerun the rules after each rule mod	ification, server restart, and at the start of each scheduled time window (not recommended) $({f i})$
Add Rule 🔻 Disabl	e 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	s	General Time Range Location Speed Regions Radios Lone Worker
e Mo	onitor Area 1	
	nkor Beacon	Apply the rule to selected radios: Al radio: Al radio: All
Reru	un the rules after each ru	modification, server restart, and at the start of each scheduled time window (not recommended)
_	un the rules after each ru	modification, server restart, and at the start of each scheduled time window (not recomm Disable Rule Delete Rule OK C.

• 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 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.

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Lone Worker tab

Geofencing and Speed Control	×
Rules	General Time Range Location Speed Regions Radios Lone Worker
V Montor Area 1 V Montor Area 3	Select Mit Kennerge Locardo when the rule is briggered At tasks Cone Workers / Lone Worker / Select AI Deselect AI
Rerun the rules after each rule modif	ication, server restart, and at the start of each scheduled time window (not recommended) $({f i})$
Add Rule 🔻 Disable	Rule Delete 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		Description – add the rule description.
	Time Range	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.



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		Beacon entry – select to enable the rule when a radio enters the beacon coverage zone.
enters or leaves the beacon		Beacon exit - 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.
		Reset Alarm mode if the rule is not triggered – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when Beacon entry 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).
		Send RTT to radio when the rule is triggered – select this option to automatically send a Request To Talk to the radio if the rule has been triggered.
		Send text message to radio when the rule is triggered – 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	All Beacons – choose to apply this rule for all beacons;
		Selected beacons – choose to apply the rule for one or several beacons.
	Lone Worker	All tasks – choose to apply all 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.

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Rule Type	Tab Name	Parameters Description
Radios	General	Rule Type:
Allows using radio(s) as map region(s) and		Geofence entry – select to enable the rule when a radio enters the proximity zone associated with another radio.
monitoring when another radio enters or leaves the vicinity of the		Geofence exit - select to enable the rule when a radio leaves the proximity zone associated with another radio.
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.
		Reset Alarm mode if the rule is not triggered – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when Geofence entry 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.
		Send RTT to radio when the rule is triggered – 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.
		Color of region – 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	을 위 🖸
Stays in Region Stays in Region GPS Availability Vehicle Tracking Running Time (Detailed) Running Time (Detailed) Running Time (Sumplary)	Report Settings Report Settings Idle Time (Summary) Sand India:fat settings Idle Time (Summary) Sand India:fat settings	
Speed for Period Date Time (Summary) Date Time (Summary) Date Time (Detailed)	Interportance summer recencies on one times or vences that are expensive incodes to since the line task is computed and Time Range: Start: 00 febr-22 2000 AHT =	s enaolea.
Voice Dispatch	Filter	
Location Tracking	Radio:Not selected	
30b Ticketing	Radio ID (for example, 22, 33, 40-55, 88):	
💓 Route Management	Speed:	
M Text Messages	\	
🔮 Voice Recording	Generate Report 3	eport Profile
🕞 Reports 🛛 🤜		
Event Viewer		
Radio Allocation		

Note: Specify the speed accuracy value in the **Speed** box (3).

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:

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Radio Allocation (Sprit	te Forms)	×
Form Description:		
	14 12/12/2012 8:21:05 a.m.	Â
0FB00F5025368696	502FB004E5A20427573018000000106180500028768CE0F1 674206E756D62657235AD781E xx03, 0x00, 0x0F, 0xB9, 0x8C, 0x0A, 0xF5, 0x02, 0xFB, 0x00,	
0x4E, 0x5A, 0x20, 0x 0x05, 0x00, 0x02, 0x	x42, 0x75, 0x73, 0x01, 0x80, 0x00, 0x00, 0x01, 0x06, 0x18, x87, 0x68, 0xCE, 0x0F, 0x10, 0xFB, 0x00, 0xF5, 0x02, 0x53, x74, 0x20, 0x6E, 0x75, 0x6D, 0x62, 0x65, 0x72, 0x35, 0xAD,	E
0x78, 0x1E METADATA=00080	0000000000	
FORM_TITLE=NZ E FORM_ID=2 FORM_REVISION=3		
[Field Data #0] Prompt="Shift number	er"	~
	Loa	d
Field Name:	Shift number	-
	OK Canc	el

• 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>5.19.2</u>, <u>Outgoing Mail Server</u> (page 105).

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		
🗹 Incomin	g messages (from radio network t	o dispatchers)	
Outgoin	ig messages (from dispatchers to i	adio network)	
Email Group			
Police d			
Police o	sh		
L			
		0	K Cancel

• 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	tuses Advan	ced			
	Name		Description	ı	
(t)) Off Duty				
1	On Duty				
×	User Activity	#1			
		Add		Edit	Delete
				OK	Cancel

• Click Add to add a User Activity status:



User Ac	tivity Config	guration ×
General	Logical Gro	ups
Name:		User Activity #1
Descri	otion:	
Backgr	ound:	🚯 Sea 🔹 🛨 –
Assign	this status t	o radios by using the following rules:
🗹 Ma	nually by dis	patcher
	tomatically b	y receiving Text Message from a radio
Me	ssage:	
Au	tomatically b	y receiving Telemetry Command from a radio
VI	D:	1 Command: Any event
Au	tomatically b	y receiving DTMF command from a radio
Co	mmand:	
🗌 Au	tomatically b	y receiving Status Message from a radio
St	atus:	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.

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Click the **Advanced** tab:

User Activity		×
Statuses Advanced		
Assign default statu	us to offline radios	
Timeout:	1 🔹 minutes	
	OK	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:

ask name:	Lone Worker
ask Start Cond	itions Task Stop
Manually by	dispatcher
Automatical	y by receiving Text Message from a radio
Message:	Start
Automatical	y by receiving Telemetry Command from a radio
VIO:	1 🗢 Command: Any event
Automatical	y by receiving DTMF command from a radio
Command:	
Automatical	y by receiving Status Message from a radio
Status:	0
Send text m	essage to radio
Message:	LW started



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		X
Task name: Lone	Worker	
Task Start Conditions	Task Stop	
Response time	30 iminutes	
Send notification t	o radio	
Reminder time	60 🖨 seconds	
Send Request	To Talk	
O Send Text Mes	sage	
Message:		
Reset Lone Worke	r when receiving Text Message	
Message:		
Reset Lone Worke	r when receiving Telemetry command	
VIO:	1 Command: Any event	
Reset Lone Worke	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		×
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 Cance	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):

ile View Map Tools				
/oice Dispatch	Radio Interface			Ŷ
li 🗉 🗄 🚨 🕺 🏹				_
	Terminate all Transmit		Quick Comma	nds 🗙
Online, GPS	Active Calls		Configure .	
🛞 🛞 125 (P 🕇		Pre	e-recorded Me	essaries X
🚯 🔊 235 (B	Presence in Network	G		
X 233 (B	Private Call		🧼 Record 🔻 🎦	
Voice Dispatch	Send Call		fo: Selected Chan	nels
Torce Disputen	Request Location		Daisy.mp3	
GPS Positioning	Send Message V Free channel		A	
S di S i Osiciening	Advanced Menu Al Cal		Bobby.r	
Job Ticketing 1	Find on Google Earth		To: Selected Chan	inels
,		•0	Patch	×
Route Management				
	ee channel	D	rag and Drop PTT I create new g	Box here to
RFID Tracker	Police Police		d cate new g	noop
2	Set Radio Channel			
Text Messages		a 🔊 🗸 🗌 .	Patch on Repea	ters
	Start Lone Worker 1			
Voice Recording	Start Timer e - 🕘 Print 🔢 Pause 🛷 Clear 🗕 Reload 🍸 Filter By Radio	📑 Grouping 🍸 Au	ıto Filter 🌼 Def	ault Settings
	Date Radio System Sender Recipient Message	Details	Note	Ext. Note
Reports		Members: Administr.		
-		Members: Administr.		
Event Viewer		Members: Administr.		
_	21-Oct-2016 17:56:17 Repeater #1: Slo 125 All All Call from '125' (00.			
Radio Allocation	21-Oct-2016 17:56:14 Repeater #1: Slo 235 All All Call from '235' (00.			
	21-Oct-2016 17:56:11 Repeater #1: Sin 235 ΔI ΔI Call from '235' (00 Int 4 4 Record 1 of 453 → ₩ ₩ 4	members, 20		
s Administration	Recent Calls/Events Recent Calls Radio State Active Tasks Active Routes User Activity	Map Cameras		

• To monitor the Lone Worker task, click the **Active Tasks** tab:

Voice Dispatch	Radio Interface				€ €	Ð
d: 🗄 1: 🕹 🗶 🍸 🖉 🍸	Radio Interface Tele Terminate all Transmit			Quick Commands	X	^
Online, GPS	1	Active Calls	×	Configure	\supset	
😿 💌 125 (P 📮 🕅	3			Pre-recorded Message		
Online No.C			^	To: Selected Channels		
Voice Dispatch	Telephony	 ■ ■ ■ 		Daisy.mp3	\leq	
GPS Positioning	456	Menu		Bobby.mp3 To: Selected Channels		
🐮 Job Ticketing	Intercom			Patch	×	
Route Management	PTT	channel		Drag and Drop PTT Box here create new group	e to	
RFID Tracker	All Col			Patch on Repeaters	\prec	
C Text Messages	Group 1		~	Binary Patch		×
Voice Recording		🍸 Auto Filter 🗇 Default Settings				
🕝 Reports	Task Lone Worker 1	Radio 125 (Pete) 125	State 16:55 •		□ 17:25	5
Event Viewer						
付 Radio Allocation			/			
Administration	Recent Calls/Events Rec	Cent Calls Radio State Active Tasks	Active Routes User Activity Map	Cameras		F
🔂 127.0.0.1 🛞 🕵 🕵 🙎 Administ	rator	o Demo License			Activ	e -

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

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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:



Task name:	Export to database table - Location of radio
Type:	Export to database table
Data:	Location of radio
Connection Data	a Scheduler Advanced
Connection Data	a Scheduler Advanced
C Use default	t connection
Select conr	nection
Server name	(local)\SQLEXPRESS
Database nam	e TRBOnet 🔹
✓ Windows a	uthentication
User name	
User password	

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

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

	:	Export to	database table -	Location of radio	1	
Type:		Export to	database table			
Data:		Location of	ofradio			
Connectio	n Data	Sched	uler Advanced			
Table:		[Export_	Locations]			
				Create table	Load columns lis	t
	n mappir	ng:				
	column		Data			
Date			Location date	2	-	-
Latitu	de		Latitude			
Longi	ude		Longitude			
Speed			Speed			
Direct	ion		Direction			
Precis	ion		Accuracy			
	ID		Radio ID		•	•
Radio						

• 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:

reat	e table				>	×
J.	Create new Active datab				-	
Tab	le name:	Export_	ocations			-
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			_
	Name		Radio name			
	ExportDate		Export date			
-	ales 1		ales 1		•	1
				OK	Cancel	



• Select the data fields to add to the table.

Scheduler tab

xport Data							>
Task name:	ame: Export to database table - Location of radio						
Type:	Export to database table						
Data:	Loca	tion of rac	lio				1
Connection Da	ta S	cheduler	Advanced				
Days of week:		(All day	s)				•
• Execute recu	rrently	with inter	val				
Start time:		13:	00	* *			
Stop time:		15:	00	*			
Repeat eve	ry:	01:	00:00	*			
C Execute at p	articula	r time					
1							

• 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	*
Export mo	rt only modified data	
	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
○ Send to Radio	Request Location Send Voice Message Send Signaling Send command to Control Station
R∎c ✓ 🛠 3333 ✓ 🛠 5555	Request To Talk Custom Event Send Swift Command Send Push Notification
 Radio 10 Radio 12 Radio 23 Radio 44 	5
Selected: 3 교 리	Y • i = •
	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	X
Task name: Scher	duled Task 1
Command Scheduler	
Start date:	11 December 2022 ▼ 12 December 2022 ▼
Days of week:	Monday, Tuesday, Wednesday, Thursday, Frid •
• Execute recurrently	
Start time:	12:00 AM
End time:	12:00 AM
Repeat every:	01:00:00
C Execute at particula	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

Task 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

ask name:	Voice Messa	age			
ask Settings S	Start Condition	s Stop Condit	ions Teleme	try	
Manually by	v dispatcher				
=		g Text Message	from a radio		
Message:					
Automatical	lly by receivin	g Telemetry Cor	nmand from a	radio	
VIO:	1	÷ Co	mmand: Hig	h level	-
Automatica	lly by receivin	g DTMF commar	nd from a radi	D	
Command:			_		
Automatica	lly by receivin	g Emergency fro	om a radio		
Emergency	type: All				-
Activated b	y any radio				
O Activated b	y selected rad	dios only			
Radio:					w.
Send text n	nessage to ra	dio			
Message:					

• 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

Task name: Voice Message	
Task Settings Start Conditions Stop Conditions Telemetry	
Manually by dispatcher	
Automatically by receiving Text Message from a radio	
Message:	
Automatically by receiving Telemetry Command from a radio	
VIO: 1 🖨 Command: High level	
Automatically 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	2		
Task Settings	Start Conditions	Stop Conditions	Telemetry	
Send tele	metry before task	is started		
VIO:	1	Command: H	igh level	Ŧ
Delay aft	er sending:	0	÷	second(s)
Send tele	metry after task is	stopped		
VIO:	1	Command: To	oggle level	×
Delay bet	fore sending:	0	÷	second(s)
Recipient:	Radios: 2			•
Send tele	metry on every vo	pice message		
			ОК	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.

genda		×
Task name: Agenda		
Settings		
Outgoing messages (path to a	server folder):	
C:\Outgoing		
Incoming messages (path to a	server folder):	
C:\Incoming		
Wait for response(sec):	120 ≑	
Text to confirm:	ОК	
		OK Cancel

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.

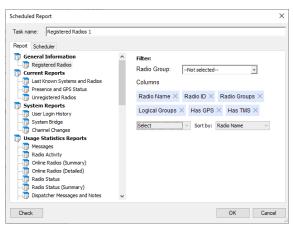
To perform this task:

- 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 270).
- 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 370).
- Click the **Scheduler** tab to configure a schedule for the report.



Scheduled Re	port	×
Task name:	Registered Radios 1	
Report Sch	reduler	
Schedulers:		
For the past	t: Scheduler 1	
Email groups	S: OK Cancel	
	L	1
Check	OK Cancel	

• Schedulers

On the list, select the scheduler(s) to use for the report.

Or, click **+** on the right and specify a new scheduler (see section <u>6.4.22</u>, <u>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:

File View Map Tools Help		
Administration	Tasks	을 🐠 🛂
Server A Database Addio Systems Age System Bridging	✓ Intercom い 低 (0) (>) 1: Line free 低 (0) (→ Al Cal ✓ Group 10 () 低 (0) (♥ Group 20 () 低 (0) (♥ Group 30 ○ Private Cal () 低 (0)	0 4:0
- 🛞 Telephony - 🔐 Tasks - 👱 Virtual Modbus Devices	Add • Edit Colete Task Name Appenda	۵
Voice Dispatch	Bispatcher Presence Control We Export to SWD - Location of radio	
Location Tracking	V Scofending	
😵 Job Ticketing	Cone Worker 1 Cone Worker 1 Cone Worker 1 Cone Worker 1	
😥 Route Management	V ¹ Missed GPS data loading V GB Rado Allocation (Sprite Forms)	
RFID Tracker	C Scheduled Report 1_Messages for Period_26-Nov-2016 00:00:00 Ges MS and Email notifications	
C Text Messages		
👻 Voice Recording	♥ Gee Acting ♥ Wolce Message ♥ Wolce Message	
Event Viewer		
[웹] Radio Allocation		
Administration	H4 44 4 Record 10 of 15 + H4 H4	Þ
🔂 127.0.0.1 🛞 🕵 💆 Administrator 📑	Licensed to: demo Demo License	🕑 Active -

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 "Firebird"	" ×		
Name: Import beacon data from DB "Firebird"			
Settings Import			
Server:	User:		
localhost	SYSDBA		
Database path:	Password:		
	•••••		
Port: 3050 🜩	Update (sec):		
Test			
	OK Court		
	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 beacon data from DB "Firebird"					
Name: Settings Import	Import beacon data from DB "Firebird"				
Import data fr <the oldest<br="">Delete oldest</the>	Date Possible > Import				
Report:					
	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				
Hotsos Conligui	ation			^
Name:	HotSOS			
Email:	test@gmail.	com		
Source:	Subject			•
Status		HotSOS Status		
New		N		
Cancelled		Ca		
Assigned		Ass		
Accepted		Acc		
Rejected		R		
Completed		С		
In Progress		InP		
1				
			ОК	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	n X			
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%			
Status	HotSOS Status			
New	N 🔺			
Cancelled	Ca			
Assigned	Ass			
Accepted	Acc			
Rejected	R			
Completed	C 🗸			
	OK Cancel			

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	Dispat	chers	
Manua	lly by dispat	tcher			
Autom	atically by r	eceiving Text Me	essage f	rom a radio	
Messa	ge:				
Autom	atically by r	eceiving Telemet	try Com	mand from a radio	
VIO:	1	Comm	and:	Any event	*
Autom	atically by n	eceiving DTMF o	ommand	from a radio	
Comm	1				
Autom	atically by r	eceiving Status I	Message	from a radio	
Status	: 0	Ŧ			
Send t	ext messag	e to radio			
Messa	ge:				
				ОК	Cancel

• 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:



utomatic Data	Retrieval	;
ask name:	Automatic Data Retrieval	
General Radi	08	
Maximum nur	nber of simultaneous requests:	3
Allowed regio	ins for requests	Everywhere 🔹
Swift Paran	neters	
Retrieve m	ssing locations if the data gap exceeds:	30 🚔 seconds
Do not retri	eve 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 Recipient Type Recipient ID Radio ID Example: c:@Radio_120221130133744_xxx.tna	
Save to database (Note that this may cause duplication of voice records in the server database)	
OK Cancel	

- 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 Imeout (mm:ss): Sign in Text to speech: Chop-chop Chop-chop, sign in Add Description Run again a OK Disable radios that were not checked out after notification Timeout: 3 minutes	Sign-in Reminder		
	Name:	Sign-in Reminder	
Immedit (mm:ss): [01:00] Text to speech: [Chop-chop Chop-chop Chop-chop, sign in	General Radios	Text to Speech	×
Chop-chop Text to speech: Chop-chop, sign in Add × De OK Cancel Run again at Disable radios that were not checked out after notification		Timeout (mm:ss):	01:00
Chop-chop, sign in		Text to speech:	
Run again a Disable radios that were not checked out after notification		Chop-chop, sign in	
Disable radios that were not checked out after notification	🖶 Add 🗙 De	C	OK Cancel
	🗌 Run again at		
Timeout: 3 minutes	Disable radios	s that were not checked out after notifi	cation
	Timeout: 3 n	ninutes	

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 Remind	er	×
Name:	Text to Speech	×
General Rad Add notificatic Descripti Sign out	Timeout (mm:ss): Text to speech: Return the radio	01:00 🛓
Work shift durat	OK	Cancel
Auto sign-out: Notify if the use <u>Notification re</u>	r hasn't signed out before timeout expires: cipients	
	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 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:



Screensaver	×
Name: Screen Saver	
Show screensaver after	30 minutes 🚔
Background	RoyalBlue
Foreground	WhiteSmoke 💽
Text	
TRBOnet	
 All Dispatchers 	
 Selected Dispatchers 	
Dispatchers:	Ψ.
Т	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

Object Import from File	Х
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	



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 **+** and specify a new scheduler (see section <u>6.4.22, 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



Export Objects to	File	×
Name: Export Ob	ojects	-
Object Type:	Radios	Ŧ
Columns:	All	Ŧ
Scheduler:	Not selected V	۲
File Path		
D:\CSV\radios.csv		••
	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 + on the right and specify a new scheduler (see section 6.4.22, Schedulers).

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)



dministration	Custom Fields					👲 🗟
Server ^	🔉 1: Line free		Intercom	•)) 🛋	All Call	•)) 🛋 (
📋 Database	Private Call		Cleaners	•)) 🛋 🕻	Firemen	•)) 🛋 🕻
	Group 10		Group 20	•)) 🛋	2)	
	Custom Fields					
Tasks	📑 Add 🦻 Edit 📑 D	elete				
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	
9	Plate number	PLATE_NUMBER	Text	Type:	Text	•
P Route Management				Description:	, 	
	-			Decemption.	ľ	
Text Messages					1	
Reports	1				ОК	Cancel
					OK	Cancel
Administration 🛛 🖌				-		

- 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	▶ IH ₩ 4			Þ
🐻 127.0.0.1 🛞 🕵 🕵 🙎	dministrator	to: demo Demo	License		🕑 Active 🗸

• In the **Modbus** pane, click **Add** (3).

Mode: Slave Port: 502 Slave Slave ID: 1	
1 ID	
Slave ID: 1	
Behavior: Custom	



- 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	
		_			
			ОК	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:

P Camera Configuration	×
Name:	
Camera 1	
Description:	
Disposal dump	
URI:	
rtsp://10.10.102.243:554/	()
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 Announc	ements				ڬ 🕪 🈥
Server Server Server Datase Datase Server Datase Server Datase Server Posten Server Posten Server Posten Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server Server	Public Announce Public Announce Add Edd None 4 2	ente Zones Delete Public Announcemen Public Announcemen Descriptor Fire Dep's External ID: - IP connector: IP address: Port: - Rado connector: Connector: Type:	-	×	IP connection	Adio con
😿 Route Management		Radio ID:	999			
K Text Messages			OK	Cancel		
😰 Radio Allocation	1					

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	
Radio ID	222 🔿 External ID 606	
Radio ID	222 External ID 606	•
	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		
		0,
V PA 1		
V PA 2		
Selected: 2		
	01/	
	OK	Cancel

• Select the desired PA units that will belong to the PA zone.

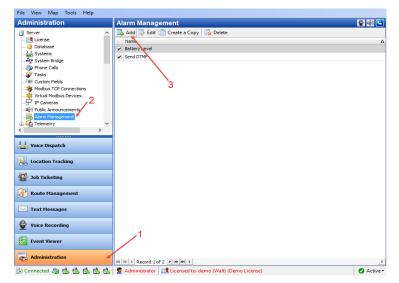


6.4.11 Alarm Management

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:

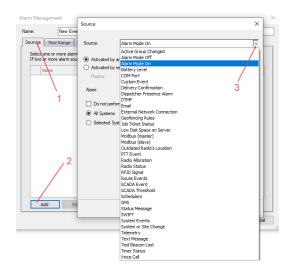


- Click Add (3) to add a new Alarm Management rule.
 - Note: The administrator can also create a copy of the existing Alarm Management rule. Select a rule in the list and click the **Create a Copy** button. The system will create a copy of the rule with the same configuration parameters.
 - Name

Enter a name for the alarm rule.

• On the **Sources** tab (1), click **Add** (2) to add an alarm source to the rule.





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.

ne:	Battery	Level
ource	s Time Range	Location Actions
If tw	o or more alarm so	m sources that will be monitored. Surces 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	n Actions
Location-based rules trigger acti Alarm sources will be monitored i	ons based on the location of selected device if any location-based condition is met.
Regions	
Inable	
Radio Location:	Inside Regions 👻
All Regions	
 Selected Regions 	
Regions:	Selected items: 1 -
Beacons	
Enable	
 All Beacons 	
 Selected beacons 	
Beacons:	Selected items: 2

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

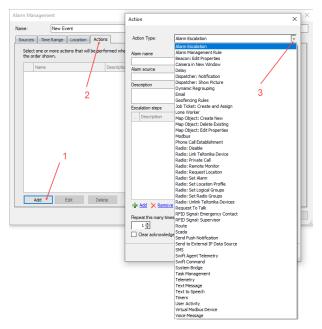
In the list, select the beacon(s).

• 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:

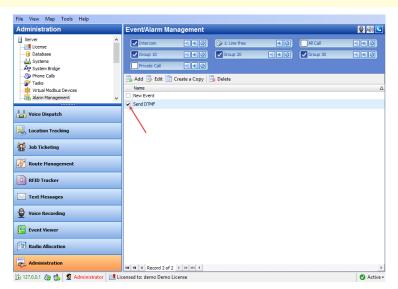


Action Type

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 configu	uration			😫 🕪 🕒
	Telemetry configu Figure con Cargo 10 Telemetry Type: I Radio Groups Tele Digital Outputs © 1002: 1002 H © 1002: 1002 H © 1002: 1002 H © 1002: 1002 H © 1002: 1002 H	e) 45 (2) e) 45 (2) e) 45 (2) MOTOTRBO emetry Sigh level (High le Sigh level (High le Sigh level (High le	vel) vel)	💽 Al Cal	
Event Viewer					
Radio Allocation					
Administration					🖉 Active -

elemetry Type:	MOTOTRBO	
rofile Name:	Radio Group Telemetry	
oute 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:	VIO1 v High level v	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	🔮 🐠 🕒
Phone Cals Tasks Tosks Withu8 Modbus Devices Composition Swift Event Profiles Swift Event Profiles Composition Compositio)) 4: 0)) 4: 0
Voice Dispatch	Telemetry Type: MOTOTRBO Auto refresh inputs: Disabled	
Location Tracking	Oigital Inputs G VIO:1: Telemetry W1 (Hgh level) ▲ VIO:2: Telemetry W2 (Hgh level) ▲ VIO:2: Telemetry W2 (Hgh level)	
📅 Job Ticketing	 VIO3: Telemetry VK3 (High level) VIO4: Telemetry VK4 (High level) 	
Route Management	VIDS: Telemetry WS (High level) Digital Outputs (\vee VidS: VIDS: Low level (Low level) (\vee VidS: VIDS: Low level (Low level)	
RFID Tracker		
C Text Messages		
🔮 Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration		
🐻 127.0.0.1 🎡 🍓 🙎 Administrator 📑 Lie	ensed 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.

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	1	×
Telemetry Ty	pe: MOTOTRBO	
Profile Name:	Telemetry #1	
Route type:	Regular	-
Common g	Digital Inputs Digital Outputs	
Req Trac Trac	o request input states weat interval: 500 📩 second ce digtal inputs e analog inputs lace status events with VIO events D	
	OK	Cancel



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 Typ	e: M	DTOTRBO	
rofile Name:	Te	lemetry #1	
oute type:	R	egular	
Common Di	igital Inputs	Digital Outputs	
ID	Name		Event
VIO1	(i) T	elemetry VK1	High level
VIO2	🔔 т	elemetry VK2	High level
VIO3	① T	elemetry VK3	High level
VIO4	① T	elemetry VK4	High level
Description			
ID:	[/IO2 ·	
Name:	1	Felemetry VK2	
Reset Nam	e: [
Event:	Ī	High level 👻	
Severity:	Γ	🔥 Warning 🖃	
🗹 Display	as radio sta	itus	
Auto re	set status		
Reques	t location of	fradio	Apply
Ndd 🛃		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):

File View Map Tools Help							
Administration		Text Messages co	nfiguration				🔮 🚳 🔽
	^	 1: Line free Slot 2 All Call 		 Intercom Group 11 Private Call 	9) 46 () 9) 46 () 9) 46 ()	Slot 1	1) (0)
Coup Text Messages 2	¥	Add Edit R D		MSI Proprieta			
Location Tracking		Text Message format: Max. message length:		Sender and 1 140	Text		
🔡 Job Ticketing		Split long message into r	nultiple messages	: No	Text Messages Profile		×
💓 Route Management					Profile type: Profile name:	MOTOTRBO MOTOTRBO	.
Text Messages					Text Messages #1	Mobile Messenger	(BT Accessory)
🔮 Voice Recording						ок	Cancel
1 Telemetry		1					
Administration	/						
)Connected 🔊 🛸 🛸 🥵 🦉 A	Admini	istrator 🛛 📑 Licensed to: de	mo Demo Licer	nse			🕜 Activ

- 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**.

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.



Request To Talk Х General Notifications Show RTT notifications in a pop-up window Actions: Accept, Select PTT, Queue, Reject -C Add RTT to queue automatically $\overline{\checkmark}$ Show notification in the Windows tray Apply RTT theme to PTT Box Callback destination: Private Call C Mark RTT as processed after dispatcher returns call • Mark RTT as processed after successful callback C Don't automatically mark RTT as processed Automatically delete RTT records after processing Expiration timeout: 30 minutes OK Cancel

• 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 35 lest 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	
\checkmark	Select PTT	Select the PTT box for a response	
~	Queue	Queue RTT	
Γ	Hide	Hide RTT for time	
~	Reject	Reject RTT	1
	Cancel	Cancel RTT	1

- 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 me	essages		
C Send voice n	nessages		
Text messag	e notifications:		
Queued:	Call queued		
Rejected:	Call rejected		
Not available:	Dispatcher is unavailable		
		ОК	Cancel
		UN	00001

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		🔮 🚳 😼
Telemetry Text Messages Request To Talk Z	🔇 1: Line free 📧 🕢	✓ Intercom ④ ④ ② ✓ Repeater #1: Slot #2 ᢀ € Ø	
Location Profile Mobile Clent Profile (TRBOnet Mobile) Mobile Clent Profile (TRBO.SOS)	Add Delete		
Mobile Client Profile (TRBOnet Commu Trals Trals S	Location trigger managed by dispatcher: Channel type: Channel priority:	No Non-scheduled (RegularGPS over Voice or Data Revert Channel) Mixed Mode)
Voice Dispatch	Positioning mode: GPS data: iBeacon data:	iBeacon Indoor/Outdoor Lattude, Longitude, Direction, Speed, Precision No	
Job Ticketing	Fast GPS on Connect Plus systems: Periodic updates: Distance-based updates:	No Interval 30.0 sec Distance 1000 meters, update interval 10 sec	
Route Management	On emergency: GPIO-based updates:	Yes No	
Text Messages	On every voice transmission: On emergency voice transmission:	No No	
Reports			
Event Viewer	1	3	
Administration	ministrator	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 Profile (MOTOT	RBO)	\times
General Location Update	es Management	
Name:	Location Profile #1	
Description:	l ^	1
Channel type:	Non-scheduled (Regular GPS over Voice or Dat 💌	
Channel priority:	Mixed Mode (recommended)	
Protocol type:	LRRP (Location Request and Response Protocol)	1
Positioning mode:	iBeacon Indoor/Outdoor	1
✓ GPS data:	Latitude, Longitude, Precision, Direction, Speed]
iBeacon data:	Major, Minor	1
Number of iBeacons:	· ·	
Fast GPS 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	
₩ Periodic updates	
Interval: 30.0 🚔 second	
✓ Distance-based updates	
Distance: 1000 💼 meters	
Min interval: 10 🔹 second	
✓ On emergency	
Activate alarm mode for radios sending emergency updates	
GPIO-based updates	
Inband location updates	
On every voice transmission	
On emergency voice transmission	
OK Canc	el

• 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	
OK Cano	el

• 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 values from the GPS receiver may be erratic or unreliable. Use the settings below to apply automatic error 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								
		Radio Name	Type	Radio ID	MDC ID	User's Extension	Radio Groups	Logical Groups V
Radios	~	🛞 tmt250	Teltonika	1	0		Al	
٢	>	🛞 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 Ra					
Route Management			Add TRBOnet	s				
Text Messages			Add WoC Rad	00				
Reports			Add Teltonika	•				
Event Viewer			🛃 Delete					
Radio Allocation			Unlink Teltoni	ika	•			
Administration		144 4 4 Record 5 o	f5))))) (Þ
访 Connected 🎯 🥵 🅵 💈	Administrator	r 📑 Licensed to: de	emo (Walt) (Demo L	.icense)				🗸 Active 🗸



/oice Dispatch 125				×
General Logical Grou	ps Additional SIP Account Cameras Teltonika			
	[
Radio Name:	125			
Radio ID:	125 DEC ID: 0	ŀ	•	
Radio Groups:	All	\sim	٠	
Home Group:	Cleaners	\sim	٠	
Use icon:	🚯 Portable Radios 🗸 🗸	٠	-	
Extended Device:	None V Test			~
Location Service				
Location Source:	Built-in GPS receiver 🗸 🗸			
Location Profile:	(Default) V +			
	(Default)			
Telemetry Serv	Location Profile #1			
TLM Source:	Built-in Telemetry			
TLM Profile:	(Default)			
Text Messages				
TMS Tupor	Standard			¥
Hide Advanced Se	ttings			
	OK C	anc	el	
	OK C	Jun IC		

- 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	ofile (TRBOnet Mobile)	×
Profile Name:	TRBOnet Mobile #1	_
Client Type:	TRBOnet Mobile	÷
Available Modes:	Calls, Text Messages, Location, Job Tickets	×
Calls Location 4	Alarms Channels Extras	_
Remote Mor	nitor	
Timeout:	30 + seconds	
Private Calls	ls	
Half-Dup	plex Calls	
Full-Dupl	olex Calls	
🗹 Video Ca	alls	
Video qu	uality: Normal (480p) 🔹	
Group Calls	s	
Phone Calls	s	
Allow Outgo	oing Calls	
Record audi	dio on PoC devices	
Delete al	all previous recordings on PoC devices (this process cannot be reversed)	
Defaults	OK Cano	el :

- 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
- Video Calls
 - ✓ Video quality

Select the video quality that will be used for video calls (HD/SD/LD).

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.

Note: Using an interval of 10 seconds or less may cause the following issues:

1) The mobile client's status will be blinking on the map if the **Coordinates have duplicates** option is selected in **Automatic error correction**.

- 2) The device's battery will quickly discharge.
- 3) The traffic between the server and the mobile client may significantly increase.

• 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.

	Vame:	(Defau	(Default)								
lient T	ype:	TRBO	net Mobile	et Mobile							
wailab	le Modes:	Voice	Calls, Text Messag	ges, Location, Job Tic	kets						
Calls	Location	Alarms C	hannels Extras								
	Home	Monitor	Name	System	Group						
1	0		All Call	Intercom	All Call						
2	•		Group 11	CP1	Group 11						
					Add Insert Delete Add Up & Down						
					≪ <u>Up</u> ∀ Do	wn					
	Allow users	s to change	Delete e Home Group channels to monit		≪ <u>Up</u> ⊗ Do	wn					

 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: TRBOnet SOS #1									
lient T	ype:	TRBO.	SOS						
vailab	le Modes:	SOS S	ervices						
Calls Location TRBO.SOS Alarms Channels Extras									
	Show Call but	tton							
	Call Action:		Request To Talk		*				
	Call Destination	on:	Home Group						
	Call button Na	ame:	Request To Talk						
	Show Lone W	orker Du	utton						
	Туре		Caption	Severity	Custom Event				
	Type FIRE		Caption Mobile app default	Severity Alarm	Custom Event None				
-		_							
-	FIRE		Mobile app default	Alarm	None				
	FIRE POLICE AID	CIDENT	Mobile app default Mobile app default	Alarm Alarm	None				
3 3 3	FIRE POLICE AID		Mobile app default Mobile app default AID	Alarm Alarm	None				

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).

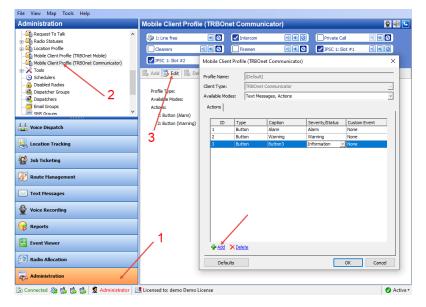


- Click the **Alarms** tab.
 - Sensor Alerts
 Select the desired sensor alert buttons (Man Down, No Movement, Shake Detection) to be shown in the TRBO.SOS app.
- Click the **Channels** tab.
 - Home Group Select the home group (System and Group) for the PTT button.
- Click the **Extras** tab.
 - Battery 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*.



- 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 250		
Location Additional		1
Use GPS location		
Periodic interval:	60 seconds	
Use Indoor location		
Periodic interval:	30 seconds	
iBeacon filter:		~
Positioning mode:	Beacon Indoor/Outdoor	-
	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	👲 🐠 🕓
Swift Event Profiles Graduate Statues Graduat	Intercom	1 = (0) 1 = (0) 4
Voice Dispatch	New Form	
location Tracking		
📸 Job Ticketing		
😿 Route Management	3 4	
RFID Tracker		
C Text Messages		
🔮 Voice Recording		
Event Viewer		
8 Radio Allocation	1	
Administration	₩ ₩ 4 Record 1 of 1 > >> >> ₩ 4	Þ
🔂 127.0.0.1 🛞 🕵 💆 Administrator 🗔 🖪 Li	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:

			- C	×
Name: New	Form			
Elements: A Lobel the Testbel the Testbel the Testbel the Testbel the Testbel Combellow Com	New Form	Templete ID: 729 4e575* 21: 21: 22:: 21: 23:: 21: 24:: 21: 25:: 21: 26:: 21: 27:: <	True MiddleJaft False Unchecked (none) Default None True Standard	ight

• 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.SOS) Mobie Clent Profile (TR80net C Tethnika Profile Torigi Templates Cost Clent Profile Schedures	Name: Fooplan 1 Jmage: Jmage: [http://www.setup.acm] P Folder: D:!!!mages!Bmaps	
Voice Dispatch	Start	
Location Tracking		
🚰 Job Ticketing		
🧭 Route Management		
C Text Messages		
🔮 Voice Recording		
Event Viewer		
Administration		

• 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):



File	View	Mai	Tools	Heln												
	catior		Select Act									A	210	ol to to		
			Save Onlin									<u>v</u>				
6	Ξŧ	S	Map Cont			ee	•0	Interco	om		Group 10	•)	60	1 E		
_			Print					Group	20		Group 11	•)				
•	Fire	륯	Geocodin	a												
	× 1	(<u>^</u>	Open Nev	·	T.L			Private	cal							
	٨ 🖈		Open Nev			Floor plan										
•	Poli				window	🟠 • Filter:	8 8 3	🛞 🍸	Show Be	acons: Al	- 🥖	P Drawing Pane	el "			
_	_	2	Google Ea				11 11 1	1 🛛 🖸	Custom Obje	ct •						
昌	Voice	*			oogle Earth							°4	/			
_		_	Show Rad	lios on G	oogle Earth 🔸	2		Iniva				a				
-	Locat	tion T	acking	x				4					l'vovskiv			
_								Ç	2			Camera 103	, yevakiy	🖉 🗁 мар Ко		
8	Job Ti	icketi	ng		$\sum_{i=1}^{n}$									···· 🗹 🗫 111		
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Œ	Route	e Man	agement							Tea (0)			1			
	RFID				1	\sim					00					
	J RFID	Track	er			1	\ \				1	y		1		
	Text	Marri								Hospit						
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-8	Voice	Reco	rdina		Recent Calls,	Events										1
*					Playback	📓 Save 🕶 😓	Print II	Pause 🥩	Clear 🗕 🏐 F	Reload 🛛 🎢 Fil	ter By Radio 🛛 🗧	Grouping 🍸	Auto Fil	ter 🌼 Default Se	ttings	» •
R	Repor	rts			Date		Radio Syste	m Sen	ıder	Redpient	Message			Details		
~				_	3 09.06.201			Sen	ver	All						-
(P	Event	t View	er		09.06.201		Capacity Plu		ninistrator	11			-		rator, 125	
-				_	09.06.201		Capacity Plu Capacity Plu		ninistrator							
10	Radio	Alloc	ation		09.06.201		Capacity Plu Capacity Plu		ninistrator							•
				_	141 41 4 Re		P HH 44			1 GALC			cono quini			Þ
-	Admin	nistra	tion		Recent Calls/	vents Recer	nt Calls Reg	quest To Talk	Radio State	Becons A Corrector to Capacity Plus 1 Conseq 1 Co						
<u>کا</u> 1	27.0.0.1		a. 🔹 /	Administr	ator Elicer	sed to: demo							_			Active -
<u> </u>		~														
			C.	alact I	Map									×		
			3	electi	viah									^		
				A		0										

elect iviap		
Map Type:	Beacon2D	
Caption:		
Available Maps		
Name	Path	State
Floorplan 1	D:\Images\Bmaps\Floorplan 1.bmap	OK
Add	Edit Remove	OK Cancel

- From the **Map Type** list box, select 'Beacon 2D'.
- 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.

- Go to Administration (1), Schedulers (2).
- In the **Schedulers** pane, click **Add** (3).



File View Map Tools Help		
Administration	Scheduler	ê
P Cameras Adam Menagement Greenevy Rado Statues Construction Construction	State Itercon Image: Maintenace Image: Constant State Image: Constant Image: Constant Image: Constant State Image: Constant Image: Constant Image: Constant State Image: Constant Image: Constant Image: Constant Image: Constant Image: Constant Image: Constant Image: Constant	
	Milet (Milet Administrator Image: Administrator Mathematical Administrator Image: Administrator	Active •
		- neure

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

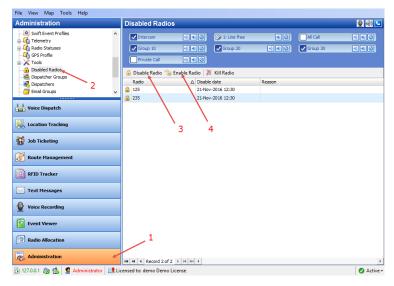
Specify the stop date/time.



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 264).
- 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 Cancel

Radio

From the drop-down list, select the radio to be disabled.

Enable

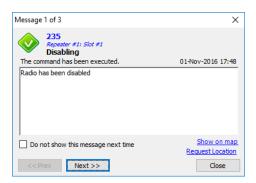
Select the time period after which the radio will be enabled again.

Reason

Enter the reason for disabling the radio.

• Click **OK** to disable the radio.





The Radio is added to the Disabled Radios list and is marked as Disabled in the Voice Dispatch pane:

Voice Dispatch	
💼 🗄 🛔 👶 🔗 🍸 🗇 🗗	8
🗉 🧟 Online Dispatchers (1)	^
Administrator	
😑 📙 Firemen	9=
125 (Pete) 125	9 🗞
235 (Basil) 235	9 🕫
Police	

- 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

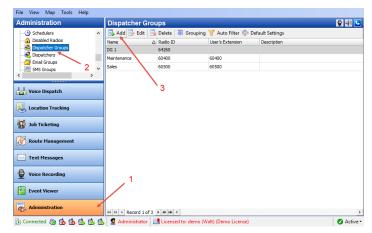
The Kill Radio feature is available only when a Capacity Max system is used.

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	r Group	0						×
General	Dispato	th Group Call	Request To	Talk				
Name:		Maintenance						
Descrip	uon:	I						
					(Ж	Can	cel

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		Х
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 Talk	
☑ 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: 139 #139#	
Automatically by receiving Status Message from a radio	
Status: 0	
ОК	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 Disp	atchers						👲 🕸 🔽
	🔉 1: Line free	•0	Intercom	•) • Ø	Maintenace		Sales	• • 0
🔒 Disabled Radios	Group 10	•) • Ø	disp	•) • Ø	EMERGENCY GROUP		Regular GGRC	UP 🔊 📢 🥥
Dispatcher Groups	Slot 1		Group 20		Slot 2		Al Cal	• • •
Email Groups	Group 11	• • •	Group 22	• • 0	Group 1		Private Cal	•) < 🕗
Users 2	Dispatchers Roles]						
	📑 Add 🔹 📑 Edit 📘	🗼 Delete 🛛 🐺 G	rouping 🍸 Aut	to Filter 🌼 Default Sett	ings			
Radio Groune	User Name	∆ Role	Di	isplay Name	Radio ID	User's Ext	ension	Description
	R Disp 1	Dispatcher	Di	spatcher 1	60100	60100		
Voice Dispatch	R Disp 2	Dispatcher	Di	spatcher 2	60200	60200		
	🦷 ivan	Dispatcher	ivi	an	25			
Location Tracking		<hr/>						
🚰 Job Ticketing		3						
😿 Route Management								
🖂 Text Messages								
🔮 Voice Recording								
🕞 Reports								
গ্রি Radio Allocation	1							
💫 Administration 🛛 🛩	HI 44 4 Record 1 of 3	F HF HF 4						
访 Connected 🍇 🕵 🔂 😰	🚯 👲 Administrator	Licensed to	o: demo Demo Li	icense				Active

• Click Add (3) to add a dispatcher.

General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical
Authen	tication:	TRB	Onet Authentica	ation	\sim
User Na	ame:	Disp	1		
Passwo	rd :	****	*****		
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		
	w multiple sim	ultaneous l	ogons		

- 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 272).

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**.

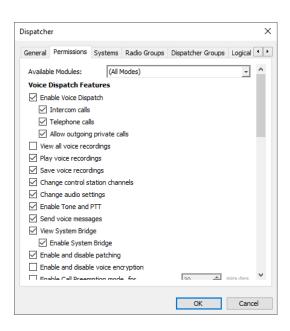
Invisible to all other users

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.





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.

)ispatche	er					×
General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 4	F
-	systems are a nly selected sy		available			
	System				TX	
F	CP1				V	
	IPSC 1: Slo	t #1			V	
	IPSC 1: Slo	t #2			V	
	Mobile 1				~	
	 Teltonika 				~	
Se	lect All Clear	· All				
		_				

• 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.

Dispato	her					×
Gener	al	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 💶 🕨
0	All g	roups are av y selected gr Group All Call 11 22 30 Cleaners Firemen	vailable			
	Sele	<u>ect All</u> <u>Clear</u>	<u>All</u>		ОК	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.



		- • -		1	
Permissions	Systems	Radio Groups	Dispatcher Groups	Logical Groups	[!]
	ups are av				
Only s	elected gro	oups are availab	le		
Name			Description		
RBC			RBC		
~	Cleaners				
	Clean	ers 1	Cleaning in Departm	ent 1	
	Clean	ers 2	Cleaning in Departm	ent 2	
~	Security				
	 Secur 	ity 1	Security in Departme	ent 1	
	Secur	ity 2	Security in Departme	ent 2	
Select	All Clear	All			

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	•		
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.

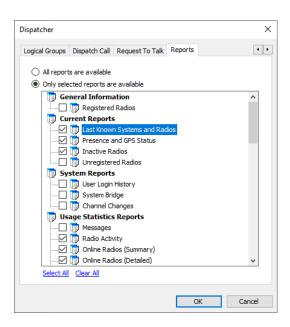
On the **Request to Talk** tab, specify the parameters that will be used by radios to request a call from the dispatcher:

ispatcher				
Logical Groups	Dispatch Call	Request To Talk	Reports	•
Automat	ically by receivi	ing Text Message f	rom a radio	
Message	: 60100			
Automat	ically by receivi	ing Telemetry Com	mand from a radio	
VIO:	1	Command:	High level	*
Automat	ically by receivi	ing DTMF command	from a radio	
Comman	d: 60100		#60100#	
Automat	ically by receivi	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.





• All reports are available

Choose this option so that all the reports will be available to the dispatcher.

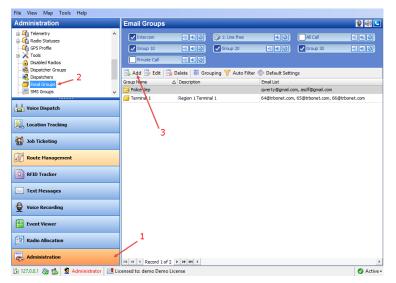
• Only selected reports are available

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.

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Add/Edit Email 0	Groups X
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.

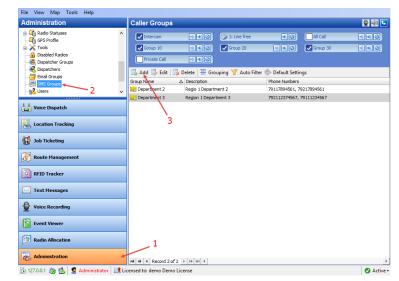
Email list

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 Grou	ups	×
Name:	Department 3	
Description:	Region 1 Department 3	
Phone Numbers:	792112374567 79111234567	
	Add Remove	
	OK Cancel	

Name

Specify a name for the SMS group.

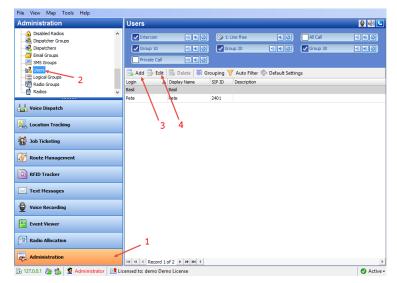
- Description Add a description for the SMS group;
- Phone Numbers

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</u>, <u>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:

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Add/Edit R	adio Us	er				×
General	Radios	Manager	ment	SIP Account	Logical Groups	Custom Fields
Username	2:		Basil			
Password	1:		••••	•		
Repeat p	assword	:	••••	•		
Display na	ame:		Basil			
Max num	ber of ra	idios:	1	-	-	
Descriptio	on:					
Image:					-	
_					6	
					=	
					/	
			Load Image			
					OK	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 l	Jser			×
General Radios	Management	SIP Account	Logical Groups	Custom Fields
O All radios		-		
Selected ra	dios			
RBC				
A444				
5555				
Radio :				
Radio 2				
Radio :				
Radio 2				
Radio 2				
				
Selected: 2				
			5	7.=.
			ОК	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 Fields
-	-			
Disable radio				
Automatically	return radio if it			
Timeout:		5 minute	S	
Allow DTMF m	anagement			
Take radio:				
Return radio:				
Allow Text Me	essages manage	ment		
Take radio:	Bsil			
Return radio:	Bsilext			
Allow Sign In	/ Sign Out mana	gement		
Sign-in ID:				
Allow beacon	management			
Major ID:		10 🔹		
Minor ID:		20 👤		
Send notificat	ion 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.

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• 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 User	r			×
General Radios M	lanagement	SIP Account	Logical Groups	Custom Fields
User's Extension:	2401			
User Name:	2401			
User Password:	•••••			
Dial Plan:				~
Block incoming p	ohone calls			
Block outgoing p	phone calls			
			ОК	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, Logical</u> <u>Groups</u> (page 276).
- 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	ê 🐠 🖸
Disabled Radios Dispatcher Groups Dispatchers Dispatchers Dispatchers SMS Groups		0 40
Liogical Groups 2	Add - Description Add s child Add s child Add s child Add s child Add s croct Clearing 1 Clearing 1 Clearing 1 Clearing 5	
Location Tracking	Security 1	
🔡 Job Ticketing	3	
💓 Route Management		
RFID Tracker		
C Text Messages		
🔮 Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration		
🔂 127.0.0.1 🛞 🥵 🙎 Administrator 🔚	Licensed 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:		1
	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	
1= 🚴 🕼 🕼 1: 1: 🝸 1: 🛠 🗇 🗇	
Cogical Groups	
Administrator	
🖻 🐴 Cleaning	9
😑 🏪 Cleaning 1	9
🐔 🕒 125 (Pete) 125	9 🕫
Cleaning 2	9
Security	
🗉 🏭 Security 1	9
👷 🛞 235 (Basil) 235	
Security 2	9
Voice Dispatch	
Location Tracking	
🔡 Job Ticketing	
💓 Route Management	
RFID Tracker	
Text Messages	
Proice Recording	
Voice Recording	

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.

Administration	Radio Groups			😫 🚳 🕻
Disabled Rados Disabled Rados Dispatcher Groups Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers	Group 10	Image: Constraint of the second se		Al Cal •) • () • () () • () \bullet
Logical Groups		Δ Radio ID	MDC / Sel-5 (Hex)	Description
Radios 2	Cleaners	30	5	Cleaning group
	Firemen	20	0	
Voice Dispatch	Police	10	0	
📅 Job Ticketing	3			
Route Management				
2				
RFID Tracker				
RFID Tracker Text Messages				
Contractor	1			

• Click Add (3) to add a radio group to the system:

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Group Properties		×
Name:	Cleaners	
Radio ID:	30 🗘 MDC ID: 5	* *
Description:	Cleaning group	
Use custom call to		
Play back mes		
	de for call (only for IPSC) hannel mode for call (only for IPSC)	
	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>5.12.2, 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 He	elp		
Administration	🔮 Device Lists		👲 🛞 🔽
Logical Groups Control Radio Groups Device Lists Radios	 I: Line free Slot 2 All Call Police 	List Properties	
Voice Dispatch	List Templates Add		
Location Tracking	Name + Group 1 + Group 2	 	
Route Management	3	Radio 16500000	
Text Messages Voice Recording			
Reports		Selected: 3	_
Event Viewer		orecutor. J	
Administration	1		
🚯 Connected 🚷 🕵 🅵	s 🕵 🕵 🧕 🙎 Administrator 📑	Licensed to: demo Demo License	Active

- 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**.

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D	ynamic Regroup	ing			-			×
	Action: Group:	Assign to dynami Firemen	c radio group		•			
	Group Alias:	Firemen_1						
	Radios Dynami	c Groups						
	Name		Active Group	State				
	8 0 0		-	-				_
	> 🗸 🚹 Grou	p1						
								- 1
								- 1
	000	ð				7	- 1	5 -
	Execute							

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						👲 🐠	
- 👼 Dispatcher Groups	A Registered Unreg							
- 🛃 Dispatchers	💠 Add Group 📑 A	dd Digital Radio 🔜	Add Range 🛛 🛃 A	dd TRBOnet Mobile 📑	Add TRBO.SOS 📑 Add W	/oC Radio 📑 Add	WAVE 5000 📑 Edit	
- Email Groups	Radio Name	Туре	△ Radio ID	MDC ID	User Extension/Login	Radio Groups	Logical Groups	
- SMS Groups - SMS Groups	🛞 Radio 235	Digital Radio	235	0		Cleaners		
Elogical Groups	💰 Radio 125	Digital Radio	125	0		Cleaners		
Radio Groups	🛞 Radio 100	Digital Radio	100	0		Cleaners		
- Device Lists - 2	£ 2222 £	TRBO.SOS	2222	0	2222			
🗟 Radios 🖌 🗌	🛞 Radio 4444	TRBOnet Mobile	4444	0	4444			
	× 💰 3333	TRBOnet Mobile	3333	0	3333			
>	\$ 5555	TRBOnet Mobile	5555	0	5555			
Location Tracking								
Location Tracking Job Ticketing Route Management			\ 3					
Job Ticketing			3					
Job Ticketing Route Management			3					
Job Ticketing Route Management Text Messages			\ ₃					
Job Ticketing Route Management Text Messages Voice Recording	1		\ 3					

Click Add Digital Radio (3) to add a new radio.
 On the General tab, specify general settings for the radio:

and the state	late des de later d	
erierai Logical Grou	ps Additional SIP Account Cameras Teltonika	
Radio Name:	125	
Radio ID:	125 🔶 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 Serv	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 239).

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 230).

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 233).

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.

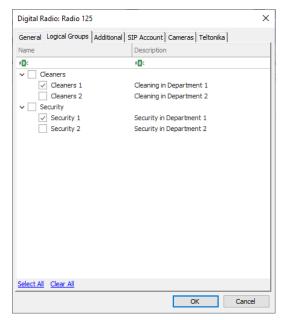
Radio Status Service

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 238).

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 276).

On the **Additional** tab, specify additional information about the radio subscriber:

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Digital Radio: Radio 125			×
General Logical Groups Ad	dditiona	SIP Account Cameras Teltonika	
Load Image		speed: 60 👷	
Name	Ŷ	Value	
Name			
Description			
Car make		Hyundai	
Plate number		RAMBO 01	
S Phone		+7 911 123-4567	
🖂 Email		tester@gmail.com	
		OK Cancel	

• 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, 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		×				
General Logical Groups A	dditional SIP Account Cameras Teltonika					
User's Extension:	2401					
User Name: User Password:	2401					
Dial Plan:	· ·					
	Block incoming phone calls Block outgoing phone calls					
	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:

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Digital Radio: Ra	dio 125	×
General Logical G	Groups Additional SIP Account Cameras Teltonika	
Name	Description	
Camera 1	Disposal dump	
Camera 2		
		- 11
		- 11
		- 11
		- 11
		- 11
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 11
		- 11
		- 1
		- 11
		- 11
		_
	OK Cancel	

Note: You can also register a radio from under the **Unregistered** tab. Just select a radio and click **Register**:

😫 Radios							
Registered Unregistered	Registered Unregistered						
🔜 Register 🛛 🛃 Delete 🗙 De	elete 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	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 + 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> Profile.



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		X
General	Logical Groups	Additional Cameras	
	F	2222	
Login:		2222	
Passw	ord:	•••••	
Passw	ord (repeat):	•••••	
Radio	ID:	1	
Profile		TRBOnet SOS #1 V +	
Use ico	on:	🚯 Portable 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 PTX Gateway is connected, you can add WAVE radios to your radio systems.

• Click **Add WAVE 5000** or **Add WAVE PTX** (depending on to which WAVE system the radio is being added).

145 Wave ID: 145
115 VINOVE 10: 145
Firemen
Firemen 🗸
🚯 Portable Radios 🗸 🔸
None Test
Built-in GPS receiver 🗸
(Default) V +
✓ Location Enabled
ce in the second se
~
~ +

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.

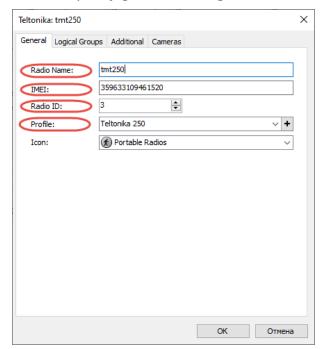


6.4.32.5 Adding Teltonika device

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	R	ladios						🔞 🔞	
Logical Groups	^	Registered Un							
	4	🎙 Add Group 🛛 🔄	占 Add Digital Radio	🛛 📑 Add Range	📑 Add TRBC	Onet Mobile 📑 Add Ti	RBO.SOS I 🖓 I U	Jnlink Teltonika	
		Radio Name	Туре	Radio ID	MDC ID	User's Extension	Radio Groups	Logical Groups	
Radios	~ 🔇	tmt250	Teltonika	1	0		All		
c	> (*	Radio 235	Digital Radio	235	0		11		
	(*	3333	TRBOnet Mobile	3333	0	3333			
Voice Dispatch	Œ	4444	TRBOnet Mobile	4444	0	4444			
Location Tracking		Radio 125	Digital Radio	125	0		11		
Route Management Text Messages			Add TRBOnet Add TRBO.SO Add WoC Rac Add WAVE 50	S fio 00					
Reports			Add Teltonika						
Radio Allocation			Unlink Telton	ika	•				
Administration		44 4 Record 5 of	EE L IN IN A						

• In the dialog box that opens, click the **Teltonika** tab.

Digital Radio: Radio 12	5		×
General Logical Groups	Additional SIP Account Ca	ameras Teltonik	a
Device:	tmt250		~ +
Location Source:	Mixed mode		~
Positioning mode:	From radio's Location Profile	!	~
	From radio's Location Profile From Teltonika Profile	2	
		ОК	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		R	adios						🚳 🍪	6
Logical Groups	^			egistered Add Digital Radio	🗟 Add Range	🗟 Add TRBC	Onet Mobile 🛃 Add Ti	RBO.SOS	Unlink Teltonika	1
			Radio Name	Туре	Radio ID	MDC ID	User's Extension			۰,
Radios	~	. E) tmt250	Teltonika	1	0		All		
	>	E	Radio 235	Digital Radio	235	0		11		
		K) 3333	TRBOnet Mobile	3333	0	3333			
🚽 Voice Dispatch		Æ) 4444	TRBOnet Mobile	4444	0	4444			
Location Tracking		- C	Radio 125	Pioltal Padio	125	0		11		
🔓 Job Ticketing 🚰 Route Management				Add TRBC	Dnet Mobile D.SOS Radio 15 5000					
Reports				🛃 Add Telto	inika					
Event Viewer				🛃 Delete						
Radio Allocation				Unlink Te	ltonika	_				
Administration			+ + Record 5 of 5							

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:





- 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	
1= 💑 🕼 🕼 🗄 🔽 🗄	🕺 🗗 🗗
Radio, Dispatchers, Dispatcher Group	, Radio Group,
Type:	
🗹 Radio 🗶	
Dispatchers	1
Dispatcher Group	,
🔽 Radio Group 🖊 🖊	-
Logical Group	
State:	
🔲 Online, Indoor 🧹	
Online, GPS Fixed	2
Online, No GPS	
Offline	
ОК	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.*

×
Request To Talk
Private Call
V Private Cal
Phone / Full-Duplex Call
Send Message
Send Push Notification
📰 Request To Talk
Disable/Enable Radio
Track Radio
Check Presence
Reset Location Trigger
🔝 Request To Talk
Send Push Notification
Show Status of Location Trigger
A
📅 Q 寻 🗞 👱 🚽
OK Cancel
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	on 📮 📎
🐔 💌 125 (Pete)	
🖈 🕑 222	on GPS 루 🔏
🐔 🔊 235 (Basil)	on GPS 📮 🔏
🐔 🕑 Radio 200	on 📮 🔇
Radio 201	🛄 🖃 😒 🔽

✓ Gray

A radio is offline.

✓ Blue + white dish

A radio sent ARS but didn't send GPS packets.

✓ Blue + red dish

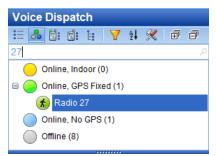
A radio sent ARS and GPS packets without GPS data, that is the radio is out of GPS coverage.

✓ 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.

• Video Call

Choose this menu item to initiate a video call to the selected radio. Note that this menu item is only available for TRBOnet Mobile Clients.

• 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.

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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	
ОК С	ancel

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	
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	Send Text Message ×		
Destination:	Radio 235;		
Templates:			~ 🌗
Text:	Radio 125 Latitude: 59°50 30°16'47.64'' E	6'25.30" N; Longi	itude:
			64
Attachments:	Add File		
Select Radios and	Groups		
Filter:	235		9
💟 🟅 Radio : 🔲 🍓 Online			
Send copy as en	nail		
	Send copy as SMS		
Confirmed Group	pt to deliver if the user is o Text	offline	
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		×
A.D.	Click for the combination to the Hot Key or Esc to reset	specify

• 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.



	State		olor				
Þ	Offline	6) Offline		*	+	•
	Online, No GPS	0	Online, No GPS		*	+	1
	Online, GPS Fixe	ed 🧕	Online, GPS Fixed		*	+	-
	Online, Indoor	0	Online, Indoor		*	+	-
	Alarm	6	Alarm		*	+	-
			-				
			-		Re	eset	
	iew		-				
	iew Offline	Online	Online (GPS)	Online (Beacon)		eset	

- 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 + 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 189).

6.5.2 PTT Boxes

The dispatcher can make voice calls from the Dispatch Console by using PTT boxes:



Control St	ation #1 🛛 📧 🥥
PTT	Channel 1
PIT	All Call 🔻
	Session:
	Free channel
	Sender:
RX / TX	
ℓ	

The following options are available for the PTT box:

- Click the 🗹 button to make the channel the selected 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:

• Selected PTT channel

Select this menu item to make the channel the selected 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 Channel

Click to mute the selected channel.

• Mute Other Channels

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.

• Change Channel Settings

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:	Θ \oplus \oplus
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>5.12.2, 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 113.

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 🛛 💽 ╉ ⊘
	All Call 🔹
PTT	All Call
	Firemen Police
	Session:
	Free channel
	Sender:
RX/TX -	<u></u>

• 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
\bigotimes	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 113.

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:

oice Dispatch	Radio Interface					
E h & X 7 0 0 C	Radio Interface Recent Ca	Is/Events		I		
		Active Ca	alls	X	Quick Comman	nds
🚯 🕑 Radio 204 🛛 🛄 📮 🔇	^				Configure	
🖈 🧭 Radio 205 🛛 📟 루 🔇					Pre-recorded Me	ssages
Firemen 📮						
🖹 🧭 111 🛛 🔛 📮 😒	Repeater #1: Slot #1		Repeater #1: Slot #2		Record To: Selected Channels	File
💰 오 125 (Pete) 🛛 🐺 🖵 📎	All Call		All Call			
😭 🕑 222 🛛 🔛 寻 🔌	PTT	•	PTT		Voice Mess	age
🐔 🕑 235 (Basil) 🔛 📮 🔌					Voice Message	
🖈 🕑 Radio 200 🔤 📮 🔇	Session:		Session:			
🖈 🖉 Radio 201 🛛 🐺 寻 🔇	Free chann	al	Free channel		Patch	
Radio 201 GPS - C		0	Thee channel		Drag and Drop PTT Box here t	o create new grou
Rent Radio 202	Sender:		Sender:			
Voice Dispatch						
					Patch on Repeaters	
Location Tracking	RX / TX		RX / TX		Binary Patch	
				<u> </u>	System Bridge	
Job Ticketing				~	Repeater #1: Slot #2	PTT
Route Management	Recent Calls/Events					
Koute Hanagement	🔄 🗐 Playback 🔓 Save 🛛 🚽 Pri	int 🔲 Pause 🍼 Clear 🗸	🖌 🥘 Reload 🛛 🌇 Filter By I	Radio 📑 Grouping 🍸	Auto Filter 🍥 Default Setting	gs 🛛 😭 Details
RFID Tracker	Date Rac	dio System Sender	Recipient Mes	sage	Details	Note
	15-Nov-2016 15:43:52 Rep	eater #1: Sl Dispatcher 1	125 Priv	ate Call: Dispatcher 'Dispat	Members: Dispatcher 1, 125	
Text Messages	🔆 15-Nov-2016 13:28:52	235		et Geofencing Alarm		
	2 15-Nov-2016 13:28:48	235		Geofencing - Monitor Area		
Voice Recording	* 15-Nov-2016 13:28:48 * 15-Nov-2016 13:28:48	235		lio left allowed region 'My z lio left allowed region 'My z		
	HI HI HI A Record 1 of 578 +	H H 4	NI Kac	io iercaloweu redion MV z		
Event Viewer	Recent Calls/Events Recent Ca	lls Request to Talk Radio	State Active Tasks Activ	ve 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.

oice Dispatch	Radio Interface						율
= 💑 📴 💼 🗄 🍸 💱 🗶	Radio Interface Telephon	ny Recent Calls/Events	Radios				
<u>ا</u> د				X	Qui	ick Commands	(
Online, GPS Fixed						Send Push	
Online, No GPS (1)					Configure		
Radio 27				^	-	Patch	
	Intercom	🔊 📧 🥥 🏹	Dispatcher Group	1 🕘 🕷 🖉 🔪	× Dispatcher		1
Voice Dispatch	Free chan	nel	Free ch	annel	X IPSC 1: Slo		1
	Al Call		PTF	er Group 1	Create		Clea
Location Tracking	AlCal		Uspatch	er Group 1		men - Cleaners	
o	- IPSC 1: Slot #1		IPSC 1: Slot #2			IPSC 1: Slot #2	
					PTT		
🚰 Job Ticketing	Free chan	nnel	Free ch	annel 🤈 🖊 🗌		Firemen	
~	PTT	nnel	PTT	annel 2		IPSC 1: Slot #1	
Job Ticketing Route Management		nnel	PTT Free ch Al Cal	annel 2			
⁸ Route Management	PTT		PTT	annel 2		IPSC 1: Slot #1	
Route Management	Ceaners 11 Recent Calls/Events					IPSC 1: Slot #1 Cleaners	
Route Management	Ceaners 11 Recent Calls/Events			2		IPSC 1: Slot #1 Cleaners	
Route Management Text Messages Voice Recording	Recent Calls/Events	Radio System Sender	ALCol	Filter By Radio = Grouping Message	g 🝸 Auto Filter	IPSC 1: Slot #1 Cleaners	
Route Management	Recent Calls / Events Playback & Saver @ Date R X 1344ar-20 5:26:19 PM	Print II Pause 💞 C Radio System Sender Server	Al Cal	Filter By Radio 🗮 Grouping Message Connection to TPSC 1' has	g 🝸 Auto Filter	IPSC 1: Slot #1 Cleaners	
Route Management Text Messages Voice Recording Reports	Recent Calls/Fvents Playback & Save & Date X 13Mar-20 5:26:19 PM X 13Mar-20 5:24:49 PM	Print II Pause 🛷 C Radio System Server Server	Al Cal	Filter By Radio 🗐 🗮 Groupiny Message Connection to TPSC 1' has Connection to TPSC 1' has	g 🍸 Auto Filter (Detai been lost been lost	IPSC 1: Slot #1 Cleaners	
Route Management Text Hessages Voice Recording Reports	Recent Calls / Events Playback & Saver @ Date R X 1344ar-20 5:26:19 PM	Print II Pause 💞 C Radio System Sender Server	Al Cal	Filter By Radio 🗮 Grouping Message Connection to TPSC 1' has	g V Auto Filter (Detai been lost been lost	IPSC 1: Slot #1 Cleaners	
Route Hanagement Cott Hessages Cott Hessages Reports Function Cott Heser Cot	Concers Recent Calls/Events Ployback. Save (Harden 20 5:26:19 PM (Harden 20 5:26:29 PM (Harden 20 5:26:24:49 PM) Harden 20 5:23:22 PM	Print II Pause of C Radio System Server Server Server Server	Lear • S Reload T Recipient Al Al Al	Filter By Radio 📑 Groupiny Message Connection to TPSC 1' has Connection to TPSC 1' has	g Y Auto Filter (Detai been lost been lost been lost	IPSC 1: Slot #1 Cleaners	
Route Management Text Nessages Voice Recording Reports Event Viewer	Recent Calls/Ivents Playback & Save & Date R 2: 13Mer-20 5:26:619 PM 2: 13Mer-20 5:26:40 PM 2: 13Mer-20 5:22:22 PM 2: 13Mer-20 5:22:55 PM	Print II Pause V C Radio System Server Server Server Server Server Server Server	lear - S Reload T Recipient Al Al Al Al	Fitter By Radio TPSC 1 has Connection to TPSC 1 has Connection to TPSC 1 has Connection to TPSC 1 has Connection to TPSC 1 has	g 🍸 Auto Filter (Detai been lost been lost been lost been lost	IPSC 1: Slot #1 Cleaners	

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).

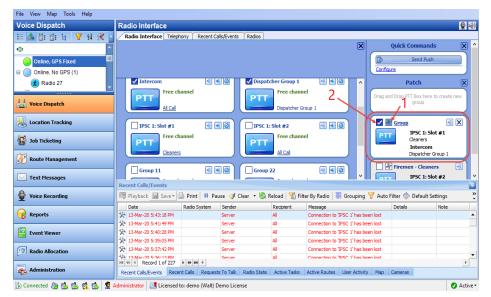


2. Click the **Create** link (2) to create a custom Patch.

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).



File	Vie	w Map Tools Help									
Vo	\checkmark	Show Navigation		Radio Interface	e						👲 🔿
e:		Show Modules		Radio Interface	Recen	t Calls/Events					
		Configure PTT Boxes				Ac	tive Calls		٦	Quick Comm	ands 🛛 🗙 🛆
•		Configure Active Calls Panel	_							Configure	
- 4		Customize Hot Keys									
		Add Radio Interface Page							2	Pre-recorded M	Aessages X
• 2		Delete Radio Interface Page			AIT COM				1	Record 🔻 1	🗁 File 🔻
•		Show Channel Selector Box		Firemen		•))				To: Selected Cha	nnels
		Audio Message Library			Free cha						
		Extended PTT Boxes	-	PTT	ree en					Voice M	essage
		Large PTT Boxes			iremen					Voice Message	
		Medium PTT Boxes		6		_				Patc	h 🛛
		Small PTT Boxes		Cleaners		*))	• 0			Drag and Drop PT	
		Custom PTT Boxes		PTT	Free cha	annel				create new	
-23		Show Active Calls Panel			leaners		J				
~		Show Quick Commands Panel		Recent Calls/Event	s						(
ð	 ✓ 	Show Queued Messages Panel		Playback 🔲 Sa	ve - 🕒	Print II P	ause 🚿 Cle	ar 🕶 崎 Rel	load 🛛 🌇 Filter By Radio	🗐 Grouning 💙 A	uto Filter »
B		Show Patch Panel		Date		Radio Svst		Recipient	Message	Details	Note
		Show Telephony Tab		3 16-Nov-2016 10:2	2:05	Readio System	Server	All	Connection to 'Repeat		A
		Show Extended Messages Tab		15-Nov-2016 18:2		Repeater	Dispatcher 1	Firemen	Dispatcher 'Dispatcher	Members: Dispatcher 1	
	1	Show Radios Tab		🛃 15-Nov-2016 18:2	26:28	Repeater	Dispatcher 1	Cleaners	Dispatcher 'Dispatcher	Members: Dispatcher 1	
-8-	Voi	ce Recording		2 15-Nov-2016 18:2			Dispatcher 1		Dispatcher 'Dispatcher		
*				15-Nov-2016 18:0		Repeater ▶ ₽ ₽₽ 4	Dispatcher 1	Cleaners	Dispatcher 'Dispatcher	Members: Dispatcher 1	▼
£	Eve	nt Viewer		Recent Calls/Events	Recen		est to Talk F	Radio State	Active Tasks Active Rou	utes User Activity M	1ap Cameras
61	2127.0.0.1 @ 🛱 🛱 🦉 Dispatcher 1 📑 Licensed för demo Demo License										

• 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 Command	1	×
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		*
125		
235		
(*) 555		U
3333		
☐ ★ 4444 ☐ ★ 5555		-
Selected: 2		
Selected: 2		
d d		
		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 Teler	metry		•
VIO:	VIO 1	Command:	High level	•
C Send to Rad	io Group			
Send to Rad	io			
Recipient:				
				٩,
13				*
125				
235				
(*) 555				U
☐ ★ 3333				
5555				-
Selected: 2				
d d			[7 .
			OK	Cancel

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	
235	
555	
3333	
☐ 4444	
5555	
Radio 300	
🗌 🚯 Radio 333	
🗌 🛞 Radio 3662	
Selected: 2	
đ	▼ • ☷ •
	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			×
Name: We	are on fire		
Command			
Command:	Send Voice Message		•
Load from file Record messar Play back mess			
Call Type	Channel	Call Target	
Group Call	Capacity Plus	#1 Firemen	•
<mark>₽ Add × Ren</mark> Priority: N	<u>iove</u> Iormal		
		OK	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 S	Station
Command	
Command: Send command to C	Control Station
Control Station	Command
TRBOnet Swift Agent #1	▼
	PIN5 SET ON
	PIN6 SET ON
	PIN6 SET OFF
	PIN6 PULSE
Add X Delete	
	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

uick Command	I		
Name:	Swift 1		
Command			
Command:	Send Swift Comman	d	-
Swift Comman	d: Swift Command 1		
Parameter 1:	0		
Parameter 2:	0 🔺		
Send to Rad	dio Group		
C Send to Rad	dio		
Recipient:			
System		Group	
Capacity Plus	#1	Firemen	
 🖶 <u>Add</u> 🗙 !	<u>Delete</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 Command			×
Name:	Send Push		
Command View			
Command:	Send Push Notification		Ŧ
Subject:	Info		(
Message:	Check connection to J service	e	Information Marning
Send to Disp	oatcher Group		Alarm
C Send to Rad	lio		
Recipient:	Crown 1		
Dispatcher Dispatcher			
di di			
		ОК	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:



Voice Dispatch	Radio Interface	ê
🚮 🗄 🗄 👶 🗶 🍸 🗗 🗗 🔇	Radio Interface Recent Cals/Events	
	Active Calls X Quick Commands	×
🗉 🧟 Online Dispatchers	Configure	
Dispatcher 1	Pre-recorded Message	5
		80)
B 🧥 Group1	All Call Record V for File	-
Cleaners	Firemen 刘 🕷 🕢	
🏦 🖉 Radio 200 🛛 🔐 🖵 🔇		\leq
🚯 🛞 Radio 201 🛛 🔛 🔍	Voice message	4 🔛
Voice Dispatch	Firemen Voice Message	
Voice Dispatch	Patch	X
Location Tracking	Cleaners 🕖 🕷 🖉	-
	Free channel Drag and	to
🙀 Job Ticketing	PTT deaners	
~	Cleaners V C.	
🥳 Route Management	Recent Calls/Events	
	💻 🎯 Playback 📓 Save 🛛 🖳 Print 🚺 Pause ダ Clear 🗝 🧐 Reload 🛛 🎦 Filter By Radio 🛛 🗮 Grouping 🍸 Auto Filter	
RFID Tracker	Date 🛆 Radio Syst Sender Recipient Message Details Note	
_		
Contemporary Text Messages	15-Nov-2016 18:26:28 Repeater Dispatcher 1 Cleaners Dispatcher Dispatcher Members: Dispatcher 1	
A	15-Nov-2016 18:26:36 Repeater Dispatcher 1 Firemen Dispatcher 'Dispatcher 'Dispatcher 'Dispatcher I 37 16-Nov-2016 10:22:05 Server All Connection to Repeat	
🖥 Voice Recording		
Event Viewer	If If I are a conditioned and the condition of the	►

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.

1	Add 🗙 Remove 🗌	Y Filter Shortcut			
	Filename	Description	Severity	Shortcut	Visibility
	Alarm Tone		Alarm		Hidden
	Bobby.mp3		Information		Button
	Daisy.wav		Information		Link

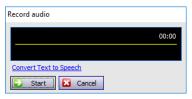
• Select an audio file in the list and click **OK** to use this file as a queued Voice Message.



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.

Record audio	
-hannerth the particular	00:17
Convert Text to Speech	
Stop Cancel	

• 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.

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oice Dispatch	Radio Interface						
= 🚴 🗄: 🔂: 🗄 🍸 💱 🛠 🖉 🍟	Radio Interface Teles	hony Recen	t Calls/Events)		x	Clock
^						<u>~</u>	Thursday, September :
Online Dispatchers (1)							
🙎 Administrator							11:16 AI
Online, Indoor						•	
Online, GPS Fixed	G	-		(D)			Quick Commands
Online, No GPS (2)	Dispatcher Grou	ip 2 🔢		Contact Dia	ler 📧 🖉		Configure
★ 4444	Dis	oatcher Grou	ip 2				
• <u>•</u>	PTT -				v		Pre-recorded Message
🔝 Radio 125 🛛 🔌 🖵				-	Menu		Record + C File
Offline (19)	Sessi	on:		Line 1	Line 2 Line 3		To: Selected Channels
	Free	channel					
Voice Dispatch				Line 4	Line 5 Line 6		Patch
	Send	ar:		1	2 3		Drag and Drop PTT Box here
Location Tracking				4	5 6		create new group
						~	
🔓 Job Ticketing	Recent Calls/Events						
~	🖾 Playback 🛃 Save 🕶	블 Print 🛛 🛚	Pause 🦪 C	ear 🔹 🏐 Reload	🍸 Filter By Radio 🛛 🚟 Grouping 🍸 Au	to Filter 🛛 😭 Details 🛛 🛄 Show No	tes 🙀 Add Note
Route Management	Date	System	Sender	Destination	Description	Details	Note
·	30-Sep-21 11:12:46 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
Text Messages	30-Sep-21 11:12:46 AM	CP1	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		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 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:	Talkers: 4444, Administrator	
Event Viewer	30-Sep-21 10:57:27 AM 30-Sep-21 10:57:20 AM		Administrator		Group Call: 'Administrator' called '22' (00:08) Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator Talkers: Administrator	
	30-Sep-21 10:57:20 AM		Administrator Administrator		Al Cal: 'Administrator' called 'Al' (00:01)	Takers: Administrator	
Radio Allocation	30-Sep-21 10:57:00 AM		4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Administrator Talkers: Radio 125, 4444	
				10000 123	(00.20)	100000 10000 120, 1111	
	144 44 4 Record 2 of 13						

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
▶ Play Pause Stop (1) Player ≽	📥 Open
All Call from dispatcher 'Administrator' (00:03)	
	<u>Clear</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 🗵 Des	tination Descript	ion	Details	Note
-			100		4 0 :	100
30-Sep-21 11:12:46 AN	1 CP1	Radio 125 22	Group C	all: 'Radio 125' called '22' (00:04)	Takers: Radio 125	
30-Sep-21 11:12:46 AN	1 CP1	Radio 125 11	Group C	all: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administrator	
30-Sep-21 11:12:40 AM	1 CP1	Radio 125 22	Group C	all: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
30-Sep-21 11:12:39 AN	1 CP1	Radio 125 11	Group C	all: 'Radio 125' called '11' (00:04)	Takers: Radio 125	
30-Sep-21 10:52:59 AM	1 CP1	Radio 125 11	Group C	all: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
	₩ 4					

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 'All' (00:01)	Talkers: Administrator	
30-Sep-21 10:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: 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

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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:	All		*
Severity:	 Information 	•	
Description:	Test		A
			v
		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.

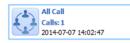
On the **Recent Calls** tab, the dispatcher can see and configure the latest Voice calls, including Private, Group, and Intercom calls:

Types: 💄 Private 4 lost Recent Call	Group	All Call 🛛 🍼 CI	ear 🍸 Filter		Call Number	Actions
27.04.2017 12:19	125	\ 3			5	20
All Call Calls: 1 27.04.2017	12:19	2 🛛 🎎 Call	up Call s: 3 4.2017 12: 18	Calls	ite Call : 1 .2017 12:18	
	235				1	201

- 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:

an types.	💐 Missed Call	🔔 Request To	o Talk 🛛 View: 🔛	Table 🔡 Tiles	🔰 🚿 Clear 📔 署	Grouping 🏾 🍸 Filt	er 🛛 🌼 Default Setti	ngs 🛛 📑	Options
Firs	: Call	Waiting Time	Call Type	Sender	Target	Queued By	Last Call	Count	
PTT 10-	lov-20 2:19 PM	01:01	🔔 Request To Talk	॑॑॑॑॑॑॑ ₩alt	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** () 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	i Note 👒 Add Message				
	Date	Dispatcher 🛆	State			
Repeater #1: Slot #2	17-Nov-2016 11:35:22		Reset Geofencing Alarm			
¥ · ·	17-Nov-2016 11:35:15		Geofencing Alarm [GPS Date: 17-Nov-2016 11:35:15; Latitude: 59°56'27.78"N; Longitud			
GPS: 17-Nov-2016 11:35:15 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 Settings						
Task	Radio	State				
Lone Worker 1	125 (Pete)	12:01 - 12:31				
Timer	235 (Basil)	0.00:29:16 - Timer started.				
141 41 4 Record 1 of 2 + 1+ 1+1 4		•				
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 🛛 💷 Pause 📕 Stop 📑	Edit 🚳 Exp	ort 🗸 📑 Group	oing 🍸 Auto	o Filter 🌼 Defa	ult Settings					
Name	Route									
▶ Route 1 00 235 (Basil) 17-Nov-2016 12:20	:01 12:21 Point 1	12:21 10:00 Point 2 Coffee								
H4 44 4 Record 1 of 1 ▶ ₩ ₩ 4										
Recent Calls/Events Recent Calls F	Request 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:

ser Activity									
Oisable the User A	Activity monitori	ng 🛛 📑 Config	gure						
Off Duty	△ Time		On Duty		△ Time		User Activity #1	∆ Time	
111		-	235		13:15:01		20 125	13:1	5:09
222									
Radio 200									
Radio 201									
Radio 202									
Radio 203									
Radio 204									
Dadio 205		-							
ecent Calls/Events	Recent Calls R	lequest to Talk	Radio State	Active Tasks A	ctive Routes	Jser Activity	Map Cameras		

• Click the **Configure** button to configure the <u>User Activity</u> list:



6.5.8.8 Map

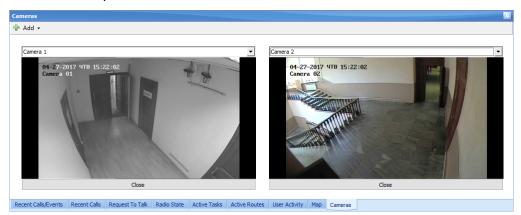
On the **Map** tab of the Activity Monitor panel, you can monitor location of radios on the map and simultaneously perform all available actions in the **Radio Interface** pane (make voice calls, send messages, disable and enable selected radios, and other actions):



For more details on map options, see section <u>6.6, Location Tracking</u> (page 331).

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:



	ontact Dial		2 • •
3-	*	Menu	-
,	Line 1	Line 2	Line 3
1	Line 4	Line 5	Line 6
1	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 **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.



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• 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	*
Telephory Administrator Me	
Add Exit	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	
	All Dispatchers	^
2 Dispatcher	2 dg3	
🖄 Disp. Group	Real Dispatcher Group 1	
Radio	R Dispatcher Group 2	
	4444	
Radio Group	a Eugene	
Phone	🦓 Julia Lopes	
Favorites	🧼 Kirill Vavanov	
- Pavonices	Contraction Contra	_
,	User Test	
	Nadimir Gorbachev	•
Call	Cancel	\$

• When the second call is established, click **OK**.



Add to Conference	×
€ 4444	
00:14	
Call in Progress	
OK Cancel	

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.

6.5.10 Video Calls

The Video Calls feature allows making video calls from Dispatch Console/Phone user/Mobile Client user to Dispatch Console/Phone user/Mobile Client user.

Note: For how to select video call quality on Android smartphones, see comparative test results at <u>UL Solutions</u>. Based on the 3DMark Wild Life test score, select video quality on a smartphone as follows:

3DMark Wild Life score	Video quality
1500+	LD (144p)
2500+	SD (480p)
4000+	HD (720p)



6.5.10.1 Video Calls from Dispatch Console

To make a video call from the Dispatch Console:



In the Contact Dialer box, select the Line (1), select a contact (2) and click
 Menu > Video Call (3).

Once the call is answered, you will see the bottom pane in the Contact Dialer box.



In the bottom pane, you can click the following icons:



- 1. Switch the view between the local and remote cameras.
- 2. Share your screen with the remote participant.
- 3. Turn off your camera.
- 4. Open a pop-up window of the video call.



Video pop-up window



While in this window, you can use the following buttons to control the video call:

- 1. Switch between the cameras of the remote participant.
- 2. Adjust the video quality (HD/SD/LD).
- 3. Adjust the delay between video and audio streams.
- 4. Share your screen with the remote participant.
- 5. Turn off/on your camera.
- 6. Turn off/on your microphone.
- 7. Terminate the call.
- 8. Close the window.

6.5.10.2 Answering an Incoming Video Call

When there is an incoming video call, click the **equilation** to accept the call.

\$ G	ontact Dia	•	
		ier 1	w
	-	Menu	-
	Line 1	Line 2	Line 3
	Line 4	Line 5	Line 6
	1	2	3
	4	5	6
	7	8	9
	*	0	#



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.

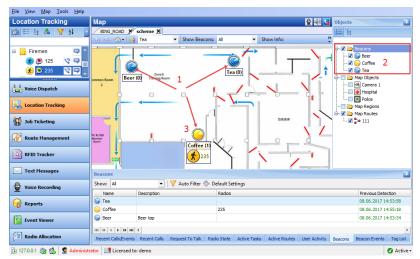


- **Map Regions** all map regions created with the Map Drawing toolbar (use the Add Polygon tool to create a map region).
- **Map Routes** all map routes created with the Map Drawing toolbar (use the Draw Route tool to create a map route).

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 373)

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 335).

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 335).

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 339).

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.



• 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;
- I radio is online, no GPS data is received;
- 🔍 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 🚨 button 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.

Search by Address (BING_ROAD)	>
Broadway 18	9
18 Broadway, Tarrytown, NY 10591, USA 18 Broadway, Somerville, MA 02145, USA	
18 Broadway, Denver, CO 80209, USA 18 Broadway, Denver, CO 80203, USA	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Close
	Cluse

• 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 Coordinates**.



• In the dialog box that opens, select a coordinate system, and enter the coordinates.

cation Tracking	Мар					<u>6</u>	🖌 🕼 🔽 Obj	ects
1 1 🖧 🏹 💱 🍟	🔉 1: Line free	.	itercom 💽		Group 10	•) • •	E	ŧ
- Firemen 📮 🗖	All Call	.	roup 20 💽		Search by A	ddress (My Map)	×	beacons
🚷 🔊 125 🛛 📮	Group 22	🗉 🛋 🥥 🗾 Pr	ivate Call 📃		Broadway 1	8	٩.	- 🗹 🎯 Beer - 🔽 🚱 Coffee
🐔 💌 235 🛛 💐 📮 🔳	My Map 🗶 Floor plan							- 🗹 🎯 Tea
police 📮 🚽	🔍 🔍 🚖 🏠 🖌 Filter:		7 🧟 Show Beaco	ns: Al	18 Broadwa	y, Somerville, MA 02145, USA		Map Objects
Voice Dispatch	1				18 Broadwa	y, Tanytown, NY 10591, USA y, Lawrence, MA 01840, USA		- 🗹 🛖 Hospital
voice Dispatch			B		18 Broadwa	y, Pank Ridge, NJ 07656, USA y, Amityville, NY 11701, USA		- 📝 💽 Police
Location Tracking	, a		T	/	18 Broadwa	y, Taunton, MA 02780, USA y, Asheville, NC 28801, USA		Region 1
	ourt st		a lu		18 Broadwa	y, Bayonne, NJ 07002, USA y, Newport, RI 02840, USA		Map Routes
Job Ticketing	140 St 140		L	,	18 Broadwa	y, Denville, NJ 07834, USA		-🗷 🐤 111
Route Management			138					
RFID Tracker								
Text Messages	90 m	. fice SQ	138 140	chool St				
Voice Recording	Recent Calls/Events							
-	🕮 Playback 📓 Save 🛛 🤤	Print II Pause	🍼 Clear 👻 🏐 Relo	ad 🏾 🌃 Filter B			Close	tails 📋 Show No
Reports	Date	Radio System	Sender	Recipient		Message	Details	
	\$ 09.06.2017 14:43:57		Server	All		Connection to 'Capacity Plus 1' has been		
Event Viewer	09.06.2017 12:43:30	Capacity Plus 1	Administrator	11		Dispatcher 'Administrator' calls group '11		
	09.06.2017 12:40:06	Capacity Plus 1	125	11		Radio '125' calls group '11' (00:08)	Members: 125	
		Capacity Plus 1	Administrator	11		Dispatcher 'Administrator' calls group '11 Dispatcher 'Administrator' calls group 'Po		
Radio Allocation	09.06.2017 12:39:55 09.06.2017 12:38:34 09.06.2017 12:38:34 09.06.2017 12:38:34	Capacity Plus 1	Administrator	Police		Dispatcher Administrator calls group Po	. Members: Aun	inistrator

6.6.2.8 Drawing Panel

• Click *Prawing Panel* to display the Drawing toolbar:

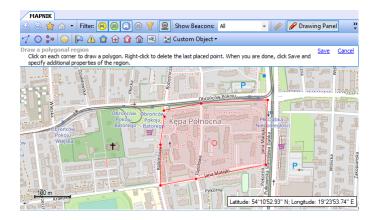


Draw a Polygonal Region

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

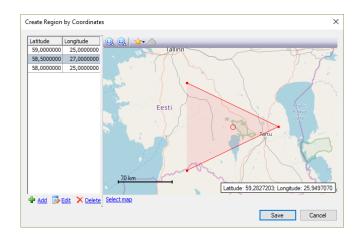
• Select the Logical Groups that will be associated with the map region.

Draw a polygonal region by coordinates

• Click 🗹 and choose **Use coordinates**.

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• Click the Add link to add a point.

Coordinate system:	Decimal Degrees	
Coordinates		
Latitude:	59.9419768°	
Longitude:	30.2874584 °	
	001207 1001	

Coordinate system

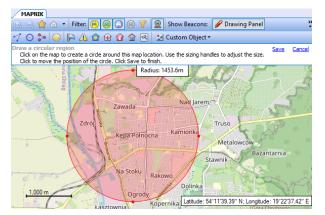
From the drop-down list, select the convenient format (for example, Decimal Degrees) for the coordinates.

- 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	n			_		×
Coordinate syste Coordinates	em:	Decimal D	egrees			~
Latitude: Longitude:		59.941600 30.279300		•		
Radius:		600 ‡ m				
		[0	ĸ	Ca	incel

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.

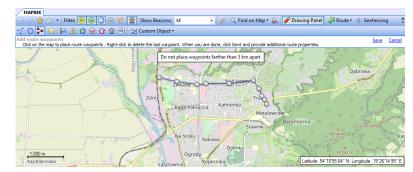
Radius

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 i 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	s	×
General Logica	al Groups Cameras	
Type:	iBeacon 💌	
Name:	Coffee	7
Major ID:	1	
Minor ID:	1	
Description:	Coffee shop at the comer	7
	OK Can	cel

Type

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 ighted and choose **Use coordinates**.

Add a Point of Interest

- Click 🔎 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		\times
General Beacon Map	Logical Groups Cameras	
ID: 2	chool dep cook after	
Bind to PTT	v	
	Capacity Plus 1	
	OK Cancel	

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.

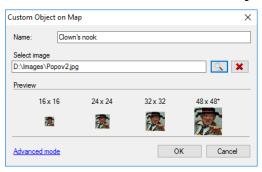


- Note: You can also place a POI by specifying its coordinates. To do this, click in and choose **Use coordinates**.
- Note: Similarly, you can place other objects with predefined icons, such as Warning points, Police departments, Emergence departments, Fire departments, Houses, and Cameras. To do this, 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.



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.



(k) 111	LimeGreen	
🗹 💰 125 (Pete	e) 105, 105, 105	
222	RoyalBlue	
🗹 💰 235 (Basi	l) 🗖 Aqua	
🗆 🚯 Radio 200		
🗌 🛞 Radio 20:		
🗌 🚯 Radio 202		
🗌 🛞 Radio 203		
🗆 🛞 Radio 204		
	J mobile Lime	
2 0		7 - E
Route Type:	Static	
	Show location history for the last: 48 + Hours	
From:	12/21/2022 12:00 AM	
To:	<last known="" location=""></last>	
Route Style:	Dots and lines with direction -	
	Merge co-located waypoints	
	Automatic error correction	
	Configure	
	Show Events	
	Show CanLog Events	
	Show CanLog Events	

- 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

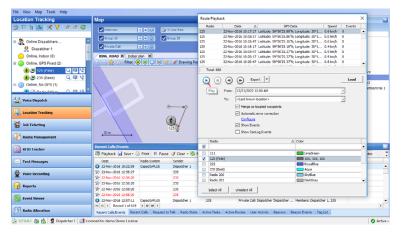
• Click Route and choose **Route Playback**.

Radio		Date	Δ			GPS Da	ta		Speed	Events
125	22-Nov	-2016 10): 17: 17	Latitude	: 59°56';	25.88"N:	Longitude: 3	0°1		
125							Longitude: 3			
125							Longitude: 3			
125	22-Nov	-2016 10): 19: 17	Latitude	: 59°56':	25. 18"N;	Longitude: 3	0°1	0.4 km/h	0
125	22-Nov	-2016 10): 19:47	Latitude	: 59°56':	25.27"N;	Longitude: 3	0°1	0.9 km/h	0
125	22-Nov	-2016 10	:20:17	Latitude	: 59°56':	25.37"N;	Longitude: 3	0°1	0.9 km/h	0
125	22-Nov	-2016 10):20:47	Latitude	: 59°56':	25.37"N;	Longitude: 3	0°1	0.8 km/h	0
Total: 660										-
Total: 660	,									
	G		Exp	ort 🚽						Loa
	9	9								
Play	From:	12/21	(2022.1	2:00 AM						-
Piloy	rion.	12/21	2022 1	2.00 AM						-
	To:	<last< td=""><td>known l</td><td>location ></td><td></td><td></td><td></td><td></td><td></td><td>*</td></last<>	known l	location >						*
			ne cod	ocated wa	whointe					
		_	-							
				error corr	ection					
		_	nfigure							
		Shc Shc	w Even	nts						
		Sho	w Canl	.og Event	s					
Radio						Δ	Color			
V										
111							LimeG	ireen		
🚺 125 (Pe	te)						105 ,	105, 10	5	
222							Royal	Blue		
235 (Ba	isil)						Aqua			
Radio 2	00						SkyBi	Je		
Radio 2	01						Dark@	2raw		

- 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.

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On the Map toolbar, click
 Geofencing

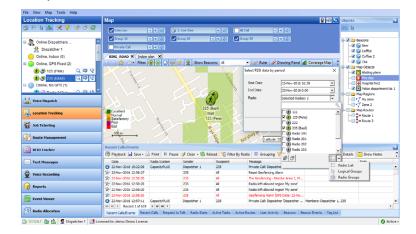
The administrator can **add/disable/delete** the rules for Geofencing as well as edit the currently selected rules:

- 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 138).

6.6.2.12 Select Map

On the Map toolbar, click Select Map

X
~
cel

- 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 127).

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							ĝ	ت (ا
💼 🗄 🗄 👶 💱 🗶 🍟	🔊 1: Line	free			Interd	om		1		
	Group 1	0	• •	= =	All Ca	1				
🛛 📴 Firemen 📮 🕇	Group	0	•) •	ລີ ເ	Group	11		í		
💰 😒 125 🔇 📮 🛠 😒 235 🔇 📮 🗏	Group 2	2	•) •		Privat					
Police	Job Ticke			n Fields	Tem			,		
	Add (F2)			ign (F5)		Grouping 🍸	Auto Filter	💩 Defaul	t Setti	nas »
Voice Dispatch	Status	ID	Text			Specified End				City
Location Tracking	🔅 New	#A00006	Check the pipe	: in		07.06.2017 1	5:40:00			Mo
(B)	🌣 New	#A00007	Medium, Ched	the						St
📲 Job Ticketing 🛛 👡										
Route Management	144 44 4 Red	ord 1 of 2	• • • • • •							Þ
RFID Tracker	Processing t									
	Status	ID			Start	Time	End Time			Specified
🖂 Text Messages	+ Accepted	#A00								
Voice Recording	→ Assigned	#A00	009							
Y										
Reports										
Event Viewer	H4 44 4 Rec	10.50								Þ
🔂 127.0.0.1 🛞 🔂 💆 Administr	ator ELice								0	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.

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Job Ticke	Job Ticketing Statuses Custom Fields Templates							
🛃 Add 📃	🛃 Add 📑 Edit 📑 Delete							
Name 🔨	Action	Description	Status					
New	New		☆ New					
Cancelled	Cancel	`	X Cancelled					
Assigned	Assign		→ Assigned					
Accepted	Accept		+ Accepted					
Rejected	Reject		- Rejected					
Completed	Complete		✓ Completed					
In Progress	In Progress		O In Progress					

144 44 4 Record 4 of 7 🕨 🗰 🕂

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
	C 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.



Job Ticketing	Statuses Custom Fields Templates
🛃 Add 📑 Ed	dit 🛃 Delete
Name	Values
Town	Kotka;Hamina;Loviisa
Quality	High;Low;Middle

₩ 4 4 Record 1 of 2 ► ₩ ₩ 4	144	4	Record 1 of 2	۲	H	н	4
-----------------------------	-----	---	---------------	---	---	---	---

Þ

• Click the **Add** button.

ob Ticket C	ustom Field	>
Name:	Town	
Values		
Kotka		
Hamina		
Loviisa		
		Total: 3
🖶 Add 🔀	<u>Delete</u>	
		OK Cancel

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.	(C	 Qu.
¢	New	#A00007	Medium,	Cheo	k the	e pi		07			Administrator	Medi			
¢	New	#A00010	Medium 9	6Cit	y%			07			Administrator	Medi			 High
	ocessing		► ₩ ₩	•							 				
			H H	•		5	Start Tin	ne		End Time	 Specified End	Time			
ro	ocessing	tasks:			_	S	Start Tin	ne	•••	End Time	 Specified End	Time	_		 ••••

• Click the **Add** button to create a job ticket.

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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 X Ticket ID: #A00000 Priority: Medium Deadline: 21.04.2017 11:54 +5min ±10min ±30min ±1hour Predefined Texts: • • • • • - Text: Check the pipe 111 v Variables: Priority Due Date Due Time Notify on status changes Notify of ticket is not accepted by 21.04.2017 11:49 Notification List Comment: • • • • • • •		
Priority: Medium Image: Deadline: 21.04.2017 11:54 +5min +10min +5min +10min Predefined Texts: Image: Deadline Text: Check the pipe 111 111 Variables: Priority Due Date Due Time Notify on status changes Notify flocket is not accepted by 21.04.2017 11:49 Image: Deadline Notification List Comment:	Job Ticket	×
Deadline: 21.04.2017 11:54 +5min ±10min ±30min ±1hour Predefined Texts: Text: Check the pipe 111 ∨ Variables: Priority Due Date Due Time Notify on status changes Notify of ticket is not accepted by 21.04.2017 11:49 Notification List Comment: Image: Comment: Image: Comment: Image: Comment: Image: Comment: Image: Comment: Image: Comment: Imag	Ticket ID:	#A00000
+Smin ±10min ±30min ±1hour Predefined Texts: Image: Image	Priority:	Medium ~
Predefined Texts: Text: Check the pipe 111 111 Variables: Priority Due Date Due Time Notify on status changes Notify of ticket is not accepted by 21.04.2017 11:49 ▼ Notification List ✓	Deadline:	21.04.2017 11:54
Text: Check the pipe		<u>+5min</u> <u>+10min</u> <u>+30min</u> <u>+1hour</u>
Variables: Priority Due Date Due Time Variables: Priority Due Date Due Time 21.04.2017 flicket is not accepted by 21.04.2017 11:49 Notification List Comment:	Predefined Texts:	- D + -
Variables: Priority Due Date Due Time Notify on status changes Notify of ticket is not accepted by 21.04.2017 11:49 Notification List	Text:	Check the pipe
Variables: Priority Due Date Due Time Notify on status changes Notify of ticket is not accepted by 21.04.2017 11:49 Notification List		111 ~
Comment:	Variables:	
21.04.2017 11:49 Notification List Comment:		Notify on status changes
Notification List		Notify if ticket is not accepted by
Comment:		21.04.2017 11:49
		Notification List
Hide Advanced Options OK Cancel	Comment:	^
Hide Advanced Options OK Cancel		
Hide Advanced Options OK Cancel		~
	Hide Advanced Optic	OK Cancel

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 X 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	
Notify Dispatchers Administrator Dispatcher 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.

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Job Ticke	ting	Statuses C	Custom Fields Templates				
🛃 Add 📑	Edit	击 Binding	📑 Default Template 😽	🕻 Delete 🛛 🚟	Grouping 🍸 Auto Filte	er 🌼 Default Settings	
Name	F	Priority	Text		Specified End Time	Comment	Bin
Towns	N	4edium	%PRIORITY% in %City%				
Cleaning	N	4edium	Do cleaning in %Town%				

- 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 **+** 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 Stat	tuses Custom Fie	lds	Те	emplates					
	Add (F2)	🛨 📑 Edi	t (F4) 🐒 Assign	(F5)	E	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:

elect Job Status Color	×
Status	Color
New	YellowGreen
Cancelled	Custom Web System
Assigned	DarkKhaki
Accepted	Beige
Rejected	LightGoldenrodYellow
Completed	Olive
Progress	LightYellow
Expiring Job Ticket	Ivory OliveDrab
Time to complete Job Ticket (minute	📼 YellowGreen 🚩
Color:	DarkOliveGreen
COIOT.	GreenYellow Chartreuse
	Default
C	OK Cancel

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**.

Ξģ	Add (F2	2) 🔻 📑 Edit	(F4) 🍾	A S	ssign (F5)	dro 🖶	uping	g 🍸 Ai	uto Filter 🌼 Del	fault Setti	ngs 🎫 Statu	s Colors	÷ .			,
	Status	ID	Text			Pe	Cr	. Specifi	ied End Time		Created By	Prio	C.			Qu
⋩	New	#A00007	Media	-	Antipa						Administrator	Medi				
*	New	#A00010	Medi	2	Assign						Administrator	Medi			I	High
		ecord 1 of 2	b b	0		ed on										
44 Pro	ocessing	tasks:	• •	0	Cancel	ed on										
44 Pro	Status	tasks:			Cancel Archive Create Bas		•		End Time		Specified End	Time				
44 Pro	ocessing	tasks:			Cancel Archive Create Bas Resend		•		End Time		Specified End			_		

Þ

In the **Assign Job Ticket** dialog box that appears:

Assign Job	ign Job Ticket		×
Radio:	 ✓ € 125 € 255 € 3333 ✓ € 4444 € 5555 € Radio 25 Selected: 2 Ø 1 Ø 1 		
		ОК	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).

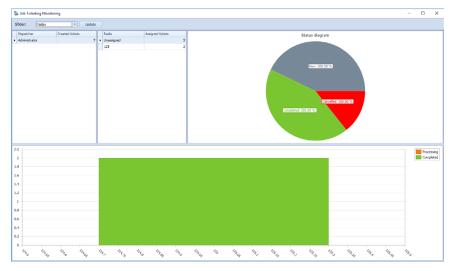
As a result, the selected radio(s)/radio group(s)/logical group(s) will receive the job ticket.



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.



rts	U	sage Statisti	s Reports								ĝ
System Bridges Channel Changes		 Intercom 	• • •	1: Line free	•				Group 10		
age Statistics Reports		Group 20	• • •	Group 30	•) •	Privati	e Call [0			
Messages Radio Activity Radio Status Radio Status Summary			Job Ticketing 🗶	4 4 4 8	₩- 🛛	⊳ ⊡•					
User Messages and Notes Radio Allocation Disabled Radios Telemetry Lone Worker Activities Job Ticketing Job Ticket Statuses	2		Ticketing								
pice Dispatch		Ticket	ID Text	Performer	Status	Creation Time	Start Time	End Time	Specified End Time	Created by	Priority
ocation Tracking	3	#A0000	0 %PRIORITY%9 PRIORITY%	6	New	07-Nov-2016 14:04:31			07-Nov-2016 14:19:00	Administrator	Medium
b Ticketing		#40000	1 %PRIORITY%		Accepted	07-Nov-2016 14:04:58		07-Nov-201 14:49:55	6	Administrator	Medium
oute Management		#40000	2 %DATE%		Assigned	07-Nov-2016 14:25:12		07-Nov-201 14:50:09	6	Administrator	Medium
FID Tracker		#40000	3 %TIME%		Accepted	07-Nov-2016 14:25:25		07-Nov-201 15:00:35	6	Administrator	Medium
ext Messages		#40000	4 jkg		Assigned	07-Nov-2016 15:01:59		07-Nov-201 15:17:57	6	Administrator	Medium
pice Recording		#40000	5 Abc		Assigned	07-Nov-2016 15:18:13		07-Nov-201 15:21:07	6	Administrator	Medium
eports		-1 #40000	6 123	125 (Cleaning 1)	Completed	07-Nov-2016 15:29:19		07-Nov-201 15:35:02	6	Administrator	Medium
/ent Viewer		#A0000	7 456		New	07-Nov-2016 15:38:32				Administrator	Medium
adio Allocation		#A0000 Durati			Completed	07-Nov-2016 15:38:39	07-Nov-2016 17:58:21 02:19:41	07-Nov-201 17:58:49	6	Administrator	Medium
dministration		Durati	on2:					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.

Route Management	Route Management	🔮 🚳 🛂
🕨 Start 🛛 II Pause 📕 Stop	③ 1: Line free ◀ Ø ✓ Intercom ④ ◀ Ø ✓ Group 10	
▶ Route 1 00:00 235 31.05.2017 14:58	Al Cal et the O Croup 20 O the O V Group 11 Group 22 et the O Private Cal O the O Management Montoring	*)*(0)
	🕨 Start 📑 Create 📑 Edit 🔜 Copy 🚳 Export - 🔂 Delete 🖷 Grouping 🍸 Auto Filter 🗇	Default Settings
Voice Dispatch	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	-	
🖂 Text Messages		
🔮 Voice Recording	Active Routes	<u> </u>
Reports	▶ Start II Pause Stop B Edit	ngs
Event Viewer	▶ Route 1 00:00 15:15 15:30 16:00 235 235 236	
1 Telemetry		
8 Radio Allocation		

• 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.

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	×
Name: Route 1	
Description: Test route	
Rule: All checkpoints, strict order, strict schedule	•
Start/Stop Rules Route Points Checkpoint Statuses Notifications Tags Logical C	Groups
	^
Manually by dispatcher 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	
Status: 0 4	
Wait for confirmation from a radio	
Pause Route Resume Route	*
Finish Route	\$
	^
Manually by dispatcher	
A thread with the second date To a Managers from a second	
Automatically by receiving Text Message from a radio	
Message:	
Message: Automatically by receiving Telemetry Command from a radio	
Message: Automatically by receiving Telemetry Command from a radio VIO:	
Message: Automatically by receiving Telemetry Command from a radio VIO: Automatically by receiving DTMF command from a radio Automatically by receiving DTMF command from a radio	
Message: Automatically by receiving Telenetry Command from a radio VIO: 1 Automatically preceiving DTMF command from a radio Command: any event	
Message:	
Message: Automatically by receiving Telenetry Command from a radio v100: Automatically by receiving DTMF command from a radio Command: Automatically by receiving Status from a radio Status: D D D D	
Message: Automatically by receiving Telemetry Command: from a radio VIO: 1 0: Automatically by receiving DFF command: from a radio Command: Automatically by receiving DFF command from a radio Stabus: 0 Automatically by receiving DFI command Automatically by receiving DFI command	
Message: Automatically by receiving Telemetry Command from a radio VIO: Command: Automatically by receiving DTMF command from a radio Command: Command from a radio Automatically by receiving Status from a radio Status: D Automatically by receiving Status from a radio Status: D Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio	
Message: Automatically by receiving Telemetry Command: from a radio VIO: 1 0: Automatically by receiving DFF command: from a radio Command: Automatically by receiving DFF command from a radio Stabus: 0 Automatically by receiving DFI command Automatically by receiving DFI command	
Message: Automatically by receiving Telemetry Command from a radio VIO: Command: Automatically by receiving DTMF command from a radio Command: Command from a radio Automatically by receiving Status from a radio Status: D Automatically by receiving Status from a radio Status: D Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio Lautomatically by receiving Status from a radio	

• 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.





• Click the **GPS Points** link (1) to add points to the selected map:

Select Map				×
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

- Select the map. For more details on map types, see section <u>Map Types</u> (page 127).
- 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	way point (not served)
Time:	15:00
Time delta:	5 minutes
	OK Cancel

Name

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>5.12.1</u> <u>Services</u> on page 32).

Name:	Route 1				
Description:	Test route				
Rule:	All checkpo	ints, strict order, strict sch	nedule		
Start/Stop Rules	Route Points	Checkpoint Statuses No	tifications Tags Logica	Groups	
Beer 😨			Time:	Specified time of day	
Coffee			Name	Tim	e
🥪 Tea			Point 1	9:0	0
			Point 2	9:3	0
			Coffee	10:	00
			Fire dep	10:	
			Tea	10:	50
	<u> </u>	Map Objects		Edit X Delete	

• Click the **Create** link and then click a beacon in the list.

Point properties		×
Name:	Coffee	
Beacon:	G Coffee	-
Radius:	meters	
🗌 Intermedia	te way point (not served)	
Time:	10:00	
Time delta:	5 📩 minutes	
	ОК	Cancel

• Click the **Map Objects** link to add a map object as a checkpoint.

oute				
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	f day 💌
Fire dep		Name		Time
Hospital No2		Point 1		9:00
Police departs	nent 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:	(m.).	
Name:	Fire dep	
Map Object:	🛐 Fire dep	•
Radius:	10 neters	
Intermediate	way point (not served)	
Time:	10:40	
Time delta:	5 💼 minutes	
	ОК	Cancel

• In the **Route** dialog box, click the **Checkpoint Statuses** tab.

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Route			×
Name:	Route 1		
Description:	Test route		
Rule:	All checkpoints, strict order, stric	t schedule	•
Start/Stop Rules	oute Points Checkpoint Statuses	Notifications Tags Logical Gr	oups
🗹 Set status	to Attended:		
C When rad	enters the point area		
By condition	n when radio is in the point area		
	natically by receiving Text Message	from a radio	
Mess			
Auto	natically by receiving Telemetry Co	mmand from a radio	
VIO:	1 🗘 Command:	Any event 👻	
Auto	natically by receiving DTMF comma	nd from a radio	
Comr	and:		
Auto	natically by receiving Status from a	radio	
Statu	: 0 ≑		
Statuses t	hat can be set by dispatcher:	Waiting, Attended, U 💌	
🗹 Set status	to Alarm:		
Auto	natically by receiving Text Message	from a radio	
Mess	ige:		
Auto	natically by receiving Telemetry Co	mmand from a radio	
VIO:	1 🗘 Command:	Any event 💌	
Autor	natically by receiving DTMF comma	nd from a radio	
Comr	and: 5	#5#	
Auto	natically by receiving Emergency fr	om a radio	
Emg.	Type: Emergency Alarm	-	
Auto	natically by receiving Status from a	radio	
Statu	;; 0 🗘		
			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.

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Name:	pute 1	_
Description:	est route	
Rule:	I checkpoints, strict order, strict schedule	
Start/Stop Rules Ro	te Points Checkpoint Statuses Notifications Tags Logical Groups	
	les in text message: intName}, (PointTime), (NextPointName), (NextPointTime)	
🔽 Send a Text Me	sage on route assign to radio	
Text Message:	Assign {RouteName}	
🔽 Send a Text Me	sage on route start	
Text Message:	Start {RouteName}	
🔽 Send a Text Me	sage on route suspend	
Text Message:	The {RouteName} is suspended	
🔽 Send a Text Me	sage on route resume	
Text Message:	The {RouteName} is resumed	_
Send a Text Me	sage on route finish	
Text Message:	The {RouteName} is finished	_
Food a Toxt Ma	sace when approaching attendance time	
Time before at		
Text Message:	Serve {PointName} at {PointTime}	_
-	age after point is attended	
Text Message:	The {PointName} is served, Next is {NextPointName} at {NextPointTime}	_
For the last po		
	1	
	sage if point is not attended The {PointName} is not served	
Text Message:		
Send a Text Me	sage if point is in alarm mode Alarm on (PointName)	
Text Message:		

- 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.



Name:	Route 1		
Description:	Test route		
Rule:	All checkpoints, strict order,	strict schedule	-
Start/Stop Rule	s Route Points Checkpoint Statu	ses Notifications Tags Logical Groups	
Name		Description	
🕀 🗋 🦢 Clean	ing		
🖌 🗁 🖸	eaning 1	Cleaning in Department 1	
L 🗁 d	leaning 2		
E De Secur	ity	Groups for Security	
🗆 🦢 🖸	ecurity 1		
L- 🗆 🦢 Si	ecurity 2		
	Groups to a radio when the route		

- 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 276).

• 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 🛛 🕢 📝 Intercom 🚽 🕊 🥥 🗹 Group 10 🚽 🕊 🧭
Route 1 00:07 235 31.05.2017 14:58	Al Cal E # 000 20 E # 000 11 E # 000 11<
	Management Monitoring ▶ Start Start Edit Copy Export • Export *
Voice Dispatch	Name Route Route 1 15:00 15:15 15:30 16:00
Location Tracking	Test route Coffee Hospital Tea Polce
🕌 Job Ticketing	
😥 Route Management	1 2
RFID Tracker	
V Text Messages	144 44 4 Record 1of 1 > 19 199 44
🔮 Voice Recording	Active Routes
Reports	▶ Start II Pause ■ Stop ⊡ Edit Stop Export + ■ Grouping ♥ Auto Filter © Default Settings Name Route Ro
Event Viewer	PRoute 1 00:07 15:00 15:15 15:30 16:00 235 31.05:2017 14:58 200°
1 Telemetry	
Radio Allocation	₩ ₩ 4 Record 1 of 1 → ₩ ₩ 4
🔂 127.0.0.1 🍇 🥵 🙎 Administrator 🛛	Licensed to: demo Ø Active -

• Click the **Start** button (2) to start the route:

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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:	AI]
	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.

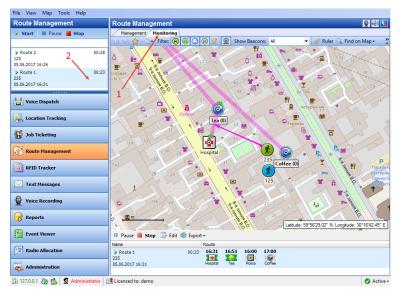
File View Map Tools Help	
Route Management	Route Management 🔮 🎒 🕓
Start II Pause Stop	🐼 1: Line free 🖷 Ø 🗸 Intercom 🐠 🖷 Ø 🗸 Group 10 🚽 🖷 Ø
	✓ All Cal •) • • • Ø Group 20 • • • • • Ø Group 11 • • • • • Ø
Route 1 00:37 235 31.05.2017 14:58	Croup 22 Cal Cal Cal
	Management Monitoring
	🕨 🕨 Start 📑 Create 📑 Edit 📑 Copy 🚳 Export - 📑 Delete 📑 Grouping 🍸 Auto Filter 🗇 Default Settings
Voice Dispatch	Name Route
Location Tracking	Route 1 15:00 15:15 15:20 16:00 Test route Image: Confeet Hospital Test Police Image: Confeet Hospital Test Police Image: Confeet Hospital Test Police
🙀 Job Ticketing	
Route Management	
RFID Tracker	.1
Text Messages	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Uoice Recording	Active Routes
😪 Reports	▶ Start II Paue ■ Stop □ Edit ③ 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 Conferent Morphall Text Police Text Police
Telemetry	
😥 Radio Allocation	K ≪ 4 Record 1 of 1 > >> >> → +> → +> +> +> +> +>
🚯 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 324).

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):



Reports	Common reports	😫 🐠 🛂
Lone Worker Activities		
CAN Graphics	🐼 1: Line free 📧 🕢 Intercom 🐠 📧 🥥 Maintenace	
CAN Messages	Sales 0) 🕷 🖉 Group 10 0) 🕷 🥥 🗌 disp	
Job Ticketing 2	EMERGENCY GROUP (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
Job Status Changes	Al Cal () (Croup 11 () (Croup 22	
Completed Routes		
	Group 1 •1) •1 Private Call •1) •1 O	
Management	Report Settings	
Indoor reports	Completed Routes	
Movement Details V	Saved Profiles:Not defined	
Voice Dispatch	Select data by period:	
	Start Date: 10/10/2016 12:00 AM 💌	
Location Tracking	End Date: ···	
Job Ticketing	Filter:	
D Job Tickeeling	Radio:Not defined	
😿 Route Management	Logical Group:Not defined	
~	Radio ID (e.g. 22,33,40-55,88):	
Text Messages		
Voice Recording	User:Not defined	
	Dispatcher: -Not defined	
Reports	Route Name:	
-		
Event Viewer	Show routes with exceptions only	
	Print detailed data	
8 Radio Allocation	1 1	
Administration	Generate Report Save Report Profile Delete Report Profile	
128 · · · · · · · · · · · · · · · · · · ·		

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: 🗄 h 🚴 🛠 🏹 🗇 🗇	Intercom 🛛 📲 🖉 🚳 1: Line free 🔤 🖉 🔤 All Call	
Online Dispatchers (1)	🖉 Group 10 💀 🖷 🥥 🖉 Group 20 👘 🖷 🧭 🕂 Group 30	
Dispatcher 1	Private Call 🔹 🔍 🕊 🥥	
Online, Indoor (0)	Simple Extended	
Online, GPS Fixed (2)	Ilear 🥘 Reload 📑 Inbox 🚅 Sent	
💰 🕒 125 (Pete) 🛛 📮 📎	The Point 1 is not served	^
🚷 🕲 235 (Basil) 🛛 寻 😒	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	214/wv/2016 12:50/04 Sent from Server to 125 The Route 1is finished 224/wv/2016 12:720/04 Sent from Server to 125	
💓 Route Management	22-MoV-2016 17:2149 Sent from Server to 125 Call 557: Cannot detect channel to execute this operation 22-MoV-2016 17:21:03 Sent from Server to 125	
RFID Tracker	Call 55% cannot detect channel to execute this operation 22-Nov-2016 17:21:15 Sent from Server to 125	- 1
Text Messages	Call 5678: Cannot detect channel to execute this operation	
· Voice Recording	22-Nov-2016 17:21:30 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	~
W Voice Recording	Recipient: 🤱 125 (Pete) 🔛 🔁 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 30 🕘 🕷 🥥
😑 📙 Firemen 📮 🗖	Private Call •) • • •	
🖈 🕑 111 🔍 🔍		
💰 🔊 125 (Pete) 🛛 🖵 💙		
🚯 🧭 222 📃 🔍	Select Destination X	
💰 🕲 235 (Basil) 🛛 📮 🔇		^
😭 🖉 Radio 200 🛛 🔍 🔽	18-N Solution Dispatchers	
Voice Dispatch	21-N a Group1	
	2119 2& Cleaners 2& Firemen	
Location Tracking	21-N 22 Police	
0-0 · · ·	8 111	
😸 Job Ticketing	21-1 3 125 (Pete)	
Route Management	22-N 🙎 235 (Basil)	
	C & Radio 200	
RFID Tracker	22-N & Radio 201	
	22-14 & Radio 203	
Text Messages	C Radio 204	
🔓 Voice Recording	22-N OK Cancel	
		~
Reports	Destination: 🍰 Firemen … 🔁 Send 🗍 Attach File	
-	Shack # 1 on fire	
Event Viewer		
1 Telemetry		
in the second of	-	
Radio Allocation		
🐻 127.0.0.1 🛞 🕵 🤦 Dispatcher 1 📑	Licensed to: demo Demo License	106
🕞 127.0.0.1 🥁 🎲 💆 Dispatcher I	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		×
Destination:	Firemen; Online Dispatch	ers;	
Templates:			~ 🌗
Text:	Shack # 1 is on fire		
			105
Attachments:	0 Add File		
Select Radios and	Groups		
Filter:			9
🔲 🎎 Cleane	rs		^
🔲 🤽 Dorf	_		
V S Online			=
asdf			-
Send copy as en	nail		
Send copy as SN	IS		
✓ Store and attem	pt to deliver if the user is a	offline	
Confirmed Group	Text		
Hide Advanced C	ptions	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.



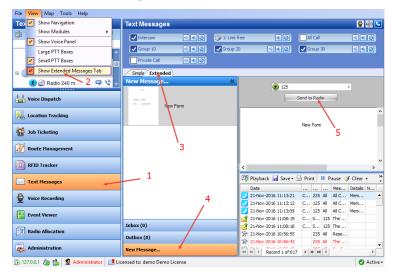
- Note: The storage time is set in TRBOnet Server's <u>Advanced</u> <u>Settings</u> > **Text Message Passive timeout** (Unlimited, by default).
- Click Send.

6.9.2 Extended Messages

The **Extended Messages** service is a special function allowing users to send/receive detailed preconfigured templates containing necessary information.

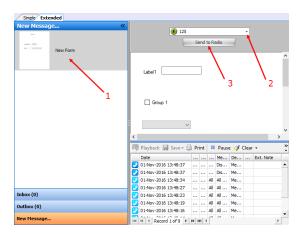
This service was created especially for clients who need to use more detailed and structured messages in their work. If the standard messages are not enough to contain all the information you need to send, you may use the Extended Messages service. Also note that an extended message can only be viewed 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.

oice Record	ing		Voice R	ecording									흋
Time Range:			Playba	ck 🛃 Save	🕶 🎃 Print 🕶	🖶 Grouping	🍸 Auto Filter 🧇 D	efault Settings					
Starts	04-May-21 12/	··· • MA 00	Cal Time		Call Duration	System	Call Type	Caller		Destination		Call Status	
			11-May-21 4		00:14	Mobile 1	Private Call	Administrat	or	3333		Success	
End:	<maximum dat<="" td=""><td>e> • ···</td><td></td><td>k34:06 PN</td><td></td><td>Mobile 1</td><td>Private Call</td><td>3333</td><td></td><td>Administrator</td><td></td><td>Success</td><td></td></maximum>	e> • ···		k34:06 PN		Mobile 1	Private Call	3333		Administrator		Success	
Filter:				11:48:49 AM		Intercom	Al Cal	3333		Al		Success	
Call Type:	-Not defined-			11:48:54 AM	00:01	Intercom	Al Cal	3333		Al		Success	
Call Priority:	-Not defined			11:50:00 AM	00:07	CP1	Private Call	Administrat	or	Radio 125		Success	
				11:51:05 AM	00:04	CP1 CP1	Group Call Group Call	Radio 125 Radio 125		11 22		Success	
Call Status:	Not defined	-		11:51:05 AM	00:05	CP1	Group Call	Radio 125 Radio 125		11		Success	
System:	Not defined	-			00:07	021	Group Call	Radio 125		22		Success	
Caller:	-Not defined-			1:53:19 AM	00:19	021	Private Call	Radio 125		3333		Success	
Destination:	-Not defined-			1:59:38 AM	00:23	CP1	Private Call	Radio 125		3333		Success	
Takers:	-Not defined-		13-May-21 1		00:04	OP1	Group Call	Radio 125		11		Success	
			13-May-21		00:04	CP1	Group Call	Radio 125		22		Success	
Logical Group:	-Not defined	•	13-May-21		00:04	CP1	Group Call	Radio 125		11		Success	
Radio ID (e.g. 22,	33,40-55,88):		13-May-21	1:25:14 PM	00:03	CP1	Group Call	Radio 125		22		Success	
			13-May-21 1	:26:05 PM	00:31	CP1	Private Call	3333		Radio 125		Success	
Call Duration:	Any 🚖 -	Any 🚖	13-May-21 1	1:20:29 PM	00:08	Mobile 1	Private Call	4444		3333		Success	
	(A) V		13-May-21 1	:29:17 PM	00:02	Mobile 1	Private Call	3333		4444		Success	
Ring Time:	Any 🚖 -	Any 🚖	13-May-21 3	R11:42 PM	00:04	OP1	Group Call	Radio 125		11		Success	
Talk Time:	Any 📩 -	Any 🛓	13-May-21 3		00:04	OP1	Group Call	Radio 125		22		Success	
Load Data	4	2	13-May-213	1:15:13 PM	00:13	Mobile 1	Private Call	Administrat	or	2222		Success	
			13-May-213		00:04	CP1	Group Call	Radio 125		11		Success	
			13-May-21 3		00:04	CP1	Group Call	Radio 125		22		Success	
👆 Voice Dispate	h		13-May-21 1		00:05	CP1	Private Call	Radio 125		Dispatcher		Success	
-			13-May-21 3		00:04	CP1	Group Call	Radio 125		11		Success	
Location Trac	:king		13-May-21.3		00:04	OP1	Group Call	Radio 125		22		Success	
-			13-May-213		00:07	CP1	Private Call	3333		Radio 125		Success	
Job Ticketing			13-May-21 4 13-May-21 6		00:07	OP1 OP1	Private Call Group Call	3333 Radio 125		Radio 125		Success	
					00:03	CP1	Group Call	Radio 125 Radio 125		22			
Route Manag	ement		13-May-21 6 18-May-21 2		00:03	OP1 OP1	Group Call	8000 125 3333		11		Success	
			18-May-21.2		00:07	021	Group Call	3333		22		Success	
Text Messag	es		18-May-21 2		00:03	021	Group Call	Radio 125		11		Success	
					3 1 10 10 4	UT1	Group Cai	10000 123				Juccess	
Voice Record	ing												
		\sim		Caller:	3111	Cal Tree 12	May-21 1:26:05 PM	Taker	Status	Start	Duration	System	
Reports				Destination:	Radio 125		Playback 🖬 Save	3333	Ringing	00:00	00:00	OP1	
						8	2006 10 2002	3333	Talking	00:00	00:00	CP1	
Event Viewer			Private C Takers: 1	al: '3333' cale 3333, Radio 11	d Radio 125'		/	Radio 125	Talking	00:00	00:00	CP1	
Radio Allocat	ion			1			3						

- 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.

File View Map Tools Help		
Reports	Usage Statistics Reports	ڬ اله 🎪
General Information	Report Settings	^
Current Reports	Usage Statistics Reports	
Presence and GPS Status Inactive Radios	These reports provide information on various activities that occurred in the radio systems during a specified time range	·
Unregistered Radios	T Rado Activity	
User Login History System Bridges	T Online Rodos Summary	
Channel Changes	Onine Radios Details The Radio Status	
Usage Statistics Reports	Rado Status Summary	
Radio Activity Online Radios Summary	User Events and Notes Redo Alection	
Voice Dispatch	Chocked Cold Rodes	- 1
Location Tracking	D Telemetrz D Lone Worker Activities	
🚰 Job Ticketing	TD Research Lade TD Atom Excellence TD Atom Excellence TD Atom Excellence	
🥂 Route Management	Deb Richt Schuss	
Text Messages	D Ale Tablet Assignments D Combined Rootes	
🔮 Voice Recording	CAN Charles	
🕝 Reports 🛛 🔸	· · · · · · · · · · · · · · · · · · ·	
Event Viewer		
😥 Radio Allocation		, v
🖒 Connected 🔉 🛍 🕵 ঝ 🖉 Administr	ator 📑 Licensed to: demo (Walt) (Demo License)	Active -

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 20	• • •	Group 30	• • •
1 222	Private Call				
💰 🕒 235 (Basil)	🛃 Take/Return Radio 🔜 /	Add Missing Data 🗸 📑 Groupir	ng 🍸 Auto Filter 🍥	Default Settings	» •
Voice Dispatch	Callsign △ Taker	Firemen, Police	Vehide Make	Plate Number	Drivers
Location Tracking	125 Pete 222 235 Basi	Firemen Firemen, Police			
😵 Job Ticketing	235 Basi Radio 200 Radio 201	Eiremen All			
Route Management	Radio 201 Radio 202 Radio 203	All			
RFID Tracker	Radio 204	Al			
Text Messages			3		
Uvice Recording		_			
Reports					
Event Viewer					
😰 Radio Allocation 🔶	1				
Administration	H4 44 4 Record 2 of 9 + H	H I			•
🔂 127.0.0.1 🛞 🥵 🙎 Administrator 📗	🖁 Licensed to: demo Demo Lic	ense			🕑 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 272).

• 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	Reports					🔮 🚳 🔽
Channel Changes	> 1: Line free	<0 	✓ Intercom) . 0	All Call		
Radio Activity	PSC 1: Slot #1		IPSC 1: Slot #2		Group 10		
Radio Status Summary	Report Settings						^
Disabled Radios	Radio Alloca This report contains		allocated radios (radio, u	er, time the radio	was taken/returned)	Saved Profiles:Not de within the specified time r	
Voice Dispatch	Time Range: From:	23-Sep-19 12:00					
Location Tracking	To: Filter:	<maximum date<="" td=""><td>× <u>•</u> …</td><td></td><td></td><td></td><td></td></maximum>	× <u>•</u> …				
😵 Job Ticketing	Radio: Logical Group:	Not defined	•				
Route Management	Radio ID (e.g. 22,33	,40-55,88):					
Reports	User: Grouping:	Not defined	•				
Event Viewer	Group by:	By radios	•				
Radio Allocation	Generate R	eport			Save Repo	ort Profile E	Delete Report Profile
Administration	<	ensed to: demo [)emo 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>5.12.1, 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, Minor: 21140)	\times
	vices listed below were last seen near this beacon. T ation fix yet.	They have not sent a new
	Device	Last seen 🔹
۲	Radio 65535	17.06.2022 16:38:25
۲	7777	17.06.2022 14:21:34
	Remove from the list if a device sends a new GPS	fix
	Update Last updat	ed: 17.06.2022 17:23:38

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

Map Type

From the drop-down list, select 'Beacon 2D' to enable 2D floor plan, or 'Beacon 3D' to enable 3D floor plan (3).

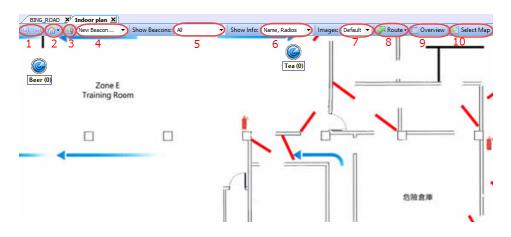
- Click **Add** (4), and browse for the required map on your PC.
- Click **OK** (5) to add the map.

6.13.1.1 Floor Plan Toolbar

The Floor Plan pane's toolbar is located in the upper part of the Floor Plan pane:

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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.



	×
125 (Pete)	~
15-Nov-2016 0:00	•
<last known="" location=""></last>	•
105, 105, 105	•
Optimize Route (group all nearest points)	
OK Ca	ncel
	15-Nov-2016 0:00 <last known="" location=""> 105, 105, 105, 105 Optimize Route (group all nearest points)</last>

• 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
				heol
	() From:	21-Nov-2016 0:00		Load
•			n>	Load •
Radio 201	From:	21-Nov-2016 0:00	n>	Load v
Radio 201 Radio 202	From:	21-Nov-2016 0:00	n>	Load v
Radio 201 Radio 202 Radio 203	From:	21-Nov-2016 0:00	n>	Load v
Radio 201 Radio 202 Radio 203 Radio 203	From: To:	21-Nov-2016 0:00	n>	Load V
Radio 201 Radio 202 Radio 203	From: To:	21-Nov-2016 0:00	n>	Load T

- 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.

_ocation Tracking	Map 🔮 🚳 🛛	G Objects
11 🗄 15 🖧 🍸 14 -	③ 1: Line free ◀. Ø	iii li
🛛 📑 Firemen 🛛 📮 🗖	✓ Group 10 ✓ M Cal Ø € Ø ✓ Group 20 Ø € Ø Ø € Ø	e- 🗹 🦢 Beacons
🚷 🖲 125 🛛 😒 📮	Beacon properties	🗙 🕂 🗹 🌍 Coffee
Ҟ 🔊 235 🛛 😵 📮 🗖	General Logical Groups Cameras 2	
Police 🗖 🖬	My Map 🗴 Floor plan 🗶	- V A Camera 1
Voice Dispatch	Q Q @ New Beacon Type: Beacon ▼	📝 🐠 Hospital
	Name: Coffee	🗹 💽 Police
Location Tracking	Major ID: 1	Map Regions
-	CQ8 Minor ID: 1	L. 🗹 🗫 111
📅 Job Ticketing	ber L	1
Route Management	m Description: Coffee shop (2nd floor)	
RFID Tracker	Beer (0)	
	Date (0)	
🧹 Text Messages		
Voice Recording		
	on Area	
Reports	Recent Calls/Events	
-	🚳 Playback 😸 Save - 🕒 Print	Filter
Event Viewer	Date Radio S	ls
· · ·	09.06.2017 10:39:00 Capacit	vers: 235
Radio Allocation	09.06.2017 10:38:54 Capacit OK Cancel	
Administration	(4) 44 4 Record 1 of 289 + + + -	
Administration	Recent Calls/E Recent Calls Request To Talk Radio State Active Tasks Active Routes User Activity Be	eacons Beacon Events Tag

• 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.

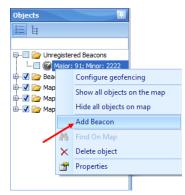


File View Map Tools Help	
Location Tracking	Map 🔮 🏟 🕒 Objects 💽
g: 🗄 h 🦾 🛠 🍸 🖉 🖉	🖌 Intercom 🛛 🕊 🕢 😓 1: Line free 🛛 🗮 🗮
 Online, GPS Fixed (2) 125 (Pete) 235 (Basil) 235 (Basil) 	At Cal € Ø Coup 10 € Ø <
Online, No GPS (1)	BINS_ROAD * Indoor plan X
Voice Dispatch	O,
Location Tracking	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
😵 Job Ticketing	G S Routes
😥 Route Management	Coffee(0) Tea(0)
RFID Tracker	
🖂 Text Messages	Beer(0)
Voice Recording	Recent Calls/Events Image: Calls of the second s
Event Viewer	Date Radio Sy Sender Recipient Message Details Note 21-Nov-2016 11:13:21 Capacity 235 All All Call from '235' (Members: 235 All
8 Radio Allocation	21-Nov-2016 11:13:12 Capacity 125 All All Cali from '125' (Members: 125 21-Nov-2016 11:13:09 Capacity 125 All All Cali from '125' (Members: 125
administration	Image: Market and Market
访 127.0.0.1 🛞 🕵 🙎 Administrator 📑 Lic	ensed to: demo Demo License 🥑 Active -

- 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.

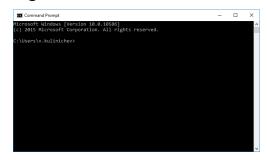
Ininstall or change a program o uninstal a program, select it from the list and then nize v Uninstal/Change Somet Enterprise 5.1	click Uninstall, Change, or Repair. Publisher	8==	
nize Vininstall/Change		8==	
nize Vininstall/Change		8==	
^	Publisher	855	
ABOnet Enterprise 5.1	Publisher		- 🕄
BOnet Enterprise 5.1		Installed On	Size
	Neocom Software	21-Oct-2016	510
BOnet.Watch 2.3	Neocom Software	02-Sep-2016	111
ity Web Player	Unity Technologies ApS	25-Aug-20	12.0
locker 1.9.2	Cedrick Collomb	09-Dec-2015	
ual Studio 2010 Prereguisites - English	Microsoft Corporation	23-Nov-20	47.1
ndows Driver Package - Google, Inc. (WinUSB) An	Google, Inc.	22-Dec-2015	
ndows Driver Package - Motorola Solutions, Inc. (f	Motorola Solutions, Inc.	18-Nov-20	
ndows Driver Package - Motorola Solutions, Inc. N	Motorola Solutions, Inc.	18-Nov-20	
ndows Driver Package - Nokia pccsmcfd LegacyDr	Nokia	25-Aug-20	
nPcap 4.1.3	Riverbed Technology, Inc.	12-Sep-2016	
reshark 2.2.0 (64-bit)	The Wireshark developer comm	15-Sep-2016	171
View 2.33	Gougelet Pierre-e	07-Sep-2015	16.3
ужба автоматического обновления программ	Mail.Ru	12-Sep-2016	
	Корпорация Майкрософт (Міс…	25-Nov-20	37.3
ковой пакет Microsoft Visual Studio 2010 Tools д	Microsoft Corporation	03-Nov-20	14.6
			>
			зыковой 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 fe check box. A filled box means that only part of the fe			
Internet Information Services Internet Information Services Internet Information Services Internet Information Service Internet Servic	_	_	
HTTP Redirection Static Content WebDAV Publishing		•	
	K	Can	icel

- 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:

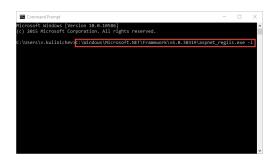
Go to This PC>Local Disk (C:)> Windows > Microsoft.NET > Framework64 > v4.0.30319/aspnet_regiis.

File Home Shar	Application Tools v4.0.303 c View Manage	19			-	- ×
	his PC → Local Disk (C:) → Windows → N	ficrosoft.NET > Framework	> v4.0.30319	v ð Search	v4.0.30319	,p
Desktop 💉 ^	Name	Date modified	Туре	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		
Pictures #	alink.dll	30-Oct-2015 10:19	Application extens	116 KB		
	AppLaunch	30-Oct-2015 10:19	Application	95 KB		
Images	applaunch.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		
pictures	Aspnet	13-Jan-2014 23:28	XML Configuratio	1 KB		
TRBOnet_5.1	spnet_compiler	30-Oct-2015 10:19	Application	55 KB		
Ttt	aspnet_filter.dll	30-Oct-2015 10:19	Application extens	35 KB		
ContDrive	aspnet_isapi.dll	30-Oct-2015 10:19	Application extens	25 KB		
Chebrive	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		
Documents	aspnet_perf2	30-Oct-2015 10:19	Notepad++ Docu	973 KB		
Downloads	aspnet_rc.dll	30-Oct-2015 10:19	Application extens	90 KB		
- T	aspnet_regbrowsers	30-Oct-2015 10:19	Application	44 KB		
Music	🔹 aspnet_regiis	30-Oct-2015 10:19	Application	40 KB		
E Pictures	aspnet_regsql	30-Oct-2015 10:19	Application	124 KB		
Videos	aspnet_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		
~	aspol.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		
1 item select						Re: W

• Drag the **aspnet_regiis** file into the **Command Prompt** then press the space bar and add the **-i** key. Then press the **Enter** key:

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- Go to Control Panel > Administrative Tools.
- Double-click the **Internet Information Services (IIS) Manager** shortcut and double-click **ISAPI and CGI Restrictions**.

File View Help	Internet Information Services (II)	i) Manager	– 🗆 X
Construction Solid 2 Home Image: Solid 2 Home Image: Solid 2 Home	(← → ¶] + \$0142 +		🖬 🗟 🔞 🛛
Solid 2 Home Solid 2 Home So	File View Help		
Image: Control and the control	Connections	C0142 Uama	Actions
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		Marugement A	
		Features View 🚓 Content View	

• In the **Restriction** column, set **Allowed** in all lines.

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File View Help			
S0142 (NSV:kulinichev) S0142 (NSV:kulinichev) Official application Pools Sites	ISAPI and C Use this feature to specify I Group by: No Grouping Description Restric Active Server P Allowe ASP.NET 20.5. Allowe	Actions Add Deny Edd X Remove Edd Feature Settings Help	
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infiguration: 'localhost' application	Features View 💦 Conte	nt View	

- 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):



Sinternet Information Services (IIS)	Magazer						- 0 X
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	lication Pools						M IN DI W .
File View Help							
Connections	Applicat	ion Por	Alc			Actions	
2	- ppicet						lication Pool
 S0142 (NS\v.kulinichev) Application Pools 					the server. Application pools are	Set Appli	cation Pool Defaults
🗸 🔞 Sites	associated with worke different applications.		contain one o	r more applications,	Edit Application Pool	? ×	Pool Tasks
Default Veb Site	Filter	. 1	Go - 🕞 Sho	w All Group by:	Name:		
y _ upping circuit	Name	Status	.NET CLR V	Managed Pipel	DefaultAppPool		1
	2.NET v2.0	Started	v2.0	Integrated	.NET CLR version:		ion Pool
-	.NET v2.0 Classic	Started	v2.0	Classic	.NET CLR Version v4.0.30319	× ×	1
	.NET v4.5 .NET v4.5 Classic	Started Started	v4.0 v4.0	Integrated Classic	Managed pipeline mode:		ttings
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					ОК	Cancel	
			\backslash				
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			-				
	<				>		
	Features View	Content Vie	N				
Ready							43.5

• Click Sites (1), right-click **Default Web Site** (2) and choose **View Applications** (3):

Sinternet Information Services (IIS)	Manager					– 🗆 X
(← → (a) + S0142 + Sites						🛄 🖂 🏠 😥 •
File View Help						
Connections	()					Alerts
	Sites			All Group by: No Grouping		This site has multiple bindings
Application Pools	Name	ID ID	Status		Path	Actions
V Star Los Vias Sa V Star Los Vias Sa Visit Los Vias Sa 1	Vome		Status G Status field dd Website et Website Defax indings asic Settings asic Settings asic Settings asic Settings asic Settings asic Settings ename iew Virtual Direc fanage Website lelp			Advector Advector
Ready						4

• Click the **Add Application** link.

Internet Information Services (IIS) Manager				– 🗆 X
← → ⑤ + S0142 + Site	s 🔸 Default Web Site	•			🖬 🗟 🔂 •
File View Help					
Connections	-		applications. Applications contain		Actions Add Application Set Application Defaults Help
Set Default Web Set >	Vintui Path	Physical Peth	5 be	Application Pc	
Ready	Procession of the second second				۹.
,					

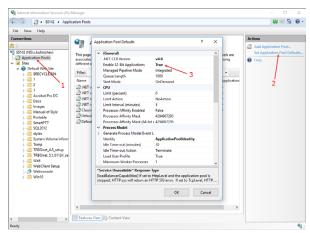
• Specify the **Alias** and **Physical path** for the application:

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Add Application			?
Site name: Defau	lt Web Site		
Path: /			
Alias:		Application pool:	
TRBOnet		DefaultAppPool	Select
Example: sales			
Physical path: C:\inetpub\WebCor	sole		
Physical path:			
Physical path: C:\inetpub\WebCor			~
Physical path: C:\inetpub\WebCor Pass-through auther	ntication		

- 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 395, and <u>Appendix C: Granting Sysadmin Role to Local System in</u> <u>SQL Server 2012</u> on page 398) 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:

								-	
Internet Information Services (IIS) M	lanager								×
← → () + S0142 + Sites	Default Web Site	TRBOnet +					40	20	• 😣
File View Help									
Connections					Acti	ions			
2	Applicati	on Settings				Add			
S0142 (NS\v.kulinichev) Application Pools			managed code applications can use	at runtime.		Edit Remove			
🗸 😼 Sites	Group by: No Groupi	ing •				Help			
V 💿 Default Web Site	Name	Value	Entry Type	^	•	нер			
 aspnet_client TRBOnet Account App_Theme Audio bin Controls 	CorrectRoute dateTimeFormat GoogleClientId GoogleSignature GpsAccuracyOnRo ip	False 50 10.10.100.99	Local Local Local Local Local Local						
CustomDeta	MaxSpeedOnRoute port ThunderForestApiK UrlGetCoordinates	120 4021 ontent View	Local Local Local Local	¥					
Configuration: 'Default Web Site/TRBOn	et' web.config								•a

• Right click TRBOnet Web Console and choose Edit Permissions.

Internet Information Services (IIS) Manager	– 🗆 X
← → ③ + S0142 + Sites + Default Web Site + TR8Onet +	🖬 🗟 😭 🔞
File View Help	
Connections (D) (TD D C) (1)	Actions
/TRBOnet Home	Septore
- 🐨 50142 (NS)v.kulinichev) A Filter: - 🐨 Go - 🕞 Show All Group by: Area - 🖽 -	Edit Permissions
Application Pools	Basic Settings
	View Virtual Directories
🗸 🔮 Default Web Site	Manage Application
	Browse Application
Acco M Ethole	Browse *:80 (http)
Audie	Advanced Settings
5 in the second seco	😯 Help
Custe	
> Consider Application	
Form in Refresh tate SMTP E-mail	
A Geod X Remove	
Switch to Content View Intent View	
ready	9

• Click the **Security** tab and then click the **Edit** button to edit permissions:

WebConsole Properties			×
General Sharing Security Previou	us Versions	Customize	
Object name: C:\WebCoosole			
Group or user names:			
Authenticated Users	<hr/>		
SYSTEM			
Administrators (S0142\Adm	inistrators)		
Solution (Solution (Solution)			
To change permissions, click Edit.		Edit	
Permissions for Authenticated			
Users	Allow	/ Den	v
00010	74004	Don	,
Full control	7407	Dun	^
	~	Dun	
Full control	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Dui	
Full control Modify	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Dui	
Full control Modify Read & execute	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Den	
Full control Modify Read & execute List folder contents		Den	
Full control Modify Read & execute List folder contents Read		Advance	~
Full control Modify Read & execute List folder contents Read Write For special permissions or advanced			~
Full control Modify Read & execute List folder contents Read Write For special permissions or advanced			~
Full control Modify Read & execute List folder contents Read Write For special permissions or advanced		Advance	~



• Select User in the Users list. In the Allow column, select Write:

	×
istrators)	
Add	Remove
Allow	Deny
\checkmark	^
	v
_	
Cancel	Apply
	Allow

- 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:



\Box TRBOnet WebConsole \times +				-		×
\leftarrow \rightarrow \circlearrowright 10.10.100.99/TRBOnet,	/Account/Login.aspx?Returr	Url=%2fTRBonet%2f	□ ☆	- 1	٩	
TRBO ne	Build 5.4.0.2197					
Web Interfa	ace		*		8	
	Login	Password				
	Dispatcher 1	Connect				
		connect				
		20				
	nec	ocom tware				

• Login

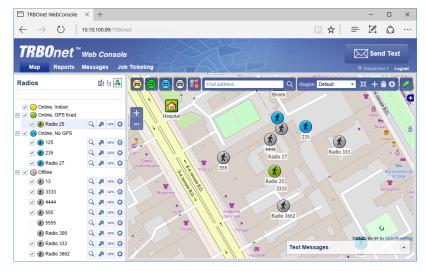
Enter the User Name registered in the TRBOnet Dispatch Console Users list.

• 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.



	105		
	125		
		Select All	Deselect A
From:	24-Nov-2016 0:00	Select All	Deselect A
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 ^{GPS} 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**.

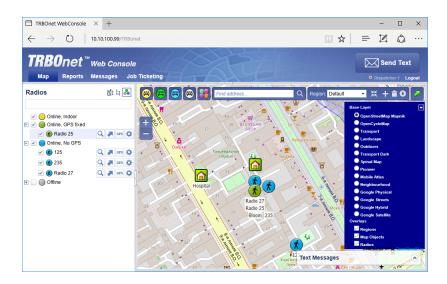
Note: The dispatcher can disable a radio when they have relevant Access Rights.

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.





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.

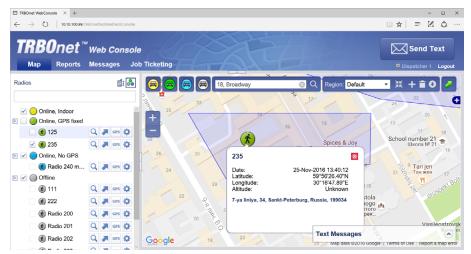
Or:

• 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 I 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 [™] Web Console	Send Text			
Map Reports Messages Job Ti	icketing			Dispatcher 1 Loge
235 ➡ All kay	Send Text	Message	×	25-No
L25 → All kay	Text See you			18-No
z5 → All k		8	222	18-No
1 25 → All G		8	235 Radio 200	18-No
-		8	Radio 200	
		8	Radio 202	
	Send 1	a to Offline	B-Ji- 202 [™]	
			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.

	Ønet™	Web Cons	sole				Send Text	t
Map	Reports	Messages	Job Ticketing		H J L		Dispatcher 1 Lo	ogout
	Status		Text	Performer	Creation Time	Start Time	End Time	5
	Q	Q	Q	۹	٩	Q	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				
	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	5
	Q	۹	۹	۹	۹	۹	٩	
	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	

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 - Microso	ift Edge — 🗆
10.10.100.99/TRB	Onet%20Web%20Console/Forms/A
Ticket ID:	#A00000
Text:	Check the pipe
	Enable Deadline
End Time:	25-Nov-2016 14
Priority:	Medium 🗸
Comment:	

• 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	
🗌 í 222	
🗹 😥 235	
📃 💰 Radio 200	
📃 🛞 Radio 201	
🗌 🛞 Radio 202	
🗌 🛞 Radio 203	
Radio 204	
Radio 240 mobile	
🔄 🕘 Walt	~
	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.

TRBOnet WebConsole × +			- 🗆 X
← → Ů 10.10.100.99/TRBOnets	620Web%20Console		
TRBOnet [™] we Map Reports Mes	e b Console ssages Job Tick	eting	Send Text © Dispatcher 1 Logout
🕞 GPS Reports	Location for	period	
Decation for Period			
 Drive Activity Detailed 	Select data by per		
— I Staying in a region	Start Date:	18-Nov-2016 11:21	
🔲 🔲 Idle time detailed	End Date:	25-Nov-2016 11:21 🛛 😵 🚭	
Common Reports	Filter:		
Messages for Period	Radio:	All 🛞 🔽	
🗊 GPS Export	Min.Interval:	0 🛇 🚭 Seconds 🔽	
 Location for Period 		Show street names	
 Drive Activity Detailed 			
Staying in a region	Generate Repo	t	

• 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/Re	eports/GPSByFilter/GPS	ByFilterResult.aspx?rac	dio=08;min1nterval=0	8.showStreetNames=fa	alse&unit=18:start	Date=18/11/2	016+11:2180	endDate	□ ☆	=	\mathbb{Z}	۵	
1 de 1	🥸 🖾 🚽 Page <mark>1</mark>	▼ of	337	N 📲	Pdf	~								
	for period													
rom 18-Nov-201	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	on map								
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	<u>on map</u>								
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	<u>on map</u>								
18-Nov-2016 11:25:01	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>								
18-Nov-2016 11:25:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
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.

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adios	🖆 🗄 🍮		Find address	Q Region: Default	- ※十首 🛛 🧳	United Kingdom
 Online, Indoor Online, GPS fixed 		F		C. M.		Franc
Online, No GPS		+	1 N 1	22		
🗹 💰 Cap Max 230	Q 🐊 GFS 🛱		United States			España
Offline						
🛞 app	Q 🐊 GFS 🛱					Algérie
🗹 🛞 Cap Max 135	Q 🔎 ers 🏟				Information	
🔹 🛞 Radio 1	Q 🐊 crs 🔅		México		Cap Max 230	
🛞 Radio 2	Q 🔎 GFS 🛱				V .	3/2021, 7:12:15 PM
🔿 🛞 Radio 4002	Q 🐊 ers 🔅				Emergency Call	J2021, 7.12.13 TH
🗹 🛞 Radio 4010	Q 🚚 GFS 🔅				GPS Date: 3/1/2021, 10:12	:16 AM
Radio 888	Q 🚚 ers 🔅			Colombia	Latitude: 59°56'25.07" N Longitude: 30°16'45.76" E	
					Speed: 0.0 km/h	
	-			~ ~ ~ ~ /s	< <prev 1="" 1<="" message="" of="" td=""><td>Next>></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 authe	-	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 Specify the authent Authentication Moi Windows authen Mixed Mode (SQ Specify the password: Confirm password: Confirm password: Specify SQL Server i UM WING X00X den	tication mode and de	administrators fo	or the Database Er)
	Add Current User		emove		have unrestricted access to the Database Engine.
			< 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.

elect Users or Groups	-?- - ?-
Select this object type:	
Users, Groups, or Built-in security principals	Object Types
From this location:	
VM_WIN7_002	Locations
Inter the object names to select (<u>examples</u>):	Check Names
	CHECK Names
Advanced	OK Cancel

• Click the **Find Now** button and select LOCAL SERVICE account. Click **OK** to add the user and close the window.



elect Users or Groups				? :
Select this object type: Users, Groups, or Built-in security principals			Object	Types
From this location: MITYA				. 1
MITTA			Loca	ations
Common Queries				
				Columns
Name: Starts with				Golumns
Description: Starts with 🔻				Find Now
, _ ,				Char
Disabled accounts				Stop
Non expiring password				
Days since last logon:				<i>2</i> 7
Search results:		0	К	Cancel
ame (RDN)	In Folder			
IIS_IUSRS	MITYA			
INTERACTIVE				
IUSR				
LOCAL SERVICE				
NETWORK SERVICE				
OWNER RIGHTS				
REMOTE INTERACTIVE LOGON				
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 administrator server system administrator (sa) account. Image: Configuration of the SQL Server administrator server system administrator server system administrator server system administrator server
	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	Secure Configuration Day Biology Land Secure Configuration	
etup Role eature Selection nstalletion Rules nstance Configuration Nick Space Requirements erver Configuration Database Engine Configuration irror Reporting nstallation Configuration Rules leady to Install nstallation Progress	Server Configuration Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows authenticatio Specify the password for the SQL Server system administrator (sa) acc Enter password: Confirm password: Specify SQL Server administrators	
Complete	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).

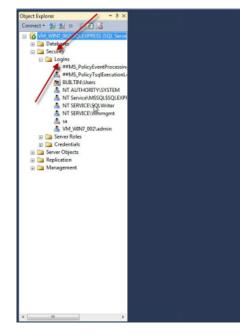
Note: Once you have added the SA account, you'll be able to use this SA account to connect to SQL Server with administrator privileges as an alternative to a Windows user account.



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.

Login Properties - NT AUTH	JRULY/SYSTEM	
Select a page	🖾 Script 🔻 🚺 Help	
Server Roles User Mapping Securables Status	Server role is used to grant server wide security privileges to a user.	
/	bukadmin doceslor dokadmin processadmin y public serveradmin setupadmin v €padmin	
Connection Server: VM_WIN7_002\SQLEXPRESS Connection: VM_WIN7_002\admin		
B Mew connection properties		
Progress		
C Ready		
		K Cancel

• Click **OK** to add **sysadmin** privileges to the selected user.

Appendix C: Granting Sysadmin Role to Local System in SQL Server 2012



Appendix D: Backing up and Restoring Database and Audio Recordings

Configure Backup

TRBOnet Dispatch Software has an automatic mechanism for backing up database and stored files. Initially, it defaults to three paths to store database backups, audio/video recording files, and message attachments.

For TRBOnet Enterprise:

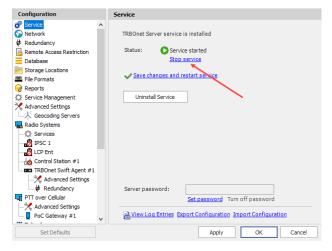
%ProgramData%\Neocom Software\TRBOnet.Enterprise\Backups %ProgramData%\Neocom Software\TRBOnet.Enterprise\Audio %ProgramData%\Neocom Software\TRBOnet.Enterprise\Files.

For TRBOnet Plus:

%ProgramData%\Neocom Software\TRBOnet.Plus\Backups %ProgramData%\Neocom Software\TRBOnet.Plus\Audio %ProgramData%\Neocom Software\TRBOnet.Plus\Files.

For your convenience, the default paths can be changed:

• Open TRBOnet Server and stop the TRBOnet Server service.



- To customize storage locations, on the **Configuration** pane, select **Storage Locations**, then specify locations other than the default ones. The database backups, voice/video recordings, and message attachments will be stored in their specified locations.
 - 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.



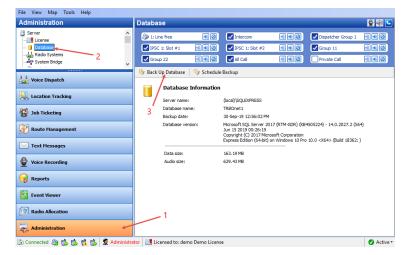
Configuration	St	torage Locations	
	A 31	orage Extensions	
Network		Select save locations for different file types	
Redundancy		Database backups	~
Database Storage Locations File Formats		C:\ProgramData\Weocom Software\TRBOnet.Enterprise\Backups • Message attachments	с . -
Reports		C:\ProgramData\Neocom Software\TRBOnet.Enterprise\Files -	- Ю
Service Management Advanced Settings		Audio and video recordings Voice recordings	
🔜 Radio Systems		C:\ProgramData\Neocom Software\TRBOnet.Enterprise\Audio	- Ю
Services 		Video recordings	
		C:\ProgramData\Neocom Software\TRBOnet.Enterprise\Audio	- D
Control Station #1		Folder and file name template	
Advanced Settings		%YEAR%_%MONTH%_%DAY%_%HOUR%\%MINUTE%_%SE	с.
PTT over Cellular			
PoC Gateway #1	~		
Set Defaults		Apply OK Ca	ancel

• Save your changes and restart the service.

Back up Database and Stored Files

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:



lack Up Database	>
Remove old data and shrink	< database
Folder: C:\ProgramData\Neocom Software\7	TRBOnet.Enterprise\Backups
Back up database	
Back up stored files (audio, vide	o, etc.)
Remove	
Remove data older than:	5 Jun 2024 🔹
Database records	
Stored files	
	OK Cancel

Back up database

Select this option to back up the database itself.

Back up stored files

Select this option to back up the stored files (audio, video, etc.).

Remove

Select this option to remove data from the database and the stored files.

Remove data older than date

Specify the date to remove data older than that specified date.

Database records

Select to remove the database records.

Stored files

- Select to remove the stored files (audio, video, etc.).
- Click **OK** to run the backup procedure.

The Backup progress bar will be displayed in the lower-right corner.

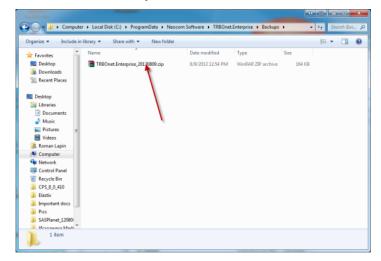
- 1. In a while, a ZIP archive will be created in two possible directories:
 - For TRBOnet Enterprise:
 - The default directory is %ProgramData%\Neocom Software\TRBOnet.Enterprise\Audio for recording files and %ProgramData%\Neocom Software\TRBOnet.Enterprise\Backups for database backup files.
 - The custom directory is specified in TRBOnet Server settings.

For TRBOnet Plus:

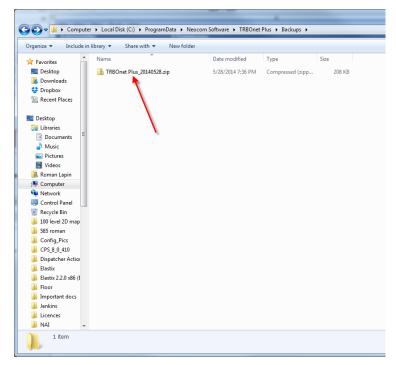
- The default directory is %ProgramData%\Neocom Software\TRBOnet.Plus\Audio for recoding files and %ProgramData%\Neocom Software\TRBOnet.Plus\Backups for database backup files.
- The custom directory is specified in TRBOnet Server settings.



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.



For TRBOnet.Plus:



Restore Database

To restore the database

• Open TRBOnet Server and stop the TRBOnet Server service.

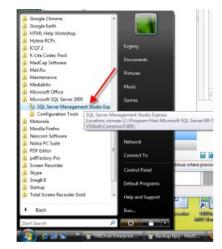


Configuration	Service
Configuration Service A Service A Service A Service A Service A Service A Construct Database Storace Locations	Service TRBOnet Server service is installed Status: Service started Stop service
Storinge Dictaions File Formats File Formats Control Stations Advanced Settings Control Stations Services Services Control Station #1	Save changes and restart service Uninstal Service
TRBONEt Swift Agent #1 Advanced Settings # Redundancy PTT over Celular Advanced Settings PC Gateway #1 Set Defaults	Server password: Set password Turn off password View Log Entries Export Configuration Apply OK 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**):



Ele Edit Yew Rebug Iools Window Help	
🗊 • 三 • 🦉 副 🥔 🤽 Mew Query 🐚 🍓 🏠 🖄 🖄 🖉 ウ - ペ - 印 - 印 - 日 - 〇 - 日 - 〇 - 〇 - 日 - 〇 - 〇 - 〇 - 〇	*
Concertainty of the concer	
x	
Ready	
🚯 🥝 🛗 🗿 🐰 📖	- 10 10 10

• Right-click the selected database, and go to **Tasks/Restore/Database**:

No backupset selected to be r				
Select a page	Script - Help			
्रि General मिरिड क्र Dysons	Source Succes Database Destination Database Bestore to: Restore plan			Timeline
	Begkup sets to restores Restore Name	Component Type	Server Det	abase Postion
Connection				
Connection WM_WIN7_002/SQLEXPRESS [VM_WIN7_002/admin]				
VM_WIN7_002\SQLEXPRESS [VM_WIN7_002\admin]				
WM_WD#_002\SQLEXPRESS [VM_WD#_002\admin] View connection properties				
W WM WINT 002\SQLEXPRESS	xR			<u>¥</u> еніу Васкир Меdia

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:

Restore Database - TRBOnet				
No backupset selected to be rest	ored.			
Select a page deneral Film Options	Source		\ \	
	Dyrice: Dylabase: Declination	TRECivet		
	Detegene Bestore tan S Select backup devices Specify the backup media Backup media type: Backup media			Jindice Hoore LSN of L
Connection			Bemove Conjenta	
WM_WIN7_002/SQLEXPRESS [VM_WIN7_002/admin]				
View connection properties				
Progress		QK	Cancel Help	
O Ready	L		Cancel Rep	of y Backup Media
			OK Can	al Help



• Click **Add** and select the directory to which you unarchived the database backup (for example, **C:\TRBOnet\Backup\DB**).

Select backup devices Specify the backup media ar	d its location for your restore operation.	
Backup media type:	File	•
Backup media:		
		Add
		Bemove
		Contents
	QK	Cancel Help

Note: Select the *****.**bak** file type.

• Click **OK** to add the directory.

Dydnine Destination TBBOnet	Restore Database - TRBOnet			a B S
Server S	No backupset selected to be res	tored.		
Vex. Unit 2023(2)(20785) (Vex. Unit 2023(2)(20785) Vim conscion properties Vimant	Select a page	Soryz - Di Help Source Dădabase Database Destination Datagase Bestore to: Select backup devi Select backup devi Select backup devi Select backup devi	Area Control for your reduce quencher. The Control for your reduce quencher. The Control for the Control for	v v Imdirec.
Progress OK Cancel Help	[VM_WIN7_002vadmin]			
OK Cancel Help	Progress			
C Ready	O Ready			cloup Media

• Click OK.

The database is added to the list of restored databases.

Ready								
elect a page General	Script - He	ip.						
P Files								
P Options	Source							
0 options	O Database:							
	Device							
	S DEVICE		\$:\Pro	gramData\Neocom 1	ioftware\TRI	Onet.Ent	erprise\Backup\TRB	
	Databi	ese:	TRBC	inet				
	Destination							
	Database:		TRBO	net				
	Restore to:		Thel	est backup taken (Tue	eday Auror	+ 06 2012	11-21-27	Imelne
	Therease and			the particula research de	sory, roges		in and it is a second s	principality of the
	Restore plan							
	Backup sets to r	estore						
	Restore Name		Time	Server	Database	Postion	First LSN	Last LSN
	121	Database		S001\SQLEXPRESS			24000000021800037	240000000
WM_WIN7_002\SQLEXPRESS								
WM_WIN7_002\SQLEXPRESS								
VM_WIN7_002\SQLEXPRESS [VM_WIN7_002\admin]					1			
New connection properties					١			
VM_WINT_002\SQLEXPRESS [VM_WINT_002\admin] View connection properties frogress					١			
VM_W0N0_002\SQLEXPRESS [VM_W0N0_002\admin] View connection properties					١		Verity Sa	
VM_WINT_002\SQLEXPRESS VM_WINT_002\admin] Sew connection properties regress					١		<u>Y</u> erity Ba	, ckup Media
VM_WINT_002\SQLEXPRESS VM_WINT_002\admin] Sew connection properties regress	*				١		Lerity Ea	

- Select the checkbox and click **OK** to restore the database.
- In the **Configuration** pane, select **Database**.



Configuration	Database	
Network Redundancy Remote Access Restriction Database Storage Locations File Formats	Database SQL Server Database: Authentical Username: Password:	TRBOnet
Reports Service Management Advanced Settings Geocoding Servers Radio Systems Services Services Advanced Settings		TBBOnetWatch2 TRBOnetWatch3 TBBOnetWatch4
Advanced Setting Advanced Setting Store Service Xether Setting Store Setting	Upg	est Connection rade Database * ate Database *
Set Defaults		Apply OK Cancel

• From the **Database** drop-down list, select the restored database.

- 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
🔗 Service 🔨 🔨	
S Network	TRBOnet Server service is installed
🛱 Redundancy	
Remote Access Restriction	Status: 🜔 Service started
Database	Stop service
Storage Locations	
🚔 File Formats	Save changes and restart service
😪 Reports	
Service Management	Uninstall Service
🔀 Advanced Settings	
【 Geocoding Servers	
🔜 Radio Systems	
Services	
IPSC 1	
DDMS service	
Advanced Setting	
MNIS data service	Server password:
Advanced Setting	Set password Turn off password
Slot #1	
<	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

Restore Voice Recordings

To restore the audio file:

• Launch TRBOnet Server and stop the TRBOnet Server service.



Configuration		Service
<i>(</i>)	^	Service TRBOnet Server service is installed Status: Service started Stop service Save changes and restart service Uninstal Service Uninstal Service Server password: Set password Turn off password All View Log Entries Export Configuration Import Configuration
	~	
Set Defaults		Apply OK Cancel

 Go to Storage Locations section in the navigation tree and specify custom directory for voice recordings (for example, for TRBOnet Enterprise C:\TRBOnet.Enterprise\Backup\Audio; for TRBOnet Plus: C:\TRBOnet.Plus\Backup\Audio).

Configuration	9	Storage Locations
💣 Service 쥿 Network	^	Select save locations for different file types
Redundancy Remote Access Restriction Database Storage Locations File Formats Reports Service Management Advanced Settings L_X devanced Se		Database badups C:\ProgramData \Veccom Software \TRBOnet.Enterprise \Badups Message attachments C:\ProgramData \Veccom Software \TRBOnet.Enterprise \Files Audio and video recordings Voice recordings C:\ProgramData \Veccom Software \TRBOnet.Enterprise \Audio C:\ProgramData \Veccom Software \TRBOnet.Enterprise \Audio
IPSC 1 Advanced Settings Privacy Privacy Molt Service Mills data service Advanced Setting Mills data service X Advanced Setting Mills data service X Advanced Setting	~	Video recordings C:\ProgramData\Weocom Software\TRBOnet.Enterprise\Audio 🐑 Folder and file name template %YEAR %_%MONTH%_%DAY%_%HOUR %\%MINUTE%_%SE 🏷
Set Defaults		Apply OK Cancel

- Go to the directory you specified to store backup audio files.
- Unzip the backup archive:

Organize 👻 🛛 🏹 Oper	n Include in library • Share with •	New folder			800	- 11	
Favorites	Name	Date modified	Туре	Size			
E Desktop	Audio	8/9/2013 1:09 PM	File folder				
Downloads	Info.bt	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			
Desktop							
Calibraries							
Documents							
J Music							
Pictures =							
Videos							
🔒 Roman Lapin							
(Second Computer							
🗣 Network							
Control Panel							
Recycle Bin							
CPS_8_0_410							
Elastix							
limportant docs							
Pics							
SASPlanet_12080							
Mennanna Made							



 Copy unarchived audio files to the folder specified in TRBOnet Server settings (for example, C:\ProgramData\TRBOnet Dispatch Software \Audio):

Organize • Include	in library Share with New	v folder	1		li • 🔟 🛛
Downloads *	Name	Date modified	Туре	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	1	
E Desktop	2012_01_31_20	1/31/2012 8:13 PM	File folder	\	
Documents	2012_02_01_10	2/1/2012 10:48 AM	File folder		
Music	2012_02_01_18	2/1/2012 6:55 PM	File folder	\	
Pictures	2012_02_01_19	2/1/2012 7/56 PM	File folder		
Videos	2012_02_01_20	2/1/2012 8:20 PM	File folder		
Roman Lapin	2012_02_02_17	2/2/2012 5:29 PM	File folder		
Computer	2012_02_03_15	2/3/2012 3:53 PM	File folder		
Network	2012_02_03_16	2/3/2012 4:10 PM	File folder		
Control Panel	2012_02_03_18	2/3/2012 6:43 PM	File folder		
Recycle Bin	2012_02_06_15	2/6/2012 3:58 PM	File folder		
CP5 8 0 410	2012_02_06_16	2/6/2012 4:54 PM	File folder		
Battix	2012_02_06_17	2/6/2012 5:24 PM	File folder		
Important docs	2012_02_06_18	2/6/2012 6:02 PM	File folder		
Pks	2012_02_07_13	2/7/2012 1-35 PM	File folder		
SASPlanet 12080	2012_02_07_15	2/7/2012 3:45 PM	File folder		
Mcкoperate Made	2012_02_07_16	2/7/2012 4:06 PM	File folder		
4 0000	2012_02_07_18	2/7/2012 6:34 PM	File folder		
-	2012_02_08_13	2/8/2012 1:47 PM	File folder Elte de Idea		

• Click the Save changes and restart service link.

Configuration	Service
🔗 Service 🔨 🔨	
😚 Network	TRBOnet Server service is installed
Redundancy	
Remote Access Restriction	Status: 🜔 Service started
Database	Stop service
Storage Locations	A Course de contrate constructions
🚔 File Formats	Save changes and restart service
🕞 Reports	
Service Management	Uninstall Service
🔀 Advanced Settings	
Geocoding Servers	
掘 Radio Systems	
🗘 Services	
IPSC 1	
🔀 Advanced Settings	
DDMS service	
Advanced Setting	
MNIS data service	Server password:
Advanced Setting	Set password Turn off password
Slot #1	
<	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

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	③ 1: Line free ④ ☑ IPSC 1: Slot #1 ☑ ④ ☑ Group 22 ☑ ●	2	
Voice Dispatch	Back Up Database 🧇 Sche	dule Backup	
Location Tracking	Server name:	(local)\SQLEXPRESS TRBOnet1	
📅 Job Ticketing	Database name: Backup date:	30-Sep-19 12:56:02 PM	
Route Management	Database version:	Microsoft SQL Server 2017 (RTM-GDR) (kB4505224) - 14.0 Jun 15 2019 00:26:19 Copyright (C) 2017 Microsoft Corporation Express Edition (64-bit) on Windows 10 Pro 10.0 <x64> (B</x64>	
Text Messages	Data size:	163.19 MB	
👻 Voice Recording	Audio size:	629.43 MB	
Reports			
Event Viewer			
গ্রি Radio Allocation			
Administration			
🐻 Connected 🖓 🥵 🕵 🙀 🕵 💆 Administr	rator 🛛 📑 Licensed to: demo Demo Li	cense	🕑 Active -

• In the dialog box that appears, specify the Backup details:

Configure the database backup scher	duler
Z Enable scheduler	
Scheduler: Database Backup	~ •
Back up database	up
Back up stored files	OK Cancel
Remove	
Remove data older than [X] days:	180
Database records	,
Stored files	
	OK Cancel

• 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 + 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 database** Check to back up the database itself.

Backup stored files

Check to back up the stored files (audio, video, etc.).

Remove

Check to remove the stored files and the database records.

• **Remove data older than [X] days** Select the number of days.



- **Database records** Check to remove the database records.
- Stored files
 Check to remove the stored files.
- 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.

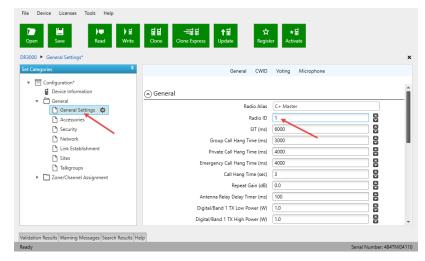
Note: No extra license per repeater is required for Digital Phone Patch from Motorola.

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	
Server	Configuration Extensions Call Redirection Phone Contacts Dial Plans	
-📑 License		
- 📋 Database	Radio Call Configuration 3 Radio Call Configurat	ion)
Systems	Access code:	/
Phone Calls	Deaccess code:	
Tasks	Callback Request Options Access code:	5
10 Custom Fields	Allow radios to make outgoing calls: Deaccess code:	#
K Modbus TCP Connections	Send a DTMF command to request a calback: Callback Request	Options
🌞 Virtual Modbus Devices	 Send a text message to request a caliback: V Allow radios to me 	ke outgoing calls
	Start transmission: 🔽 Send a DTMF of	command to request a callback
	Calls to Radios and PoC Devices Send a text me	essage to request a caliback
Voice Dispatch	Start transmission:	in text messages: gp:
	Max ring time:	
Location Tracking	Check if the radio is available before making a call: Start transmission:	Wait for answer +
4	Call notifications: Calls to Radios and	d PoC Devices
Route Management	Play a tone when PTT is pressed or released: Start transmission:	Immediately +
	Configure Max ring time:	Unlimited 🚽 seconds
Text Messages	4	is available before making a call
	Inbound Call Configuration	is available before making a call
Voice Recording	Inbound Call Control	
	Call to Dispatch Center: 🔽 Play a tone when	PTT is pressed or released
Reports	Call to unregistered number: Tone volume leve	4: +
Event Viewer	Do not establish call until called party responds:	
Event Viewer	Interactive Voice Response (IVR) Options	
Telemetry	Do not wait for Accept code:	OK Cancel
Telemetry	Maximum number of digits:	
/	Accept code: #	
Administration	Number Destination	

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):

Set Categories General Configuration* General Dash Tickts System Name Dash Tickts General System Name System Name Dash Tickts General System Name System Name Dash Catls Systems General O Calk-Catl Systems General D Dask Catls Systems OTIME Petime (m) S00 TX Tone Duration (min) S00 TX Tone Interval (ma) S00 D Ask Catls Systems System Name D Dask Systems Displat Emergency Systems D D	File Device Licenses Tools Help	법법 ──발법 ★면 ☆ Clone Clone Express Update Register	* 🗐 Activate
Consent	Set Categories		I DTMF
► C Quik-Call I Systems ► D Digla Energency Systems TX Tone Duration (ms) 120 Syst S	Job Tickets Job Tickets Systems Signaling Systems User Defined 5 Tone M 5 Tone Systems	2 System Name Gateway ID 3 Deaccess Code	
	Digital Emergency Systems Diaconstruction Capacity Plus Emergency System Difference Systems Sys1	Pretime (ms) TX Tone Duration (ms) TX Tone Interval (ms)	120 A C C C C C C C C C C C C C C C C C C

- 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):



Open Save Read Write 0P4801e > Zone + Zone 1 + Zone Items + Channel > Channel	립립 -=립립 수립 ☆ ★립 Cone Cone Express Update Register Activate	
Set Categories	General RX/TX	
▼	1 Voice Announcement File None	
General Job Tickets	Dual Capacity Direct Mode Timing Leader Preference Eligible	
Systems Encoder	Scan/Roam List None	•
Decoder Contacts	Auto Scan No Color Code 5	
Contacts RX Group Lists	Extended Range Direct Mode Disabled	•
Zone/Channel Assignment Zone	Inbound Color Code 1	
Tone Zone	Outbound Color Code 1	
Channel Pool	Repeater/Time Slot 1	
Scan Lists	Phone System Sys1	
Capacity Plus Lists	ARS On System Change	· · · ·
	Enhanced GNSS	2
alidation Results Warning Messages Search Results Help		



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.

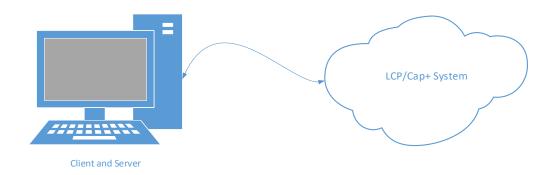
DDMS (aka Presence Notifier) is responsible for ARS and notifies TRBOnet Server when a radio is turned on/off. For more details, see *NAI_RM_Training_v02.pdf*.

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

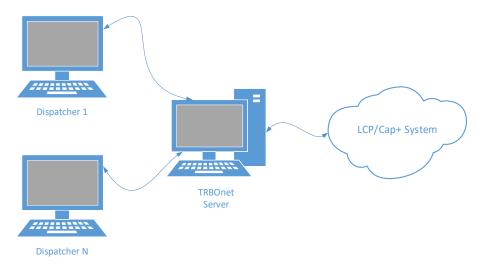
TRBOnet Server and Dispatch Console can be installed on the same computer.





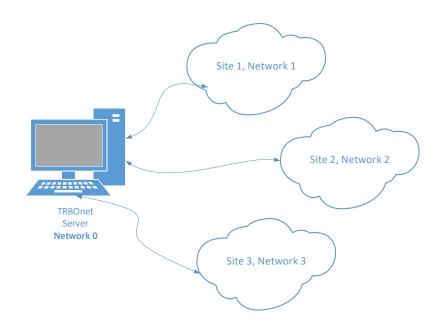
Client-Server Installation

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:

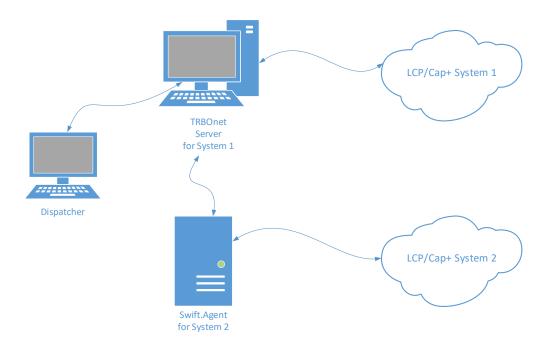




Use the recommended Routers only.

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

Den Save Read) E E E E -=E E ↑E Write Clone Clone Express Update Re	☆ ★量 egister Activate	
4801e 🕨 Network			
et Categories [‡]	General Radio Network Services Cont	rol Station IP Site Connect Bluetooth	
Configuration	Bluetooth Serial Port Profile Data Routing US	B HID Data Routing WAVE 5000 WAVE O	nCloud
Device Information			
▼ 🗍 General	Services		
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	
C Security	User Defined UDP Port 2	0 - Disabled	
Network	User Defined UDP Port 3	0 - Disabled	
-	XCMP Server ID	0 - (Blank)	8
Voice Announcement		0.0.0.0	
Job Tickets	XCMP Server IP		
Systems	Battery Management Server ID	0 - (Blank)	
Encoder	Battery Management Server IP	0.0.0.0	
Decoder	Control Station		
Contacts	<u> </u>	-	
RX Group Lists	Voice Only		
Zone/Channel Assignment	Data Modem System Type	None	
Scan Lists	Data Modem Window Size	5	
Capacity Plus Lists	Repeater Latitude (degree)	90.01 - (Blank)	
	Repeater Longitude (degree)	180.01 - (Blank)	
	ARS Monitoring ID	0 - (Blank)	
• • • • • • • • • • • • • • • • • • •	ARS Monitoring IP	0.0.0.0	



Personality Settings – 1

Open Save Read) II II II III →	
Set Categories 🗸	General RX/TX	
 ▼ □ Configuration* ☐ Device Information ◊ 	(⋆) General	
General Job Tickets	Channel Type Capacity Plus Personality (Linked)	
Job Tickets Systems	Channel Name Personality_1	
Encoder	Voice Announcement File None	
Decoder	ARS On System/Site Change	
Contacts RX Group Lists	Privacy	
 Zone/Channel Assignment 	Privacy Alias None	
 Zone 	Fixed Privacy Key Decryption No	
💼 Zone1 🏟	Ignore Rx Clear Voice/Packet Data No	
Channel Pool	RAS Alias None	
Scan Lists	Option Board	
Capacity Plus Lists	Lone Worker No	
	Messaging Delay (ms) 60	
	Compressed UDP Data Header DMR Standard	
	Over-the-Air Battery Management	
<	Auto Roam 🖌	
alidation Results Warning Messages Search		

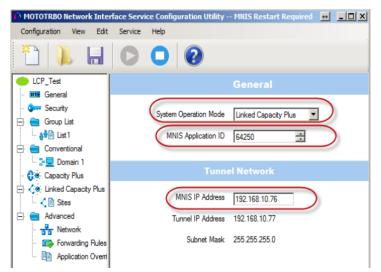
Personality Settings – 2

			RX/TX	General	
			ΤХ		
				-	
	Call1	Contact Name			
ys1 🔽	CapacityPlusEmergencySystems/Sys1	Emergency System			
		VOX			
•	High	Power Level			
	60	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

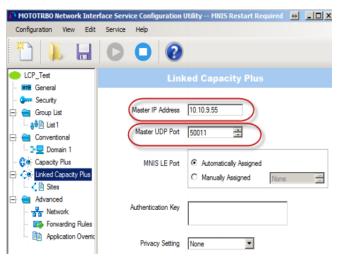


Talk Group Settings

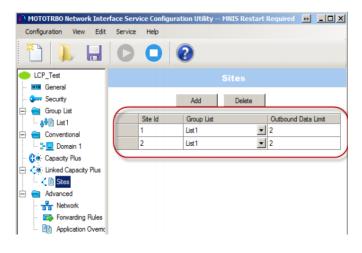
MOTOTRBO Network Inte			guration Utility M	NIS Restart Required	↔ _□×
Configuration View Edit	Service	Help			
	0	0	?		
LCP_Test			Lis	t1	
😏 Security			Group List Type	Capacity Plus/LCP	
Group List			All Groups	V	5
Conventional			Group Call	ID Ranges	
Capacity Plus Capacity Plus Capacity Plus			Add	Delete	
🗌 🕻 🗎 Sites			First Call ID	Last Call ID	
Advanced					
 Forwarding Rules 					
Application Overric					



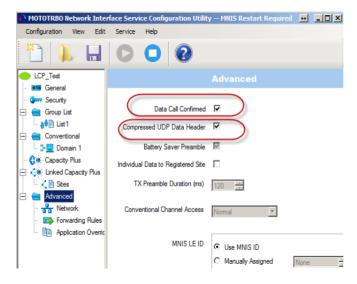
Master Repeater Settings



LCP Sites Settings



Advanced Settings





Network Settings

MOTOTRBO Network Interfa	ce Service Configuratio	on Utility *		-	×
Configuration View Edit	Service Help				
*```]. 🔒		?			
🖃 🛑 Untitled					
··· III General		CAI Network	12 🔹		
🖃 💼 Group List		0110 N			
🖃 🍓 List 1		CAI Group Network	225 🜲		
Domain 1		S	ervices		
Gapacity Plus Capacity Plus Construction		ARS UDP Port	4005		
🖃 🚞 Advanced		TMS UDP Port	4007		
者 Network 🐼 Forwarding Rules	1	Telemetry UDP Port	4008		
Application Oven	I	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 Discourse	y and Mobility Service		
		Server Address	127.0.0.1		
		Watcher Port	3000 🗘		
1					

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.

e Action Help			
	1		
Service	E ARS Settings		
ARS Settings	PortSU	4005	
	PassiveMode	Off	
- Watcher Settings	DeviceRefresh Time	30	
	DeregistrationTO	120	
	PersistenceTO	12000	
	DeviceRefreshTime		



ARS TRBOnet Settings

Configuration		Service Management		
💣 Service	^			
S Network		Presence service		
🛱 Redundancy		Auto request presence timeout:	5	minutes
Remote Access Restriction		ARS refresh interval:	1440 1	minutes
Database		AKSTEITESITIITEIVal.	1110	minutes
Storage Locations		Ignore unregistered Radios		
🚔 File Formats		Location service		
😪 Reports		Location service		_
🔅 Service Management		Dispatch Console update interval:	5	seconds
🔀 Advanced Settings		Send last known locations of radius	dios in alarm	
Geocoding Servers				
🔚 Radio Systems		For the last:	10	
🖵 PTT over Cellular		O GPS points:	10	
Teltonika		Indoor service		
🔂 Remote Agents		Remove offline radio from beac	00	
🔂 Friendly Servers				
The Phone Connect		Don't use beacon location if rad	io in alarm has GPS f	ix (K-TERM only)
🛛 🌃 Internal PBX Server				
🖞 Data Sources				
🔀 Email				
SMS Notifications	~			
A - 1				
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	÷		
Remote Access Restriction	TRBOnet Radio ID:	64250	*		
Database			-		
Storage Locations	TRBOnet Local Port:	50001	÷		
File Formats	Master Repeater Con	nection Informatio	on:		
Reports	IP Address:	10.12.110.29	-		
Service Management	UDP Port:	50011	<u> </u>	Test	
X Advanced Settings		50011	•	rest	
Geocoding Servers	Authentication Key:	123456			
Radio Systems	System Type:	Linked Capacity Plu	s		*
Services	System Identifier:				
Repeater 1	System Identifier .				
Advanced Settings	Use NAI Voice				
	✓ Use NAI Data (MNIS a	nd DDMS)			
DDMS service	Use RCM to monitor ra	adio activity			
Advanced Setting					
MNIS data service					
Advanced Setting					
Audio Paths					
< >					
Set Defaults		Apply	(OK (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 🔨	Load Groups Map
S Network	
🛱 Redundancy	Call Type Group ID Site ID
Remote Access Restriction	Group Call 10 Wide
Database	Group Call 20 Wide
Storage Locations	
File Formats	Private Call *
😪 Reports	All Call
Service Management	
🔀 Advanced Settings	
Geocoding Servers	
Radio Systems	
Services	
Repeater 1	
DDMS service	
Advanced Setting	
MNIS data service	
🔀 Advanced Setting	
Audio Paths	
< >	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

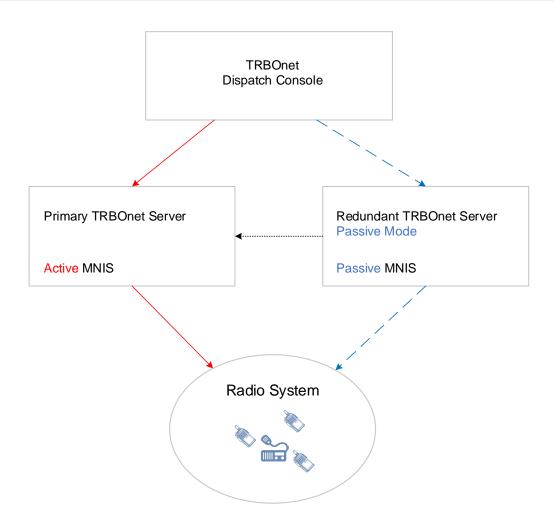
- The radio system's master repeater supports up to 4 simultaneously connected Software Peers (for example, MNIS, RDAC, TRBOnet Enterprise/PLUS or TRBOnet Watch).
- The databases on both servers are not synchronized. Before making a copy of the primary server's database and deploying it on the redundant 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.

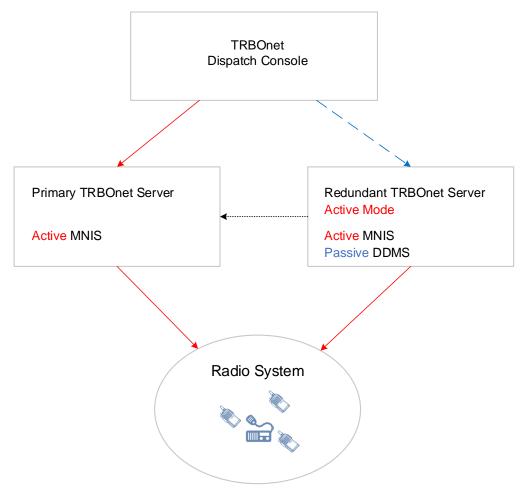


• Note that the databases on both servers are not synchronized. The redundant server's database will have data only for the time period the primary server is down. Once the primary server is restored, the redundant server will stop adding data to its database. Thus, there will be no data in the primary 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.

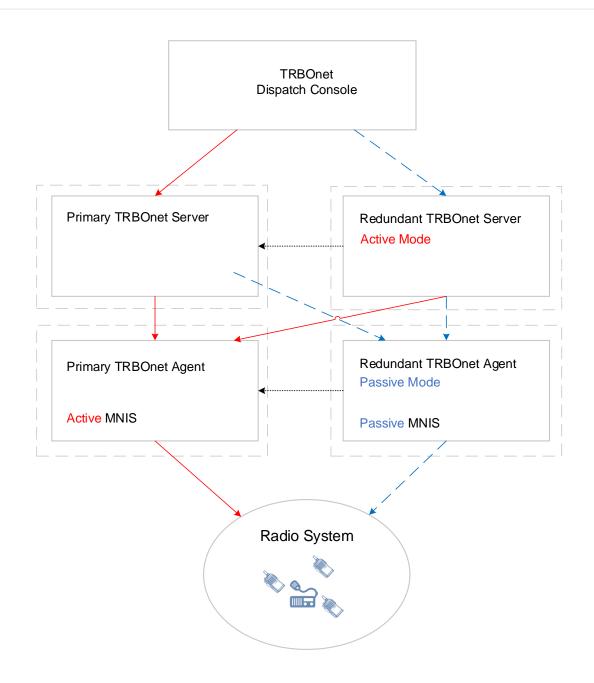
Active mode and TRBOnet Agents

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		Redundancy	
Configuration	^	Redundant server mode Redundancy Mode: Primary servers: IP Address IV 172.20.40.24	
Email SMS Notifications	~	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	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.

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: 484TQS1117 Firmware version: 20.20.1.6 IP Site Connect LCP_home: Slot #2 Serial number: 484TQS1117 Firmware version: 20.20.1.6	

• 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 Se	rvers						\times	
🛃 🗛 📃	Edit	y D	elete						
Server Label				Server Addr	ess	P	ort		
Server1				10.10.164.4	15	4	021		
Server?	Register	TRB	Onet	Server					\times
	Labe	4:		Server 3					_
	Addr	ess:		127.0.0.1					
	Port	:		4021	<u>+</u>				
	Redu	undar	nt serv	vers:					
			Addr	ess			Port]
							1		
		Add		Delete			/	A	
						OK	*	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 S	erver 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.