





TRBOnet Enterprise User Manual

Version 6.0

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This document was last revised on June 7, 2022.



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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+	
СРИ	Intel Core i5	Intel Core i5	Intel Core i7, 4 Cores	Intel Core i7, 6 Cores	Contact technical	
Memory	2 GB	4 GB	4 GB	8 GB	support	
HDD	2 GB for installation files, +1 MB per 1 minute of voice recording					
Sound Card	No					
	Windows 10/11, Windows Server 2016/2019/2022					
Supported OS	Note: Windows Server 2016/2019/2022 requires Desktop Experience Role/Feature installed.					
Software	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	Integrated sound card can be used.	Multi-channel Sound Card required; Recommended: 1. M-Audio Delta 1010 LT 2. Roland OCTA CAPTURE Hi-SPEED USB Audio Capture			
Additional Devices	Cable connector Motorola PMKN4016				
Supported OS Windows 10/11					
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 10/11			
Software	.NET Framework 4.8			



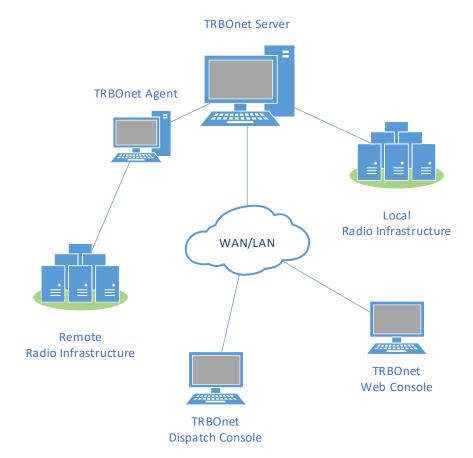
3 System Architecture Overview

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.





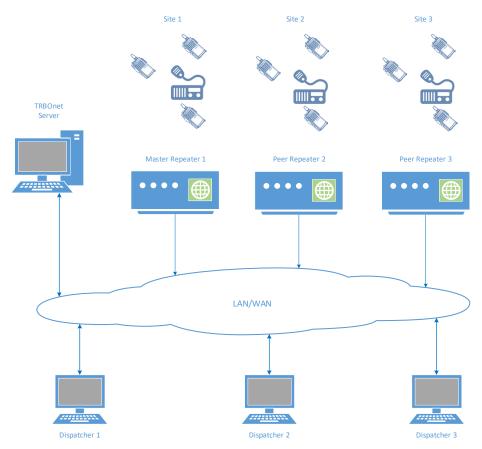
3.2 MOTOTRBO Radio Systems

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

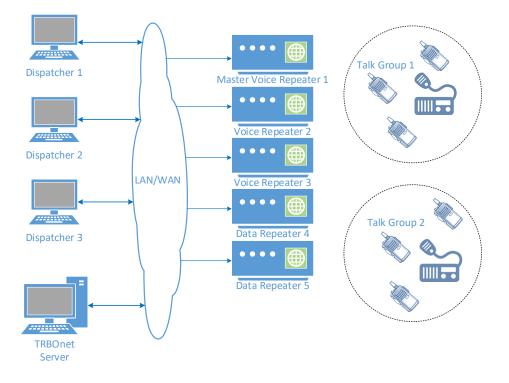
An IP Site Connect (IPSC) system is a digital conventional two-way MOTOTRBO system that provides two wide-area channels to increase your communications RF coverage area. It is possible to connect up to 15 repeaters (each geographical location of a repeater is called a "site") into one system using an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

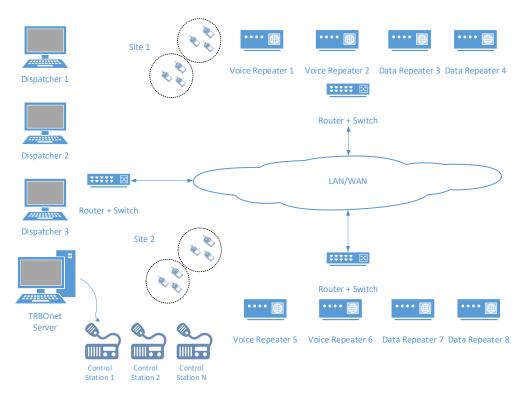
Capacity Plus (also known as Capacity Plus Single Site) is a digital trunked twoway MOTOTRBO system that is designed for high volume communications at a single site location. The system is designed to provide communications among a large number of users within a building, a set of buildings, or a single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



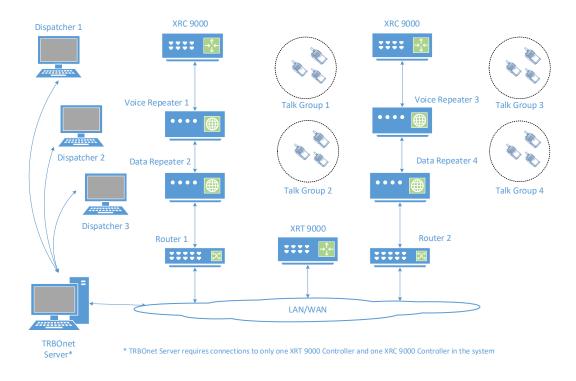


3.2.5 Connect Plus

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.

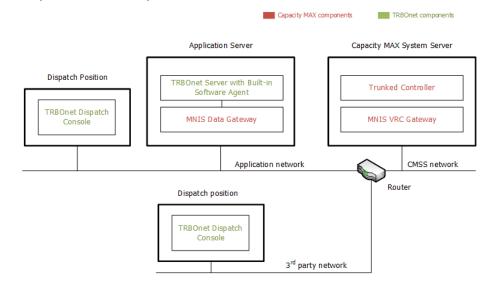
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3.2.6 Capacity Max

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.

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 2008 R2 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 2008 R2 SP2 - Express Edition (which is free) is available at:

http://www.microsoft.com/en-us/download/details.aspx?id=30438

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

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

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

4.2 Installing .NET Components

Windows 8 and later, as well as Windows Server 2012 and later, include the required .NET 4.6 components as part of the operating system.

The .NET Framework redistributables are available from Microsoft at: <u>https://www.microsoft.com/en-</u><u>us/download/search.aspx?q=.net%20framework</u>

4.3 Installing TRBOnet Enterprise

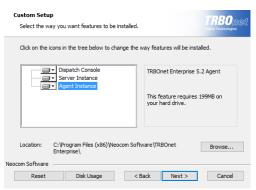
- Contact **Neocom Software** to obtain the latest installation package of the TRBOnet Enterprise software, unzip, and run the setup file as a local administrator.
- When the **TRBOnet Enterprise Setup** wizard appears, click **Next**.
- On the **End User License Agreement** page, accept the terms of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



Choose Setup T Choose the set	ype up type that best suits your needs
1 2	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.



For example, you may install only TRBOnet Server Instance:

	Custom Setup Select the way you want features to be installed	TRBOD®&
	Click on the icons in the tree below to change the	e way features will be installed.
	Dispatch Console Server Instance Agent Instance	TRBOnet Enterprise 5.2 Server
		This feature requires 209MB on your hard drive.
Ner	Location: C:\Program Files (x86)\Neocom So Enterprise\	ftware\TRBOnet Browse
		< 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		

- 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
- 🔗 CP1	^	
Advanced Settings Privacy DDMS service Advanced Setting MNIS data service Advanced Setting Advanced Setting Advanced Setting		License is valid License ID: 95589aaf-7714-4889-954c-c48e3ce7c46a Hardware ID: 4281-8A64-D473-D6E8-DFAC License generation date: 23 March 2021 TR8Onet Support is active up to: 23 March 2022 Product: TR8Onet _Enterprise Licensed to: demo (Walt) Active instance: [Default]
		Licensed instance: [Default]
TRBOnet.Mobile gateway		Demo License Expiry date: 23 March 2022
 Remote Agents Friendly Servers Phone Connect 		Server limitations Server hardware keys: 4281-8A64-D473-D6E8-DFAC Remote Agent connections: 2 System types: Unlimited
Kenail Kenail Server Outgoing Mail Server Outgoing		Agent limitations Agent hardware keys: Any Number of master radios or master repeaters: 10 Master radios / master repeaters serial numbers: Unlimited 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
< >	×	License Manager Send Email Copy to Clipboard
Set Defaults		Apply OK 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		
🕤 Network	SQL Server:	(local)\SQLEXPRESS ~
🛱 Redundancy	Database:	TRBOnet1 -
Database	Authentication:	Windows
😽 Reports	Login:	
X Advanced Settings	Password:	
Radio Systems	Specify the path fo	or database archives
💶 PTT over Cellular 📷 Remote Agents	Path:	D:\Temp\TRBOnet ····
Friendly Servers	✓ Use custom folder	for audio files
Phone Connect	Path:	D:\Audio
🔀 Email	✓ Use custom folder	to store file attachments
SMS Notifications	Path:	D:\Temp\Attach ····
License		
	Test Conne	ction
	Upgrade Datab	pase 👻
	Create Datab	ase *
Set Defaults		Apply OK Cancel

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

SQL Server

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

Database

Enter the name of the TRBOnet database.

Authentication

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

Login and Password

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

Specify the path for database archives

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

Use custom folder for audio files

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

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Path to Audio Files	×
Root Folder:	
D:\Audio	
File Format:	
%YEAR%\%MONTH%\%DAY%	
Year Month Day Hour Minute Second Millis Channel Name System ID System Name Call Source ID Recipient Recipient Type Recipient	Type Source Source Type
Example:	
D:\Audio\2017\05\23_xxx.wav	

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

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

Use custom folder to store file attachments

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

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

5.2.1 Database Authentication Methods

5.2.1.1 Windows Authentication

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



Configuration	Database	
Configuration	SQL Server: (loca Database: TRB Authentication: Wind Login: Wind Password: SQL V Specify the path for dat Path: D:\T V Use custom folder for au Path: D:\4 V Use custom folder to at	Temp\TRBOnet ···· udio files Audio ····
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	
Configuration Config	SQL Server: Database: Authentication: Login: Password: V Specify the path 1 Path: Use custom folder Path: Use custom folder Path: Test Conne	D:\Audio ···· r to store file attachments D:\Temp\Attach ···
	Upgrade Data Create Data	
Set Defaults	Create Data	Apply OK Cancel

To connect to SQL Server using **SQL Server Authentication**, create an SQL login with **sysadmin** privileges in the SQL Server in use. For detailed

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instructions on how to create an 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
Image: Service Image: Network Image: Network Image: Network Image: Network Image: Database Image: Network Imag	The TRBOnet Server service is not installed! It is recommended to run TRBOnet Server as a Windows service: it is laged on. Click the Install Service button below to install the Install Service button below to install the Degon as Local System (Recommended) Degon as Local System (Recommended) Degon as User User name: NS\v.kulinichev Password: Install Service
Set Defaults	Apply OK Cancel

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

Logon as Local System

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

Logon as User

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

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

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



5.4 Network Parameters

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

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

Network interface

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

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

Command port

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

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).

Note: If you enable the <u>PTT over Cellular</u> service for Mobile Client applications, set this parameter to **UDP** to ensure a better performance.

Use broadcast mode for audio

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

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

• Broadcast port

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

Use proxy server

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

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

Configure the proxy server	×
☑ Use an alternative server	
Settings	
Address: 177.71.134.70	
Port: 80	
Authentication	
Use authentication	
Login: User	
Password: •••••	
OK Cance	I

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.

✓ Login

Enter the login 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 over network

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

5.5 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>6.4.5.15</u>, <u>Scheduled Report</u>)

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

Configuration	Reports	
	Save scheduled Path: Format: Logo: Select	D: Weports
Set Defaults		Apply OK Cancel

- In the **Reports** pane, select the **Save scheduled reports** check box and specify the following parameters:
 - Path

Click the ellipsis (...) button and locate the folder on the PC where you wish 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.

5.6 Backup Configuration

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		Redu	ında	ncy		
 ♂ Service ◇ Network ♦ Redundancy ■ Database 	^		ndan	ndant server mode ncy Mode: erc:	Active	•
Reports			30171	IP Address		Port
😳 Service Management						Port
X Advanced Settings		1	\checkmark	172.20.40.24		4021
Geocoding Servers						
Radio Systems						
Services						
System #1 Advanced Settings Privacy CP1 CP1						
Privacy 						
Advanced Setting						
MNIS data service						
Advanced Setting						
	~		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 main server, click Add.

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

• IP Address

Type the IP address of the main server.



• Port

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

Note: For more details on Redundant Server configurations, see <u>Appendix G: Redundant Server</u> (page 406).

5.7 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		
	Presence service Auto request presence timeout: ARS refresh interval: Ignore unregistered Radios Location service GPS restart by inactivity timeout: Dispatch Console update interval: Automatic error correction Configure Send the latest GPS data to dis For the last: GPS points: Indoor service Remove offline radio from beaco Ignore beacon position on alarm	patchers on alert] minutes
Set Defaults		Apply	OK Cancel

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

5.7.1 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.

5.7.2 Location Service

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

• 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.

• 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.

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 real world 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			
\checkmark Location accuracy worse than:	50	+	meters			
GPS time error greater than:	30	÷	minutes			
Coordinates have duplicates						
Consider speed zero if 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.

• Send the latest GPS data to dispatchers on alert

Select this option so that dispatchers receive the latest GPS data when an alert 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.

5.7.3 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.
- Ignore beacon position on alarm if GPS is fixed (only K-TERM) 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.

5.8 Advanced Settings

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

Configuration	Advanced Settings	
Configuration Configuration Service Service Configuration	Advanced Settings Language: Logging level: Administrator Account: Audio Recording format: Audio Recording codec: Voice of Text to Speech: Measurement system: Latitude/Longitude format: TX Passive timeout: Voice Mail timeout: Number of messages: Text Message Passive timeout: Number of messages:	English • Normal • Enabled • Reset password TNA - TRBOnet Audio File • G.711 µ-Law/8000 • Default • Default • Defrees, Minutes, Seconds • Unlimited ‡ hours Unlimited ‡ hours Unlimited ‡ hours Unlimited ‡ hours Unlimited ‡ hours Unlimited ‡ hours
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.

Audio Recording format

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

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

Audio Recording codec

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

Voice of Text to Speech

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.

• Latitude/Longitude format From the drop-down list, select the format of Latitude/Longitude pairs.

TX Passive timeout

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

Voice Mail timeout

Enter the time duration where TRBOnet Server will continue to try to send Voice Mail messages to a recipient. "Unlimited" is recommended.

• Number of messages

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

Text Message Passive timeout

Enter the time duration where the TRBOnet Server will continue to try to send Text messages to a recipient. "Unlimited" is recommended.

• Number of messages

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

5.8.1 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.

5.8.1.1 Configuring Geocoding Servers

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

Configuration	Geocoding Servers
Configuration Service Service Network Redundancy Database Reports Service Management Advanced Settings Advanced Settings Radio Systems Radio Systems Radio Systems Remote Agents Remote	Geocoding Servers Server Name Google Image: Nomination Add Delete Add Delete Request a place name upon receiving GPS coordinates
Set Defaults	Apply OK Cancel

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

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

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



Click Add to	add a geocoding server to the	system.
	Map Server for Geocoding	×
	Server Name: MyGeocodingServer	
	Get address by coordinates http://127.0.0.1/reverse%ormat=xml⪫={at}&lon={lon}&zoom=18&a	dressdetails=1
		Test
	Get coordinates by address	
	http://127.0.0.1/search?q={address}&format=xml	
		Test
	ОК	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.

5.9 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>5.11, 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 √ Network i Redundancy □ Database 	^	CAI Network:	12	!	* *
℞ Reports ✿ Service Management ★ Advanced Settings		CAI Group Network: Registered Radio Systems	22	5	*
Geocoding Servers Radio Systems Services		Name Capacity MAX		Address	Radio ID 2020
Capacity MAX		✓ IPSC 1✓ CP1		10.10.101.139 10.10.188.35	64250 64250
Advanced Settings Advanced Settings	*	Add Delete			Test
<		Ada Delete			lest
Set Defaults			App	у ОК	Cancel

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

CAI Network

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



CAI Group Network

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

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

Configuration		Radio Systems	
Hadio Systems	^		
Services		✓ Enable Radio Systems	
System #1		CAT Network: 12	A
PSC 1			\$
Privacy		CAI Group Network: 225	*
		Registered Radio Systems	
		Name Addre	ess Radio ID
Local Slots		System #1	64250
			0.133.5 64250
X Advanced Settings 		CP1 10.10	0.188.35 64250
DDMS service			
Advanced Settings			
MNIS data service			
Advanced Settings			
Audio Paths			1 I
🖵 PTT over Cellular			
Advanced Settings			
Advanced Settings	1		
Advanced Settings	1		
TRBOnet.Mobile gateway #1	~	Add Delete	Test
TRBOnet.Mobile gateway #1	~	Add Delete	
TRBOnet.Mobile gateway #1	~		Test OK Cancel
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add DIMETRA Express	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station	
TRBOnet.Mobile gateway #1	~	 Add MOTOTRBO System Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent 	
TRBOnet.Mobile gateway #1	~	 Add MOTOTRBO System Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station 	
TRBOnet.Mobile gateway #1	~	 Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add XRC-9000 Controller 	
TRBOnet.Mobile gateway #1	~	 Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add XRC-9000 Controller Add XRT-9000 Controller 	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add XRC-9000 Controller Add XRC-9000 Controller Add XRT-9000 Controller Add SELEX Repeater	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add XRC-9000 Controller Add XRC-9000 Controller Add XRT-9000 Controller	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add XRC-9000 Controller Add XRC-9000 Controller Add XRT-9000 Controller Add SELEX Repeater Add KAIROS Repeater Add WAVE 5000 Controller	
TRBOnet.Mobile gateway #1	~	Add MOTOTRBO System Add Capacity MAX Add Capacity MAX Add DIMETRA Express Add Control Station Add TRBOnet Swift Agent Add Friendly FS-1000 Station Add TRBOnet Swift Agent Add XRC-9000 Controller Add XRC-9000 Controller Add XRT-9000 Controller Add SELEX Repeater Add KAIROS Repeater Add WAVE 5000 Controller Add WAVE OnCloud Gateway	

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).

5.9.1 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).

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).

5.9.2 Adding a MOTOTRBO Repeater

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

Configuration		Repeater #1				
💣 Service	^					
S Network		System Name:	Repeater #1			
🛱 Redundancy		TRBOnet Peer ID:	100	÷		
Database		TRBOnet Radio ID:	64250			
Reports				*		
Service Management		TRBOnet Local Port:	50000	÷		
X Advanced Settings		Master Repeater Conr	ection Info:			
Geocoding Servers		Master IP Address:	10.10.101.139	Ŧ		
Radio Systems		Master UDP Port:	50000	*	Test	
Services				Ŧ	Test	
Repeater #1		Authentication Key:	55555			
Advanced Settings		System Type:	IP Site Connect			Ŧ
Privacy		System Identifier:	Department 1			
		-,	beparanent 1			
Slot #2		Use NAI Voice				
		Use NAI Data (MNIS ar	nd DDMS)			
PTT over Cellular		Use RCM for control ra	dio activity			
-						
Friendly Servers						
Phone Connect Phone Connect Phone Connect						
Email						
	Υ.					
Set Defaults			Apply		ОК	Cancel

System Name

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

TRBOnet Peer ID

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

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

TRBOnet Radio ID

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



TRBOnet Local Port

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

Master 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*.

Master 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 396).

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 396).



• 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.

5.9.2.1 Advanced Settings

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

Configuration		Advanced Settings			
💣 Service 🛜 Network	^	Voice Call Hang Time ([ms]:		
🛱 Redundancy		Group Call:	3000	¢	
Database			[-	
😪 Reports		Private Call:	4000	Ŧ	
Service Management		Emergency Call:	4000	÷	
🔀 Advanced Settings		TX Preamble:			
Geocoding Servers		TX Preamble:	120	Ŧ	
Radio Systems		TX Timeout:	60	÷	seconds
Services					
Repeater #1		Phone System:	Motorola Phone System	n	*
		TX Interrupt Mode:	MSI Proprietary		.
Privacy					
		Allow CSBK Data			
Local Slots					
PTT over Cellular					
Remote Agents					
Friendly Servers					
Phone Connect					
🖞 Data Sources					
	¥				
Set Defaults			Apply		OK Cancel

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

Voice Call Hang Time (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 394).

• 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.

5.9.2.2 Privacy

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



Configuration		Privacy				
💣 Service	^					
S Network		Privacy Type:	Enhan	ced -		
🛱 Redundancy		Basic Privacy Key ID:	1	^ ~		
Database		Enhanced Privacy Keys		· · ·		
😪 Reports			•			
🔅 Service Management		Alghoritm II)	Name	Value	
🔀 Advanced Settings		ARC4 (40 bit) 🔻 1				
Geocoding Servers		ARC4 (40 bit)				
🔚 Radio Systems		AES (256 bit)				
Services		AES (256 bit) Legacy				
Repeater #1]			
Advanced Settings						
🔒 Privacy						
III Slot #1						
I Slot #2						
Local Slots						
TT over Cellular						
Remote Agents						
Friendly Servers						
🐞 Phone Connect						
Ψ Data Sources						File
🔀 Email	~	Add Rei	nove			- File
				A - b	01	Cancel
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.

5.9.2.3 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**.

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Configuration		DDMS 9	ervi	e			
💣 Service	^						
S Network		✓ Use	DDMS	service			
🛱 Redundancy		Loca	port:		0	÷	
Database		Serv	ice IP	Address:	127.0.0	.1 -	Test
Reports						*	
Service Management		Serv	ice po	rt:	3000	Ŧ	
X Advanced Settings		Auth	entica	ation Port:	5055	÷	
Geocoding Servers		Red	ından	t services:			
Radio Systems				Service IP A	ddroog	Service port	 Local port
Services		_					
IPSC 1		1	\checkmark	10.10.101.2	207	3000	0
Advanced Settings							
Privacy							
DDMS service							
Advanced Setting							
MNIS data service							
Audio Paths							
TT over Cellular							
Remote Agents							
Friendly Servers							
R Phone Connect	\mathbf{v}		Add		elete		Test 🔺 🔻
< >			Auu		ere ee]	icat A
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	F	dvanced Settings			
💞 Service	^				
🕤 Network		Radio ID list:	1-200		?
🛱 Redundancy		Events:	All		
Database					
😪 Reports		Specify external sites:		1	
Service Management		Site ID	Presence	Voice	Data
🗶 Advanced Settings		✓ 251	Image: A start of the start		~
人 Geocoding Servers					
Radio Systems					
IPSC 1					
Advanced Settings					
Privacy					
DDMS service					
Advanced Setting					
MNIS data service					
Audio Paths					
🛒 PTT over Cellular					
Remote Agents					
Friendly Servers					
R Phone Connect					
1	×	Add D	elete		
< >					
Set Defaults			Appl	у ОК	Cancel

- In the **Advanced settings** pane, you can specify settings that relate to the connected DDMS service:
 - Radio ID list

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

- To receive data from all radios in the system, leave this box blank.
- To receive data from multiple radios and also from a range of radios, separate each Radio ID by a comma and also enter the range. For example: 12, 35, 105-111, 249.

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

Events

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

Specify external sites

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

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



5.9.2.4 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
 	Use Data Gateway
Database	✓ Service is on a local host IP Address: 176.16.10.2
Advanced Settings	Control port: 55000 Test MNIS Service: MOTOTRBO Network Interface Service + ¢l ?
Radio Systems	Redundant services: IP Address Control port Local port
PSC 1 Advanced Settings Privacy DDMS service Advanced Setting MNIIS data service Advanced Setting Advanced Setting Advanced Setting	
PTT over Cellular Remote Agents Friendly Servers	Add Delete Test 🔺 🔻
Set Defaults	Apply OK Cancel

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

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

Service is on a local host

Select this option if the MNIS data service will be used on the local PC.

IP Address

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

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

Control port

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

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

MNIS Service

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



Redundant services

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

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

Advanced Settings

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

Configuration	Advanced Settings
Service Network Redundancy Database Reports Service Management Advanced Settings Services IPSC 1 Privacy Piroxer Advanced Settings MINIS data service Advanced Setting MINIS data service Advanced Setting Privacy Dob Service Advanced Setting Privacy Dob Service Advanced Setting Privacy Dob Service Advanced Setting Privacy Privacy	 Send data over control port Add network routes to the Windows routing table Add port forwarding rules to the remote MNIS service Radio Range: 1 16777215 16777215
Set Defaults	Apply OK Cancel

• In the **Advanced settings** pane, you can specify settings that relate to the remote MNIS data service:

Send data over control port

Select this option so that data will be sent via the specified control port.

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

- Add network routes to the local Windows routing table
 Select this option to allow TRBOnet Server to add network routes to the local Windows routing table so that data can be sent to the remote
 MNIS data service.
- Add port forwarding rules to the remote MNIS service Select this option to allow TRBOnet Server to add forwarding rules to the remote MNIS data service.
- Radio Range

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



5.9.2.5 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		Slot #1	
🛷 Service 🎧 Network	^	✓ Slot #1	
Redundancy		Name:	Slot 1
Database		Messaging Delay:	Normal 👻
😪 Reports		Use the slot for RX Dat	a only (GPS Revert or Data Revert)
X Advanced Settings		Use Privacy	
Geocoding Servers		Privacy Key:	
Radio Systems		Allow interruption	
Services			the PTT is pressed ("Impolite" channel access)
Advanced Settings		Data Call Confirmed Private Call Confirmed	
Privacy		Emergency Alarm Ack	
		Emergency Call/Alarm I	ndication
Slot #2			
PTT over Cellular			
Remote Agents			
Friendly Servers			
🔞 Phone Connect			
↓ Data Sources			
Email	¥		
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 the 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.

5.9.2.6 Local Slots

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

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

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

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



Configuration		Local Slots		
💣 Service	^	Load Peers Map		
S Network				
🛱 Redundancy		Name	Peer ID	Peer Slot
Database		✓ Local Brine's	1002 🗘	Slot #1
😪 Reports				
🔅 Service Management				
💥 Advanced Settings				
Geocoding Servers				
🔛 Radio Systems				
Services				
IPSC 1				
Privacy				
Slot #1				
III Slot #2				
Local Slots				
🖵 PTT over Cellular				
😽 Remote Agents				
😽 Friendly Servers				
🔞 Phone Connect				
↓ Data Sources				
🔀 Email	~	Add Remove		
	•			
Set Defaults		Apply	ОК	Cancel

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

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

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

TX Configuration	×
Messaging Delay: Normal Use the slot for RX Data only(GPS Revert or Data Revert) Use Privacy Privacy Key: Allow TX interrupt	
Use the slot for RX Data only(GPS Revert or Data Revert) Use Privacy Privacy Key: Allow TX interrupt	
Use Privacy Privacy Key: Allow TX interrupt	
Privacy Key:	
Allow TX interrupt	
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>.

5.9.2.7 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 A Network	Load Groups Map	
V Redundancy	Call Type Gr	oup ID Site ID
Database	Group Call 10) Wide
Reports	Group Call 20) Wide
 Service Management Advanced Settings 	✓ Private Call	
Geocoding Servers		
Radio Systems		
Services		
TPSC 1 Advanced Settings Privacy DOMS service Advanced Setting Advanced Setting Advanced Setting TT over Cellular Remote Agents Friendly Servers		
< >	Add Delete	Configure
Set Defaults	Арр	ly 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 check box 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>.

5.9.3 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*.

5.9.4 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*.

5.9.5 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 Network Redundancy Database Reports Service Management Advanced Settings Services Radio Systems Services Advanced Settings PTT over Cellular Remote Agents Friendly Servers Pone Connect Data Sources Email SMS Notifications Push Notifications License	Name: Radio ID: IP Address: Mode: System Identifier:	Control Station #1 64250 192. 168. 10.2 \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$
Set Defaults		Apply OK Cancel

- 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>5.9.5.1, Control Station Connection Modes</u> (page 48).

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 the 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.

Recorder device

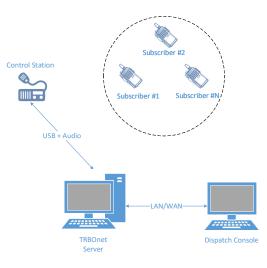
From the drop-down list, select the recording device on the PC that will be used to receive audio data from the control station connected via a line-in jack.

5.9.5.1 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.



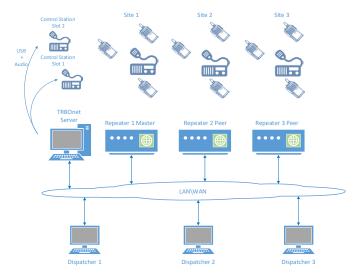


IP Site Connect

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

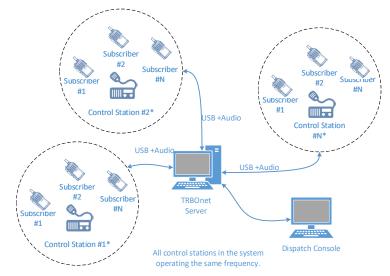


this mode, the coverage area is being extended only for the dispatcher, and specifically when operating at one and the same frequency. When a radio unit initiates a call, the signal that can potentially be received by several base stations will be filtered on the server side so that repeated audio playback 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.



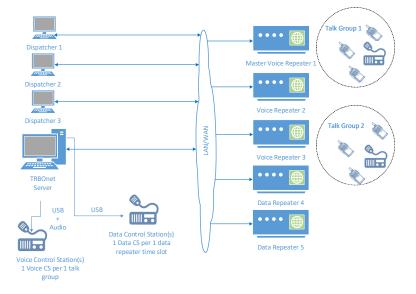
Capacity Plus/Linked Capacity Plus

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.



5.9.5.2 Advanced Settings

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

Configuration	Advanced Settings
	 ✓ Automatically reset alarm mode ✓ Automatically handle call alert ✓ Emergency Call/Alarm indication Use front microphone Always transmit when the PTT is pressed ("Impolite" channel access) Use serial port for PTT key up Serial port: ✓ TX Timeout: 60 ♦ seconds Signaling System: None ✓ Configure Allow CSBK Data
Set Defaults	Apply OK Cancel

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



Emergency Call/Alarm indication

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

Use front microphone (for PTT key up)

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 key up

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.

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.

Voice 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		—
Check Radio				(
Call Alert				
Enable 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	🗘 ms
Tone 1:	1000	‡ ms
Tone 2:	1000	‡ ms
Long Tone:	4000	‡ ms
Pause:	200	🗘 ms
Defaults	ОК	Cancel

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

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

Quick Call II MOTOTRBO

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

Allow CSBK Data

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

5.9.5.3 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	
ở Service 쥿 Network	Site ID: 1	
🛱 Redundancy	Call Type	Group ID Site
Database Reports	Group Call	10 Wide
Service Management	Group Call	20 Wide
X Advanced Settings	Private Call	
Radio Systems	All Call	
Services		
Control Station #1		
Audio Paths		
Remote Agents		
Friendly Servers		
🔞 Phone Connect		
↓ Data Sources		
Kenail SMS Notifications		
Push Notifications		
License	Add Delete	
Set Defaults	Apply	OK Cancel

- In the **Audio Paths** pane, specify the following Audio Path-related settings:
 - To add an audio path to the system, click **Add**.
 - Make sure the check box 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.

5.9.6 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	^					
S Network		Name:	TRBOnet Swift Ag	ent #1		
🛱 Redundancy		Radio ID:	64250	÷		
Database		IP Address:	10.10.110.191	-		
🔂 Reports		IP Address;	10, 10, 110, 191	_		
🗘 Service Management		Port:	8002	÷	Test	
🗶 Advanced Settings		TRBOnet Local Port:	50001			
Geocoding Servers		Mode:	Single Control Sta	tion		
🖶 Radio Systems		Mode.	-	don		
Services		System Identifier:	Department 2			
IPSC 1		Use the radio for R)	Data only (GPS Reve	ert or Dat	ta Revert)	
					ancevery	
TRBOnet Swift Agent #1		VoIP port:	4000	÷		
		Audio Format:	PCM 8 kHz 16 bit			
🗰 🛱 Redundancy						
🖵 PTT over Cellular						
Remote Agents						
Friendly Servers						
🔞 Phone Connect						
🖞 Data Sources						
K Email						
SMS Notifications	~					
						
Set Defaults					OK	Cance

• 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>5.9.5.1, Control</u> <u>Station Connection Modes</u> (page 48).

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 the 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.

5.9.6.1 Advanced Settings

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

Configuration	Advanced Settings
Configuration Confi	Advanced Settings Advanced Settings Automatically reset alarm mode Emergency Call/Alarm Indication Always transmit when the PTT is pressed ("Impolite" channel access) TX Timeout: 60 Seconds PTT Mode: KeyUp / DeKey Signaling System: None Configure
V Data Sources Email SMS Notifications Set Defaults	Apply OK Cancel
Set Defaults	Appiy OK Cancel

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

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



Emergency Call/Alarm indication

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

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

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

TX Timeout

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

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.



5.9.6.2 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**.

Configuration	R	tedunda	псу		
·	^ _	Redundan	t agents:		
Network Redundancy	Ì		IP Address	Port	Local Port
Patabase		1 🗸	10.10.1.210	8002	0
Reports		1	10.10.1.210	0002	0
Service Management					
X Advanced Settings					
Geocoding Servers					
Radio Systems					
Services					
IPSC 1					
TRBOnet Swift Agent #1					
Advanced Settings					
🗭 Redundancy					
PTT over Cellular					
Remote Agents					
Friendly Servers					
Data Sources					
Email					
SMS Notifications		Add	Delete		Test 🔺 🔻
A	*				
Set Defaults				Apply	OK Cancel

- 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.

5.9.7 Adding an XRC Controller

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



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

Configuration		Controller #1				
💞 Service	^					
🕤 Network		Name:	Controller #1			
🛱 Redundancy		IP Address:	10, 10, 100, 100	*	Test	
Database					reat	
禄 Reports		System Identifier:	Connect Plus 1			
Service Management						
🔀 Advanced Settings						
Geocoding Servers						
🖶 Radio Systems						
Services						
XRC Controller #1						
Services						
🛛 💥 Advanced Settings						
🗰 🛱 Redundancy						
🚛 PTT over Cellular						
Remote Agents						
Friendly Servers						
🔞 Phone Connect						
🖗 Data Sources						
K Email						
SMS Notifications						
Push Notifications	¥					
Set Defaults			Apply		OK Ca	ncel

• 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.

5.9.7.1 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
Database		
😪 Reports		Local port: 0
Service Management		✓ Location service (GPS / Indoor)
X Advanced Settings		Controller port: 4001
Geocoding Servers		
Radio Systems		Local port: 4001
Services		Use adaptive location trigger
XRC Controller #1		
Services		✓ Text Messaging service (TMS)
Advanced Settings		Controller port: 4007
		Local port: 4007
PTT over Cellular		
Remote Agents		Dispatcher ID: 64250
Friendly Servers		Multi Gate Connection
Phone Connect		Subscribe ID: 1
Email		Subscribe ID:
SMS Notifications		
Push Notifications		
	۷	
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)

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>5.7.2, Location Service</u>).

• Controller port

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

• Local port

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

• Use adaptive GPS trigger Select this option to use the adaptive GPS polling interval.



Text Messaging service (TMS)

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

• Port

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

• Local port

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

• Dispatcher ID

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

Multi Gate Connection

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

5.9.7.2 Advanced Settings

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

Configuration		Advan	ced Settings			
💣 Service	^					
Network		Radi	o ID list:	100-200		3
🕸 Redundancy		Spec	tify external site	s:		
Database			Site ID	Presence	Voice	Data
😪 Reports						
Service Management		~	251	~	~	~
💥 Advanced Settings		~	252	\checkmark		✓
🦾 🦶 Geocoding Servers						
🖶 Radio Systems						
🏠 Services						
XRC Controller #1						
Services						
🗰 韓 Redundancy						
🛒 PTT over Cellular						
🔂 Remote Agents						
Friendly Servers						
🔞 Phone Connect						
🖞 Data Sources						
🔀 Email						
SMS Notifications						
Push Notifications	~		Add	Delete		
Set Defaults				Ap	ply Of	Cancel

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

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

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



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

Specify external sites

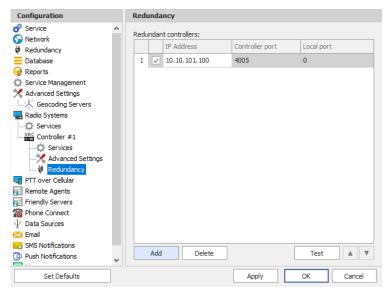
This is the list of Connect Plus sites that is used when the corresponding Connect Plus system has a MOTOROLA System Bridge to the current Capacity MAX system.

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

5.9.7.3 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.

5.9.8 Adding an XRT Controller

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

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

Configuration		Controller #1				
🛷 Service	^					
S Network		System Name:	Controller #1			
🛱 Redundancy		Radio ID:	64250	¢		
Database		Start Local Port:	0	*		
😪 Reports			-	Ŧ		
Service Management		XRT-9000 Controller I	nfo:			
🔀 Advanced Settings		Controller IP Address:	10.10.111.102	-		
Geocoding Servers		Controller TCP Port:	10001	÷	Test	
🔚 Radio Systems		User Name:		Ŧ		
Services		User Name:	Admin			
Controller #1		Password:	•••••			
🗘 Services		System Identifier:	Connect Plus 1			
Redundancy		Monitor Voice sessions	(without audio)			
XRT Controller #1						
Privacy						
Data Path						
Audio Paths						
🗰 🛱 Redundancy						
TT over Cellular						
🔂 Remote Agents						
Friendly Servers	~					
<u> </u>						_
Set Defaults			Apply		OK Car	ncel

- 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 should 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 sessions (without audio)

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

5.9.8.1 Privacy

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

Configuration	Privacy	
	^	I Chanced T
Advanced Settings Geocoding Servers Radio Systems Services Advanced Settings KRC Controller #1 Advanced Settings Redundancy XRC Controller #1 Privacy Data Path Redundancy T over Cellular	ARC4 (40 bit) • 1 ARC4 (40 bit) AES (256 bit) AES (256 bit) Legacy	
Remote Agents	Add Remove	2 Apply OK Cancel

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- 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.

5.9.8.2 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:	Extend	ded Data servic	e			*
🕏 Redundancy		Radio ID:	64251		^			
Database			01201		Ŧ			
😪 Reports								
Service Management								
🔀 Advanced Settings								
Geocoding Servers								
🔛 Radio Systems								
Services								
Controller #1								
Services								
🐺 🛱 Redundancy								
Controller #1								
Privacy								
💭 Data Path								
Audio Paths								
Redundancy								
🖵 PTT over Cellular								
Remote Agents								
Friendly Servers	¥							
Set Defaults				Apply		ОК	Car	ncel

• 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.

5.9.8.3 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
Database		Group Call		20
😪 Reports				20
Service Management		Private Call	64250	
🔀 Advanced Settings		All Call		
Geocoding Servers				
🔛 Radio Systems				
Services				
Controller #1				
Services				
Redundancy				
XRT Controller #1				
Privacy				
Data Path				
Audio Paths				
Redundancy				
TT over Cellular				
Remote Agents				
Friendly Servers	¥	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 check box 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.

5.9.8.4 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		Red	unda	псу		
💣 Service	^	Red	ından	t controllers:		
🚱 Network				Controller IP Address	Controller TCP Port	Start Local Port
🛱 Redundancy		_	_			
Database		1	\checkmark	10.10.112.99	10001	0
😪 Reports						
🔅 Service Management						
🔀 Advanced Settings						
Geocoding Servers						
🔚 Radio Systems						
Services						
Controller #1						
Services						
🗰 🛱 Redundancy						
XRT Controller #1						
Privacy						
🕀 Data Path						
Audio Paths						
🔤 🙀 Redundancy						
🛒 PTT over Cellular						
Remote Agents						
Friendly Servers	~		Add	Delete		Test 🔺 🔻
Set Defaults	1				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.

5.9.9 Adding a Selex Repeater

The **Selex** 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 SELEX Repeater.



	_			
Configuration		Selex #1		
🗬 Service	^			
S Network		Name:	Selex #1	
🛱 Redundancy		Radio ID:	64250	
Database				
Reports		Repeater Mode:	Digital	*
Service Management				
💥 Advanced Settings				
Geocoding Servers				
🖶 Radio Systems				
Services				
Selex #1				
III Slot #1				
🖵 PTT over Cellular				
Remote Agents				
Friendly Servers				
🔞 Phone Connect				
🜵 Data Sources				
🔀 Email				
SMS Notifications				
Push Notifications	v			
—	•			
Set Defaults			Apply	OK Cancel

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

Name

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

Radio ID

Enter the Radio ID for the Selex 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>.

5.9.9.1 Advanced Settings

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



Configuration	Advanced Settings		
💣 Service ,	^		
🕥 Network	Keep Alive Interval:	10 ‡	seconds
🔅 Redundancy	TX Timeout:	60 1	seconds
Database		· · · · · · · · ·	
😪 Reports	Audio Frame Size:	20 🗘	ms
Service Management			
🔀 Advanced Settings			
Geocoding Servers			
🖶 Radio Systems			
Services			
Selex #1			
X Advanced Settings			
I Slot #1			
TT over Cellular			
Remote Agents			
Friendly Servers			
🔞 Phone Connect			
🜵 Data Sources			
🔀 Email			
SMS Notifications			
Push Notifications	~		
Set Defaults		Apply	OK Cancel

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

Keep Alive Interval

Enter the time interval, in seconds, for TRBOnet Server to check the connection to the Selex 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.

5.9.9.2 Slots

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

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



Configuration		Slot #1					
Service	^	✓ Slot #1					
🖗 Redundancy		Name:	Slot 1				
Database Reports		TRBOnet IP Address:	10.10.100.99	- ¢	Port:	6080	÷
Service Management		SELEX IP Address:	10.10.9.30	*	Port:	6080	÷
Advanced Settings			Test				
Radio Systems Services Selex #1 X Advanced Settings		Use the gateway for R Use Encryption Always transmit when V Data Call Confirmed					ess)
The second seco							
🖗 Data Sources 🔀 Email							
SMS Notifications Push Notifications	~						
Set Defaults]		Apply		ОК		Cancel

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

Name

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

TRBOnet IP Address

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

SELEX IP Address

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

- Click **Test** to check the connection to the repeater.
- Use the 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.



5.9.9.3 Tier III and Audio Paths

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

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

Configuration		Tier III				
💣 Service	^					
🕥 Network		Tier III				
🕸 Redundancy		Name:	Tier III			
Database		TRBOnet IP Address:	10.10.100.99	- ¢	Port:	6080 🗘
🕞 Reports		SELEX IP Address:	10, 10, 9, 30	_	Port:	6080 1
Service Management		SELEX IF AUDIESS.	10.10.9.30	_	Fort.	0000 +
🗙 Advanced Settings			Test			
Geocoding Servers						
🔚 Radio Systems		Use the gateway for R	X Data only (GPS R	evert or	^r Data F	Revert)
Services		Use Encryption				
Selex #1		Always transmit when	the PTT is pressed (("Impolit	te" cha	nnel access)
		Data Call Confirmed				
Tier III		Private Call Confirmed				
Audio Paths						
🛒 PTT over Cellular						
👔 Remote Agents						
Friendly Servers						
🔞 Phone Connect						
🖞 Data Sources						
🔀 Email						
SMS Notifications						
Push Notifications	¥					
Set Defaults			Apply		ОК	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 **Selex**, select **Audio Paths**.

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



Configuration		Audio Paths	
🛷 Service	^		
S Network		Call Type	Group ID
🔅 Redundancy		Group Call	10
Database		Group Call	20
Reports		✓ Private Call	
Service Management			
🔀 Advanced Settings		All Call	
Geocoding Servers			
🖶 Radio Systems			
Services			
Selex #1			
Advanced Settings			
Tier III			
Audio Paths			
TT over Cellular			
Remote Agents			
Friendly Servers			
🔞 Phone Connect			
🜵 Data Sources			
🔀 Email			
SMS Notifications	-		
Push Notifications	v	Add Delete	
—	·		
Set Defaults		Apply OK	Cancel

- In the **Audio Paths** pane, specify the following Audio Path-related settings:
 - To add an Audio Path to the system, click **Add**.
 - Make sure the check box 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.

5.9.9.4 Analog channel

The Selex repeater can also use the Analog channel.

- In the **Configuration** pane, under the corresponding **Selex**, select **Analog**.
 - Note: Make sure the **Analog** or **Mixed** mode have been selected as a Repeater Mode for the Selex repeater.



Configuration	Analog			
 Service Network 	✓ Analog			
🕏 Redundancy	Name:	Analog		
Database Reports Service Management Advanced Settings Geocoding Servers	TRBOnet IP Address: SELEX IP Address:	10.10.100.99 10.10.9.30 Test	+ ¢ Port: + Port:	6080 () 6080 ()
Radio Systems Services Selex #1 Advanced Settings Analog	Use the gateway for R Use Encryption Always transmit when Data Call Confirmed Private Call Confirmed			
PTT over Cellular Remote Agents Friendly Servers Phone Connect V Data Sources				
 Email SMS Notifications Push Notifications License 				
Set Defaults		Apply	ОК	Cancel

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

Enter a name for the Selex 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).

SELEX IP Address

Enter the IP Address of the Selex 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).

5.9.10 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	^	Repeater #1	
Network		Name:	Kairos #1
🛱 Redundancy		IP Address:	10, 10, 155, 130 -
Database			
😪 Reports		User Name:	kairos
Service Management		Password:	•••••
💥 Advanced Settings			Test
Geocoding Servers			Test
🔚 Radio Systems		Radio ID:	64250 ‡
Services		Repeater Mode:	Mixed (Analog and Digital)
Kairos #1			
Slot #2			
Analog			
🛒 PTT over Cellular			
🐋 Remote Agents			
💀 Friendly Servers			
🔞 Phone Connect			
🖞 Data Sources			
🔀 Email			
SMS Notifications	~		
	1		
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.

5.9.10.1 Advanced Settings

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



Configuration	Advanced Settin	gs			
💣 Service	^				
😚 Network	Keep Alive Interva	il: 10	÷	seconds	
🖗 Redundancy	TX Timeout:	60	÷	seconds	
Database			Ŧ		
😪 Reports	Voice Call Hang	Time (ms):			
Service Management	Group Call:	3000	÷		
💥 Advanced Settings					
Geocoding Servers	Private Call:	4000	÷		
掘 Radio Systems	Emergency Call:	4000	÷		
Services					
Kairos #1					
X Advanced Settings					
I Slot #1					
I Slot #2					
Analog					
🖵 PTT over Cellular					
🚮 Remote Agents					
Friendly Servers					
🔞 Phone Connect					
Data Sources					
🔀 Email					
SMS Notifications	~				
Set Defaults		Apply		ОК	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).

Voice Call Hang Time (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.

5.9.10.2 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	
Database Reports		Audio Codec:	G.711µ-Law/8000	•
🔅 Service Management		Audio port KAIROS:	40000 ‡	
Advanced Settings		Audio port TRBOnet:	40000 ‡	
ーズ Geocoding Servers 品Radio Systems		Data port KAIROS:	40001	
Services		Data port TRBOnet:	40001	
Kairos #1				
🚛 PTT over Cellular इं Remote Agents				
Friendly Servers				
🐻 Phone Connect				
∲ Data Sources				
🔀 Email				
SMS Notifications	~			
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.

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.

5.9.11 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 control	er #1		
🛱 Redundancy	Connection:				
Database	✓ Use proxy for connect	ction			
😪 Reports			_		
Service Management	Controller IP Address:	10.10.150.110	*		
🔀 Advanced Settings	Controller Port:	4502			
Geocoding Servers	TRBOnet Local Port:	0	÷.		
🔚 Radio Systems			-		
Services	User Name:	test4			
WAVE 5000 controller #1	Password:	*****			
TT over Cellular	Profile:	all-channels			-
Remote Agents			_		
Friendly Servers		Test			
7 Phone Connect					
↓ Data Sources					
🔀 Email					
SMS Notifications					
Push Notifications					
📮 License					
Set Defaults		Apply		ОК	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.



5.9.12 Adding a Wave OnCloud Gateway

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

- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add WAVE OnCloud Gateway.
- In the **Wave OnCloud Gateway** pane, specify the following Wave gateway-related parameters:
 - Name

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

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

Enter the Client ID that will be used for authentication.

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

Enter the name of the agency that will be used.

Test

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

5.9.13 Adding an Analog Control 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	Name:	Analog Control Station
 Redundancy Database Reports 	Playback device: Recorder device:	Microsoft Sound Mapper · 라 Microsoft Sound Mapper · 라
 Service Management Advanced Settings K Geocoding Servers 	Serial port:	COM1 *
Radio Systems	TX Timeout:	the PTT is pressed ("Impolite" channel access)
Analog Control Station	Mic delay time:	0 ¹ milliseconds
Remote Agents Friendly Servers	Extended protocol: Signaling System:	None Vone Vone Vone
 ↓ Data Sources ↓ Email ► SMS Notifications 		Configure
SMS Notifications Push Notifications License		
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.

Recorder 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

Enter the time, in milliseconds, to be used as a delay time interval between pushing the PTT and starting voice communication.

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.

5.9.13.1 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	~	Schartore		
Network		Baud Rate:	19200	*
Redundancy				*
Database		Data Bits:	8	Ť T
Reports		Parity:	None	*
Service Management				
X Advanced Settings		Stop Bits:	1	*
Geocoding Servers		Handshake:	None	*
Radio Systems				
Services				
IPSC 1				
- 🛃 CP1				
Analog Control Station				
🛄 📅 Serial Port				
🛒 PTT over Cellular				
Remote Agents				
Friendly Servers				
R Phone Connect				
Data Sources				
🔀 Email				
SMS Notifications	-			
Push Notifications	v			
Set Defaults			Apply	OK Cancel

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

5.9.14 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:	ED 137 St	tation #1		
🛱 Redundancy	Local Interface:	10.10.10	0.99		- ¢
Database		0			
Reports	Local Port:	0		-	
Service Management	Station Radio User:	900			
Advanced Settings	✓ Use Control Port:	3008			
Radio Systems	Separated RX and TX	stations			
Services ED137 Station #1	RX Station:				
Advanced Settings	IP Address:	10.10.12	23.145		
🖵 PTT over Cellular	Port:	5060			
Remote Agents	TX Station:				
Friendly Servers					
🔞 Phone Connect	IP Address:	10.10.12	23.158		
	Port:	5060		; Test	
🔀 Email					
SMS Notifications					
Push Notifications					
Set Defaults		[Apply	ОК	Cancel

- In the **Control 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 RX and TX stations
 Select this option if the receiver and transmitter are separate devices with different IP addresses.
- IP Address

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

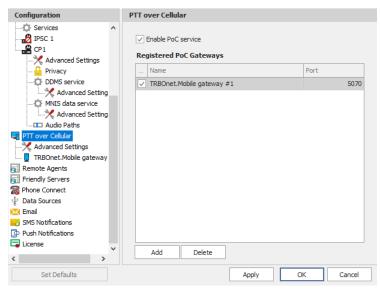
Port

Enter the port number (5060, by default).

5.10 PTT over Cellular

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

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



5.10.1 Advanced Settings

- In the **Configuration** pane, select **PTT over Cellular > Advanced Settings**.
- In the **Advanced Settings** pane, specify the following parameters:
 - Max Call Time Specify the maximum call time, in minutes.



Registration Interval

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

5.10.2 Adding a Mobile Gateway

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

Configuration		TRBOnet.Mobile gatewa	ay #1			
Services	^					
		Name:	TRBOnet.Mobile	gatew	ay #1	
		System Identifier:	Mobile 1			
		Local Interface:	127.0.0.1			- ¢
DDMS service		Local Port:	5070	÷		
Advanced Setting		Public Address/Domain:	84.52.107.217			
MNIS data service				*		
Advanced Setting		First VoIP port:	Default	÷		
Audio Paths						
TT over Cellular						
TRBOnet.Mobile gateway						
Remote Agents						
Friendly Servers						
🐞 Phone Connect						
↓ Data Sources						
K Email						
SMS Notifications						
Push Notifications						
📮 License	~					
< >						
Set Defaults			Apply		ОК	Cancel

Name

Enter a name for the mobile gateway.

System Identifier

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

Local Interface

Enter the IP address of the PC with TRBOnet Server.

Local Port

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

Public Address/Domain

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

Public IP Address	×
Detect pu	ıblic 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.

First VoIP port

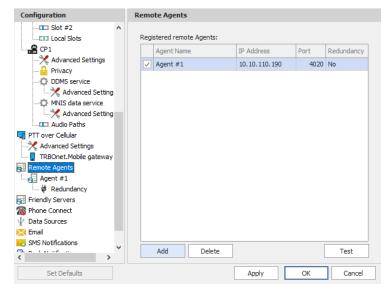
Enter the number of the first VoIP port for audio communications. The default value is specified in <u>Network Parameters</u>.

Note: In addition, for a better performance, make sure that the **Data protocol** parameter is set to **UDP** in <u>Network</u> <u>Parameters</u>.

5.11 Remote Agents

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

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



• In the Remote Agents pane, click Add.

Configuration	Agent #1			
	•			
Local Slots	Agent Name:	Agent #1		
CP1	IP Address:	10, 10, 110, 190		
Advanced Settings				
Privacy	Port:	4020 🗘	Test	
DDMS service	Use all services			
Advanced Setting	O Use only specifie	d services		
MNIS data service	Service Na			
Advanced Setting				
PTT over Cellular				
Advanced Settings				
TRBOnet.Mobile gateway				
Remote Agents				
Agent #1				
Redundancy				
Friendly Servers				
7 Phone Connect				
∲ Data Sources				
🔀 Email				
SMS Notifications				
< >>	Load services f	rom agent		
Set Defaults		Apply	OK Cano	el

• 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.

- 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.

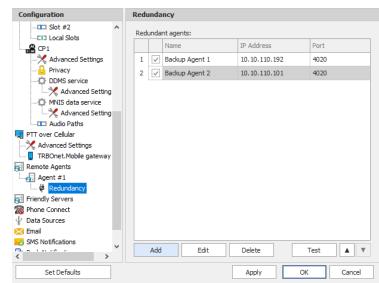
• Use only specified services

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

5.11.1 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:	4022	Tes	
Ose all service	es		
O Use only spe	cified services		
Service	e Name		
Landaania			
Load servic	es from agent		
		ОК	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.

- 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 only specified 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.

5.12 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**.



	_				
Configuration		Friendly Servers			
Services	<u>^ </u>				
		Registered Friendly Servers:			
💾 CP1		Name		IP Address	Port
		Region Server 1		10.10.101.167	4021
Privacy		Region Server 2		10.10.101.198	4022
DDMS service					
Advanced Setting					
MNIS data service					
Advanced Setting					
Audio Paths					
TT over Cellular					
TRBOnet.Mobile gateway					
Remote Agents					
Friendly Servers					
📸 Phone Connect					
🖞 Data Sources					
🔀 Email					
SMS Notifications					
📴 Push Notifications					
🗔 License			1	_	
< >	*	Add Edit	Delete		Test
Set Defaults			Apply	OK	Cancel

• In the Friendly Servers pane, click Add.

Server		×
Name:	Region Server 1	
IP Address:	10.10.101.167	
Port:	4021	Test
	OK Ca	ncel

- 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.

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

5.13 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
- In the **Phone Connect** pane, select **Use Phone Connect**.



Configuration		Phor	e Co	nnect				
Advanced Settings	^		Jse Ph	none Co	nnect			
DDMS service				SIP Se	rver			
MNIS data service		1	\checkmark	Intern	al PBX Server			
Advanced Settings								
Audio Paths								
PTT over Cellular								
TRBOnet.Mobile gateway #	1							
Remote Agents								
Friendly Servers								
Phone Connect								
Advanced Settings								
Advanced Settings								
↓ Data Sources								
🔀 Email								
SMS Notifications Push Notifications								
< >	. *		Ado	1	Delete		Test	
Set Defaults						Apply	ОК	Cancel

5.13.1 Advanced Settings

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

- In the **Advanced Settings** pane, specify the following parameters:
 - Max Ring Time

Specify the maximum ringing time, in seconds.

Max Call Time

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.

Address format	×
Address format:	
, %HOUSE_NUMBER%, %STREET_NAME%	-
Availablefields: %HOUSE NUMBER% %FLAT NUMBER% %STREET NAME% %COMMUNITY NAME%	
%STATE NAME% %POSTCODE% %COUNTRY NAME% %EXTRA INFO%	
OK	4

• Add the required fields to the address information.

5.13.2 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
Advanced Settings Privacy DDMS service Advanced Settings Advanced Settings Advanced Settings Advanced Settings PTT over Cellular Advanced Settings TRBOnet.Mobile gateway #1 Remote Agents Findly Servers Phone Connect	Internal PBX Server Local IP: 10.10.100.99
Advanced Settings Internal PBX Server Advanced Settings 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).

Dispatch Center

User Extension

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

User Name

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

5.13.2.1 Advanced Settings

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

Configuration	Advanced Settings	
1.0.0	Advanced sectings Packet time (ms): Codecs: Registration Interval (sec): DTMF Send Mode: First VoIP port: Use VoIP ports:	60 + G711µ,G711a,OPU5,OPU5,G729 + 3600 + RFC 2833 + Default + All +
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.

Codecs

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

Registration Interval (sec)

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

DTMF Send Mode

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



• First VoIP port

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

Use VoIP ports

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

5.13.3 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	Ext	ernal PBX Server			
PSC 1	^	Use External PBX S	erver		
Privacy		Provider optio	ns		
DDMS service		Address:	yourprovider.com		UDP -
Advanced Settings		Port:	5060 ‡	T	est
Advanced Settings		Local IP:	10.10.100.99	- ₽ Port:	5061 🗘
🛒 PTT over Cellular		Dispatch Cent	er		
TRBOnet.Mobile gateway #1		User Extension:	57068		
🔂 Remote Agents		User Name:	Dispatcher 1		
Friendly Servers		User Password:	****		
Phone Connect				Tes	t Call
Advanced Settings					
Advanced Settings					
the public for the second seco	~				
< >					
Set Defaults			Apply	ОК	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 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.

5.13.3.1 Advanced Settings

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

Configuration		Advanced Settings	
- 💋 IPSC 1	^		
CP1		Packet time (ms):	60 ‡
- X Advanced Settings		Codecs:	G711µ,G711a,OPUS,G729 -
Privacy		Registration Interval (sec):	3600 1
DDMS service			
Advanced Setting		DTMF Send Mode:	RFC 2833 -
MNIS data service		Do not register users on a	PBX server (SIP trunk)
Advanced Setting		Do not register internal	users on a PBX server
Audio Paths		Configure user's authorizat	ion
Advanced Settings			
TRBOnet.Mobile gateway		First VoIP port:	Default ‡
Remote Agents		Use VoIP ports:	All 👻
Friendly Servers		✓ Allow outgoing SIP calls	
The Connect		Available SIP numbers:	5555-6666
		Available DIF Hambers.	
- 2 Internal PBX Server			
External PBX Server			
X Advanced Settings			
🔤 🛱 Redundancy	v		
1 n + n			
Set Defaults			Apply OK Cancel

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

Enter the same value as specified in the phone system;

Codecs

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



Note: For more details on Phone System configuration, see <u>Appendix E: SIP Setup for Motorola Phone System</u> (page 394).

Registration Interval (sec)

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

Do not register users on a PBX server (SIP trunk) Select this option so that radios will use the SIP trunk system to get extensions.

Configure user's authorization

Click this link to set up user authorization for the systems with enhanced authorization parameters. It is recommended to be used when Radio ID is equal to SIP ID. In case when Voice is transmitted via Radio Channel, Radio ID is used. When voice is transmitted via a GSM channel, the SIP ID is used.

SIP	Authorization users	×
	User Extension	Authorization User Name
►	010101	User1
+	Add XDelete	OK Cancel

• Click **Add** to add a user.

• User 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

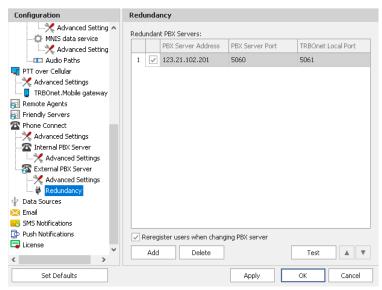
Enter the range of SIP phone numbers that will be available for outgoing calls.



5.13.3.2 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 check box beside the server address.
 - Register users when changing PBX server
 Select this check box so that phone users will be registered when the PBX server is switched to the redundant server.

5.14 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**.



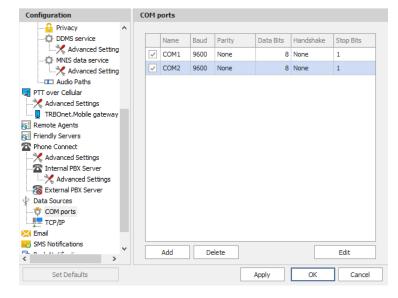
Configuration	Data Sources
Privacy DDMS service MVIS data service Advanced Setting Advanced Setting TRBOnet. Mobile gateway Remote Agents Friendly Servers Advanced Settings TRBOnet. Mobile gateway Remote Agents Friendly Servers Advanced Settings Data Sources COM ports TCP/IP Email SMS Notifications	I Enable Data Sources
Set Defaults	Apply OK Cancel

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

5.14.1 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.



×
COM1 •
None
1 • 8 •
None 🔹
ASCII 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 protocol

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

Stop bits per byte

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

Data bits per byte

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

Handshaking protocol

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

Text Encoding

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

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

Message delimiter

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

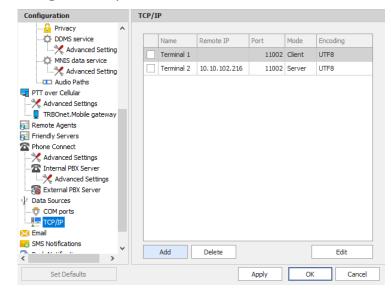
- Note: The Message delimiter types selected in the TRBOnet Server and in the connected application must be the same to avoid incorrect text display and incorrect data parsing.
- Click **OK** to save settings and close the dialog box.



5.14.2 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 Connecti	on	>
Name:	Terminal 2	
Mode:	Server (TRBOnet connects	to App) 🔻
Remote IP:	10.10.102.216	
Port:		11002 🗘
Protocol:	Text	•
Text Encoding:	UTF8	•
Ignore the fol	llowing data	
During:	30 🌲 min	
Do not consider	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.

• Do not consider 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.

5.15 Email Settings

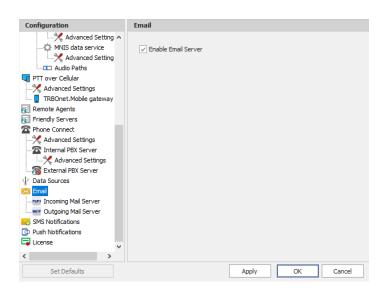
TRBOnet Dispatch Console allows processing emails as follows:

- 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).

- In the **Configuration** pane, select **Email**.
- In the **Email** pane, select **Enable Email Server**.

Note: Microsoft Exchange Server can be used as SMTP and POP3/IMAP servers.





5.15.1 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
Advanced Setting MNIS data service Advanced Setting THT over Celular TRBOnet.Mobile gateway TRBOnet.Mobile gateway TRBOnet.Mobile gateway TRBOnet.Mobile gateway TRBOnet.Mobile gateway TRBOnet.Mobile gateway TRBONEt.Mobile gateway TRBONEt.Mobile gateway Advanced Settings Triendly Servers Advanced Settings External PBX Server Data Sources External PBX Server	Incoming Mail Server ✓ Enable Server: imap.gmail.com ✓ This server requires a secure connection (SSL) Port: 993 Protocol: IMAP Check for new messages every: 60 Connect using
Incoming Mail Server	Password: ******
SMS Notifications C Push Notifications C License	Check New Emails Now
< > > Set Defaults	Apply OK Cancel

- In the **Incoming Mail Server** pane, specify the following incoming mail-related parameters:
 - Enable

Select this option to enable Incoming Mail Server.

- Server Enter the server hostname or IP address.
- This server requires a secure connection (SSL)
 Select this option to enable a secure connection. Note that a dedicated port will be used to connect to the mail server via SSL.



Note: The port number will automatically change when you select this option. For example, from **110** to **995** for POP3, and from **143** to **993** for IMAP.

Port

The port number to be used for the connection.

Note: This box is populated automatically depending on the selected protocol and whether a secure connection is required.

Protocol

From the drop-down list, select either **IMAP** or **POP3**. Note that if you select **POP3**, all email messages will be deleted from the server once you have downloaded them. In the case of **IMAP**, all new messages will be marked as read once you have downloaded them.

Note: The port number will automatically change when you change the protocol.

Check for new messages every X seconds

Enter the time interval to check for new email messages (60, by default).

Connect using

Choose one of the following options:

Anonymous access

Choose this option to use an anonymous access to the incoming mail server.

• Windows authentication

Choose this option to connect via TRBOnet Service Windows Account, if it is running under a specific account;

• Use login and password

Choose this option and specify the credentials for the mailbox:

✓ Login

Enter the incoming mail server login.

✓ Password

Enter the incoming mail server password.

Check New Emails Now

Click this button to synchronize the Incoming Emails folder and check for new emails.

5.15.2 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
Advanced Setting A	☑ Enable
Advanced Setting	Sender Email:
TT over Cellular	SMTP Server: smpt.gmail.com
Advanced Settings	Encryption: Implicit (SSL)
Remote Agents	SMTP Server Port: 465
Friendly Servers	Connect using
Advanced Settings	 Anonymous access
Thernal PBX Server	O Windows authentication
Advanced Settings	O Use SMTP user name and password
External PBX Server	User name: tested383
∲ Data Sources Kemail	Password:
Incoming Mail Server	Type: Auto -
Outgoing Mail Server	Send Test Message
Push Notifications	
📮 License 🗸 🗸	
< >	
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

Choose one of the following options:

Anonymous access

Choose this option to use an anonymous access to the SMTP server.

Windows authentication

Choose this option to connect via TRBOnet Service Windows Account, if it is running under a specific account;

Use SMTP user name and password

Choose 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 SMPT login type.

Send Test Message

Click this button to send a test message from the Sender Email address.

5.16 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 State, and other events).

- In the **Configuration** pane, select **SMS Notifications**.
- In the SMS Notifications pane, select Enable SMS Service.

Configuration		SMS Notifications						
Advanced Setting Audio Paths	^	Enable SMS Service Sender:						
Advanced Settings		Connection to GSM via:	V	/ianett servic	e (www	w.vianett.co	vm) ~	
Remote Agents		Login:	lo	ogin@yourcor	mpany	.com		
Friendly Servers		Password:	*	********	*			
Advanced Settings Internal PBX Server Advanced Settings Advanced Settings COM ports TCP/IP		Send Te	st MM	15		Send Test	SMS	
Email Gutgoing Mail Server Gutgoing Mail Server SMS Notifications Push Notifications License	~							
۲								
Set Defaults				Apply		ОК	Cancel	

• In the **SMS Notifications** pane, specify the following SMS-related parameters:



Sender

Leave this box blank.

Connection to GSM via

From the drop-down list, select the type of connection.

• COM port GSM modem

Select this item if you are using a GSM Modem connected via COM port. In addition, select the **COM port** the modem is connected to, and enter the **SIM Card Pin Code**.

• Gemalto Cinterion EHS6T LAN

Select this item if you are using a Cinterion EHS6T GSM modem connected via LAN. In addition, enter the **IP address** of the modem, and enter the **SIM Card Pin Code**.

• Vianett service

Select this item to use an account on Vianett service. For more details on Vianett service, see <u>www.vianett.com</u>

• SMS Broadcast

Select this item to use an account on SMS Broadcast service. For more details on SMS Broadcast service, see www.smsbroadcast.com.au

• Clickatell

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

For more details on Clickatell service, see www.clickatell.com

• IntelliSoftware

Select this item to use IntelliSoftware SMS Gateway. For more details on IntelliSoftware SMS service, see <u>www.intellisoftware.co.uk</u>

Login

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 Vianett account to recipient phone number.



Note: This button is available when connected via Vianett, SMS Broadcast, or Clickatell services.

5.17 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
Configuration Addo Paths Advanced Setting Advanced Settings TRBOnet.Mobile gateway TCP/IP TCP/I	Push Notifications Image: Server: push.trbonet.com Port: 8081 *
< >	
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 Console 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> Password.

Connect to TRBOne	t Server
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 Configure
Authentication:	
Method:	TRBOnet Authentication V
User Name:	admin
Password:	********
Remember pas Connect on sta	
	OK Cancel

Connect to:

Address

Enter the IP address of the TRBOnet Server to connect to.

Note: This is the **Network interface** parameter of TRBOnet Server configured in section <u>5.4, Network Parameters</u> (page 18).

Port

Enter the local port of the TRBOnet Server PC to accept connections from the Dispatch Console.

Note: This is the **Command port** parameter of TRBOnet Server configured in section <u>5.4, Network Parameters</u> (page 18).



Authentication:

Method

From the drop-down list, select the Authentication method:

- **TRBOnet Authentication** Select this method to log on as a User registered in the TRBOnet Dispatch Console Users list.
- Windows Authentication Select this method to log on using the PC name. The system automatically shows the PC name as a User Name.

Note: The Windows user must be registered in the TRBOnet Dispatch Console Users list.

User Name/Password

Enter the user name and password. For the default Admin credentials (User Name and Password), consult our support team.

Note: For security reasons, we strongly recommend that you change the password for the administrator immediately after the first login. For this, on the **Tools** menu, click **Change Password**.

Remember password

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

• Connect on startup

Select this option to launch the Dispatch Console application without having to type the User Name and Password every time. Use this option if you regularly connect to the same TRBOnet Server and your workstation is in a secure location.

6.2 Main Window Elements

When the TRBOnet Dispatch Console application is initially launched, the default Dispatch Console window will be displayed with the **Voice Dispatch** tab being active.



oice Dispatch 🤍	F	adio Interface										ĝ
🕹 🕼 🕼 🗄 🍸 🕯 🛠 🖻	1 61 /	Radio Interface Teleph	ony 🕺 Recent Ca	ills/Events								
	9									×) ci	lock
A Online Dispatchers (1)	-										Thursday,	September 30,
Administrator											11.	00
60.00	-										11.	06 AM
Online, Indoor										^	Quick Cor	nmands 🛛 🗙
Online, GPS Fixed		Contact Dialer			Group 11			Grou	n 72			nmands 🔀
Online, No GPS (2)									<u> </u>		Configure	
🚷 4444 🛛 🔍 😵	9		*		DTT	11		PT	22		Oueued M	lessages 🛛
🚯 Radio 125 😵		Me			F 1 1				•			-
Offline (19)	- II	Inc	110									• 拉 File 🔹
		Line 1 Lin	e 2 Line 3			Session:			Session:		To: Selected	6*
1		Line 4 Lin	e 5 Line 6			Free channel	4		Free channel		Pat	<u> </u>
Voice Dispatch												
1 .		1 3	2 3			Sender:			Sender:			PTT Box here to
Location Tracking		4 9	6 6)		create	new group
o		7 8	9									dio Raidao
Job Ticketing					RX / TX			RX / 1	rx	-	Rat 1	dio Bridge 🕕
7							<u></u>			<u></u>	PTT	Unknown
Coute Management										~		Any Groups
1	R	ecent Calls/Events										
Text Messages	6	🖗 Playback 🛛 🗔 Save 🕶 🧯	👌 Print 📔 Pa	use 🦪 Clear	r 🔹 🌀 Reload	d 🏾 🌃 Filter By F	adio 🛛 🐺 Group	ing 🍸 Auto	Filter 🍥 Default Setti	ings 📑 Details	Show Notes	Add Note
Voice Recording		Date	System	Sender	Destination	Descriptio	n		Details			Note
		30-Sep-21 10:57:47 AM	Mobile 1	4444	Administrator	Private C	ll: '4444' called 'Ad	ministrator'	Talkers: 4444, Administra	stor		
Reports				Administrator	22	Group Ca	l: 'Administrator' ca	led '22' (00	Talkers: Administrator			
Reports				Administrator	11				Talkers: Administrator			
Event Viewer		30-Sep-21 10:57:00 AM		Administrator	All		dministrator' called		Talkers: Administrator			
Event Viewer		30-Sep-21 10:56:10 AM		4444	Radio 125			dio 125 (00	Talkers: Radio 125, 4444			
Radio Allocation		30-Sep-21 10:55:16 AM		4444	All	Battery:						
) Radio Allocation		30-Sep-21 10:52:59 AM		Radio 125	11	Group Ca	: 'Radio 125' called	'11' (00:04)	Talkers: Radio 125			
		44 4 Record 1 of 7 🕨 🗰										
Administration		Recent Calls/Events Requi	ests To Talk Rad	iio State Act	ive Tasks Act	we Routes User	Activity Map	Cameras				

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 104).

• File > Exit

Choose this menu item to exit TRBOnet Dispatch Console.

6.3.2 View

The **View** menu contains the following items:



• View > Show Navigation Pane

Choose this menu item to toggle the display of the Navigation pane on the left of the main window. The Navigation pane includes two panes: the Radio list pane and the Modules tab panel (see section <u>6.2, Main Window Elements</u>).

• View > Show Touch Keyboard Button

Select this menu item to display a Touch Keyboard button on the bottom of the Modules panel. Clicking this button will bring up a virtual keyboard on the screen.

• View > Show Modules

Choose this menu item, and in the drop-down menu select/deselect the modules to display in the Modules tab panel.

• View > Additional Tabs

Choose this menu item, and in the drop-down menu select/deselect the tabs to display in the Activity Monitor panel.

• View > Configure PTT Boxes

Choose this menu item to configure the view of PTT boxes.

lame:	Radio Interface			
Туре	Name	View Mode	Available Calls	
Channel	Intercom	Normal		
Channel	Control Station #1	Normal	All	
Group	Group 1	Normal	Firemen	
Group	Group 2	Normal	Police	-

In the **Configure PTT Boxes** dialog box, specify the following PTT box parameters:

• 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 Sta	Control Station #1	
OTT	Chan	nel 1
PTT	All Call	-
	Session:	
	Free channel	
	Sender:	
RX/TX -		
, <u> </u>]

• Minimized

Select this mode so that the PTT box will be displayed in Minimized view mode:

Control Station #1 🛛 🕕 🥑

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				×
virtual Channel				^
Name:	Group Call			
Call Type:		Call Destinat	ion:	
All Call		Select by D	ispatcher	
Group Call		Selected from the selected	om list	
O Private Call				-
Execute call or	n channels:			
O Execute call o		annels		
Execute call o	nly on selected	channels		
Control S	tation #1			
Intercom				
Local Brin	ie's : #1: Slot #1			_
	#1: Slot #1			
I Repeater	#1.000 #2			
			ОК	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**,

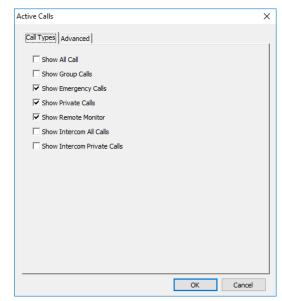
or **Execute call only on selected channels** and in the list below select the available channels.

• 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:



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 Calls for

Select this option to display Missed calls in the Active Calls panel, and specify the duration of displaying Missed Calls, in seconds.

Active Calls	×
Call Types Advanced	
Image: Show Visible Channels Image: Show Hidden Channels Image: Show Requests To Talk Image: Show Missed Calls for:	600 🔺 seconds
	OK Cancel

The **Active Calls** panel is displayed in the upper part of the Dispatch Console:

TRBOnet Enterprise — User Manual



Voice Dispatch	Radio Interface					Q
💼 🗄 👶 🛠 🍸 😒	Radio Interface Recent Ca					
Administrator	Control Station #1 [PTT Police Administrator	Active Ca	ls		Configure	ommands Messages
🛛 📑 Firemen 📃					A Record	🔻 😰 File
📙 Police 📃	Intercom		Control Station #	£1 0 €0	To: Selected	
Voice Dispatch	PTT All Call		PTT	Channel 4	Drag and Dro	p PTT Box here to new group
😹 GPS Positioning	Session: Free chann	vel	Sessio			
😸 Job Ticketing	Sender:		Police Sende			
😥 Route Management				nistrator		
RFID Tracker	RX/TX]][[RX / TX]		
C Text Messages	Recent Calls/Events				~	
Voice Recording	🗐 Playback 📓 Save 🛛 😫 Pri	int 📕 Pause ợ Clear 👻	🏐 Reload 🛛 🌇 Fil	ter By Radio 🚍 Groupi	ng 🍸 Auto Filter 🧇	Default Settings
<u> </u>	29-Sep-2016 17:03:17 Cor	dio System Sender ntrol Station Administrator ntrol Station Administrator	Police Dis	essage spatcher 'Administrator' spatcher 'Administrator'		Note
😽 Reports			Poice	patorier Auministrator		
Reports		ntrol Station Administrator		apatcher 'Administrator'		
	29-Sep-2016 17:02:00 Cor 29-Sep-2016 17:01:47 Cor	ntrol Station Administrator ntrol Station Administrator ntrol Station Administrator ercom Administrator	Firemen Dis Police Dis	apatcher 'Administrator' apatcher 'Administrator' apatcher 'Administrator' tercom Call: Dispatcher '	Members: Administrator Members: Administrator	

• View > Customize Hot Keys

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

	Le u	
HotKey	Action	Caption
Shift	Terminate All Transmitions	Terminate all
Enter	Default PTT channels	Transmit
[L]	PTT	Intercom
[Shift]+[H]	PTT	Repeater #1: Slot #1
[Shift]+[O]	PTT	Repeater #1: Slot #2
	PTT	Local Brine's
	PTT	Control Station #1
	PTT	Group 2
144 44 4 Record 5 of 10	F H4 44	Þ

- To configure hotkey 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 hotkey or a combination of hotkeys.
- To configure specific non-PTT actions to PTT boxes (for example, mute channels or set default PTT channels), click the **Create** link to make the changes:



Action		×
Caption:	Mute Mode	
HotKey:	Ctrl	G
Device Button:	Foot (Footswitch PTT)	Ŧ
Action:	Mute channels	Ŧ
Channels:		
 ✓ Telephony ✓ Intercom ✓ Dispatcher Group ✓ Dispatcher Group 		▲
Group 11		
Group 22		
All Call		-
	OK Cancel	

In the **Action** dialog box that appears, specify the following parameters:

• Caption

Enter the caption that will be displayed in the Dispatch Console.

• HotKey

Click the **Configure** button, and on the keyboard, press the key or key combination you want to assign as a hot key 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:

✓ Set Select/Unselect channel states

This action sets the Select state to selected PTT boxes and the Unselect state to others.

✓ Mute channels

This action mutes selected PTT boxes.

✓ Unmute channels

This action unmutes selected PTT boxes.

- Set Mute/Unmute channel states
 This action sets the Unmute state to selected PTT boxes and the
 Mute state to others.
- ✓ Terminate All Transmissions This action terminates all transmissions for selected PTT boxes.
- ✓ Configure Channel

This action will configure settings, such as Recorder, Player, Speaker, etc., for the channel specified below.

✓ Configure Audio

This action will configure the Audio 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 hot keys in the Dispatch Console, select the **Show actions panel** option.

All the hot keys you have configured are displayed in the upper part of the Dispatch Console:

File View Map Tools Help		
Voice Dispatch	Radio Interface	👲 🐠
📴 🗄 🗄 👶 🗶 🍸 😒	Radio Interface Recent Cals/Events Rados Terminate all Transmit	Quick Commands
Online Dispatchers (1)	Active Calls	Configure
Administrator		Queued Messages X
🐵 📑 Firemen 📮		🔘 Record 🔻 😰 File 👻
Police 📮		To: Selected Channels
	Intercom	Patch X
Voice Dispatch	PTT All Call PTT Channel 4 All Call v	Drag and Drop PTT Box here to create new group
GP5 Positioning	Session: Session:	
🔡 Job Ticketing	Free channel Free channel	
😥 Route Management	Sender:	
RFID Tracker		
C Text Messages		~
🔮 Voice Recording	Recent Calls/Events (□) Playback J Save + (□) Print II Pause ✓ Clear + (③) Reload (□) Filter By Radio (□) Grouping	📲 🕎 Auto Filter 💿 Default Settings
Reports		tails Note
Event Viewer	29-Sep-2016 18:15:42 Intercom Administrator Al Intercom Cal: Dispatcher ' Mer 29-Sep-2016 19:15:22 RadoGerver Al Connection to 'Control Sta 29-Sep-2016 17:25:32 Intercom Administrator Al Intercom Cal: Dispatcher ' Mer	
10 Radio Allocation	29-Sep-2016 17:27:00 Control Station Administrator Police Dispatcher 'Administrator' Mer	
Kaulo Allocation	29-Sep-2016 17:26:48 Intercom Administrator All Intercom Call: Dispatcher' Mer	mbers: Administrator
Administration	Image: Model and Model	
🔂 127.0.0.1 🔉 🛋 🛸 🛸 🕱 Administr	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	Intercom	Normal		
Channel	Control Station #1	Normal	All	
Group	Group 1	Normal	Firemen	
Group	Group 2	Normal	Police	
Channel	Repeater #1: Slot #1	Normal	All	
Channel	Repeater #1: Slot #2	Normal	All	
Channel	Local Brine's	Normal	All	
All Call	All Call	Normal		

- In the Configure Voice 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							6	<u>e</u> 4
1 🗄 1 👶 🛠 7 🛇		Radio Interface Radio I Terminate all Transmit	Interface #1	Recent Calls/Ev	vents Radios	1		Quick (Commands	
🔉 🦣 Online Dispatchers (1)				Active C	alls		×	Configu	re	_
Administrator								0	d Messag	[
Firemen										
Police	픪								rc 👻 🎦 File	_
Police	2						^	To: Sele	cted Channels	
		Intercom	•0)		Control Sta	ation #1 🗾 🖪			Patch	
		All Ca				Channel 4				_
		PTT			PTT	All Call		Drag and to cre	Drop PTT Box h sate new group	ner I
Voice Dispatch						All Call	•			_
		Session				Session:				
GPS Positioning		Free d				Free channel				
*										
🚰 Job Ticketing		Sender				Sender:				
Route Management										
i Route Hanagement										
RFID Tracker		RX / TX		_	RX / TX -		_			
Text Messages		Description of the local data					~			
-		Recent Calls/Events			10 n					
Voice Recording		🖾 Playback 🛃 Save - 🤤			-			Auto Filter		_
-		Date 30-Sep-2016 10:48:54	Radio System Intercom	Sender Administrator	Recipient	Message Intercom Call: Dispatche.	Details	and a first sector of the sect	Note	
Reports		29-Sep-2016 18:15:42	Intercom	Administrator	All	Intercom Call: Dispatche.				
		29-Sep-2016 17:53:22	Intercom	RadioServer	Al	Connection to 'Control S.		ministrator		
Event Viewer			Intercom	Administrator	Al	Intercom Call: Dispatche.		ministrator		
-		29-Sep-2016 17:27:00	Control Statio	Administrator	Police	Dispatcher 'Administrato.	Members: Ad	ministrator		
Radio Allocation		29-Sep-2016 17:26:48	Intercom	Administrator	All	Intercom Call: Dispatche.	Members: Ad	ministrator		
		H4 44 4 Record 1 of 303	F H4 4							Þ
Administration										

• 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
	Session:
\bigcirc	Sender:
d	nannel not selected

Click the arrow of the drop-down list and select the channel for this PTT box.

• View > Show Call Type Buttons

Select this menu item to display the Call Type Buttons panel in PTT boxes.



IP Site Con	nect: Slot #1
PTT	All Call Radio Grp Num List
8	Session: Free channel Sender:
RX / TX	

• View > Show Keypad Panel Select this menu item to display the Keypad panel in PTT boxes.

P	TT	0 Radio	Grp Nur	▼ List
1	1	2	3	
	4	5	6	
	7	8	9	
	С	0	<	
R	х / тх —			-

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>.

Filename Description Severity Hot Key Visibility Alarm Tone Alarm Hidden Hidden Bobby.wav Information Button Daisy.wav Information Link	🕨 Add 🗙 Remo	ve 🍸 Filter 🛛 Hot Key			
Bobby.wav Information Button	Filename	Description	Severity	Hot Key	Visibility
Bobby.wav Information Button	Alarm Tone		Alarm		
	Bobby.wav		Information		Button
	Daisy.wav		Information		

- 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).

• Hot Key

Click the **Hot Key** button and press the key or key combination you want to assign as a hot key 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 Trans	smit						Quick Commands
		Active	Calls			×	Configure
					1 2		Queued Messages
							🥥 Record 🔻 🏠 File 💌
						^	To: Selected Channels
Intercom	*))		Control 5	tation #1	• • •		Daisy.mp3
	All Call			Chan	nel 4		Bobby.mp3
PTT			PTT	All Call	•		To: All Channels
	Session:			Session:			Patch 🛛
	Free channel			Free channel			Drag and Drop PTT Box here to
							create new group
	Sender:			Sender:			
RX/TX -			RX / TX				
			<u> </u>			~	

• View > Extended PTT boxes

Select this menu item to display PTT boxes as shown:

\checkmark		Con	trol Statior	า #1	
P	TT	Control Sta Channel 1	ation #1	•	• •
Tone	& PTT	RX/TX	Free channel		Terminate
	Call:	All Call		-	Check
÷	•	1	2	3	Call Alert
		4	5	6	Monitor
		7	8	9	
Spk) Mic	С	0	<	123

• 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 states 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.

Name: Police				
Voice Box States:		Defaults	Preview:	Large PTT Boxes
MasterRadio disconne Free channel La Request To Talk // Transmit state - All Call - Group Call - Private Call - Renote Monitor - Receive state - All Call			PT	rol Station / Channel d 2 0 Channel Recipients Session: Free channel Sender:
Configure Colors:		✓ Defaults		
Title Font Color:		-	RX /T	x
Back Color:	255, 213, 213	•	<u> </u>	
Border Color:		Ŧ		
Font Color:	108, 0, 0	¥		
Fields Border Color:		×		
Indicator Back Color:		*		
Indicator Fore Color:		*		
PTT Color:				

• View > Show Active Calls Panel

Select this menu item to display the Active Calls panel in the Dispatch Console.

See also Configuring Active Calls 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 Queued Messages Panel

Select this menu item to display the Queued Messages panel (3) in the Dispatch Console. For more details, see section <u>6.5.7, Queued 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, Patches</u>.

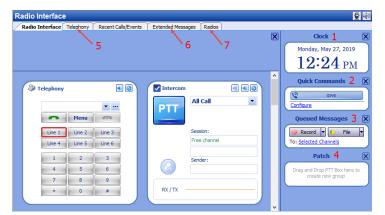
• View > Show Phone Calls Tab Select this menu item to display the Phone Calls tab (5) in the Radio Interface pane.

• View > Show Extended Messages Tab Select this menu item to display the Extended Messages tab (6) in the Radio Interface pane.



• View > Show Radios Tab

Select this menu item to display the Radios tab (7) in the Radio Interface pane.



6.3.3 Map

- Select **Location Tracking** (1) in the Navigation pane to enable Map Options:
- Click the **Map** menu (2).

ocation Select A	Active Map						🔮 🚯 🕒	Objects	-
I II II Save Or	nine Map Data							E E	
Hap Co	ontent	ee	📲 🥥 🖉 🗖	itercom	• • •	Group 10	• • •	CI	
- Print		•))		roup 20		Group 11		😔 📝 📴 Beacons	
Fire Geocod	ling	100		ivate Cal					
Coen N	lew Map in Tab			Hute cur				🗹 🎯 Coffee	
A 1	lew Map in Window	Floor plan 🗶						🗹 🍛 Tea	
Polic		— 🗇 🕶 Filter: 🛞	0000	7 🧕 Show Bea	cons: All	- 🥖	Drawing Panel		
Google		🕞 👍 🎓 🕯) 🏠 🏠 😭	😒 Custom Object	-			📝 < Camera 1 📝 🌩 Hospital	
Voice	Route on Google Earth	1						V Police	
Show R	adios on Google Earth	· 6						- Map Regions	
Location Tracking	-	- 4						L- 🗹 🌱 Region 1	
,		-1 .						🖨 📝 🗁 Map Routes	
Job Ticketing								- 🛛 🎝 📩 111	
⁹ Route Managemen	it		-			235			
RFID Tracker	st		Hospita	al		235	6		
-	.30 m			al	Lattude: !	125	ngitude: 30°16'49,88" E	Þ	
RFID Tracker	<u>,30 m</u>	alls/Events		a	Lattude: !	125		Þ	
RFID Tracker	 Recent G	alls/Events	Hospita			125 59'56'27,63'' N; Lo	ngitude: 30"16'49,88" E	E Iter 🗇 Default Settings	
RFID Tracker Text Messages Voice Recording	 Recent G	alls/Events ack 📕 Save - 🚇 P	Hospita			125 59'56'27,63'' N; Lo	ngitude: 30"16'49,88" E	E Iter ۞ Default Settings Details	
RFID Tracker Text Messages Voice Recording	 Recent C	alls/Events ack 📕 Save - 🚇 P	Hospita rint 11 Pause	🏈 Clear - 🇐 Re	load 🌇 Filte	125 59'56'27,63'' N; Lo er By Radio	ngitude: 30"16'49,88" E		
RFID Tracker Text Messages Voice Recording Reports	 Recent C □ □ Playb □ Date ↓ 09.06. ♥ 09.06.	alls/Events ack Save - D Ra 2017 14:43:57 .2017 12:43:30 Ca	rint II Pause adio System spacity Plus 1	Clear - Sender Sender Server Administrator	Ioad Ti Filte Recipient All 11	Er By Radio Encoded Connection	ngitude: 30°16'49.88" E Grouping 🍸 Auto Fil to 'Capacity Plus 1' h 'Administrator' calls gr	Details Members: Administrator, 12	5
RFID Tracker Text Messages Voice Recording Reports		alls/Events ack Save - D Ra 2017 14:43:57 2017 12:43:30 2017 12:40:06 Ca	rint II Pause adio System spacity Plus 1 spacity Plus 1	Clear + Sender Sender Server Administrator 125	load Filte Recipient Al 11 11	er By Radio	ngitude: 30°16'49.88" E Grouping 🍸 Auto Fil to 'Capacity Plus 1'h 'Administrator' calls gr calls group '11' (00:08)	Details Members: Administrator, 12 Members: 125	5
RFID Tracker Text Messages Voice Recording Reports	30 m Recent C ♥ Playb Date ♥ 09.06. ♥ 09.06. ♥ 09.06. ♥ 09.06.	alls/Events ack Save - P 2017 14:43:57 2017 12:43:30 2017 12:43:50 2017 12:39:55 2017 12:39:55 2017 12:39:55	rint II Pause adio System pacity Plus 1 pacity Plus 1 pacity Plus 1	Clear - S Re Sender Server Administrator 125 Administrator	Recipient All 11 11 11	Espisor 27,63" N; Lo Espisor 27,63" N; Lo Er By Radio Espisor Message Connection Dispatcher Radio '125' Dispatcher	Grouping Y Auto Fil to 'Capacity Plus 1'h Administrator' calls gr calls group '11' (00:08) Administrator' calls gr	Details Members: Administrator, 12 Members: 125 Members: Administrator	5
RFID Tracker Text Messages Voice Recording Reports Event Viewer	30 m Recent C C P Playb Date ☆ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06. ♀ 09.06.	alls/Events ack Save - P R R 2017 14:43:57 2017 12:43:30 2017 12:43:06 C2 2017 12:39:55 C2 2017 12:39:34 C2	rint II Pause adio System apacity Plus 1 apacity Plus 1 apacity Plus 1	Clear - Sender Sender Server Administrator 125	load Filte Recipient Al 11	Espisor 27,63" N; Lo Espisor 27,63" N; Lo Er By Radio Espisor Message Connection Dispatcher Radio '125' Dispatcher	Grouping Y Auto Fil to 'Capacity Plus 1'h Administrator' calls gr calls group '11' (00:08) Administrator' calls gr	Details Members: Administrator, 12 Members: 125	5
RFID Tracker Text Messages Voice Recording Reports Event Viewer	30 m Recent C IP Playb Date ½ 19:06 Ø 90:06 Ø 90:06	alls/Events ack Save - P R R 2017 14:43:57 2017 12:43:30 2017 12:43:06 C2 2017 12:39:55 C2 2017 12:39:34 C2	rint II Pause adio System apacity Plus 1 apacity Plus 1 apacity Plus 1 apacity Plus 1 apacity Plus 1 apacity Plus 1	Clear - Sender Sender Administrator 125 Administrator Administrator	Ioad To Filte Recipient All 11 11 11 Police	ES9'56'27.63'' N: Lo er By Radio Message Connection Dispatcher Radio '125' Dispatcher Dispatcher	Grouping Y Auto Fil to 'Capacity Plus 1'h Administrator' calls gr calls group '11' (00:08) Administrator' calls gr	Details Members: Administrator, 12 Members: 125 Members: Administrator Members: Administrator	Þ

The **Map** menu contains the following items:

- Map > Select Active Map
 - Click this menu item to select the map to display in the Dispatch Console.

	Path		State
IAPNIK			OK
YCLE			OK
RANSPORT			OK
ANDSCAPE			OK
ING_ROAD			OK
ING_AREA			OK
ING_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.

Add Map Name: Map 1 Map Type: VINS (Web Map Service) URL: http://maps.dgu.udel.edu.30/geoserver/DGS_Sufficial_and_Contact_Geology/wms	
Map Type: WMS (Web Map Service) URL: http://maps.dgs.udel.edu.30/geoserver/DGS_Suficial_and_Contact_Geology/wms	
Map Type: WMS (Web Map Service) URL: http://maps.dgs.udel.edu.30/geoserver/DGS_Suficial_and_Contact_Geology/wms	•
URL: http://maps.dgs.udel.edu:30/geoserver/DGS_Suficial_and_Contact_Geology/wms	-
Get Capabili	ties
Map Title Identifier Description Style	
☑ US-DE DGS US-DE_DGS This map shows the surficial geology of D DGS Statewide Geologic №	
US-DE DGS US-DE_DGS This map shows the surficial geology cont DGS Geologic Statewide M	Map
	_
http://maps.dgs.udel.edu.80/geoserver/DGS_Surficial_and_Contact_Geology/wms?REQUEST=GETMAP&SEI	R 📑

- Enter a **Name** for the new map.
- Map Type

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 check box 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.

Tiles bulk downloader	-		×
Region from: N59°57'07.92" E030°14'33.51" to N59°56'4	8.68" EC)30°19'02	2.27"
Expire tiles days: 30			
Redownload all tiles			
Zoom level: 14 Tiles to download: 40			
Status: Finished Loading Joom level: 14 Loadied from the web: 0 Loadied from the web: 39 Loadied form the web: 39 Failed: 0			
Show tiles preview Show tiles progress			
Loaded: 40 of 40 (100 %)			
Sta	t	Clos	e

In the dialog box, specify the following parameters:



• Expire tiles 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.

Redownload 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.

Show tiles preview

Select this option to show how the map is divided into tiles.

Show tiles progress

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.

nline Map			-		×
Map cache					
Cache folder:					
D:\Temp\Maps					
				Change	
Update:	Never	\sim			
Map Type:	BING_ROAD			~	
Bing key:					
http://msdn.micros	oft.com/en-us/library/ff428642.aspx				

In the **Online Map** dialog box, specify the following settings:

• Cache folder

Click **Change** and locate the folder on the PC where you wish 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.

• Мар Туре

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 122).

A < 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>6.4.20.2, 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.

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×
PC
V
ancel
driver

Load data from TRBOnet Server if Geocoding services are inaccessible from 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>5.8.1.1, Configuring Geocoding Servers</u> (page 27).

• Map > Open New Map in Tab

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

Map Type:	Online maps			,
nop i jper	onine mopa			
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		Remove	OK	Cancel

• Мар Туре

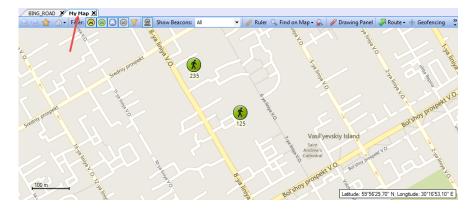
From the drop-down list, select the map type.

Caption

Enter a caption for the new map tab.

• For other settings, see <u>Selecting Active Map</u>.

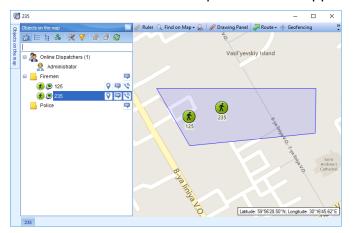
Once you have clicked **OK**, the new tab will appear in the Map pane:



• 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

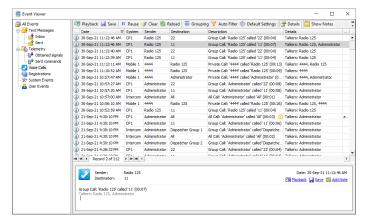
Click this menu item to open the Google Earth application.

- 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.



• Tools > Recent Calls/Events in Window

Click this menu item to open Recent Calls/Events in a new window.



30-Sep-21 1 30-Sep-21 1 30-Sep-21 1 30-Sep-21 1 30-Sep-21 1	1:12:46 AM 1:12:40 AM	CP1 CP1 CP1 CP1	Radio 125 Radio 125 Radio 125	22 11	Group Call: 'Radio 125' called '22' (00:04) Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125 Talkers: Radio 125, Administr	
30-Sep-21 1 30-Sep-21 1	1:12:40 AM	CP1			Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administr	
30-Sep-21 1			Radio 125				
	1:12:39 AM	004		22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
30-Sep-21 1		CPI	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
	1:12:11 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125	
30-Sep-21 1	1:10:52 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Takers: 4444	
30-Sep-21 1	0:57:47 AM	Mobile 1	4444	Administrator	Private Call: '4444' called 'Administrator' (00:02)	Talkers: 4444, Administrator	
30-Sep-21 1	0:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
30-Sep-21 1	0:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
30-Sep-21 1	0:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator	
30-Sep-21 1	0:56:10 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444	
30-Sep-21 1	0:55:16 AM		4444	All	Battery: 80%		
30-Sep-21 1		CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	Þ

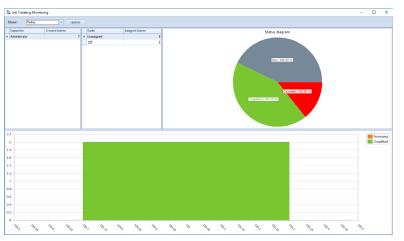
- Click **Playback** to play back the selected call.
- Click Save to save the selected call as an audio file.
 - In the **Save As** dialog box, locate the folder where you want to save the audio file, specify the file name, and from the drop-down 'Save as type' list, select the format (*.wav, *.tna, or *.ogg) for the audio file.
- Click Add Note to add a note to the selected event.

Note	×
Well done	*
Add Extension	 v

- 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.

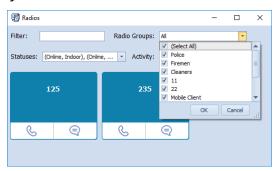


- Monitor tickets created by dispatchers.
- Monitor tickets assigned to radios.

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.



In this window, you can make radio calls, send text messages. In addition, you can select to display radios by groups and states.

• Tools > Phone Calls in Window

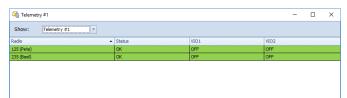
Click this menu item to open a new window that displays Phone Calls available in the system.



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

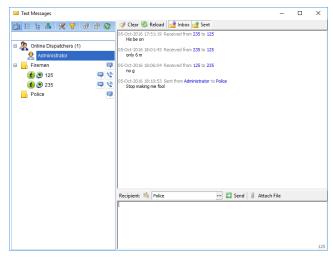
Click this menu item to open the window that displays configured telemetry profiles for the radios.





- From the **Show** drop-down list, select the Telemetry profile to display. See also section <u>6.4.12</u>, <u>Telemetry</u> (page 223).
- Tools > Text Messages in Window

Click this menu item to open a new window to manage text messages.



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.

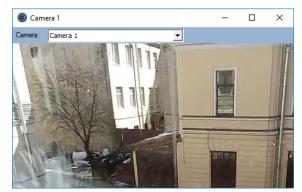
• Tools > Routes in Window

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 337).

• 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 216).

• **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>6.4.30.2</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.

Contacts		×
All 👔	Specify text to searh	
-0	👷 Dispatcher Group 1	*
😤 Dispatcher	Dispatcher Group 2	
🞘 Disp. Group	Administrator	
Radio	🧏 Disp 1	_ ☆
	🧏 Disp 2	☆ _
Radio Group	😤 Disp 3	
Phone	2222	☆
	3333	
ravorites	4444	습
	5555	습 습 -
	PA 2	☆ 🚽
ОК	Cancel	

Creating favorites

• In the right pane, click the grey star on the right of the contact's name until it turns yellow.

Creating shortcut buttons

• Click the **Favorites** tab.

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Contacts		×
All	Specify text to searh	
	👷 Dispatcher Group 1	۵ 🖈 🔍
🙎 Dispatcher	Real Dispatcher Group 2	e 🖉
🖄 Disp. Group	🧼 Eugene	●☆
Radio	🥔 Walt	
Radio Group		
🧊 Phone		
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							
ound	Map	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Call
Ø,	Con	figure the Sound I	Notification				
🗹 Us	e Sound	Notifications					
		the individual sour ne list and specify					
even	t from t	ne list and specify	a demanded	i sound file o	ruse a π	ie by det	aut
_							
	D Talk						
) Tak						
) Line I						
		n or Emergency Ca					
		message received					
		mation received					
		ing received					
1 3	· · · · ·	n received					
	👂 Syste	em error					
	🖏 Alarn	1 Tone					
	🖏 Priva	te call					
	Requ	est To Talk / Misse	ed call				
	a Radio	Online					
٩	a Radio	Offine					
Soun	d:						
(Sou	nd by de	efault)			~	Se	ect
Alarn	n or Eme	rgency Call durati	on:	5 🌻	second	s	

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 listen to the sound notification for the selected event.

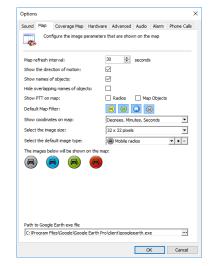


• Click **Select** and browse for the audio file on your PC.

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.



• Map refresh interval

Enter the time period, in seconds, to update map data.

- Show the directions of motion Select this option to display a direction of motion for map objects.
- Show names of objects

Select this option to display object names on the map.

• Hide overlapping names of objects Select this option to hide overlapping object names.

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 the image size

From the drop-down list, select the size of a radio icon.

• Select the default image type

From the drop-down list, select the default image type of a radio icon.



• Path to Google Earth exe file

Click the ellipsis (...) button and specify the location of the Google Earth exe file on your PC. For example, the path may look like: *C:\Program Files\Google\Google Earth Pro\client\googleearth.exe*

Coverage Map

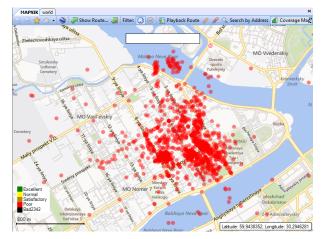
TRBOnet Dispatch Console allows displaying RSSI levels on a map. The RSSI is a received signal strength indicator. It measures the power level of the RX signal at a repeater's receiver. The RSSI maps can be used by radio system engineers to plan further extension of their radio networks.

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

0	Draw in Dots					
۲	Draw Covera					
	100 🛨 RS	SI Zone S	iize (m)			
	Value (dB)		escription	Col		
Þ			kcellent		0, 128	
L		-81 N			255,	
			atisfactory		184,	
H		-113 Pr -co Bi			139, 0 255, 0	
H		-00 04	su		255, 0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Add	Dele	te		Def	ault
_						
	Add	- Color			001	

Draw in Dots

For a more detailed data view, choose this option to display on the map, dots of RSSI levels representing coordinate points.



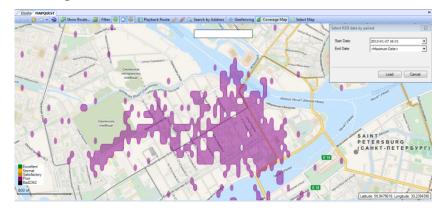
Draw Coverage Zone

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).

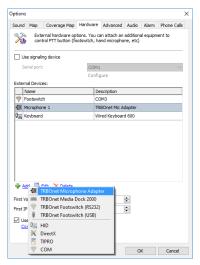
- **Description** Enter the name of the RSSI level to display in the system.
- Color

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.



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 Private Call Call Alert Alarm	10 🔔 seconds
	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.



Co	onfigure th	e proxy server	×
[🗸 Use an a	Iternative server	
	Settings		
	Address:	177.71.134.70	
	Port:	80	
	Authentica	tion	
	🗸 Use au	uthentication	
	Login:	User	
	Password	•••••	
		OK Cancel	

Advanced

• In the **Options** dialog box, click the **Advanced** tab.

Sound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone Call
<u>%</u>	Adv	anced application	options				
Confi	guratio	on Scope					
O Pe	er machi	ne: all dispatchers	share the s	ame workspa	ice		
Pe	er user:	a separate works	pace for eac	h Windows u	ser acco	unt	
PTT C	ptions						
T T	ne and	PTT when using a	n external P	TT device			
🗌 U:	se Recor	rd Mode with exte	rnal PTT dev	ice			
🗹 S.	uggest C	Queued Message v	when channe	l is busy or s	ubscribe	r radio is	offine
🗹 Er	nable sti	cky PTT					
🗹 U:	se 'Spac	e' key to press PT	T Configure.				
🗌 Er	hable Sin	ngle PTT Select mo	ide				
Voice	Optior	15					
🗌 M	ute othe	er dispatchers					
🗌 M	ute radii	o-to-radio private	calls				
🗌 M	ute all d	hannels when trar	nsmitting or r	ecording auc	lio		
🗌 M	ute the I	tone when receivi	ng a Tone ar	nd PTT call			
🗌 Pl	ay a sou	ind when starting	a Tone and	PTT call			
🗌 AI	utomatic	ally set channel to	o Solo when	transmitting	audio		
🗌 AI	utomatic	ally unmute chan	nel when tra	nsmitting auc	lio		
	Option						
		the automatic su	bscriber nam	ie pattern 🖸	nfiqure.		
		ended notes					
		st note in Unit infi	ormation det	ails			
		firmation dialogs					
🗌 sł	now inco	ming text messag	es in a pop-i	up window			

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 Queued Message when channel is busy or radio is offline Select this option to record a Queued Voice 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 hot key for the PTT. Click the **Configure** link, and on the keyboard, press the key you want to assign as a hot key for the PTT button.

Enable Single PTT Select mode Select this option so that only one PTT box can be selected at a time, that is you can't have multiple selected PTT boxes.

Voice Options

- **Mute other dispatchers** Select this option to mute all other dispatchers voice transmissions.
- Mute radio-to-radio private calls
 Select this option to mute all private calls on the channel.
- Mute all channels when transmitting audio or recording a voice message

Select this option to mute other channels when the dispatcher transmits audio or records a voice message.

- Mute the tone when receiving a 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 the 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 check box 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:	
96NAME%	
Example: My Radio	
Allocated radio display name:	
%NAME% (%OWNER%)	•••
Example: My Radio (John Smith)	
Allocated radio display name	
(the owner has more than one radio):	
%NAME% (%OWNER%)	
Example: My Radio (John Smith)	
Defaults OK Canc	el

• Radio display name

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

ormat		X
%NAME% (%CHANNEL%)		
Example: My Radio (Master Station / Channel)		
Add Field:		
Radio Callsign		
Radio Owner name		
Radio ID		
Active Channel		
Plate Number		
Make		
Phone Number		
Email		
	ОК	Cancel

• Allocated radio display name

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

• Allocated radio display name (the owner has more than one radio)

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		Sender	Recipient	Message	Ext. Note	Note
7/7/2014 3:49:56 AM		Radio 11	All	Geofencing Alarm [Dat		
7/7/2014 3:49:56 AM		Radio 11	All	Radio left allowed region		
7/7/2014 3:47:52 AM	Repeater #1 Slot 1	Radio 105	Dispatcher	Administrator Accept		1
7/7/2014 3:41:24 AM	Repeater #1 Slot 1	RadioServer	Radio 105	Telemetry status cann		
7/7/2014 3:40:16 AM		Administrator	All	test		
2 7/7/2014 3:39:08 AM	Repeater #1 Slot 1	Radio 105	Unknown group: 1010	Radio 'Radio 105' calls	View	
7/7/2014 3:32:55 AM		Administrator	Radio 105	Dispatcher 'Administra		
7/7/2014 3:18:43 AM		105	All	On Duty		~ 2
7/7/2014 12:56:40 Al	M Intercom	Dispatcher 1	All	Intercom Call: Dispatc		14
7/4/2014 4:01:35 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		
CIDAIDONA CODUAC AN	3 + ++ ++ +	a distanta da se	48			

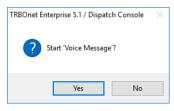
Click the **Extended Notes** button (1) to fill the template;

Click the **View** button (2) to see the Extended Note.

Show latest note in Unit information details
 Select this option to show the radio status in the Radio information tooltip (see section <u>6.5.1.3, 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.

olce Dispatch		Radio In	terface							Ŷ
)i 🗄 h 👶 🕺 🍸	00	Radio In	terface Rece	nt Calls/Events						
					Active	Calls		×	Quick Comma	nds 🛛 🗙
Cleaners									Tes	
Firemen									We are o	
(£) @ 111	📮 🌾 🗖	м	essage 1 of 1				×		Configure	nne
(£) 125 (Pete)	9.9		125					<u>^</u>		
(f) (Pece)			Gipecty Levit m	PLUS Iessage			-		Queued Mess	ages 🛛 🗙
	9.01		Message:			18-Nov-2016	6 13:53		🖗 Record 💌 🚹	File 💌
Voice Dispatch			okay						To: Selected Chan	
1									Start Voice Messac	e
Location Tracking									Voice Me	
Job Ticketing							nnel		Voice Message	
S. Job ricketing										
Route Management		[Do not show t	this message nex	t time	Show Request L	on map		Patch	×
			<< Prev	Next>>			lose		Drag and Drop PTT	Box here to
RFID Tracker		Recent Cal		THEAT P.P.					create new o	roup
7				Drint II Dr	ure of Clas	r a 🧐 Reload	🌃 Filter By Radio 🛛 🚟 Grou	inina 🔽	Auto Eilter 🍈 Del	ault Sattinor
Text Messages		Date	e na onte e d	Radio System	Sender	Recipient	Message	Details		obe
Voice Recording			2016 13:53:53	CapacityPLUS	125	Al	okay	Detailo	1.0	//ic
- Holde Recording		18-Nov-3	2016 13:51:19	CapacityPLUS	Server	125	Call Queued			
Event Viewer			2016 13:49:08	CapacityPLUS	125	Al	Subscriber '125' has sent			
			2016 13:47:10	CapacityPLUS	125	Al	ok			
Radio Allocation			2016 13:45:35 2016 13:39:37	CapacityPLUS	125 235	Al	LG Reset Geofencing Alarm			
7			Record 1 of 655	P 19 1H 4			the second se			•
Administration				a Colle Danne		de Caracita de Caracita	e Tasks Active Routes User		Man Comment	

- 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 to Voice Bar
 Select this option so that when you click the Minimize button you will see only the Voice Bar 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 either the Metric or the US unit system.
- Coordinate system

From the drop-down list, select the coordinate system to be used.

Audio

• In the **Options** dialog box, click the **Audio** tab.

ption:	s								
ound	Мар	Coverage	е Мар	Hardware	Advanced	Audio	Alarm	Phone C	all
De	fault a	udio devic	es:					Config	ure
R	ecorder	: [~
Pl	ayer:	[Defau	t Audio Devi	ce				\sim
Filt	er								_
Se	elected	l channel						*	^
							Def	<u>ults</u>	
	Reco	order:	De	əfault				-	
	Playe	er:	De	efault				*	
	Spea	ker:	De	-					
	Volu	me:	-	+					
	Exte	rnal PTT:	Fo	iot (Footswil	ch PTT)			-	
	Indic	ator:	Γ					*	
	Ther	ne:	De	fault				*	
U	nselect	ted channe	el l					♦	
In	tercon	ו						♦	
Р	rivate (Calls						♦	
S	ystem	sounds						⇒	
	larm							****	
	elepho							~	
	udio pl	-						•	×
Res	et All a	udio devices	to de	raut		M	anage Ci	istom Mod	les
						C	iić	Cano	-1

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 recorder 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.

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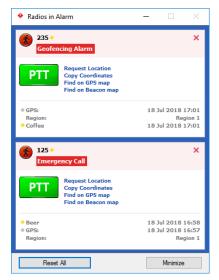
Options							
Sound Map	Cover	age Map	Hardware	Advanced	Audio	Alarm	Phone Calls
^م (ھ	onfigure de	splay opti	ions for radio	os in alarm m	ode		
Alarm Pane	l:	Main W	indow				٣
Call Button		None					*
🗹 Always	show radi	o on map					
🗌 Display	camera in	new wind	dow				
🗌 Display	radio in ne	sw window	"				
Map: M							
Select i	nap						

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.

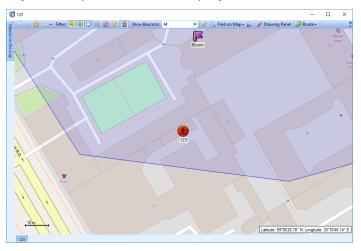


Display radio in new window

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



Phone Calls

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

unu map	Coverage Map	Hardware	Advanced	Audio	Alarm	Phone C
🗌 Queue all ir				_		-
Show this num		Phone Calls:		10		÷
Ringtone co	-					
Incoming Call	Call Waiting	Held Call				
Call Priori	ity	Ringtone	Ac	tion		
Normal:		Default	₽	Play		
Emergenc	y:	Default	₽	Play		
High:		Default	Þ	Play		
Low:		Default	Þ	Play		

Queue all incoming phone calls

Select this option so that when the phone line is busy, incoming calls will be queued rather than rejected.

Show this number of Recent Phone Calls

Enter the number of items to display in the list of recent calls. The list of recent phone calls appears when you click the arrow on the right of the dial string in the Contact Dialer box (see section <u>6.5.9.1, Phone Calls from/to Dispatch Console</u>).



Ringtone configuration

On the Incoming Call (Call Waiting) tab:

- Click a corresponding link in the **Ringtone** column, and from the pull-down menu, select either **Set Default**, **Set Custom**, or **Disable**. If you select **Custom**, in the dialog box that opens, browse for the audio file on the local PC and click **Open**.
- Click a **Play** link in the **Action** column to play back the corresponding ringtone.

On the Held Call tab:

• Remind after

Enter the timeout, in seconds, that will be used for playing the reminder tone when a call is on Hold.

• Ringtone

Specify the reminder tone to be played when a call is on Hold.

6.3.4.2 Exporting/Importing Options

A dispatcher can export custom Dispatch Console settings (Volume level, UI view, hotkeys 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:

/N	SipContact:UserExte	Barcode	Block incor	ning calls
	8 8 C	RBC	R B C	
	125		False	
	235		False	
·	4444		False	
			False	
			False	
	,	125 235	125 235	125 False 235 False 4444 False False False

Objects

From the drop-down list, select the type of objects you want to export.



- In the table below, select/deselect the desired records.
- Click Export, and in the Save As dialog box, locate the folder where you want to save the file, type a filename, and click Save.

To import objects:

• Click Tools > Import Objects.

In the dialog box that opens, enter the following information:

🔿 Object Import	- 🗆	×
Objects:	Radios	-
Object Properties	Beacons IP Cameras	
Radio ID	R Map Objects	
Radio Name	Map Regions Map Routes	
SipContact:DisplayName	S Phone Contacts	
SipContact:UserExtension	S Radio Users	
Barcode	BRadios	
Block incoming calls	Block incoming calls	
Block outgoing calls	Block outgoing calls	
CAR_MAKE	CAR_MAKE	
DESCRIPTION	DESCRIPTION	
EMAIL	EMAIL	
Extended Device	Extended Device	
GPS Enabled	GPS Enabled	
Has GPS	Has GPS	
Has TMS	Has TMS	
HomeGroupId	HomeGroupId	-
Passwords encrypted	Import	

Objects

From the drop-down list, select the type of objects you want to import.

- In the table below, in the right column, enter/change the column names that would correspond to the database field names.
- Passwords encrypted

Select this option if the passwords are kept encrypted in the data being imported.

 Click **Import**, and in the **Open** dialog box, locate the desired file and click **Open**.

6.3.4.4 Setting Language

• On the Tools menu, click Set Language

Select Langua	ge	Х
Language:	English	
	OK Cancel	

From the drop-down list, select the desired language and click **OK**.
 The changes will apply after you restart the Dispatch Console.

6.3.4.5 Changing Password

• On the Tools menu, click Change Password

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Change Password Old password: New password:	
New password:	
Repeat password:	

- 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

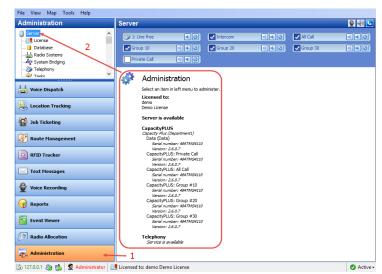
Click this menu item to see the About dialog displaying information about TRBOnet Enterprise (applied license, version, build date, and other relevant information).



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:

Administration	Datab	ase				👲 剩
Server		Line free 📧 🕻) < 0) < 0	Dispatcher Group 1	•) •: (
Radio Systems 2	~	oup 22 🗾 🛋 🕻 k Up Database 🎯 Sche	All Call		Private Call	D) == (
Voice Dispatch	- Dac					
		Database Informat	on			
Location Tracking		Server name:	(local)\SQLEXPRESS			
🙀 Job Ticketing		Database name:	TRBOnet1			
a		Backup date:	30-Sep-19 12:56:02 PM			
😿 Route Management		Database version:	Jun 15 2019 00:26:19 Copyright (C) 2017 Micro	soft Corporation	4505224) - 14.0.2027.2 (Xe 10.0 <x64> (Build 18362:</x64>	
C Text Messages						
Voice Recording		Data size: Audio size:	163.19 MB 629.43 MB			
Voice Recording		Hour are.	025.1516			
🕞 Reports						
Event Viewer						
Radio Allocation		_1				
Administration						

In the **Database** pane, the administrator can restore and back up the database and audio recordings.

For more details on backups, see <u>Appendix D: Backing up and Restoring</u> <u>Database and Audio Recordings</u> (page 382).



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	s	ystems			🍰 🐠 🔽
Server		Properties			
		System type	System ID	Caption	
🚺 Database		Intercom		Intercom	
🛗 Systems		Phone		Telephony	
- System Bridge 2	1	Capacity Plus		CP1	
Tacks	~ 🗸	TRBOnet PoC System	Mobile 1	Mobile 1	
	V	Announcement System		Announcement	
Voice Dispatch					
Location Tracking					
-					
🚰 Job Ticketing					
🕐 Route Management					
RFID Tracker					
V Text Messages					
Voice Recording					
Reports					
Event Viewer					
B Radio Allocation		1			
Administration		44 4 Record 3 of 5 + 1+ 1+1	4		
🗟 Connected 🍓 🕵 🕵 🕵 Adm		sed to: demo (Walt) (Demo L			🕜 Active

The administrator is able to see the following system parameters in the table:

- **System Type** the type of the system.
- **System ID** a unique System Identifier configured in TRBOnet Server configuration for repeater or control stations in the system.
- **Caption** the caption of the system.

6.4.2.1 System Properties

To see the radio system properties, do the following:

 Select a radio system in the list and click the Properties button (1); or,

double-click the radio system in the list;

or,

click the corresponding element at the bottom of the Dispatch Console window, and choose **Properties** (2).



File View Map Tools Help						
Administration	Systems					🔮 🚸 🕒
Server Server Database Systems System Bridging	Soup 1: Line free		Group 20	•) • () • • ()	Al Cal	0) 4: 0
Voice Dispatch	System vpe	S	ystem ID	Capi Inter		
Location Tracking	Capacity Plus	D	epartment1		icityPLUS	
Solution Management		_ ₁				
RFID Tracker						
Voice Recording						
Reports						
Event Viewer Badio Allocation Administration	2					
🔂 127.0.0.1 🛞 💽 🧟 Administrator	Licensed to: demo Demo					Active -
Reset	Licensed to: demo Demo	License				Active
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:

Repeater #1: Slot #	1	×
Description Char	nnels Transmits	_
System Type:	IP Site Connect	1
System ID:	Department1	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	set	
Name	Voice	Data
Repeater #1: Slot #1	RX, TX	RX, TX
Channel for private and phone calls:		T
	ОК	Cancel

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

Repeater #1: S	lot #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 0	Connect	
Connecte	ed		
Serial N	umber:	484TMG4110	
Firmwa	re version:	2.6.0.7	
		OK Cancel	

ID

Default registration number (manufacturer's number);

Name

System element's name in the system;

Type

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>5.9.5.1, Control</u> <u>Station Connection Modes</u> (page 48).

- 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				×
Descri	iption	Talk groups	Volume			
Spe	cify av	vailable talk gr	oups			
1	All Ca	all				
	Firem					
	Police	:				
				OK	Cancel	1

 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 🛛 💽 🛃 🖉
	All Call 🔹
PTT	All Call
	Firemen Police
	Session:
	Free channel
8	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:

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Description	Talk groups	Volume		
	(1)			
	Ŧ		÷	
	T		T	
	\square		\square	
	RX <u>Reset</u>		TX <u>Reset</u>	
	gure system v	/olume		
	igare oyoteni i	- Cruinic		
			ОК	Cancel

- Specify the **RX** and **TX** volume levels for the Repeater using a volume control slider.
- Click the **Reset** link to set default volume level for RX or TX.
- **Configure system volume** Select this option to save default volume settings for Voice transmissions from the selected Repeater.

Extras tab

• On the **Extras** tab, you can see the information about audio and data transmissions:

Repeater #1: Slot #1		×
Description Channel	; Extras	
Enable Voice Re	cording ands to mute and unmute incomir channel in consoles	ng audio
traffic from the Mute:	123	
Unmute:	321	
	ОК	Cancel

Enable Voice Recording

Select this option to enable Voice Recording for the selected repeater.

 Use DTMF commands to mute and unmute incoming audio traffic from the channel in consoles

Select this option to use certain DTMF commands that can be sent to the channel so that the channel will be muted/unmuted in active consoles.

• Mute

Enter the DTMF sequence that will be sent to the channel to mute the channel in active consoles.



• Unmute

Enter the DTMF sequence that will be to the channel to unmute the channel in active consoles.

6.4.2.2 Intercom Properties

 Select Intercom in the list and click the Properties button; or,

double-click **Intercom** in the list of radio systems.

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>6.4.23</u>, <u>Dispatcher Groups</u>).

Transmits tab

tercom		
Description Channel	s Transmits	
Record Audio		
Voice Call Hang	fime (ms):	
Group Call:	3000	1
Private Call:	4000]
TX Timeout:	60	seconds
	,	-

Record Audio

Select this option to record all audio transmissions over the Intercom channel.

Voice Call Hang Time (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.

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:

- 📑 TRBOnet Enterprise 5.3 / Dispatch Console X ile View Map Tools Help System Bridg 9 🐠 😉 Administratio Server 0 4 0 •) 💶 🖉 🔊 1: Line fi - Database - Radio System System Brid 0 🖬 🖉 **E** Ø 🔊 🔣 🧭 🔊 🔣 🧭 Regular 0 1 0 0) 🛃 🥥 **I** Ø . . . 0 💶 🙆 0 💶 🖉 0 💶 🥝 0 🔹 🙆 🛃 Add 🗕 🌗 Edit 🛛 🔩 Delete H Voice Dispatch Binary Patch (for IPSC Systems only) 😹 Location Tracking Radio Bridge Radio Bridge Radio Bridge 🙀 Job Ticketing 🕖 Route Management 3 C Text Messages Voice Recording 🔒 Reports Event Viewer Badio Allocation 1 administration
 Administration
 #(4) Record 2 of 3 >) > |> |> |+
 |

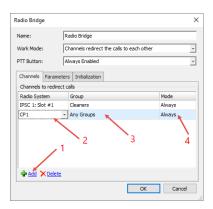
 Connected & (b)
 (b)
 (b)
 (c)

 Administrator
 (c)
 (c)
 (c)
 🛃 2 🕑 Active -
- Go to Administration (1), System Bridge (2).

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



6.4.3.1 Radio Bridge



- 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 154).

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 Radio System column, select a radio channel from the dropdown 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 state (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:

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Radio Bridge		×
Name:	Radio Bridge	
Work Mode:	Channels redirect	the calls to each other 🗾 👻
PTT Button:	Always Enabled	¥
Channels Parame	eters Initialization	
Specify call ty	pes for System Br	idge:
Voice Call		🔽 Text Message
Check Radio		Telemetry
Enable/Disabl	e Radio	✓ Location (GPS)
Call Alert		User Data
Emergency A	lert	
		OK Cancel

- Select call types to use in System Bridge mode.
- Click **OK** to add a System Bridge for the radio channels.
- On the **Initialization** tab, specify how the bridge will be initialized:

Radio Bridge	×				
Name:	Radio Bridge				
Work Mode:	Channels redirect the calls to each other				
PTT Button:	Always Enabled				
Channels Param	eters Initialization				
Specify call s	ources for System Bridge:				
Call from dis	patcher				
Dispatcher:	(Any)				
Call from oth	er bridge				
Bridge:	(Any) -				
Call from rad	lio				
Radio:	(Any)				
	OK Cancel				

• Call from dispatcher

Select this option and from the **Dispatcher** drop-down list, select the desired dispatcher.

Call from other bridge

Select this option and from the **Bridge** drop-down list, select the desired bridge.

Call from radio

Select this option and from the **Radio** drop-down list, select the desired radio(s).

The System Bridge boxes are displayed on the Patch panel of the Radio Interface pane:



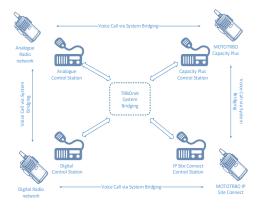
oice Dispatch	Radio Interface							ê
8 🔂 🗄 👘 🗽 😽 🕺 🛠	Radio Interface Tele	phony Recent C	alls/Events Radios					
					×		Quick Command	ls
Online, GPS Fixed	_					R	Send Pusi	h
	=					Configur		
Online, No GPS							-	
Offline (18)							Patch	
🖈 Radio 235	Intercom		🗄 🥥 📔 🗌 Dispa	tcher Group 1	•) • Ø	Drag an	nd Drop PTT Box here	to create new
3333		channel	РТ	Free chann	nel		group	
Ä	- PTT			Dispatcher G				
Lucioni di	All Cal			Dispatcher G	sroup 1	🚺 🔽 📓	CapPlus - Cleaner	s 🗉
Voice Dispatch	IPSC 1: Slot #1			1: Slot #2	0 40	PTT	IPSC 1: Slot	t#1
Location Tracking							Cleaners	
S Location Tracking	PTT Admin		PT	Firemen Administrato	r		CP1 Al Call	
Job Ticketing	Cleane	ere .		All Call				
Job licketing						🗸 🖄	Firemen - Cleaner	s 🧕
Route Management	Group 11	•)) •	Grou	22		PTT	IPSC 1: Slot	t #2
, Route Hanagement		channel		Free chann			Firemen	- 41
Text Messages	PTT		PTT		v.	l	Cleaners	
Text Hessages	Recent Calls/Events					-		
Voice Recording	Playback 🖬 Save -	🚍 Print 📕 Pa	use 🎯 Clear 🝷 🚳	Reload	lter By Radio 🛛 🐺 Grouping	Y Auto Fi	lter @ Default Set	tinas
	Date	Radio System	Sender	Recipient	Message	-	Details	Note
Reports	13-Mar-20 4:09:55 PM	IPSC 1: Slot #2	Administrator	Firemen	Dispatcher 'Administrator' ca	ills group '	Units: Administrator	
	13-Mar-20 4:09:55 PM	IPSC 1: Slot #1	Administrator	Cleaners	Dispatcher 'Administrator' ca	ills group '	Units: Administrator	
Event Viewer	13-Mar-20 4:09:38 PM	IPSC 1: Slot #2	Administrator	Firemen	Dispatcher 'Administrator' ca	ills group '	Units: Administrator	
J	13-Mar-20 4:09:38 PM	IPSC 1: Slot #1	Administrator	Cleaners	Dispatcher 'Administrator' ca	ills group '	Units: Administrator	
Radio Allocation	13-Mar-20 4:09:24 PM	IPSC 1: Slot #2	Administrator	Firemen	Dispatcher 'Administrator' ca	lls group '	Units: Administrator	
	13-Mar-20 4-09-23 PM HI HI HI Record 1 of 166	TDSC 1+ Sht #1	Administrator	Cleaners	Disnatcher 'Administrator' ca	ille aroun '	I Inite: Administrator	Þ
	Record 1 of 166							

Radio Bridge Types

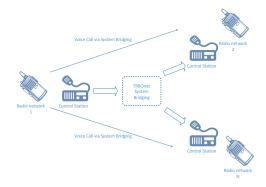
1. Channels redirect the calls to each other

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

lame:	Binary Pat	ch		
Rules				
Rule 1 of 2				
Slot: Slot 1			Voice D	ata
All Calls Groups: (All G	roups)	Private Calls	Group Calls	
Repeaters: (A	ll Repeaters)			
Rule 2 of 2				~
Slot: Slot 2			Voice D	ata
All Calls Groups: (All G	roups)	Private Calls	Group Calls	
Repeaters: (A	ll Repeaters)			
🖶 Add 🗙 Dele	te			

• 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).

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File View Map Tools Help				
Administration	Phone Calls		🔮 🐠 🛂	
	Configuration Extensions Call Redirection Phone C	Contacts Dial Plans		
- 🖓 System Bridge				
- 🔊 Phone Calls	Radio Call Configuration 3			
Tasks 2	Access code:	0		
- 38E Custom Fields 4	Deaccess code:			
	Callback Request Options			
- IP Cameras	Allow radios to make outgoing calls:	Yes		
- 4(1) Public Announcements	Send a DTMF command to request a calback:	Yes		
- Event/Alarm Management	Send a text message to request a caliback:	Yes, Prefix: 'sip:'		
🖶 🌆 Telemetry	Start transmission:	Immediately		
Radio Groups Telemetry	Calls to Radios and PoC Devices			
🖶 👍 Text Messages	Start transmission:	Immediately		
- Group Text Messages	Max ring time:	10 seconds		
- С втм	Check if the radio is available before making a call:	Yes		
- 🔄 Request To Talk 😑 🔄 Radio Statuses	Call notifications:	Yes		
Group Radio Statuses	Play a tone when PTT is pressed or released:	Yes		
Radio Statuses #1				
Location Profile	Configure			
()	4			
	Inbound Call Configuration			
Voice Dispatch	Inbound Call Control			
	Call to Dispatch Center:	Use as a regular phone number		
Location Tracking	Call to unregistered number:	Reject		
	Do not establish call until called party responds:	No		
🐼 Job Ticketing	Interactive Voice Response (IVR) Options			
8	Do not wait for Accept code:	Yes		
Route Management	Maximum number of digits:	3		
	Accept code:	=		
RFID Tracker	Number	Destination		
a krib tracker	0	Call dispatcher (any available)		
	1 <number></number>	Call radio with Radio ID = <number></number>		
V Text Messages	235	Call radio 'Unknown'		
0	56	Call dispatcher (any available)		
Voice Recording	Configure			
0	5			
🕞 Reports	Conference Configuration			
-	Max Call Duration:	60 minutes		
Event Viewer	Automatic Voice Detection:	No		
~	Automatic Gain Control:	Ne		
Radio Allocation	Automatic Noise Reduction:	No		
		110		
Administration	Configure 6			
🕤 Connected 🚓 🙀 🕵 👮 Administrate	or 🔥 39 days before your Support expires 📑 Licensed to: o	lemo (Walt) (Demo License)	Active	

6.4.4.1 Radio Call Configuration

• Click the **Configure** button (4) to set radio call configuration parameters:

Radio Call Configuration	×
Access code:	0
Deaccess code:	#
Callback Request Options	
✓ Allow radios to make outgoing calls	
Send a DTMF command to request a	a callback
✓ Send a text message to request a c	allback
Use this prefix in text messages:	sip:
Start transmission:	Immediately 🔹
Calls to Radios and PoC Devices	
Start transmission:	Wait for PTT 🔹
Max ring time:	10 seconds
Check if the radio is available before ma	aking a call
Call notifications	
✓ Play a tone when PTT is pressed or rele	eased
Tone volume level:	+
	OK Cancel

Access Code

Set the value to that configured for the radios as **Access Code** in MOTOTRBO CPS (see <u>Appendix E: SIP Setup for Motorola Phone System</u>, section <u>Programming Radios</u>).

• Deaccess Code

Set the value to that configured for the radios as **Deaccess Code** in MOTOTRBO CPS (see <u>Appendix E: SIP Setup for Motorola Phone System</u>, section <u>Programming Radios</u>).

Callback Request Options

• Allow radio users to make outgoing calls

Select this option to enable outgoing phone calls from the radios.



• Send a DTMF command to request a callback

Select this option to allow radio users to dial the phone number as a sequence of DTMF tones sent over the radio channel.

- Send a text message to request a callback Select this option to allow radio users to initiate phone calls via sending TMS messages with a specified prefix to the dispatcher.
 - Use this prefix in text messages Enter the specific prefix for a text message.

• Start transmission

Select the mode for starting transmission on the radio that initiates a call.

Wait for answer

Transmission will be started as soon as the called party answers the call.

Immediately

Transmission will be started immediately that is without waiting for the called party to answer the call.

Calls to Radios and PoC Devices

• Start transmission

Select the option how to start transmission on the radio receiving a phone call.

- Immediately
 Select to start the call immediately.
- Wait for PTT Select to play a ringtone until the radio user presses the PTT.
- Max ring time

Specify a timeout that defines how long to attempt to connect to the radio.

• Check if the radio is available before making a call

If this option is selected, a Radio Check command will be executed before placing a call. Select this option if the **Use NAI Data (MNIS and DDMS)** option is not selected in the **Repeater** pane (see section <u>5.9.2, 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:

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Inbound Call C	ontrol	
Call to Dispatch C	enter:	Forward to IVR
Call to unregister	ed number:	Reject
🗌 Do not establis	h call until ca	alled party responds
Interactive Vo	ice Respon	se (IVR) Options
🔽 Do not wait fo	r Accept code	e if one of the fixed numbers below is dialed
Maximum number	of digits:	3
Accept code:	-	#
Number	Destinal	tion
0	Call disp	atcher (any available)
1 <number></number>	Call radi	o with Radio ID = <number></number>
235	Call radi	o 'Unknown'
56	Call disp	atcher (any available)

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.

tension numbe	r		×
Static numb	er		
C Dynamic nur	-		
· Dynamic na			
Number:	123456		
Call Type:	Call Group		•
Channel:	Control Station #1		•
Group:	All Call		•
		ОК	Cancel

Number

Enter a phone number to add to the table (contact list).

Call Type

Select the call type from the drop-down list.

• Call Dispatcher

Select this type to make a phone call to the dispatcher.

• Call Radio

Select this type to make a phone call to the selected radio.

• Call Group

Select this type to make a phone call to the selected group.



Channel

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

Dispatcher/Radio/Group

Select the dispatcher, radio, or group depending on what you have selected in the **Call Type** box.

To add a dynamic number

• Choose Dynamic number.

Extension number	×	
C Static number Oynamic number		
Prefix:	123	
Call Type:	Call Radio 💌	
Channel:	Auto Detect 💌	
Radio:	Detected by Radio ID	
	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).

6.4.4.3 Conference Configuration

Click the **Configure** button (6) to set conference parameters:



Conference Configuration	×
Max Call Duration:	60 minutes
Automatic Voice Detection	
Automatic Gain Control	Disabled -
Automatic Noise Reduction	,
	OK Cancel

• 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 Adding Extensions

- Go to Administration (1), Phone Calls (2).
- In the **Phone Calls** pane, click the **Extensions** tab (3), and then **Add** (4).

File View Map Tools Help							
Administration	Phone Calls						🔞 🕸 🕒
Server	Configuration Extension			Contacts Dial I			
Database	🖪 Add 📑 Edit 🗙						
Systems	Туре	User Extension	User Name	First Name	Last Name	Display Name Logic	al Groups
System Bridge 4	📃 Dispatch Cente	1234	1234		- 1	Internal PBX	
	X 🔉 SIP Phone	2408	John	John	Bingham	John B.	
💕 Tasks	X SIP Phone	2409	2409			Walt	
- 199 Custom Fields	X 🔊 SIP Phone	Phone User			×	Eugene	
Modbus TCP Connections 2	🗙 🔊 SIP Phone					Prune	
······································	/	General Logica	I Groups Custo	om Fields			
Public Announcements	3	User Extension	2408				
- 🛐 Event/Alarm Management							
🖶 👍 Telemetry	~	User Name:	John				
< >>		User Password					
Hoice Dispatch		Password (repe	eet):				
	_	First Name:	John				
Location Tracking		Last Name:	Bingham				
😸 Job Ticketing		Display Name:	John B.				
💓 Route Management							
Contemporary Text Messages				OK	Cancel		
🔮 Voice Recording		L					
😡 Reports							
Event Viewer							
🗐 Radio Allocation	_1						
Administration 🛩							
	144 44 4 Record 1 of 5						•
🐻 Connected 🔉 🕵 🕵 🕵 Admin	istrator 🛛 🔚 Licensed to: dei	mo (Walt) (Demo Lic	ense)				🕜 Active



In the **Phone User** dialog box, specify the following parameters:

- User 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

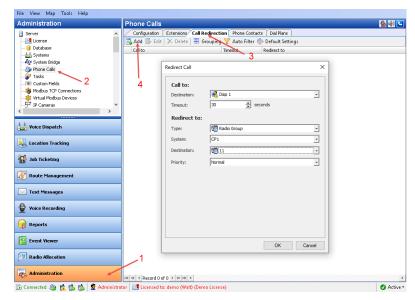
Enter the password for the phone user to be authenticated by the phone system.

- 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>6.4.28, 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>).

6.4.4.5 Call Redirection

If a dispatcher doesn't take a phone call within the set period or they have changed their status to unavailable, the call is automatically forwarded to a specified dispatcher, radio, radio group, or phone account. This can be useful during night shifts when no dispatcher is available.

• Click Administration (1), Phone Calls (2), Call Redirection (3), Add (4).



In the **Redirect Call** dialog box, specify the following parameters:



Call to

Destination

From the drop-down list, select the dispatcher or dispatcher group.

Timeout

Specify the time period, in seconds, defining how long to wait until the dispatcher answers a call.

Redirect to

• Туре

From the drop-down list, select one of the following:

- **Decline** The calls will be declined.
- Dispatcher

The calls will be redirected to a specified dispatcher or dispatcher group.

• Radio unit

The calls will be redirected to a specified radio.

Radio Group

The calls will be redirected to a specified radio group.

• Phone account

The calls will be redirected to a phone account from the phone book.

Radio 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.

6.4.4.6 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					🔮 🍕
Administration Server Ucase Ucase Systems Systems Systems Tase Voice Dispatch Location Tracking Sob Ticketing		X Delete Grou User Name Phone Contact	ection Phone Control Muto Filter First Name Foups Custom Fields S548 Pip Philp Wilson P. Wilson	Default Settings	Display Name Walt Eugene 3	Logical Groups
W Route Management Text Messages Voice Recording						
Reports Event Viewer The Radio Allocation	.1			OK Cancel		
😞 Administration 🛛 🖌	144 44 4 Record 1 of					

In the **Phone Contact** dialog box, specify the following parameters:

User 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>6.4.28, 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>).

6.4.4.7 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).



File View Map Tools Help		
Administration	Phone Calls	👲 🚳 🔽
Server Cutonse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse C	And → Extensions Call Redirection Phone Contacts / Dual Plans And → Extensions Call Redirection Phone Contacts / Dual Plans Name Dual Plan X 4 Drate Inheritance Name Drate	
Voice Dispatch	Description: Restrict dailing for Bob's group	
Location Tracking		
📅 Job Ticketing		
😿 Route Management		
Text Messages	₩ Apply to Outgoing calls (Destination number)	
Dice Recording		
Reports	OK Cancel	
Event Viewer		
Radio Allocation	1	
Administration	i≪ ≪ ≪ Record 1 of 2 ▶ ₩ ₩ ≪	Þ
🖒 Connected 🔊 🖻 🛸 🛸 😼 Administra	tor 📑 Licensed to: demo (Walt) (Demo License)	Active •

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 check box to apply the dial plan to incoming calls from the numbers specified in the patterns.
- Apply to Incoming Calls (Destination number)
 Select this check box to apply the dial plan to incoming calls to the numbers specified in the patterns.
- Apply to Outgoing Calls (Destination number)
 Select this check box to apply the dial plan to outgoing calls to the numbers specified in the patterns.
- Click the **Patterns** tab.

Dial Plan		×
General Patter	ns Inheritance	
* - any number of ? - one character	ard chars in pattern: characters f numbers from xxx to yyy	
1		
*411???		×
Call Priority:	Normal	•
	0	K Cancel

• 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.

	lan		>
Ger	neral Patterns	Inheritance	
	Call Priority	Profile Name	
\checkmark	Emergency	▼ Fedora	
	Inherit Emergency	Mals	
	High Normal Low		

On this tab, you can select the profiles to include in the dial plan you are adding/editing.

Call Priority

From the drop-down list, select the priority for the inherited dial plan.

6.4.5 Tasks

This section describes how to configure the tasks that can be performed in TRBOnet Dispatch Console.

• Go to **Administration** (1), **Tasks** (2), and see the list of the tasks in the right pane.

Administration		曼 Tasks				😫 🗟	Ð 🕒
Server	^	1: Line free	•0	Intercom	 Slot 1	0	
📋 Database 🛄 Radio Systems		Slot 2		Group 11	Group 22	•) •: 0	
		Police		Group 10	Group 20		
Tasks -2	*	🛃 Add 🔹 🌛 Edit					
Voice Dispatch		Task Name					
		Bispatcher Pres Generation Swd		- 3			
Location Tracking		Geofencing	20020010110000				
🐕 Job Ticketing		Idle Time Radio Allocation	(Carita Carro)				
- M		MS and Email n					
Route Management		🗆 🎲 ver Activity					
Text Messages							
Voice Recording		4					
Reports							
Event Viewer							
🕲 Radio Allocation							
		1					
administration	-	HI 41 4 Record 3 of 3	b bb bbl d				

• 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 check box (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 Co	ontrol		×	(
Presence timeout Reminder time		10 30	 minutes seconds 	
 All Dispatchers Selected Dispatcher 	rs			
Dispatchers:			*	
Notifications				
				_
		ОК	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 radio		\times
Connection		
SWD Server Address: swd.trbonet.com TRBOnet Server Address: ports.trbonet.com	Port: 5000 *	
	OK Cance	

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

• Send data from all radios

Choose this option so that location data will be sent to the SWD server from all radios in the system.

Send data only 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:

Rules General Location Speed Regions Radios Lone Worker
Monitor Area 1 Monitor Area 3 Specify the general parameters of the rule and the time window when it is active
Name: Monitor Area 3 Description: Watch out for the workers
✓ Activate the rule on a schedule Days of week: Monday, Tuesday, Wednesday, Thursday, ▼ Start time: 9:00 Stop time: 18:00
After the rule is triggered: ☑ Reset Alarm mode when the rule conditions are no longer met
1 2 3 Rerun the rules that each rule edit, server result and at the start of each scheduled time window (not recommended) () Add Rule Dieable Rule OK Cancel

- Click the **Add Rule** button (1) and select the appropriate rule from the drop-down list (Map Region, Beacons, Radios, Lone Worker) 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 edit, ...

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 Specify the rule name.
- **Description** Add a description of the rule.
- Run the rule on a schedule

Select this option and in the boxes below specify the schedule for the rule to run.

Days of week

In the drop-down list, select the days of the week on which to run the Geofencing rule.



Start time

Specify the start time to run the rule.

- **Stop time** Set the time to stop running 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.

Location tab

Rules	General Location Speed Regions Radios Lone Worker
 Monitor Area 1 Monitor Area 3 	Definition Sector Applies in Reduce Under Voltes Define the subscriber's relative positioning conditions which will trigger the rule and choose specific actions to prefine whether the list executed Trigger this rule when a subscriber: Entres the selected regions Entres the selected regions Entres the selected regions Cleares the selected regions Cosses any border Occoses any border Perform the following actions: Activate Alam mode Activate Com Vione mode Send Text Message to the source radio Send Text Message to the source radio Send Request To Tak to the source radio Send Request To Tak to the source radio
Rerun the rules after each rule edi	t, server restart and at the start of each scheduled time window (not recommended) $({f i})$

Trigger this rule when a radio:

- Enters the selected regions Select this option so that the rule will be triggered as soon as a radio enters the selected region.
- Leaves the 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.

• Send Text Message to the 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 Request to Talk to the 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

Rules	General Location Speed Regions Radios Lo	one Worker	
Monitor Area 1			
Monitor Area 3	Define the subscriber's motion attributes whi to perform when the rule is executed	ich will trigger th	e rule and choose specific actions
	Trigger this rule when a subscriber:		
	Moves faster than:	60	🗘 km/h
	Moves slower than:	10	🗘 km/h
	Remains motionless for longer than:	90	\$\$ seconds
	Track speed in relation to regions:	Everywhere	

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.

• Track speed in relation to regions

From the drop-down list, select where to track 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.



• Send Text Message to the source radio

Select this option to automatically send a text message to the radio when it enters or leaves the selected region.

• Send Request To Talk to the source radio Select this option to automatically send a Request To Talk to the radio when it enters or leaves the selected region.

Regions tab

Geofencing and Speed Contro	ı X
Rules	General Location Speed Regions Radios Lone Worker
Monitor Area 1	
Monitor Area 3	Select the regions where this rule can be triggered
 Monitor Zone 2 	All regions
	Only selected regions
	Regions /
	456789
	My zone
	Route 1
	Cone 2
	I Zone 2
	Select All Deselect All
	Select All Deselect All
Rerun the rules after each ru	le edit, server restart and at the start of each scheduled time window (not recommended) (i)
Add Rule 🔻	Disable Rule OK Cancel
	OR GUILD

• All regions

Choose this option to apply this rule for all regions.

• Only 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

Geofencing and Speed Control	>	×
Rules	General Location Speed Regions Radios Lone Worker	
Monitor Area 1 Monitor Beacon	Select radios the rule is applied for:	
	Orly selected radios Orly Selected radios	
Rerun the rules after each rule edit	, server restart and at the start of each scheduled time window (not recommended) $({f i})$	
Add Rule * Disabl	e Rule OK Cancel	1

• All radios

Choose this option to apply this rule for all radios.



- **Only 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.



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	
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•

Click this button, and from the drop-down menu, select which list to display: Radio List, Radio Groups, or Logical Groups.

Lone Worker tab

Buttles General Location Speed Regions Radox Cone Worker ✓ Monitor Area 3 Select the tasks to be executed when the rule is triggered ○ Art tasks ○ Orly select tasks ○ Orly select tasks ○ □ Lone Workers / □ Lone Worker □ Lo	Geofencing and Speed Control	×
Rerun the rules after each rule edit, server restart and at the start of each scheduled time window (not recommended) ()	Rules Monitor Area 1	General Location Speed Regions Rados Tone Worker Select the tasks to be executed when the rule is triggered Al tasks Only selectat tasks Lone Workers 7
		Select All Deselect Al

• All Tasks

Choose this option to execute all Lone Worker tasks configured by the administrator when the rule has been triggered.

• Only 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 (Beacons, Radios, and Lone Worker). These settings are represented in the table below:

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Rule Type	Tab Name	Parameters Description
Settings common for all rule types	General	Name – specify the rule name.
		Description – add the rule description.
	Scheduler	Run the rule on a schedule - select to start a scheduler for Geofencing rules.
		Days of week - select the days of the week on which to activate the Geofencing rule.
		Start time - set the time at which to start the rule.
		Stop time - set the time at which to stop the rule.
	Radios	All radios – choose to apply this rule for all radios;
		Only selected radios – choose to apply the rule for one or several radios;

Rule Type	Tab Name	Parameters Description
Beacons	General	Control mode:
Allows configuring rules when a radio enters or leaves the beacon coverage zone		Control entering beacon coverage zone – select to enable the rule when a radio enters the beacon coverage zone.
		Control leaving beacon coverage zone - select to enable the rule when a radio leaves the beacon coverage zone.
		Activate Alarm mode if the rule has been 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 Control entering beacon coverage zone 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 Request to Talk to a radio if the rule has been triggered – select this option to automatically send a Request To Talk to the radio if the rule has been triggered.
		Send Text Message to a radio if the rule has been triggered – select this option to automatically send a text message to the radio if the rule has been triggered.
		Activate Lone Worker if the rule has been triggered – select this option to allow automatically activating a Lone Worker policy for a radio in case of entering or leaving beacon coverage zone.
	Scheduler	See above.
	Radios	See above.



Rule Type	Tab Name	Parameters Description
	Beacons	All Beacons – choose to apply this rule for all beacons;
		Only 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;
		Only selected tasks – choose this option, and in the list below, select the Lone Worker tasks to be executed when the rule has been triggered.
Radios	General	Control mode:
Allows using radio(s) as map region(s) and		Control Entering Region – select to enable the rule when a radio enters the vicinity zone associated with another radio.
monitoring when another radio enters or leaves the vicinity of the		Control Leaving Region - select to enable the rule when a radio leaves the vicinity zone associated with another radio.
radio's zone		Activate Alarm mode if the rule has been 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 Control Entering Region is selected and radio enters to the monitored vicinity zone and then instantly leaves the zone, alarm mode in the Dispatch Console will be reset automatically).
		Send Text Message to a radio if the rule has been triggered – select to inform radio user if the rule has been triggered.
		Send Request To Talk to a radio if the rule has been 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 vicinity zone.
	Scheduler	See above.
	Radio Regions	Select the radios that will used as the regions the rule is applied for.
	Radios	See above.
	Map Regions	Rule works only in regions Select this option and then choose either All regions or Only selected regions.



Rule Type	Tab Name	Parameters Description
Lone Worker Allows configuring	General	Days of week - select the days of the week to activate the Lone Worker rule.
scheduled Lone		Start time - set the time to start the rule;
Worker tasks		Stop time - set the time to stop the rule.
	Radios	See above.
	Lone Worker	Select either All tasks or Only selected tasks from the list of Lone Worker tasks configured by Administrator.
		When a Lone Worker task is mentioned as Disabled, the Administrator should enable the task.

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 **GPS reports**, click **Idle Time Summary** or **Idle Time detailed** (2) to see a common Idle Time report:

File View Map Tools Help						
Reports	GPS reports					👲 🕪 🛂
GPS reports	1: Line free		Intercom		Maintenace	
Location for Period	Sales		Group 10		disp	
Stays in Region						
Drive Activity Details	EMERGENCY GROUP	• • • •	Regular GGROUP	0 🔹 🥥	Group 20	
Drive Activity Summar	All Call		Group 11		Group 22	• • •
	Group 1		Private Call			
Ide Time Details						
	Report Settings					
🔚 Voice Dispatch	Idle Time Summa	ry				
	Saved Profiles: -	Not defined	-			
tocation Tracking						
8-0	Select data by perio	d:				
📅 Job Ticketing	Start Date: 4	/26/2017 12:00 #	M 💌			
🕢 Route Management	End Date:	Maximum date>	•			
	Filter:					
Text Messages	Radio:	Not defined	-			
	Logical Group:	Not defined	-			
🔮 Voice Recording	Radio ID (e.g. 22,33,4		<u> </u>			
0	Radio 10 (e.g. 22,35,4					
Reports		121				
Radio Allocation	Speed:	1	km/h			
Callo Allocation	~ 1		3			
Administration	Generate Repor	t	Save Report Profile	Delete	Report Profile	
访 Connected 🛞 🕵 🔂 💆 Adm	inistrator 🛛 📑 Licensed to:	demo Demo Lic	ense			Active



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**:

Radio Allocation (Sprite Forms)	\times
Form Description: APP_VERSION1=0.14 APP_VERSION2=1 DATE_MODIFIED=12/12/2012 8:21:05 a.m. FORMATTED=	^
0203000FB98C0AF502FB004E5A2042757301800000106180500028768CE0F1 00F800F5025368696674206E756D62657235AD781E AS_ARRAY=0x02, 0x03, 0x00, 0x0F, 0xB9, 0x62, 0x0A, 0xF5, 0x02, 0xFB, 0x00, 0x4E, 0x5A, 0x20, 0x42, 0x75, 0x73, 0x01, 0x80, 0x00, 0x00, 0x01, 0x06, 0x18, 0x65, 0x00, 0x02, 0x87, 0x68, 0xCE, 0x0F, 0x10, 0xFB, 0x00, 0xF5, 0x02, 0x53, 0x68, 0x69, 0x66, 0x74, 0x20, 0x6E, 0x75, 0x6D, 0x62, 0x65, 0x72, 0x35, 0xAD, 0x78, 0x1E METADATA=000800000000000	ш
FORM_TITLE=NZ Bus FORM_ID=2 FORM_REVISION=3	
[Field Data #0] Prompt="Shift number"	-
Load	
Field Name: Shift number	•
OK Cancel	1

• 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

5 and Email	notifications	
MS settings	Outgoing Email settings (SMTP) Incoming Email settings	
Send St	4S to recipients if ALARM has been activated	
	MS to recipients if ALARM has been activated	
Ferry and Te	xt Messages to cell phone recipients	
	essages (from radionetwork to dispatchers)	
🗹 Output	messages (from dispatchers to radionetwork)	
-		
SMS Groups		 _
L		 -

- Send SMS to recipients if ALARM has been activated
 Select this option to send an SMS in case of an alarm on the radio.
- Send MMS to recipients if ALARM has been activated
 Select this option to send an MMS in case of an alarm on the radio.

Forward Text Messages to cell phone recipients

- Input messages (from radio network to dispatchers)
 Select this option to forward incoming text messages to cell phones.
- Output messages (from dispatchers to radio network)
 Select this option to forward outgoing text messages to cell phones.

For more details on SMS settings, see section <u>5.15.2</u>, <u>Outgoing Mail Server</u> (page 99).

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

SMS and Email	notifications			×
SMS settings	Outgoing Email settings (SMTP)	Incoming Email settings		
Send Er	nail to recipients if ALARM has bee	en activated		
	xt Messages to email recipients			
	essages (from radionetwork to dis			
Output	messages (from dispatchers to ra	dionetwork)		
Email Group	5			_
				-
			OK Cano	el

• Send Email to recipients if ALARM has been activated 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.
- 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 radio network (from email box 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 lists of radios, to which radios can be assigned due to their activity.



For example, if a subscriber sends an **On duty** message or presses an exact preset telemetry button, this subscriber gets assigned to the **On duty** list in the Dispatch Console. The dispatcher can also manually assign subscribers to lists.

• In the Tasks pane, double-click User Activity:

Lists of radios tab

User A	Activity		×
Lists	of radios Advanced		
	Name	Description	
۲	Off Duty		
۲	On Duty		
۲	User Activity # 1		
	Add	Edit Delete	11
			1
		OK Cancel	

• Click Add to add a list of radio activities:

Name

Specify a name for the user activity list.

Description

Add a description for the user activity list.

Background
 Select the background color to display the radios assigned to the list.

Move a radio to this list if:

Manually by dispatcher

Select this option to assign radios to the list manually.



- Automatically by receiving Text Message from a radio
 Select this option to assign a radio to the list after receiving a text message from the 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 assign a radio to the list 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 assign a radio to the list 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 from a radio
 Select this option to assign a radio to the list after receiving a specified
 Status, for instance, 1. If you select this option, specify the Status.

To assign offline radios to the default User Activity list, click the **Advanced** tab:

User Activity	×
Lists of radios Advanced	
Automatically set the defaul	status for offline radios
Timeout: 1	minutes
	OK Cancel

- Automatically set the default status for offline radios Select this option to enable assigning the default status for offline radios.
- Timeout

Specify the time period, in minutes, after which the default status is set to a radio.

6.4.5.8 Lone Worker

The Lone Worker policy lets the dispatcher set a time interval the communication with a radio user is expected. For example, if a lone worker has not called the dispatcher for 15 minutes, the radio receives a message and the Dispatcher receives an alarm signal.

• To add a Lone Worker task, in the **Tasks** pane, click **Add > Lone Worker**.



• In the **Lone Worker** dialog box that appears, specify the following parameters:

Task name: Lone Worker 1 Task Start Conditions Task Stop Manually by dispatcher Manually by receiving Text Message from a radio Message: Start Automatically by receiving Telemetry Command from a radio VIO: 1 Command: Automatically by receiving DTMF command from a radio Command: Image: Command: Automatically by receiving Status from a radio Status: 0 Command: Status: Image: Command: Message: Image: Command:	Lone Worker	×
□ Manually by dispatcher ☑ Automatically by receiving Text Message from a radio Message: Start ☑ Automatically by receiving Telemetry Command from a radio VIO: 1	Task name: Lone Worker 1	
✓ Automatically by receiving Text Message from a radio Message: Start ✓ Automatically by receiving Telemetry Command from a radio VIO: 1	Task Start Conditions Task Stop	
Message: Start Automatically by receiving Telemetry Command from a radio VIO: 1 • Command: Any event • Automatically by receiving DTMF command from a radio Command: Automatically by receiving Status from a radio Status: • • • • • • • • • • • • • • • • • • •	Manually by dispatcher	
Automatically by receiving Telemetry Command from a radio VIO: 1 Command: Any event Automatically by receiving DTMF command from a radio Command: Automatically by receiving Status from a radio Status:	Automatically by receiving Text Message from a radio	
VIO: 1	Message: Start	
Automatically by receiving DTMF command from a radio Command: Automatically by receiving Status from a radio Status:	Automatically by receiving Telemetry Command from a radio	
Command: Automatically by receiving Status from a radio Status: 0 •	VIO: 1 Command: Any event	
Automatically by receiving Status from a radio Status:	Automatically by receiving DTMF command from a radio	
Status:	Command:	
Status:	Automatically by receiving Status from a radio	
	Status: 0 🔹	
Message:		
	Message:	
		_
OK Cancel	OK Cance	

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 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 the following text message to the 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 to	radio
Reminder time	60 🜲 seconds
Send Request T	o Talk
O Send Text Mess	age
Message:	
Reset Lone Worker	when receiving Text Message
Message:	
Reset Lone Worker	when receiving Telemetry command
VIO:	1 🗘 Command: Any event 💌
Reset Lone Worker	when the distance has been traveled
Distance:	5 🚖 km
Do not trigger alarr	n 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 X
Task name: Lone Worker 1
Task Start Conditions Task Stop
Manually (on demand of dispatcher)
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 subscriber
Command: 123 #123#
Automatically by receive Status from subscriber
Status: 0 ≑
Send Text Message to a radio
Message:
OK Cancel

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):



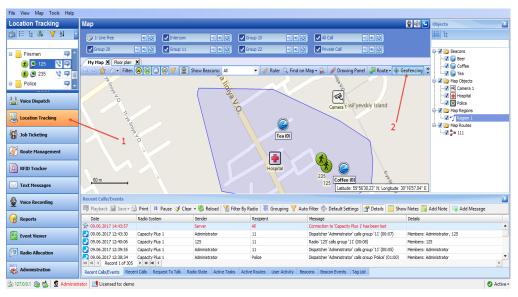
• To monitor the Lone Worker task, click the **Active Tasks** tab:



File View Map Tools Help				
Voice Dispatch	Radio Interface			👲 🐠
💼 🗄 🗄 🔏 🛠 🍸 🗃 🍟	Radio Interface Telephony	Recent Calls/Events		
	Terminate all Transmit			Quick Commands 🗙 ^
😑 🦲 Online, GPS		Active Calls	×	Configure
🚼 🕒 125 (P 🗐 💟 📻				Queued Messages X
🐔 🖲 235 (B 📮 😒				Record V L File V
			^	To: Selected Channels
Voice Dispatch	Telephony			Daisy.mp3
	1 2 3	•		
GPS Positioning	4 5 6 🕋 Men	u -		Bobby.mp3 To: Selected Channels
974				
📅 Job Ticketing	Intercom			Patch 🗙
Route Management	Free channel			Drag and Drop PTT Box here to
	All Call			create new group
RFID Tracker				
	Group 1		,	Patch on Repeaters
Context Messages	Active Tasks		•	
Voice Recording	Stop 🗧 Grouping 🍸 Auto	Filter @ Default Settings		
* ·	Task	Radio	State	
🕝 Reports	Lone Worker 1	125 (Pete) 125	16:5	5 - 17:25
Event Viewer				
Radio Allocation			/	
	144 44 4 Record 1 of 1 1 14 144	4	/	Þ
Administration	Recent Calls/Events Recent Calls		Active Routes User Activity M	ap Cameras
🔁 127.0.0.1 🛞 🖻 🖻 🦉 Administra	tor Licenred to: demo Demo Li	cente		🕜 Active -

Enabling Lone Worker from Geofencing

 Click Location Tracking (1), and click the Geofencing button (2) in the Map pane:



In the Geofencing and Speed Control dialog box, click
 Add Rule > Lone Worker (1):



📑 TRBOnet.Enterprise 5.1 / Dispatch C	onsole					- 🗆	\times
File View Map Tools Help							
GPS Positioning	Geofencing and Speed Control			×	9 🐠 🕒	Objects	
d: 🗄 l: 💩 🛠 🍸 🖻	Rules	General Radios Lone V	Vorker			12 h	
Conline, GPS	Monitor Area 1 Monitor Area 3 Lone Worker 2	Name: Description:	Lone Worker 2 Department 1			☑ 🗁 Beacons ☑ 🍛 Beer ☑ 🍛 Coffe	e
🚷 🕲 235 (B 💡 🖵 🔇					encing 💝	🗹 🔼 Abidir 📝 🛐 Fire d	ng place Jep
GPS Positioning		Days of week: Start time: Stop time:	Monday, Wednesday 0:00 + 0:00 +	•	e v (V 🖶 Hospi V 💽 Police V 🍉 Map Reg	e depar ions
Route Management					Wortsovaya na	- V 🎥 Map Rout	tes
RFID Tracker					Palace		
Voice Recording							
Reports	1				niralteyskiy		
Event Viewer	Rerun the rules after each rule edit,	server restart and at the	start of each scheduled time window (no	t recommended) (i)			
Radio Allocation	Add Rule Disable	Rule Delete	Rule	OK Cancel			
Administration	Map Region Beacons Recent Calls Redios	Radio State Active T	asks Active Routes User Activity	Beacons Beacon Events Tag List	18'40.14"E		
🐻 127.0.0.1 🚷 🕵 🕵 🙎 Adminis	tre Lone Worker	License				C	Active •

• Enter a **Name** for the Lone Worker rule and add a **Description**.

Days of week

In the drop-down list, select the days of the week on which to activate the Lone Worker rule.

Start time

Specify the time at which to start the rule.

Stop time

Specify the time at which to stop the rule.

• Click the **Radios** tab and select radios to which to apply the Lone Worker rule:

Rules		
Monitor Area 1	General Radios Lone Worker	
Monitor Area 3	Select radios the rule is applied for:	
< rule name >		
	Airradius Only selected radios	
	City selected radios	-
		- 5
	✓ (g) 125 (Pete) 125 (g) 235 (Basil) 235	
	235 (Basil) 235	
		·
	00	•= -
Rerun the rules after each	ule edit, server restart and at the start of each scheduled time window (not recommended) (i)	
Add Rule 🔻	Disable Rule OK C	ancel

All radios

Choose to apply this rule to all radios.

Only selected radios

Choose to apply the rule to one or several radios.

Select all

Click to select all radios in the list.



Clear all

Click to deselect all radios in the list.

• Click the **Lone Worker** tab and select the configured Lone Worker tasks:

Geofencing and Speed Control		×
Rules	General Location Speed Regions Radios Lone Worker	
Monitor Area 1 Monitor Area 3		
Monitor Area 3	Select the tasks to be executed when the rule is triggered	
	All tasks Only selected tasks	
	Lone Workers	×.
	Select All Desel	ect All
Rerun the rules after each rule e	 dit, server restart and at the start of each scheduled time window (not recommended) ()	
Add Rule 🔻 Dis	able Rule OK OK	Cancel

• Choose either all configured Lone Worker tasks or several configured tasks.

Note: When a Lone Worker task is mentioned as **Disabled**, enable it on the **Tasks** pane.

6.4.5.9 Export Data

TRBOnet Dispatch Console provides the Export Data function, which allows exporting data to an external database table.

- To add an Export Data task, in the **Tasks** pane, click **Add > Export Data**.
- In the **Export Data** dialog box, specify the following parameters:

Export Data	×
Task name:	Export to database table - Location of radio
Type:	Export to database table
Data:	Location of radio
Connection Data	a Scheduler Advanced
C Default con	
 Default con Specified co 	
so specified co	a nectori
Server name	(local)\SQLEXPRESS
Database nam	e TRBOnet 💌
Windows a	uthentication
User name	
User password	
	OK Cancel
	······································

Connection tab

• Task name Enter a name for the task.



• Type

Select the type of data export from the drop-down list. TRBOnet Dispatch Console allows exporting data for third-party systems using data export tasks.

Export to database table

Allows exporting data to MS SQL Server tables. Specify MS SQL Server connection parameters, database, and table to export data.

Export to Versatrans

Allows exporting data to the Versatrans data collection system via IP. For more details, visit the <u>official website</u> of Versatrans.

Export to Google

Allows exporting data to file (file format is KML). For more details, visit the following <u>website</u>.

Export to NMEA

Allows exporting data to a file (text file format, export format is NMEA 0183). For more details, visit the following <u>website</u>.

Export to file

Allows exporting data to a text file.

• Data

Select which data to export from the drop-down list.

• Default connection

Choose this option for default connection to SQL Server.

• Specified connection

Choose this option and specify the SQL Server and database name.

• Server name

Specify 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

ask name:	E	port to data	abase table - Lo	cation of rad	lio	
ype:	E	xport to dat	abase table			
)ata:	Lo	ocation of ra	dio			
Connection D	ata	Scheduler	Advanced			
Table:	D	Export_Loca	itions]			
Column ma	pping:			Create tabl	e <u>Load co</u>	olumns list
Table colur	mn		Data			
Date			Location date			-
Latitude			Latitude			
Longitude			Longitude			
Speed			Speed			
Direction			Direction			
Precision			Accuracy			
RadioID			Radio ID			•

• Table

the name of the table to be exported into external database (by default, the name of the table is created after you have specified it in **Create table** dialog box).

- Click the **Load columns list** link to update the columns list in case you have made any changes to the table.
- Click the **Create table** link to add a new table for data export:

	table	×
		table to export data base connection
Table	name:	Export_Locations
Colur	nn list:	
·	Table column	Data
v (Date	Location date
v 1	atitude	Latitude
✓ I	ongitude	Longitude
v :	Speed	Speed
v (Direction	Direction
	Precision	Accuracy
	RadioID	Radio ID
v 1	ID	Unique radio ID
	Name	Radio name
v 1	ExportDate	Export date
	alles 1	ales 1

• Select the data fields to add to the table.



Scheduler tab

Export Data		×
Task name:	Export to database table - Location of radio	
Type:	Export to database table	•
Data:	Location of radio	•
Connection Dat	ta Scheduler Advanced	
Days of week:	(All days)	•
Execute recute	rrently with interval	
Start time:	13:00	
Stop time:	15:00	
Repeat eve	ry: 01:00:00	
C Execute at pa	articular time	
	OK	Cancel

• Days of week

In the drop-down list, select the days of the week on which to export the data.

• Execute recurrently with interval

Choose this option to perform data export on a periodic basis.

Start time

Specify the time at which to start data export.

Stop time

Specify the time at which to stop data export.

Repeat every

Specify a time period for periodic data exports.

• Execute at particular time

Choose this option and specify the times in the columns of the table below.



Advanced tab

Export Data		×
Task name:	Export to database table - Location	ofradio
Type:	Export to database table	•
Data:	Location of radio	•
Export mode	only changed data	
		OK Cancel

- **Export only changed data** Select this option to export only changed location of the radio data.
- Export mode

Choose the mode for exporting data.

6.4.5.10 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		Х
Task name:	Scheduled Task	
Command Sche	duler	
Command:	Send Text Message	
Message:	Alarm	
Send to radi	o group	
C Send to sub	scribed radio	
Recipient		
Firemen Police		
1		
	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

Task name: Scheduled Task 1 Command Scheduler Start date: 01 October 2016 Stop date: 13 October 2016
Start date: 01 October 2016 Stop date: 13 October 2016
Stop date: 13 October 2016
Days of week: Monday, Tuesday, Wednesday, Thursday, Friday 🔻
• Execute recurrently with interval
Start time: 15:00
Stop time: 18:00
Repeat every: 01:00:00
C Execute at particular time
OK Cancel

• Start date

Select a date to start the task.

- Stop date Select a date to stop 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.
- Stop time

Specify the time at which to stop 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.

6.4.5.11 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. Specify a name for the policy in the **Task name** box and set the policy's parameters.

Task Start tab

Voice Message	Х
Task name: Voice Message	
Task Start Task Process Task Stop Message 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:	
Automatically by receiving Emergency from a radio	
Emg. Type: All	
Activated by any radio	
 Activated by specific radios only 	
Radio: 125 (Pete), Walt	
Send the following text message to the radio	
Message:	
OK Can	cel

• 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.



Emg. 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 specific 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 a 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.

Task Process tab

ask name:	Voice M	essage 1			
ask Start Tas	k Process	Task Stop	Message	Telemetry	
C Send voice	message o	nce			
Send voice	message r	epeatable			
Repeat In	terval:	60	Ť	second(s)	
Repeat	Count:	10	-	1	
🗌 Impolite ch	annel acce	ss			
🗌 Delay on st	art:	1	4 	second(s)	

• Send Voice Message once

Choose this option to send the voice message to a selected radio (s) only once.

• Send Voice Message repeatedly

Choose this option to send the voice message repeatedly.

Repeat Interval

Specify the repeat interval, in seconds.

Repeat Count

Select this check box and specify the number of times to repeat the voice message.

• Impolite channel access

Select this option so that the voice message will be sent regardless of whether the channel is busy or not.



• Start delay

Select this check box and specify the delay time, in seconds, for the Voice Message task.

Task Stop tab

Note: These options are available only if you have selected the **Send Voice Message repeatedly** option in the **Task Process** tab.

ask name:	Voice Message
ask Start Ta	sk Process Task Stop Message Telemetry
Manually b	by dispatcher
Automatic	ally by receiving Text Message from a radio
Message:	
Automatic	ally by receiving Telemetry Command from a radio
VIO:	1 Command: High level
Automatic	ally by receiving DTMF command from a radio
Command	:
Send the f	following text message to the radio
Message:	

• 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 a 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.



Message tab

Voice Message			×
Task name: Voice Me	essage		
Task Start Task Process	Task Stop Message	Telemetry	
Load from file Record message Play back message			
Call Type	Channel	Call Target	
Private Call	Auto Detect	Radio 27	
Group Call	💾 Slot 1	10	
Phone Call	Telephony	2410	•••
Hender Add X Remove Priority: Normal			•
		ОК	Cancel

• 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.

• Specify Call type, Channel, and Call Target for a voice message.

Note: To send a Voice Message to a radio 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.



Telemetry tab

	Voice Message 1
ask Start Ta	sk Process Task Stop Message Telemetry
Send Tele	metry before starting task
VIO:	1 Command: High level
Delay aft	er send: 0 🖨 second(s)
Send Tele	metry after stopping task
VIO:	1 Command: Toggle level
Delay bef	ore send: 0 😫 second(s)
Recipient:	Selected Radios: 1; Selected Radio Groups: 2
	metry on every Voice Message

• Send telemetry before starting task

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 stopping task

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.

6.4.5.12 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 Rec	order X
Task nam	Audio Recorder
Settings	
IP:	10.10.169.121
Port:	9094
Te	t of Channels
	OK Cancel

• Task name

Enter a name for the task.

• IP

Enter the recorder's IP address.

• Port

Specify the recorder's port number.

- Click Test of channels to view all available channels on the recorder.
- Click **OK** to add the task.

6.4.5.13 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.

Agenda		×
Task name: Agenda		
Settings Outgoing folder (on server): C:\Outgoing		
Incoming folder (on server): C:\Incoming		
Wait for response(sec):	120 😫	
Text to confirm:	ОК	
		OK Cancel



Task name

Enter a name for the task.

- Outgoing folder (on server)
 Specify the outgoing folder for the text messages to be displayed in the Dispatch Console (for example, C:\Outgoing).
- Incoming folder (on server)
 Specify the incoming folder for the reports (for example, C:\Incoming files);
- Wait for response Specify the time interval, in seconds, for the response.
- Text to confirm
 Specify the text to be sent by the subscribers after they receive the message.

6.4.5.14 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**.

6.4.5.15 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>6.4.25, Email</u> <u>Groups</u> (page 259).

- To add a Scheduled Report task, in the Tasks pane, click Add > Scheduled Report:
- Specify a name for the policy in the **Task name** box and set the policy parameters.



ask name: Registered Radios 1				
leport Scheduler				
General Information	^	Filter:		
Registered Radios		Radio Group:	Not defined	
🔋 Current Reports		Radio Group.	Not defined	
		Columns		
Presence and GPS Status				
Unregistered Radios		Radio Name $ imes$	Radio ID $ imes$	Radio Group
🔋 System Reports		Select		
User Login History		select	~	
Channel Changes				
Usage Statistics Reports				
Radio Status				
Radio Status Summary				
User Messages and Notes				
Radio Allocation				
Disabled Radios				
Telemetry				
Lone Worker Activities				
	~			
Check			OK	Cancel

• On the **Report** tab, select the type of a report 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 352).

• Click the **Scheduler** tab to configure a schedule for the report.

Scheduled Report	t	×
Task name: R	egistered Radios 1	
Report Schedul	er	
Schedulers:	Scheduler 1 V +	
For the past:	Scheduler 1	
Email groups:	OK Cancel	
Check	OF	Cancel

• Schedulers

On the list, select the scheduler(s) to use for the report. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.21, 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	ê
Server Server Database Server Se	✓ Intercom ○ ■ 0 >>>>>>>>>>>>>>>>>>>>>>>>>>>>	•) 4 60
Telephony Tasks Virtual Modbus Devices	Add - Edit Add Add	Δ
Voice Dispatch	Generation of the second	
Location Tracking	Geofencing Go fencing Go fencing Go fencing	
30b Ticketing	Gamma Lone Worker 1 Mesages 1_Messages for Period	
Route Management	Image: State of the state	
RFID Tracker	Constant Section 25-Nov-2016 00:00 Sht Sand Email notifications	
Text Messages	✓ ∰ Timer ✓ By User Activity	
Voice Recording	Voice Message	
Event Viewer		
Radio Allocation		
Administration	HI 41 4 Record 10 of 15 + H HI 4	Þ
🖒 127.0.0.1 🔉 🛸 🦉 Administrator 📑 Li	censed to: demo Demo License	Active -

To enable the task, select the check box 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).
- Grey indicates an inactive task, meaning the task is disabled (unchecked).
- Red indicates a disabled task, meaning the task period is up in the past.

6.4.5.16 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 fro	m DB "Firebird"
Settings Import Server: Iocalhost	User: SYSDBA
Database path: Port: 3050 🜩	Password: ••••••••• Update (sec): 10 •
Test	
	OK Cancel

• Name

Specify 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 beacor	n data from DB "Firebird" \times
Name:	Import beacon data from DB "Firebird"
Settings Impo	ort
Import dat	a from:
<the old<="" td=""><td>lest Date Possible > Import</td></the>	lest Date Possible > Import
🗹 Delete	e old data
Report:	
	OK Cancel
	UK Caricel

- 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.

6.4.5.17 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** > <u>Additional</u> > **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:



Name:	HotSOS				
Email:	test@gmail.com		test@gmail.com		
Source:	Subject	ject			•
Status		HotSOS Status			
New		N			
Cancelled		Ca			
Assigned		Ass			
Accepted		Acc			
Rejected		R			
Completed		C			
In Progress		InP			

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.

6.4.5.18 HotSOS (Web Service)

The **HotSOS (Web Service)** task is used to create and assign job tickets by using the <u>HotSOS Web Service</u>.

- In the Tasks pane, click Add > HotSOS (Web Service).
- In the **HotSOS Configuration** dialog box, specify the following parameters:



HotSOS Configuration			
Name:	HotSOS		
URL:	https://ifc.int.hot-sos.net/api/service.svc/soap		
Login:	Tester 123		
Password:	*****		
Provider:	МОТОТЯВО		
Polling Interval:	15 - seconds		
Text Messages:			
Message Format:	%TEXT%%PRIORITY%%ORDER_ID%		
	Text Priority Room Name Room Number Remark Order ID Message ID		
Status	HotSOS Status		
New	N		
Cancelled	Ca		
Assigned	Ass		
Accepted	Acc		
Rejected	R		
Completed	c 🗸		
	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.

6.4.5.19 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: Timer	
Global timer	
Task Start Task Stop Status texts Dispatchers	
Manually by dispatcher 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:	
Automatically by receiving Status from a radio	
Send Text Message to a radio	
Message:	
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 Event/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 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 a 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 texts 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.

6.4.5.20 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:

Task name: Au	omatic Data Retrieval (Swift G	iPS)
General Radios		
Maximum number of sin	nultaneous requests:	3 🛓
Data upload		
Retrieve missing locati	ons if the data gap exceeds:	30 🌩 seconds
Do not retrieve missing	locations older than:	30 🛨 minutes 💌

Maximum number of simultaneous requests Specify the maximum number of radios being requested at the same time.



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 check box next to the task name.

6.4.5.21 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).

- In the dialog box, specify the following parameters:
 - Maximum number of simultaneous requests
 Specify the maximum number of simultaneously requested radios.
 - Save to

Specify the path where to save voice data on your PC.

• 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 check box next to the task name.

6.4.5.22 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:



Sign-in Reminder		×
Name: Sig	Text to Speech	×
General Radios	Timeout: Text to speech:	01:00
🔀 Sign in please	Huny up with signing in	
🖶 Add 🗙 Delete	(OK Cancel
Disable the radio(s) if not signed in during the timeout after bei	ng notified
Timeout: 3 minute:		
	[OK 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, 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).

Disable the radio(s) if not signed in ...

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.

6.4.5.23 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 Reminde			×
Name: General Radio Timeout - time t	Text to Speech Timeout (mm:ss): Text to speech: Return the radio please		01:00
Sign out p		ОК	Cancel
Work shift duration	on (hh:mm):		09:00 ‡
	hasn't signed out in time: ipients		
		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 in time Select this option and choose among Notification recipients by clicking the link below.

6.4.5.24 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 if no activity more than 30 minutes
Background RoyalBlue
Foreground WhiteSmoke
Text TRBOnet
All Dispatchers Selected Dispatchers
Dispatchers:
Test
OK Cancel

Name

Enter a name for the task.

- Show screensaver if no activity more than 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.

6.4.5.25 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 X				
Name: Import Objects				
General Update Column Mapping				
Object Type: Radio User	•			
File Path				
D:\CSV\users.csv ····				
Passwords encrypted				
Delete objects not existing in file				
	OK Cancel			



In the dialog box that opens, enter the following information:

Name

Enter a name for the task.

• General tab

Object Type

From the drop-down list, select into which database to import data (Beacons, IP Cameras, Map Objects, Map Regions, Map Routes, Phone Contacts, Radio Users, or Radios).

File Path

Click the ellipsis (...) button and locate the .CSV file on the same PC with TRBOnet Server.

Passwords encrypted

Select this option if the passwords are encrypted in the data being imported.

Delete objects not present in file

Select this option so that objects not found in the .CSV file will be deleted from the database.

• Update tab

File Changed

Choose this option so that the specified database will be updated as soon as the source CSV file is changed. Note that the source .CSV file must reside on the same PC with TRBOnet Server.

Scheduler

Choose this option and on the list below select the scheduler to use to perform the task. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.21</u>, <u>Schedulers</u>).

• Column Mapping tab

In the table below, in the right column, enter/change the column names that would correspond to the database field names.

6.4.5.26 Export Objects

The Export Objects task is used to export objects from the Users database and Radios database to external .CSV data files.

 To add an Export Objects task, in the Tasks pane, click Add > Export Objects

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Export Objects to	o File		>
Name: Export R			
Object Type:	Radio		•
Columns:	All		•
Scheduler:	Not defined		~ +
File Path			
D:\CSV\radios.cs	SV		
		ОК	Cancel
		OK	Cancer

In the dialog box that opens, enter the following information:

Name

Enter a name for the task.

Object Type

From the drop-down list, select which database to export (Beacons, IP Cameras, Map Objects, Map Regions, Map Routes, Phone Contacts, Radio Users, or Radios).

Columns

In the drop-down list, select the columns to be exported into a .CSV file.

Scheduler

Choose this option and on the list below select the scheduler to use to perform the task. Or, click the plus sign button and specify a new scheduler (see section <u>6.4.21, Schedulers</u>).

File Path

Click the ellipsis (...) button and locate the CSV file on your computer (or elsewhere).

6.4.6 Custom Fields

In this section, you can add custom fields that can later be used when registering radios (see section <u>6.4.31, Radios</u>, <u>Additional</u> tab) and users (see section <u>6.4.27, Users</u>, Custom Fields tab).

• Go to Administration (1), Custom Fields (2)



Administration	Custom Fields					
	Custom Fields					🔮 🐵 🕻
Server ^	1: Line free		Intercom	•))	All Call	
Jatabase	Private Call		Cleaners	•)) 📧	Firemen	
Radio Systems	Group 10		Group 20	•) 📧		
- Age System Bridge 	Custom Fields					
Tasks	Add 🦻 Edit 📑	Delete				
Modbus TCP Connections	Name	∆ Key	Туре	Description		
Virtual Modbus Devices V	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	
\sim	Plate number	PLATE_NUMBER	Text	Type:	Text	-
🔊 Route Management				Description:	Í.	
C Text Messages					1	_
Reports	_ 1				ОК	Cancel
Administration	144 44 4 Record 1 of 6	H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H		L		

- 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				👲 🐠 🕓
Radio Systems	 1: Line free disp 15 Slot 2 	4:0 •) 4:0 •) 4:0	Interce	om) . 0
Virtual Modbus Devices	📑 🗛 🗛 🕹 Edit	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	1				
Administration	144 44 4 Record 1 of 2	▶ 			Þ
🔂 127.0.0.1 🛞 🕵 🕵 🕵 Ad	Iministrator 🛛 📑 Licensed	d to: demo Demo	o License		🕑 Active

• In the Modbus pane, click Add (3).

	ModBus_Slave	
Mode:	Slave	-
Port:	502 🜲	
Slave ID:	1	
Behavior:	Custom	-

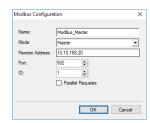
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- From the **Mode** drop-down list, select the mode of connection.
 - If the 'Slave' mode is selected, specify the **Port** of TRBOnet PC and the **Slave ID** to assign to this PC.

Leave **Behavior** as Custom if this connection will be used for Event/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 check box 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 De	vice				×
Name:	PLC1				
Description:					7
Configuration:	ModBus2				•
Table:	DiscreteInputs				•
	Address		Value		
					^
		1		1	
		2		0	
		3		1	
		4		0 💠	
	_	5		0	
		6		0	
				0	-
	~	8		0 Edit Filte	
	~			Edit Hite	a.
		_			
			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:

Camera Configura	tion			×
Name:				
Camera 1				1
Description:				
Disposal dump				
URI:				
rtsp://10.10.102.243	3:554/			1
Protocol:				-
UDP	•			
Authorization				
User:				
Password:				
		ОК	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 Announce	ments				ڬ 🕪 🈥
Server Server Cuesse Cuesse Cuesse System Bridge System Bridge Tesls Tesls Totals Cueston Fields Subtom Fields Su	>	Public Announcemen		-	×	IP connection	Radio con
Virtual Modbus Devices	~	2	Extern ID: IP connection: IP address: Port:	1001 10.10.101.113 8002 ‡			
Bob Ticketing			Radio connection: Connection Type:	Swift Option Board 2.0	~		
😥 Route Management			Radio ID:	999			
Kan Text Messages				OK	Cancel		
Badio Allocation	1	1	a hadi e d				

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.

Announcement Z	one Configuration	×
Main Subscribers		
Name:	Security	
Description:	Security dep	
Radio ID	222 🖨 Extern ID 606	÷
	0K Cancel	
	- OK - Oanoor	

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.

Extern ID

Enter the extern 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 **Subscribers** tab.

Announcement Zone Cor	guration	Х
Main Subscribers		
		9
V PA 1		
V PA 2		
Selected: 2		
	ОК	Cancel
	JIK	ounool

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

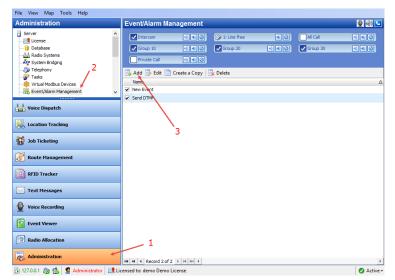


6.4.11 Event/Alarm Management

The Event/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), **Event/Alarm Management** (2) to configure Event/Alarm Management:



• Click Add (3) to add a new Event/Alarm Management rule.

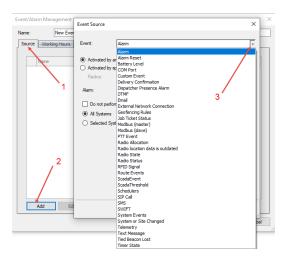
Note: The administrator can also create a copy of the existing Event/Alarm Management rule. Select a rule in the list and click the **Create a Copy** button. The system will create a copy of the rule with the same configuration parameters.

Name

Enter a name for the rule.

• On the **Source** tab (1), click **Add** (2) to add a new event source for the rule.

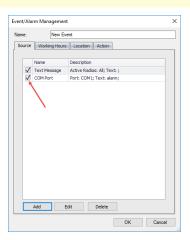




Event

From the drop-down list (3), select the event type to set for the rule. For a description of the event types, see *TRBOnet Enterprise/PLUS Alarm Management User Guide*.

Note: Select the event you want to enable. In case no event is selected, all configured events are disabled by default.



- Click the **Working Hours** tab to set the time at which the rule will be valid.
 - All Time

Choose this option so that the rule will be valid all the time.

Selected Time

Choose this option so that the rule will be valid on the selected days of the week at the specified time.

- Select the days of the week and specify the working hours.
- Click the **Location** tab to set the regions inside or outside of which the rule will be valid.

When a region(s) is (are) selected, the events specified in the **Source** tab must take place inside/outside the selected region to start the action(s).



Note: When **COM Port** and/or **External Network Connection** are selected as the event source, the **Location** rule should not be used.

Event/Alarm Management	×
Event/Alarm Management Name: New Event Source Working Hours Location Action C Enable Radio Location: Inside Regions Al Regions Begion Region / Region_1 weq	
Select Al Clear Al	

Enable

Select this option to apply **All Regions/Selected Regions** to the rule.

Radio Location

From the drop-down list, select whether the rule will be valid **Inside Regions** or **Outside Regions**.

All Regions

Choose this option to apply the rule inside/outside all map regions.

Selected Regions

Choose this option to apply the rule only inside/outside selected regions.

Region

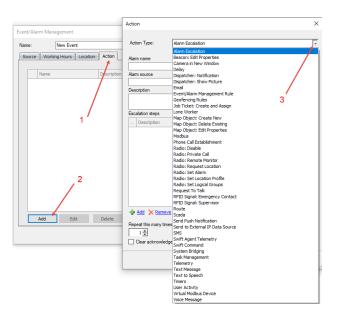
In the list, select the region(s).

• Click the **Action** tab (1) to set actions for the rule.

In the Actions list, the administrator can add and configure the action types to be started when the events configured and selected in the **Source** page are triggered.

• Click Add (2) to add an action:



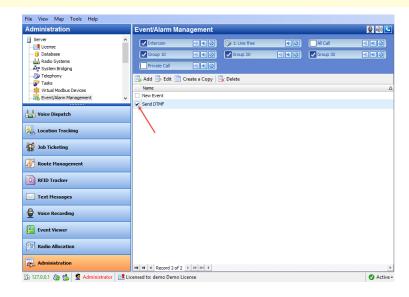


Action Type

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 rule, enable it by selecting the check box beside it. In case when no rule is selected, the action will not be started.





6.4.12 Telemetry

On the **Telemetry configuration** page, you can configure settings for Telemetry.

6.4.12.1 Radio Groups Telemetry

This is a default telemetry profile that is used to send telemetry commands to radio groups.

- In the **Administration** pane, click **Telemetry > Radio Groups Telemetry**.
- In the **Telemetry configuration** pane, click **Edit**.

File View Map Tools Help		
Administration	Telemetry configuration	9 🐠 🕒
Tals Train Tr	✓ Group 10 0 (4.0) ✓ Group 20 0.4(2) ✓ Group 30 (Private Cal 0 (4.0)	0) 45 (0) 40 (45 (0)
L: Voice Dispatch	Telemetry Type: MOTOTRBO Radio Groups Telemetry	
Location Tracking	Digital Outputs () VIO: VIO: High level (High level) () VIO: VIO: High level (High level)	
😸 Job Ticketing	VIO3: VIO3: High level (High level) VIO4: VIO4: High level (High level)	
😿 Route Management	③ VIOS: VIOS: High level (High level)	
RFID Tracker		
C Text Messages		
👻 Voice Recording		
Event Viewer		
Radio Allocation		
Administration		Active -

emetry Type:	MOTOTRBO	
ofile Name:	Radio Groups Telemetry	
onie Name:	Radio di oups relenieu y	
igital Outputs		
ID	Name	Command
/IO1	VIO1: High level	High level
VIO2	VIO2: High level	High level
VIO3	VIO3: High level	High level
VIO4	VIO4: High level	High level
VIO4 VIO5	VIO4: High level VIO5: High level	High level High level
	-	

• Click Add and specify ID (VIO), Name, and Command (signal level).

Note: For **Radio Groups Telemetry** only the **Digital Outputs** tab is available.

6.4.12.2 Adding Telemetry Profile for Radios

• Go to Administration (1), Telemetry (2), and click Add (3):



File View Map Tools Help		
Administration	Telemetry configuration	9 🚯 🕒
Telephony Telephony Taks What Modus Devices What Modus Devices Work Modus Devices Suff Event/Akm Management Suff Event/Akm Profiles Devices Telephone Telephone Z Lip Telephone Z Lip Telephone Z	Intercom It lue free It lue free It lue free If Group 10 It (G) If Group 20 It (G) Private Cal It (G) If Group 20 It (G) Private Cal It (G) If (G) If (G)	0) 46 (O)
Voice Dispatch	Telemetry Type: MOTOTRBO Auto refresh inputs: Disabled	
Location Tracking	Digital Inputs 3 Φ VID1: Telenetry W1 (High level) ▲ VID2: Telenetry W2 (High level)	
😵 Job Ticketing	 VIO3: Telemetry VK3 (High level) VIO4: Telemetry VK4 (High level) 	
🧭 Route Management	① VIO5: Telemetry VK5 (High level) Digital Outputs	
RFID Tracker	(i) VIOS: Low level (Low level)	
V Text Messages		
🔮 Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration		
🔂 127.0.0.1 🍓 🕵 🛛 🙎 Administrator 🕅 📑 Lie	censed to: demo Demo License	🖉 Active -
	Telemetry Profile X	

Telemetry type:	MOTOTRBO
Profile name:	
Telemetry #2	

Telemetry type

From the drop-down list, select one of the following types:

- MOTOTRBO telemetry from Motorola radios.
- **Socintech Novox** telemetry from Novox devices connected to the radio via COM port.
- **Swift Option Board** telemetry from the option board connected to the radio.
- **Sprite** telemetry from Sprite devices.

Note: Sprite telemetry profile can be read but not written.

Profile name

Enter the name of the profile to display in the Dispatch Console.

• Click **OK**.

Telemetry #1		×
Telemetry Type:	MOTOTRBO	
Profile Name:	Telemetry #1	
Common Digital In	nputs Digital Outputs	
🗹 Auto reque	st input states	
Request in	terval: 600 🕂 second	
Trace digita	al inputs	
Trace anal	og inputs	
Replace st	ate event to VIO events	
RFID		
		OK Cancel

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Common tab

- Auto request input states
 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 state event to VIO events
 Select this option to generate VIO ON/OFF event when the system compares between the last and the current states of the VIO.
 - Note: Most of the policies are set to replace events, so it is recommended to enable this option.

Digital Inputs tab

lemetry Type:	MOTOTRBO	
ofile Name:	Telemetry #1	
ommon Digita	Inputs Digital Outputs	
D	Name	Event
/IO1	③ VIO1	High level
/IO2	VIO2	High level
ID:	VIO2 💌	
Description ID: Name: Reset Name:	VIO2 •	
ID: Name:	VIO2 High level	
ID: Name: Reset Name:		
ID: Name: Reset Name: Event: Severity:	High level	
ID: Name: Reset Name: Event: Severity: Display as : Auto reset	High level	
ID: Name: Reset Name: Event: Severity: Display as : Auto reset	High level V Migh level V Million View View View View View View View View	Apply

- 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.



Display as subscriber state

Select this option so that the radio will change its status after it sends the telemetry command.

Auto reset state

Select this option to automatically reset the telemetry VIO after the radio sends the telemetry command.

Request location of subscriber

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

elemetry Type:	MOTOTRBO	
rofile Name:	Telemetry #1	
Common Digital	Inputs Digital Outputs	
ID	Name	Command
VIO1	VIO1: High level	High level
VIO2	VIO2: Low level	Low level
VIO3	VIO3: High level	High level
VIO4	VIO4: Toggle	Toggle level
Description		
Description ID:	VI03 V	
	Vto3	
ID: Name:		
ID:	Vto3	amiy
ID: Name:		Apply
ID: Name:		Aggly

- 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 configuration	ê
Virtual Modbus Devices Virtual Modbus Devices	(2) 1: Line free M.O. ✓ Intercom 0. M.O. ✓ Sot 1 0. M.O. ✓ Sot 2 0. M.O. ✓ Group 11 0. M.O. ✓ Group 22 0. M.O. ✓ Al Cal 0. M.O. ✓ Private Cal 0. M.O. ✓ Sot 2 0. M.O.	
Circle Dispatch	Add B Edit Delete Profile Type: MOTOTRBO Data protoci: MSI Propretary	
Location Tracking	5 Text Message format: Sender and Text Max. message length: 140 Spik long message into multiple messages: No Text Messages Profile X	<
Route Management	Profile type: MOTOTRED Profile name: MOTOTRED Profile name: MotoTRED Text Message #1	
Voice Recording	OK Cancel	
Administration	istrator 📑 Licensed to: demo Demo License 🔰	Active

- 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.

Text Messages #1	×
Profile Type:	MOTOTRBO
Profile Name:	Text Messages #1
Data protocol:	MSI Proprietary
Route type:	Regular 💌
Text Message format:	Sender and Text
Custom format:	{Sender} {Text}
Max. message length:	140 🔶 chars
	OK Cancel



- 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}.

Max. message length

Enter the maximum number of characters that TRBOnet will send per text message. The recipient of the text message may not be able to receive the maximum number of characters due to its design limitations. Therefore, it may only display a partial text message.

Split long message into multiple messages Select this option to allow single messages to be split into multiple messages based on the Max. message length setting.

6.4.14 Request To Talk

This section describes how to configure the Request-To-Talk parameters.

- Go to Administration (1), Request To Talk (2).
- In the **Request To Talk** pane, click the **Edit** button.
- In the dialog box that opens, specify the following parameters:

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Request To Talk	>
General Notifications	
Show RTT notifications in a pop-up window	
Actions: Accept, Select PTT, Queue, Reject	*
C Add RTT to queue automatically	
✓ Show notification in the Windows tray	
Apply RTT theme to PTT Box	
Callback destination: Private Call	*
Mark RTT as processed after dispatcher returns the call	
○ Mark RTT as processed after successful callback	
O Don't automatically mark RTT as processed	
Automatically delete RTT records after processing	
Expiration timeout: 30 initiation minutes	
ОК	Cancel

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			
*	CP1 The Requ	2 35 lest To Talk has b	been 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
•	Select PTT	Select the PTT box for a response
•	Queue	Queue RTT
Γ	Hide	Hide RTT for time
•	Reject	Reject RTT
	Cancel	Cancel RTT

- The button captioned **Accept** means that an incoming RTT will be immediately responded by the dispatcher.
- The button captioned **Select PTT** means that an incoming RTT will not be responded to immediately. Instead, a dedicated PTT box (Private Call, Group Call, or All Call, depending on what is chosen as the callback destination) will be selected as the default PTT box, and the callback transmission will start as soon as the external PTT button is pressed.
- The button captioned **Queue** means that an incoming RTT will be queued and can be processed later.



- The button captioned **Hide** means that an incoming RTT will be hidden for the dispatcher for the time period selected from the drop-down list. Note that the RTT will be displayed for all other dispatchers.
- The button captioned **Reject** means that an incoming RTT will be rejected by the dispatcher and displayed for all other dispatchers.
- The button captioned **Cancel** means that an incoming RTT will be rejected and not displayed for all other dispatchers.

• Add RTT to queue automatically

Choose this option so that all incoming requests to talk will be automatically queued and can be processed later (see <u>Activity Monitor</u> <u>Panel</u>, <u>Requests To Talk</u> tab).

Show notification in the Windows tray

Select this option so that a notification will be displayed in the Windows tray when a Request to Talk arrives.

• Apply RTT theme to PTT box

Select this option so that a special color theme (pink background, by default) will be applied to the associated PTT box when a Request to Talk arrives.

Callback destination

From the drop-down list, select where to transmit when answering to a request to call. You can select either Private Call, Home Group, Active Group, All Call, or one of the registered Radio Groups.

- Note: If the **Home Group** is selected, and the Home Group is not specified for the radio that initiated a Request to Talk, then the response to this Request to Talk will be made as an **All Call**.
- Choose one of the following three options:
 - Mark RTT as processed after dispatcher returns the 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 the caller		
Autodetect r	notification type		
C Send text me	essages		
C Send voice m	nessages		
Text message	e notifications:		
Queued:	Call queued		
Rejected:	Call rejected		
Not available:	Dispatcher is not available		
		ОК	Cancel

Send notifications to the caller

Select this check box 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 a number of 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	p						
Administration		Location Profile					율 🚳 🔽
Swift Commands Profiles	^	🔉 1: Line free	•0	Intercom	• • 0	Maintenace	
🗈 📑 Radio Statuses		Sales 🕘	•0	dsp 15		Group 10	
Location Profile Mobile Client Profile		Group 20 🔹	•0	Ali Cali		Group 11	
🗟 🔀 Tools 🔪 🤉		Group 22	•0	Private Call			
Disabled Radios	v	🛃 Add 🌗 Edit 🔜 Delete					
Voice Dispatch		Profile type: MOTOTR	во				
location Tracking		Manage trigger manually:		Yes			
🙀 Job Ticketing		Channel type: Location priority:		Non-scheduled (GPS	Regular GPS over \	/oice or Data Revert Ch	annel)
3 Job Hckeding		GPS data:			de, Direction, Spee	d, Precision	
🕖 Route Management		iBeacon data:		1 iBeacon: Major			
		Fast GPS on Connect Plus s	/stems:	No			
Mark Messages		Periodic Trigger:		Interval 30.0 sec			
Reports		Distance Trigger: Telemetry Trigger:		No			
-		Emergency Trigger:		No			
Event Viewer						*	
Radio Allocation						$\langle \rangle_{3}$	
Administration 🔶	-	1				5	
访 127.0.0.1 🛞 🕵 🕵 🗴	dm	inistrator 📑 Licensed to: den	no Demo L	icense			🕑 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 a Location Profile

• In the **Location Profile** pane, click the **Add** button.

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~
•

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)	×
General	Triggers		
Name:		(Default)	
Descrip	tion:		^
✓ Save	GPS data to da	tabase	
🗌 Mana	age trigger manu	ally	
Channe	l type:	Non-scheduled (Regular GPS over Voice or Dat	•
Channe	l priority:	Mixed Mode (recommended)	•
Protoco	l type:	LRRP (Location Request and Response Protocol)	•
Position	ing mode:	iBeacon Indoor/Outdoor	-
GPS	data:	Latitude, Longitude, Precision, Direction, Speed	-
🔽 iBead	con data:	Major, Minor	•
Num	ber of iBeacons:	1 *	
☐ Fast	GPS on Connect	Plus systems	
		OK Cance	4

• Name

Specify a name for the location profile.

• Description

Add a description for the location profile.

• Save GPS data to database

Select this option so that GPS data is saved in TRBOnet database.

• Manage trigger manually

Select this option so that GPS triggering can be started (stopped/reset/reconfigured) only manually by the dispatcher.

• 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.



Triggers tab

Location Profile (MOT	OTRBO)		×
General Triggers			
✓ Periodic trigger			
Interval:	30.0	second	
Distance trigger			
Distance:	1000	meters	
Min. interval:	10	second	
Emergency trigger			
	cy mode for Radio whe	en Emergency GPS is r	eceived
Telemetry trigger			
Every PTT trigger			
Emergency PTT tri	gger		
		OK	Cancel

• Periodic trigger

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 trigger

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.

• Emergency Trigger

Select this option so that a radio will send GPS and/or iBeacon data upon entering the emergency mode.

Show emergency mode for Radio when Emergency GPS message is received

Select this option if you want a Dispatch Console operator to see the emergency status of a radio that transmitted location data.

• Telemetry trigger

Select this option so that a radio will send GPS and/or iBeacon data upon sending a Telemetry command.

• Every PTT trigger

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.



• Emergency PTT trigger

Select this option so that a radio will send GPS and/or iBeacon data every time the PTT is pressed in the emergency mode.

To apply Location Profile to a radio:

• Go to **Administration** (1), **Radios** (2), select the radio in the table, and click **Edit** (3):

Administration	Register	ed radio gro	ups and r	adios				🔮 🐵 🔽
- SMS Groups	🔉 1: Line	ter #1: Slot #1		Group 1	•)) 46 (ot #2 •)) 46 () .) .
Voice Dispatch		ed Unregistered		io 🔜 Add WAVE	n r 🗆	17000 114	un El run l	
voice Dispatch	Add Gro Callsign	△ Type	Radio ID	MDC / Sel-5		Radio Groups		Description
GPS Positioning	125	MOTOTRBO	125	0	2125	Firemen	Logical Goops	Description
🙀 Job Ticketing	235	MOTOTRBO	235	0	2235	Firemen		
💓 Route Management	1						3	
RFID Tracker	1							
C Text Messages								
🔮 Voice Recording	1							
🕞 Reports	1							
Event Viewer]							
2								
😰 Radio Allocation								
[19] Radio Allocation Reading Administration	HI 41 4 Re	cord 1 of 2 🕨 🗰	HH 4					
Administration		cord 1 of 2 🕨 🗰 o Demo License	H I					Active
Administration	censed to: dem Dispatch 125				×			

Callsign:	125	
Radio ID:	125 • MDC ID: 0	4
Radio Groups:	All	+
Home Group:	Cleaners	•
Use icon:	🚯 Portable Radios 🗸 🗸	-
Extended Device:	None V Test	
Location Servic	e	
Location Source:	Built-in GPS receiver 🗸	
Location Profile:	(Default)	
	(Default)	
Telemetry Serv	Location Profile #1	
TLM Source:	Built-in Telemetry V	
TLM Profile:	(Default) V +	
Text Messages	Service	
TMC Turner	Standard	

- Click the **General** tab, and from the **Location Profile** list select the location profile to use for the radio.
- Select/clear the **Location Enabled** check box 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>6.4.31.1</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.

Profile Name:	(Default)
Client Type:	TRBOnet Mobile
Available Modes:	Voice Calls, Text Messages, Location, Job Tickets
Calls Location	Alarms Channels Extras
Remote Mor	nitor
Timeout:	30 seconds
Private Calls	,
Half-Dup	olex Calls
Full-Dup	ex Calls
Group Calls	
Phone Calls	
Record aud	io on PoC devices
🗌 Delete a	Il previous recordings on PoC devices (this process cannot be reversed)
Defaults	

- 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.

• Timeout

Specify the remote monitor duration, in seconds.

Note: The dispatcher won't be able to execute the Remote Monitor command for Mobile Client apps running in the background on iOS 13 and later.

Private Calls

Select this option to allow the Mobile Client app to make private calls. In addition, you can select to allow:

- Half-Duplex Calls
- Full-Duplex Calls



Group Calls

Select this option to allow the Mobile Client app to make group calls.

Phone Calls

Select this option to allow the Mobile Client app to make and receive phone calls.

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.

• Trigger 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.

Use Indoor location

Select this option to enable sending iBeacon data to TRBOnet Server.

• Trigger 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.

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 check box is cleared, the selected sensor alerts will always be activated on mobile app devices and cannot be deactivated by mobile app users.

• Click the **Channels** tab.

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lient T	ype:	TRBOR	TRBOnet Mobile						
vailabl	e Modes:	Voice (Calls, Text Mess	ages, Location, Job Ti	ikets				
Calls	Location	Alarms C	hannels Extras	1					
	Home	Monitor	Name	System	Group				
1	O	MULTICOP	All Call	Intercom	Alical				
2	•		Group 11	CP1	Group 11				
			5						

- 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>6.4.31.2</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.

• Trigger 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.



• Click the **TRBO.SOS** tab.

Profile Name: TRBONE SOS #1 Client Type: TRBONSOG Available Modes: SOS Services Calls Location TRBONSOG Alarms Channels Extras Show Call button Call Action: Call Destination: Request To Talk Call button Call Destination: Flow Call button Request To Talk Call button Name: Request To Talk Show Kone Worker button Sone Kone Worker button	× ×
Available Modes: 505 Services Calls Lucation TRB0.505 Alarms Channels Extras Show Call button Call Action: Request To Talk Call Destination: Home Group Call button Name: Request To Talk	-
Calis Location TRBO.SOS Alarms Channels Extras Show Cali button Cali Action: Request To Talk Cali Destination: Home Group Cali button Name: Request To Talk	•
Show Call button Call Action: Request To Talk Call Destination: Home Group Call button Name: Request To Talk	×
Call Action: Request To Talk Call Destination: Home Group Call button Name: Request To Talk	*
Cal Destination: Home Group Cal button Name: Request To Talk	•
Call button Name: Request To Talk	*
, ·	
Type Caption Severity Custom Event	_
FIRE Mobile app default Alarm None	
POLICE Mobile app default Alarm None	
AID AID Information None	
REPORT INCIDENT Message With Att	
✓ EMERGENCY EMERGENCY Information ▼ None	
Alarm Warning Information	

Show Call button

If you select this option, the PTT button will be available in TRBO.SOS.

• Call Action

From the drop-down list, select the action to be performed when the PTT button is pressed: Request To Talk, TRBOnet Call, or Phone Call.

• Call Destination

From the drop-down list, select the call destination.

Call button Name

Enter the name (label) of the PTT button.

Show Lone Worker button

If you select this option, the Lone Worker button will appear in TRBO.SOS. This will allow the TRBO.SOS user to start the Lone Worker mode.

Panic buttons

In the table below, specify the Type, Caption, Severity/Status, and Custom Event for the additional button(s).

• Click the Alarms tab.

Safety Alarms

Select the desired sensor alert buttons (**Man Down**, **No Movement**, **Shake Detection**) to be shown in the TRBO.SOS app.

- Click the **Channels** tab.
 - Home Group
 Select the home group (System and Group) for the PTT button.

Click the Extras tab.

Battery Level

Select this option so that the smartphone's battery level will be sent to the Dispatch Console.



6.4.19 Mobile Client Profile (TRBOnet Communicator)

This section describes how to configure the profile for the TRBOnet Communicator application running on a smartphone. For more details on TRBOnet Communicator, refer to *TRBOnet Communicator User Guide*.

File view Map Tools Help		(7000					
Administration	Mobile Client Profil	le (TRBOne	tCommun	icator)			ĝ
Request To Talk	> 1: Line free		 Intercom 	• •	Private Ca	al 🜒	• 0
🗟 🕞 Radio Statuses			Firemen	•) 4 Ø			
Mobile Client Profile (TRBOnet Mobile)	Cleaners		Fremen		PSC 1: Si	ot #1 🛄	•Ø
Mobile Client Profile (TRBOnet Communicator)	IPSC 1: Slot #2	Mobile Client	Profile (TRBOne	et Communicator)			×
Tools	🔜 Add 📑 Edit 🔜 De						
🕒 Schedulers	ES Add S Call BX DE	Profile Name:	(Default)				
- 🔒 Disabled Radios		Client Type:	TRBOnet	Communicator			v
Dispatcher Groups	Profile Type:	Available Mode	s: Text Mess	sages, Actions			*
Email Groups	Available Modes:						
	Actions:	Actions					
	: Button (Alarm)	ID	Type	Castian	Severity/Status	Custom Event	_
Voice Dispatch	2: Button (Warning)	1	Button	Caption	Alarm	None None	_
	3	2	Button	Warning	Warning	None	
Location Tracking	J	3	Button	Button3	Information 💌	None	
Route Management Text Messages							
🔮 Voice Recording			/				
Reports							
Event Viewer		4 Add >	< Delete				
1 Radio Allocation		Default	5			ОК С	ancel
Administration							
🕤 Connected 🛞 🕵 🥵 🕵 🙎 Administrator	Licensed to: demo Demo I	License					0,

- Go to Administration (1) > Mobile Client Profile (TRBOnet Communicator) (2).
- In the **Mobile Client Profile (TRBOnet Communicator)** pane, click **Edit** (3).
- In the dialog box that opens, click the **Add** link.
- In the table below, specify the Type, Caption, Severity/Status, and Custom Event for the button(s) you are adding.
- Once you have configured the profile, click **OK**.

6.4.20 Tools

On the **Tools** page, you can find some useful tools.

6.4.20.1 Templates for Extended Messages

The Templates can be used for Extended Messages and Extended Notes.

The **Extended Messages** feature is a special function allowing users to send detailed preconfigured templates containing necessary information to each other with the help of the special TRBOnet Dispatch Console application.

This service has been created especially for clients who need to use more detailed and structured messages in their work. If the standard messages are not enough to contain all required information, you may use the Extended Messages service.

• Go to **Administration** (1), **Tools > Templates** (2) to create a new template:



File View Map Tools Help		
Administration	Templates	ê 🐠 🖸
Swift Event Profiles Generative Radio Statuses Generative Tools Constructed Co		
Constant of the second se	Add From File Add - Edit Save To File Oblete	۵
Location Tracking		
📅 Job Ticketing		
📝 Route Management	3 4	
RFID Tracker		
Contemporary Text Messages		
Voice Recording		
Event Viewer		
Radio Allocation	1	
Administration	₩ ₩ 4 Record 1 of 1 → ₩ ₩ 4	Þ
🔂 127.0.0.1 🛞 🥵 🙎 Administrator 📑 Lie	censed to: demo Demo License	🕑 Active -

• Click Add From File (3) to add a template from a file.

Note: Before adding a template from a file, save the created template to a custom directory.

Select the directory where you saved the template and click **OK** to add the file.

• Click Add (4) to create a new template:

Add/Edit Template		- 🗆 ×
Name: New Form		
Elements: New Form I textor Checkbox Conselected element to the workspoor New Form Template size: Text Message Widh:: 00 ♀ Background:	Crockal Crockal	d966-48c0-add7-673ef 109152b Generate new Default False Top. Left Nomal True False Tuc Control Light Light True False Tuc Orcheol Light Light True True True True True True True True

• 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>.

6.4.20.2 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).

File View Map Tools Help			
Administration	Indoor 2D Map Converter		👲 🕪 👱
Radio Statuses GPS Profile Tomplates Indox 20 Mgc Converter Disable Radios	Intercom (1) € (2) (1) Line free ✓ Group 10 (1) € (2) (2) Private Cal (1) € (2)	4:0 Al Cal	9 C
Dispatcher Groups 2	Name: Floorplan 1 Image:		
Location Tracking	D:\tmages\RoomSketcher-2D-Floor-Plans.jpg Directory: D:\tmages\Bmaps		
Sob Ticketing	Start		
RFID Tracker			
Voice Recording Event Viewer			
Radio Allocation	1		
Administration 4	ensed to: demo Demo License		🖸 Active -

.0.1 🛞 🕵 🙎 Administrator 🛛 📑 Licensed to: demo Demo Li

• 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.

• Directory

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):

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P1 10 14												
	Tools Select Act											
	Save Onlin								🔮 🐠 🕒	(and) as		
	Map Cont			ee	•0	Intercom		Group 10	• • •	E E		
🛛 📙 Firei	Print					Group 20		Group 11	• • •	😔 🗹 🍃 Bea	icons	
	g				Private Call				-20			
	Open Nev			Floor plan X							Coffee	
E Polic -	Open Nev		Window	💁 📲 📓 🛞 💭 🛞 🍸 👷 Show Beacons: Al 🔹 🖌 Drawing Panel 🚆						🖶 🗹 խ Map	p Objects	
	Google Ea			A A A A A A A Curtam Object v							Camera 1 Hospital	
Voice			ogle Earth			1			°4.0			
		ios on do	iogie cartri 🖡	2	(Na			The second	🕀 💟 🦢 Map		
Location Tra	acking	1				Imya V.O.			Camera Yasil'yevski	🗹 🏹 G 💟 🍃 Mac		
🙀 Job Ticketir	19		X .			7				L. 🛛 🐤		
			X									
🥂 Route Mana	agement						Tea (0)					
RFID Track	DF		1	\sim						1		
				1				Ŕ				
🖂 Text Messa	ges		.60 m				HospiLattude	: 59'56'29,53" N; L	ongitude: 30"16'52,71" E			
A			Recent Calls	/Events				17-		1		
Voice Recor	rding		🎒 Playback 📓 Save - 🍚 Print 📕 Pause 🛷 Clear - 🍪 Reload 🌇 Filter By Radio 🚍 Grouping 🍸 Auto Filter 🍥 Default S									>
			Date		Radio System	Sender	Recipient	Message		Details		
			3 09.06.201			Server	Al		n to 'Capacity Plus 1' h			•
			09.06.201		Capacity Plus Capacity Plus		r 11 11	Dispatcher 'Administrator' calls gr Members: Administra Radio '125' calls group '11' (00:08) Members: 125				-
8 Radio Allocation			09.06.201		Capacity Plus					r Members: Administrator		
			7 12:38:34 ecord 1 of 305	Capacity Plus		r Police	Dispatche	r 'Administrator' calls gr	Members: Administrator			
12 A A A A A A A A A A A A A A A A A A A						State Active Tasks	Active Routes	User Activity Beacon	s Beacon Eve	nts Tag List		
访 127.0.0.1 🛞 (∆ © A	dministr	ator 📑 Licen	sed to: demo							0	Active
				isca tor acrito							•	/ core
	_											
	Se	elect N	Лар							\times		
Мар Тур			pe: Beacon2D							\sim		
	Caption:		1:									
Available Maps			le Mane									
	Available											
	Name			Path State								
	Floorpla		olan 1	D:\Images\Bmaps\Floorplan 1.bmap OK								

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

Add

- Click **Add** to and browse for the map you have converted.
- Click **OK** to open the Indoor map in the Map pane.

6.4.21 Schedulers

The dispatcher can create pre-defined schedules to be used as event sources in Event/Alarm management, for database backup, and in job ticket templates.

Remove

OK Cancel

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



File View Map Tools Help		
Administration	Scheduler	🔮 🚸 🕓
P Comersa Portune and the appendix of the analysis of	Image: Solution of the soluti	
Text Messages	Recurrence Range Start: \$5/12/2018 12:00 AM Stop: Stop:	
 Voice Recording Reports 	OK Cancel	
[19] Radio Allocation Administration [10] Connected [20] Connected	1 w (w (< >)»)m (<] S Administrator ⊡ License Compared to: demo Demo License	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

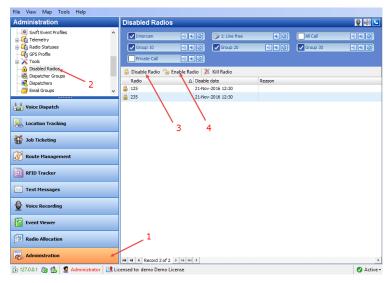
Specify the stop date/time.



6.4.22 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>6.4.24</u>, <u>Dispatchers</u> on page 253).
- 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.



Message 1 of 3	×
235 Repeater #1: Slot #1 Disabling The command has been executed.	01-Nov-2016 17:48
Radio has been disabled	
Do not show this message next time	Show on map Request Location
<< Prev Next >>	Close

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

Voice Dispatch	
61 🗄 🗄 👶 % 🏹 🗇 🗗	8
😑 🧟 Online Dispatchers (1)	<u> </u>
Administrator	
🗉 📙 Firemen	₽ =
125 (Pete) 125	9 🗞
235 (Basil) 235	9 10
Police	

- 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.

6.4.22.1 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.

6.4.23 Dispatcher Groups

The administrator can add, edit, and delete dispatcher groups in the system.

• Go to Administration (1), Dispatcher Groups (2).

File View Map Tools Help	р						
Administration		Registered Dis	spatchers				을 🚳 🕒
GPS Profile	^	1: Line free		Intercom	• • 0	Group 10	•) • 0
🐵 🔆 Tools		🛃 Ali Cali	• • •	Group 20		Group 11	• • •
		Group 22		Private Cal		Maintenace	
Dispatchers 2	*	Sales					
Voice Dispatch		🛃 Add 📑 Edit	🛃 Delete 📑 Gro	uping 🍸 Auto Filter	🗇 Default Settin	igs	
		Name	△ Radio ID	SIP ID	Descrip	tion	
Location Tracking		Maintenace	60400	60400			
		Sales	60500	60500			
😸 Job Ticketing			`				
Route Management			`3				
RFID Tracker							
Mark Messages							
🔮 Voice Recording							
Event Viewer							
Radio Allocation		_ 1					
Administration 🔶	-	H4 44 4 Record 1 o	f2 + ++ ++ +)
🚯 127.0.0.1 🚷 🕵 💆 Admir	histrato	r 📑 Licensed to: de	emo				Active •



• Click Add (3) to add a dispatcher group.

Dispatcher Gro	up	×
General Dispa	atch Group Call Request To Talk	
Name:	Maintenance	
Description:	I	
	OK Ca	ancel

On the **General** tab, specify general parameters for the new dispatcher group.

• Name

Specify a name for the dispatcher group to display in the Dispatch Console.

• Description

Add a description for the dispatcher group.

On the **Dispatch Group Call** tab, specify the following parameters:

Dispatcher Group		×
General Dispatch G	oup Call Request To Talk	
Radio ID:	139	
Phone Call		
User Extension:	7896	
User Name:	7896	
User Password:	*******	
	OK Cancel	

• Radio ID

Specify the Radio ID of the dispatcher group.



Phone Call

• User 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 Dispato	h Group Call Request To Talk	
Automatica	ally by receiving Text Message from a radio	,
Message:	139	
Automatica	ally by receiving Telemetry Command from a radio	
VIO:	1 🗘 Command: Any event 🔹	
Automatica	ally by receiving DTMF command from a radio	
Command:	139 #139#	
Automatica	ally by receiving Status from a radio	
Status:	0	
	OK Canc	4
	- OK - Carlo	-

- 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 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**.

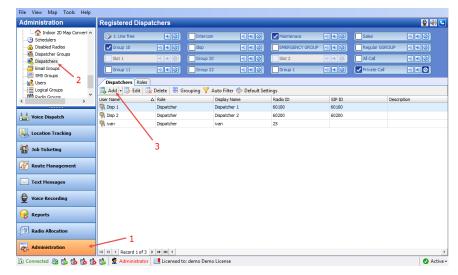


Once you have added the dispatcher group to the system, the appropriate PTT box will appear in the Radio Interface pane.

6.4.24 Dispatchers

The administrator can add, edit, and delete dispatchers in the system.

• Go to Administration (1), Dispatchers (2) to work with dispatchers:



• Click Add (3) to add a dispatcher.

General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 4
Authen	tication:	TRB	Onet Authentica	tion	\sim
User Na	ame:	Disp	1		
Passwo	rd :	****	****		
Repeat	password:	****	****		
Display	Name:	Disp	1		
Descrip	tion:				
Dispate	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		
				OK	Cancel

- On the **General** tab, specify general parameters for the new dispatcher.
 - Authentication

Select the Authentication method from the drop-down list. Select **TRBOnet Authentication** to log on as a user registered in TRBOnet Dispatch Console Users list.

Select **Windows Authentication** to log on using the PC name. The system automatically shows the PC name as User Name.



- Note: The password is not required when Windows Authentication is used.
- Note: For more details on user access to Allocation Console, see section <u>6.4.27</u>, <u>Users</u> (page 261).
- User Name

Specify a user name for the dispatcher registered in TRBOnet Dispatch Console Users list.

Password

Specify a password for the dispatcher.

- **Display Name** Specify a name for the dispatcher to display in the Dispatch Console.
- **Description** Add a description for the dispatcher.
- Dispatcher Role

Form the drop-down list, select the role of the dispatcher in the system (Administrator or Dispatcher).

Note: In addition to the Administrator and Dispatcher roles, you can also create custom dispatcher roles. To do this, in the **Dispatchers** pane, click the **Roles** tab, and then click **Add**.

• Invisible to all other users

Select this option to make the dispatcher invisible to other users.

- Invisible to all except the assigned groups Select this option to make the dispatcher invisible to other users except for users belonging to the same group of dispatchers.
- Allow multiple simultaneous logons

Select this option to allow the dispatcher to use multiple instances of Dispatch Console simultaneously.

On the **Permissions** tab, select the available modules and specify the available permissions for the dispatcher.



Dispatche	er				×
General	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 💶 🕨
Availab	le Modules:	(All I	Modes)		- ^
Voice	Dispatch Fea	tures			
🗹 Ena	able Voice Disp	atch			
\checkmark	Intercom calls				
\checkmark	Telephone cal	s			
\checkmark	Allow outgoing	private ca	alls		
Vie:	w all voice rec	ordings			
🗹 Pla	y voice record	ings			
Sav	e voice record	lings			
Cha	ange control s	tation chan	nels		
🗹 Cha	ange audio set	tings			
🗹 Ena	able Tone and	PTT			
✓ Ser	nd voice messa	iges			
	w System Brid	-			
	Enable Systen	-			
	able and disabl				
_	able and disabl				
En:	hla Call Draam	ntion mode	a for	20	minutes
				011	
				OK	Cancel

On the **Systems** tab, specify the system(s) that will be available for the dispatcher.

ispatch	CI)
General	P	ermissions	Systems	Radio Groups	Dispatcher Groups	Logical	•
	II Sv	stems avai	abla				
		selected Sy		lable			
Г		System				TX	ī
T.		Announcem	ient			V	
Ŀ	v	CP1				~	
Ŀ	▼	Mobile 1				~	
<u>Se</u>	elec	t All Clear	All				

• All Systems are available

Choose this option to make all radio systems available for the dispatcher to transmit and receive Voice and Data.

- Only selected Systems are available Choose this option and specify which radio systems will be available to the dispatcher.
 - Select the check box in the left column to add the corresponding radio system to the Radio Interface for the dispatcher.



 Select the check box in the TX column to allow the dispatcher to make Voice calls using the corresponding radio system. When the check box 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.

Dispatch	ner					×
General	IF	Permissions	Systems	Radio Groups	Dispatcher Groups	Logical 💶 🕨
		roups are av		vailable		
		Group All Call 11 22				
1 12	 	30 Cleaners				
ľ	•	riremen				<u>Iv</u>
S	<u>ele</u>	<u>ct All</u> <u>Clear</u>	All			
					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.



ispatcher					×
Permissions	Systems	Radio Groups	Dispatcher Groups	Logical Groups	[• •
	ups are av elected gro	ailable oups are availab	le		
Name			Description		
RBC			RBC		
~	Cleaners				
	✓ Clear	ers 1	Cleaning in Departm	ient 1	
	Clear	ers 2	Cleaning in Departm	ient 2	
~	Security				
	✓ Secur	ity 1	Security in Departm	ent 1	
	Secur	ity 2	Security in Departm	ent 2	
Select	All <u>Clear</u>	All			
			0	K Ca	ncel

On the **Dispatch Call** tab, specify Dispatch Call and SIP call settings for the dispatcher:

Dispatcher					×
Radio Groups	Dispa	tcher Groups	Logical Groups	Dispatch Call	Request T + +
Radio ID:		61000			
Phone Num	ber:	123-4567			
Email:		billy@gmail.co	om		
Phone C	all				
User Exte	nsion:	61000			
User Nam	e:	61000			
User Pass	word:	•••••			
Dial Plan:		Fedora			~
				OK	Cancel

• 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 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				>
Radio Groups Logic	al Groups	Dispatch Call	Request to Talk	Reports •
VIO: VIO: Automatically Command:	60100 by receivin 1 by receivin 60100	ng Telemetry Co Command: ng DTMF comma	Migh level High level nd from a radio #60100#	lio V
Automatically Status:	by receivin	ig Status from a	radio	
			ОК	Cancel

- 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 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.



ispatcher				3
Logical Groups	Dispatch Call	Request To Talk	Reports	•
	s are available			
-	cted reports ar	e available		
	neral Inform			^
160	Registered			
📑 Cu	rrent Report	s		
	📑 Last Know	n Systems and Rad	dios	
····· 🗸	Presence a	and GPS Status		
~~~	📄 Inactive R	adios		
	🗊 Unregister	ed Radios		
📑 Sy	stem Report			
	🔲 User Login			
	System Bri	-		
	Channel C	-		
Us	age Statistic	s Reports		
	Messages Radio Acti			
	Radio Acu			
		us Summary		~
Select All	-ur	do odinindi y		Ţ
<u>Jelect Al</u>				
			OK	Cancel

## • All reports are available

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

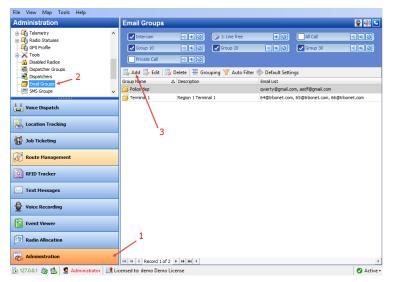
• Only selected reports are available

Choose this option and in the list below select/deselect the reports to include/exclude.

# 6.4.25 Email Groups

Email Groups are used in Event/Alarm Management and Job Tickets configuration to send emails to dedicated recipient groups.

• Go to **Administration** (1), **Email Groups** (2) to add/edit/delete email groups in the system:



• Click Add (3) to create an email group.



dd/Edit Email G	roups	×
Name:	Terminal 1	
Description:	Region 1 Terminal 1	
Email list:	64@trbonet.com 65@trbonet.com 66@trbonet.com	
	Add Remove	
	OK Cancel	

#### Name

Specify a name for the email group.

Description

Add a description for the email group.

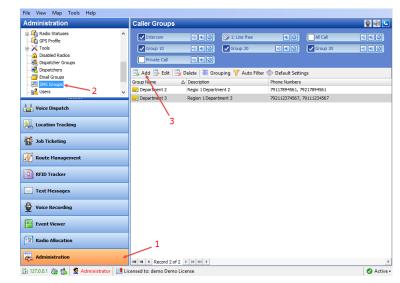
Email list

Click Add to add an email address to the Email list.

## 6.4.26 SMS Groups

SMS Groups are used in Event/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	ips	×
Name:	Department 3	
Description:	Region 1 Department 3	
Phone Numbers:	792112374567 79111234567	
	Add Remove	
	OK Cancel	

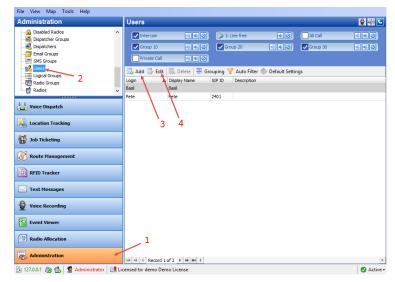
- Name Specify a name for the SMS group.
- Description Add a description for the SMS group;
- Phone Numbers

Click **Add** to add a phone number to the SMS group.

# 6.4.27 Users

The administrator can add/edit/delete users in the system. In addition, the dispatcher can export/import users (see section <u>6.3.4.3, Exporting/Importing</u> <u>Objects</u>).

• Go to **Administration** (1), **Users** (2) to add/edit/delete users in the system.



- Click either **Add** (3) to add a user to the system, or **Edit** (4) to edit the selected user.
- On the **General** tab, set general parameters for the user:



				~
Add/Edit Radio Us	er			×
General Radios	Management	SIP Account	Logical Groups	Custom Fields
Login:	Basil			
Password:	****	*		
Repeat password	****	*		
Display name:	Basil			
Max radios count	: 1	ŧ		
Description:				
			ОК	Cancel

Login

Specify the login for the user.

Password

Type in the individual password for the user.

Display Name

Specify a name for the user to display in the Dispatch Console.

- Max number of radios
   Select the maximum number of radios that the user can take.
- Description

Add a description for the user.

• On the **Radios** tab, specify the radios that will be available to the user.

Add/Edit Radio	User			×
General Radio	s Management	SIP Account	Logical Groups	Custom Fields
O All radios				
Selected rate	dios			
RBC				<b>A</b>
C 🛞 4444				
<b>(</b> £ 5555				
🗸 🏈 Radio				
V 🚯 Radio				
Radio				
🗌 🛞 Radio				
Radio				
Radio				
Radio				
Radio				
Selected: 2				
				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:

		Management	SIP Account	Logical Groups	Custom Field
🔽 Disat	ole radio (	on return			
	DTMF m	anagement			
Take	e radio:	1234		#1234#	
Reti	urn radio:				
	/ Text Me	ssages manage	ment		
Take	e radio:	Bsil		_	
Reti	urn radio:	Bsilex	t	_	
	/ Sign In ,	Sign Out mana	gement		
Sign	-in ID:				
	/ beacon	management			
Majo	or ID:		10 🔹		
Mino	or ID:		20 🔹		
Send notification to radio after it is taken/returned					
🗌 Enab	le forced	check-in			

## Disable radio on return

Select this option so that a radio will be disabled after the users returns it.

#### Allow DTMF management

Select this option to allow taking/returning radios by sending the specified DTMF tones.

- **Take radio** Specify DTMF tones to be sent by the user to take a radio.
- **Return radio** Specify DTMF tones to be sent by the user to return a radio.

## Allow Text Messages management

Select this option to allow taking/returning radios by sending specified text messages.

• Take radio

Specify the text of the message to be sent by the user to take a radio.

• Return radio

Specify the text of the message to be sent by the user to return a radio.

## Allow Sign In / Sign Out management

Select this option to allow taking radios when the user signs in to a radio.



#### • Sign-in ID

Specify the password that the user enters to sign in when they take a radio.

#### Allow beacon management

Select this option and enter **Major ID** and **Minor ID** of the beacon that will be used for taking and returning radios. When a radio enters/leaves the range of the specified beacon, this radio will be considered taken/returned by the user.

Note: This functionality is available only if the radio is equipped with an option board.

Send notification to radio after it is taken/returned

Select this option so that a notification is sent to a radio every time the user takes or returns it.

#### Enable forced check-in

This option affects the Radio Allocation module. If enabled, the user will be able to return any radio, regardless of whether who has taken the radio. For more details on the Radio Allocation module, refer to *TRBOnet Enterprise/PLUS Radio Allocation User Guide*.

• On the **SIP Account** tab, specify a SIP Account for the user:

Add/Edit	Radio Us	er			×
General	Radios	Management	SIP Account	Logical Groups	Custom Fields
User Ex	tension:	2401			
User Na	me:	2401			
User Pa	ssword:	•••••			
Dial Plar	1:	(			~
Bloc	k incomin	g phone calls			
Bloc	k outgoin	g phone calls			
				OK	Cancel

#### User 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>6.4.28</u>, <u>Logical</u> <u>Groups</u> (page 265).
- On the **Custom Fields** tab, specify the desired values for the custom fields (see section <u>6.4.6</u>, <u>Custom Fields</u>).

# 6.4.28 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.

- ile View Map Tools Help ogical Grou Administration € 🐠 In G 🕖 📢 🥥 🔽 Group 20 •) •( Pri 🔜 Add 🔽 🔜 Edit 🛛 🔤 Delete Add as a Child Add as a Root Cleaning 1 Cleaning 1 Cleaning 2 Security Cleaning in Department 1 H Voice Dispatch ups for Security Security 1 😹 Location Tracking 😸 Job Ticketing Route Managem RFID Tracker 🖂 Text Messages Voice Recording Event Viewer 谢 Radio Allocation administration 访 127.0.0.1 🍓 🤹 💆 Administrator 📑 Licensed to: demo Demo License Active •
- Go to Administration (1), Logical groups (2):

- Click **Add** (3) to add a logical group.
  - Select Add as a Root to add a logical group as a root folder.
  - Select **Add as a Child** to add a logical group as a child folder.



Group properties	Х
Name:	Cleaners
Description:	Cleaning in Department 1
Extem ID:	
	OK Cancel

- Specify a **Name** and **Description** for the logical group.
- Click **OK** to add the logical group.

To display logical groups, enable the Logical Group view:

Voice Dispatch	
d: = = = & 🛠 🍸 💣 🛱 🛇	
Logical Groups	
Administrator	
😑 🏪 Cleaning	9
🗉 🍓 Cleaning 1	9
🚷 🕒 125 (Pete) 125	9 6
Cleaning 2	9
E 🔁 Security	7 9 9 9 9 9 9 9
🗉 🏭 Security 1	9
🕵 🛞 235 (Basil) 235	9 2
Security 2	9
Voice Dispatch	
GPS Positioning	
😸 Job Ticketing	
💓 Route Management	
RFID Tracker	
Text Messages	
🔮 Voice Recording	
Reports	

All created logical groups are displayed in the list of radios.

# 6.4.29 Radio Groups

• Go to **Administration** (1), **Radio Group** (2) to add/edit/delete Radio Groups in the system.



Administration		Radio Groups					ê 🗐 🖸
Disabled Radios     Dispatcher Groups     Dispatchers     Dispatchers     Dispatchers     Email Groups     SMS Groups	^	Group 10	0 # 0 0 # 0	≫ 1: Line free ✓ Group 20	€0 •)€0	Al Cal	0 4:0
Users Logical Groups Radio Groups Radios		Add E Edit E Name Cleaners Firemen Polce	∠ Delete   ○ Grown G		r 🧼 Default Settin MDC / Sel-5 (Hex) 5 0 0	ngs Descripric Cleaning s	
Location Tracking		3					
Route Management							
Voice Recording							
Image: State	-	1	<b>• •• •• •• •</b>				Þ
🔂 127.0.0.1 🔉 🐟 🕱 Administrat	tor 📑 Lie	censed to: demo Demo I	construction of the second second				🕜 Active -

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

Group Propertie	es	×
Name:	Cleaners	
Group ID:	30 🔄 MDC ID: 5	* *
Description:	Cleaning group	
Use custom	n Call Tone	
Load fro		
🧐 Play ba	ck message	
Use Broadc	ast mode for call (only for IPSC)	
Use Open V	/oice Channel mode for call (only for IPSC)	
	OK Cancel	

#### Name

Specify a name for the radio group in the system.

Group 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.

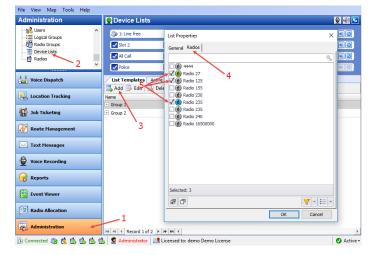
Notes: The Broadcast and OVCM group calls are available on IPSC systems only. To use the Broadcast and OVCM group calls, the **Use NAI Voice** option must be enabled for the repeater (see section <u>5.9.2, Adding a MOTOTRBO</u> <u>Repeater</u>).

## 6.4.30 Device Lists

The Device Lists are used to dynamically group radios based on current needs.

## 6.4.30.1 Adding List Templates

- Go to Administration (1), Device Lists (2).
- In the Device Lists pane, select the List Templates tab, and click Add (3).



- 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.



# 6.4.30.2 Dynamic Regrouping

Note: The Dynamic Regrouping feature is available only for Capacity MAX systems.

To assign radios to dynamic groups:

- Go to Administration, Device Lists.
   In the Device Lists pane, select the Active Lists tab, and click Create.
   Or:
- On the Tools menu, click Dynamic Regrouping.

ynamic Regrou	ping			-		×
Action:	Assign to dynam	ic radio group	-	[		
Group:	Firemen		•			
Group Alias:	Firemen_1					
Radios Dynan	nic Groups					
Name		Active Group	State			
8 <b>8</b> 0		-	-			
> 🗸 🛅 Gro	up 1					
> 🗸 📑 Gro	up 1					
	-					
d d e	đ				7-1	j -
₪ ਗ਼ ਜ਼ Execute	ð				7 - 1	j -

In the **Dynamic Regrouping** dialog box, enter the following parameters:

Action

From the list, select the action (Assign to, or Exclude from dynamic group).

Group

From the list, select the radio group to which to assign (or, from which to exclude) radios.

- **Group Alias** Enter an alias for the radio group.
- In the list below, expand the group and select the desired radios.
- Click the **Execute** button.

# 6.4.31 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>).

• Go to Administration (1), Radios (2).



dministration	Radios						👲 🐠	
- 👼 Dispatcher Groups								
- 🛃 Dispatchers	💠 Add Group 📑 A	dd Digital Radio 🔜	Add Range 🛛 🛃 A	dd TRBOnet Mobile 📑	Add TRBO.SOS 📑 Add W	/oC Radio 📑 Add	WAVE 5000 📑 Edit	
	Radio Name	Туре	△ Radio ID	MDC ID	User Extension/Login	Radio Groups	Logical Groups	
	🛞 Radio 235	Digital Radio	235	0		Cleaners		
E Logical 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			
	Depathes Enal Groups SMS Gro							
>								
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:

eneral Leased Con	ups Additional SIP Account Cameras	
Logical Grou	ips   Additional   SIP Account   Cameras	
Radio Name:	125	
Radio ID:	125 DE 0	
Radio Groups:	All	•
Home Group:	Cleaners 🗸 🗸	
Use icon:	🛞 Portable Radios 🗸 🔸 –	
Extended Device:	None V Test	
Location Service	e	
Location Source:	Built-in GPS receiver	
Location Profile:	(Default) V +	
	✓ Location Enabled	
Telemetry Serv	ice	
TLM Source:	Built-in Telemetry 🗸	1
TLM Profile:	(Default) V +	
Text Messages	Service	
TMS Type 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 232).

Location Enabled

Select/clear this check box 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 223).

# **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 226).

#### **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.

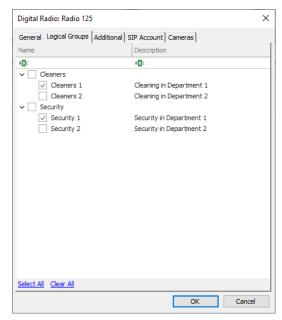
### **Radio Status Service**

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 231).

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>6.4.28, Logical</u> <u>Groups</u> (page 265).

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



Digital	Radio: Radio 125			×
Genera	al Logical Groups Ad	lditiona	SIP Account Cameras	
	Load Image		e Color:	
	Name	Ŷ	Value	
B	Name			
	Description			
	Car make		Hyundai	
	Plate number		RAMBO 01	
<u>ر</u>	, 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>6.4.5.17</u>, <u>HotSOS (Email)</u>), there must be present at least one field with the 'Email' type.

On the **SIP Account** tab, specify a SIP Account for the radio:



Digital Radio: Radio	125	×
General Logical Gro	ups Additional SIP Account Cameras	
User Extension:	125	
User Name:	125	
User Password:	•••••	
Dial Plan:	SIP 1 ~	
Block incoming		
	OK Cancel	

• User 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 check box beside the camera that will be associated with the radio:



Digital Radio: Ra	dio 125	$\times$
	Groups Additional SIP Account Cameras	- 1
Name	Description	
Camera 1	Disposal dump	
Camera 2		
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		- 11
		-1
	OK Cancel	

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

😫 Radios		
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	



# 6.4.31.1 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.

Login

Enter the login for the Mobile Client app user.

Password

Enter the password for the Mobile Client app user to be authenticated by the TRBOnet system.

Radio ID

Specify a Radio ID for the Mobile Client user. This ID is used by other calling radios when addressing the Mobile Client user, for instance, when making a private call or sending a text message.

Profile

In the drop-down list, select the profile for the mobile client. Or, click the plus button on the right to create a profile.

Note: For directions on how to create/edit a Mobile Client Profile, see section <u>6.4.17.1, Adding TRBOnet Mobile</u> <u>Profile</u>.



# 6.4.31.2 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.SOS		×
General Logical Group	Additional Cameras	
	2222	
Login:	2222	
Password:	•••••	
Password (repeat):		
Radio ID:	1	
Profile:	TRBOnet SOS #1 v +	
Use icon:	🖈 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>.



# 6.4.31.3 Adding WAVE Radio

If the WAVE 5000 Controller and/or WAVE OnCloud Gateway is connected, you can add WAVE radios to your radio systems.

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

Radio Name:	Wave 145					
Radio ID:	145	Wave ID:	145			)
Radio Groups:	Firemen					+
Home Group:	Firemen				$\sim$	÷
Use icon:	🛞 Portable I	Radios			~ +	-
Extended Device:	None	<u></u>	- т	est		
Location Service						
Location Source:	Built-in GPS re	eceiver		$\sim$		
Location Profile:	(Default)			~ +		
	Location E	nabled				
Telemetry Servi	ce					
TLM Source:				$\sim$		
TLM Profile:				$\sim$ +		
Text Messages	Service					
TMS Type:				$\sim$		

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.



# 6.5 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 state, 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:

- Voice Dispatch
- Click 📃 to view radios by radio list.
- Click 💁 to view radios by their states.
  - 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 state 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 state is shown if the Server has received GPS data during the last 30 seconds (the time interval is set in Location Profile > Periodic trigger interval).

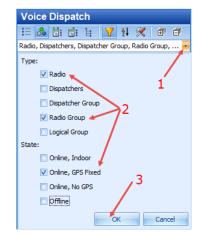
Grey

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.



- Click the arrow button (1).
- Select the object types and the radio states (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 , and from the drop-down list, select how to sort the radios in the Radio List (Name, Radio ID, State).
- Click sto open the **Quick Actions** dialog box to specify which quick buttons to display in the Radio List pane.

Request To Talk Private Cal Check Presence Private Cal
Private Cal Private Cal Private Cal Private Cal Private Cal Ressage Gend Push Notification Request To Tak Deable/Emable Rado Track Rado
Phone / Full-Duplex Call     End Message     Send Push Notification     Request To Talk     Disable/Enable Radio     Track Radio
Phone / Full-Duplex Call     End Message     Send Push Notification     Request To Talk     Disable/Enable Radio     Track Radio
Phone / Full-Duplex Call     End Message     Send Push Notification     Request To Talk     Disable/Enable Radio     Track Radio
Send Message     Send Push Notification     Request To Talk     Disable/Enable Radio     Track Radio
Send Push Notification Request To Talk Disable/Enable Radio Track Radio
Request To Talk Disable/Enable Radio Track Radio
Disable/Enable Radio
Track Radio
Check Presence
Reset Location Trigger
Request To Talk
Send Push Notification
Show Status of Location Trigger
× 1
-
📅 🔍 루 🗞 💆 🚽

## 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 check boxes next to each radio and radio group. Selecting/clearing a check box will display/hide the corresponding radio/radio group on the map.

## • Show Status of Location Trigger

Select this option to display the Location trigger state for a radio in the Radio List pane.

😑 📙 Firemen	₽ ^
😤 🕑 111	on GPS 📮 🔇
🐔 💌 125 (Pete)	📴 쿠 📎
🛠 🧭 222	on 📮 🔇
🐔 ڰ 235 (Basil)	on GPS 📮 🔇
🐔 🧭 Radio 200	on 📮 🔇
Radio 201	<u> </u>

✓ Grey

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's state, if a Lone Worker task is activated.
- 6. The route assigned to the selected radio, if a Route Management task is activated for the selected radio.
- 7. The associated job tickets.
- 8. The current GPS data and current location data.
- 9. The current location resolved to address.

While this pop-up window is open, the dispatcher can do the following:

- Click 🚾 to request the presence of the radio in the radio network.
- Click 🖼 to send a text message to the radio.
- Click 🔊 to request the radio's location.

### 6.5.1.4 Radio Shortcut Menu

To open the radio's shortcut menu, right-click a radio in the Radio List pane: This shortcut menu contains the following items:

### Check Presence

Choose this menu item to send a Radio Check command. If the radio is online and is located in the coverage area, the dispatcher will see a message like this:



Message 1 of 1	×
125 Repeater #1: Slot #1 Checking Presence in Network The command has been executed.	14-Nov-2016 17:49
Radio is present in the network Agent: Radio Networks Radio System: Repeater #1: Slot #1 / Peer 1002	
Do not show this message next time	Show on map Request Location
<< Prev Next >>	Close

• Private Call

Choose this menu item to initiate a Private PTT Call to the selected radio.

## • Phone Call/ Full-Duplex Call

Choose this menu item to initiate a phone call (full-duplex call) to the selected radio.

- **Request to Talk** Choose this menu item to send a talk request to the selected radio.
- Request Location

Choose this menu item to request the location of the selected radio (for radios with GPS module only).

• Send Message

Choose this menu item to send a text message to the selected radio (for radios with display only).

 In the dialog box that appears, specify the radio/radio group/dispatcher to send the text message to.

# • Advanced > Remote Monitor (Open mic)

Choose this menu item to activate the radio microphone in hidden mode (remote monitor duration – 30 sec.)

## • Advanced > Reset Location Trigger

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.

Reset Location Trigger	×
Reset Location Trigger	
Reset location trigger	
○ Stop location trigger	
○ Start location trigger	
Change periodic interval	
Interval: 30,0 second	
OK Cancel	I

Reset/Stop/Start location trigger
 Choose which command to send to the radio.



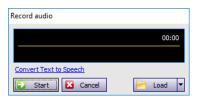
- Change periodic interval
   Select this option and specify the new location update interval.
- Advanced > Enable Radio Choose this menu item to enable the selected radio.
- Advanced > Disable Radio Choose this menu item to disable the selected radio.
- Advanced > Exit from Emergency mode
   Choose this many item to cancel the Emergency mode on the second s

Choose this menu item to cancel the Emergency mode on the selected radio.

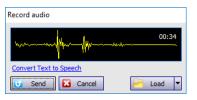
Note: This command is distinct from the Clear Alarm command ("x" button on the Alarm box) which just clears the radio's alarm state in the Dispatch Console. Also note that this command is applicable when the radio is used in Capacity MAX or DIMETRA Express systems only.

## • 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 Message	2	$\times$
Target:	235 (Basil);	
Templates:	~	>
Text:	125 (Pete) Latitude: 59°56°25.69"N; Longitude: 30°16'47.91"E	
		66
Attachments:	0 Add File	
Select Radios and (	Groups	
Filter:	235	
💟 <u>8</u> 235 (Ba		
🔲 Send copy by En	nail	
Send copy by SM	IS	
Send to offline ra	adios	
Hide Advanced O	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 > Hot Key - Private Call

Choose this menu item to assign a hot key 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		×
XI.	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		$\times$
Radio:	125 (Pete)	$\sim$
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.

## • Specify State Colors

Choose this menu item to select to set individual parameters for the radio icons.

State		Col	or					
Offline		(f)	Offline				•	+
Online,	No GPS		Online, No	GPS			•	+
Online,	GPS Fixed	Ť	Online, GP				-	+
Online,	Indoor	۲	Online, Ind	loor			-	+
Alarm		٠	Alarm				-	+
							Re	eset
eview	0	nline	Onli	ine (GPS)	Online (B	eacon)		eset



- In the State Colors dialog box, you can specify icons for the states of the selected radio. Select icons from the drop-down list. To set a custom color for the radio state icon, click the + button and select a color in the uniform color palette. Click the – button to delete a custom color.
- In the lower part of the dialog box, you can see the preview of the icons.
- To set default icons for the selected radio, click the **Reset** button.
- Set Radio Channel > Radio Active Select/deselect this menu item to make the selected radio active/inactive.
- Set Radio Channel > Channel Select the radio channel over which to make calls to the selected radio.
- Cameras >

Click this menu item and select a camera associated with the radio. As a result, a new window with the camera view will open.

• Set On Duty

Choose this menu item to assign the selected radio to the **On Duty** list. See also section <u>6.4.5.7</u>, <u>User Activity</u> (page 180).

# 6.5.2 PTT Boxes

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

Control Sta	ation #1 🔊 📧 🧭
(DTT	Channel 1
PIT	All Call 🔻
	Constant of the second s
	Session:
	Free channel
	Sender:
RX/TX -	
	J

The following options are available for the PTT box:

- Click the 🗹 button to make the channel the default PTT channel.
- Click the 🗐 (Tone and PTT) button to start transmitting after a tone sound.
- Click the 📧 (Solo) button to mute all channels except this one.
- Click the 🙆 (Mute) button to mute this channel.

Right-click on the selected PTT box to display the shortcut menu which contains the following commands:

• Default PTT channel

Select this menu item to make the channel the default PTT channel.



## • Specify Hot Key

Choose this menu item to assign a hot key that will be used to transmit on this radio channel. When the prompt appears, press the desired key.

• Specify External PTT

Select the external PTT device that will be associated with this PTT box.

• Specify External Indicator

Select the external PTT indicator that will be associated with this PTT box.

#### • Add to New Group

Choose this menu item to add the channel/group associated with the selected PTT box to the Patch box. When two or more channels/groups are added to the Patch box, the dispatcher can click the **Create** link to create a patch group for the selected channels/groups.

#### • Tone and PTT

Click this menu item to start transmitting after playing a tone sound.

#### • Mute this channel

Click to mute the selected channel.

• Mute all channels except this

Click to mute all channels except the selected one.

• Volume

Move the slider to specify the speaker volume level on the selected channel/group.

• Microphone

Move the slider to specify the microphone volume level on the selected channel/group.

#### • Configure channel

Click this menu item and, in the dialog box that opens specify the recorder, player, speaker, external PTT device, etc.

Slot 1	~
SIDE I	*
	Defaults
Recorder:	Default 💌
Player:	Default 💌
Speaker:	Default
Volume:	$\odot$ $\bigcirc$ $\bigcirc$ $\bigcirc$
External PTT:	Footswitch (Footswitch PTT)
Indicator:	Footswitch (RTS)
Theme:	Default
	OK Cancel

## • Open Voice Channel Mode

This option is available for Private PTT Boxes. If you select this mode, all radios on the channel that are capable of receiving OVCM calls will receive this call rather than only the designated call recipient.



Notes: The OVCM calls are available on IPSC systems only. To use the OVCM calls, the **Use NAI Voice** option must be enabled for the repeater (see section <u>5.9.2, 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 107.

#### **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		

• Click the **PTT** button.

# 6.5.3.3 Group calls

To make a call from the Dispatch Console to a selected radio group registered in the system, do the following:

• From the drop-down list, select a group.

IP Site Co	nnect: Slot #1 🛛 🕕 🖉
	All Call 🔹
PTT	All Call Cleaners
	Firemen Police
	Free channel
	Sender:
RX / TX -	<u></u>

• 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 107.

## 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.

Intercom	•)) == Ø
	All Call 🔹
PTT	All Call
	Group 1 Offline: Dispatcher 2
	Session:
	Free channel
	Sender:
RX/TX -	]

• 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:



- 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).

# **TRBOnet Enterprise** — User Manual



/oice Dispatch	Radio Interface						ĝ
= 💑 🔯: 🔂: 🗄 🛛 🏹 💱 🛠	Radio Interface Te	lephony 🎽 Recent C	alls/Events Radios				
					×	Clock	
Online, GPS Fixed (1)						Friday, March 13	, 2020
Radio 27	=					3:24	1.00
Online, No GPS (1)						0.74	F 1V1
Radio 235	IPSC 1: Slot #	1 🔊		SC 1: Slot #2		Quick Comman	ds
0 (m) Offline (16)		eaners		All Ca		Send Pus	h
(*) 3333	PTT		P1	T.		Configure	
<u> </u>						Patch	
Voice Dispatch		ssion:		Session:			
<u> </u>		oup Call	🎽	Group C		Drag and Drop PTT Box her group	e to create new
Location Tracking		eaners nder:		(Firement Sender:		-	
H		nder: Iministrator			trator	🛃 📓 Radio Bridge	
🚰 Job Ticketing						PTT 0 IPSC 1: Sk	t #2
Route Management	RX / TX		RX	/TX		Firemen	t #1
2)						Cleaners	
🖂 Text Messages					*		
0	Recent Calls/Events	10 av 1 m a					
Voice Recording					ter By Radio 🛛 🚟 Grouping 🍸	-	
Reports	Date 2 13-Mar-20 3:24:42 Pf	Radio System IPSC 1: Slot #1	Sender Administrator	Recipient Cleaners	Message Dispatcher 'Administrator' calls gr	Details oup ' Units: Administrator	Note
D KEPOLO	13-Mar-20 3:24:42 Pf		Administrator	Firemen	Dispatcher 'Administrator' calls gr		
Event Viewer	13-Mar-20 3:24:24 Pf		Server	All	Connection to 'IPSC 1' has been l	ost	
	13-Mar-20 3:24:21 Pf		Administrator	Cleaners	Dispatcher 'Administrator' calls gr		
Radio Allocation	13-Mar-20 3:24:21 Pf		Administrator	Firemen	Dispatcher 'Administrator' calls gr		
	13-Mar-20 3-24-11 Pf HI HI 4 Record 1 of 12	7 F HF HH 4	Radio 235	11	Radio 'Radio 235' calls oroun '11'	(00-03) Units: Radio 235	
Administration					Active Routes User Activity		

# 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						₽
= 💑 📴 💼 🗄 🍸 💱 🛠	Radio Interface Tele	phony Recent Cal	ls/Events Radios				
					×	Quick Com	mands
Online, GPS Fixed	=					ser Ser	nd Push
Online, No GPS (1)						onfigure	
Radio 27						Patc	ь
Radio 27		•)) 📢	Dispat	tcher Group 1			
Voice Dispatch	PTT	hannel	PTT	Free chanr		Dispatcher Group 1 IPSC 1: Slot #1 reate	>> 1 
Location Tracking	ALCA			Dispatcher G	roup 1	Firemen - Cl	leaners 🔹
🐕 Job Ticketing	IPSC 1: Slot #1	🗐 🖷		: Slot #2 Free chanr		Fireme	1: Slot #2
Route Management	Cleane	<u>rs</u>		Al Cal		Cleane	
C Text Messages	Recent Calls/Events	(in 14		<b>11</b>			
Voice Recording		실 Print 🛛 🖬 Pau	ise 🛷 Clear 🔹 🍇	Reload   🌇 Fil	ter By Radio   🚟 Grouping 🍸 A	Auto Filter 🌼 Defa	ult Settings
-	Date	Radio System	Sender	Redpient	Message	Details	Note
Reports	🔆 13-Mar-20 5:26:19 PM		Server	Al	Connection to 'IPSC 1' has been los		
5	13-Mar-20 5:24:49 PM		Server	All	Connection to 'IPSC 1' has been los		
Event Viewer	* 13-Mar-20 5:23:22 PM * 13-Mar-20 5:21:55 PM		Server Server	Al	Connection to 'IPSC 1' has been los Connection to 'IPSC 1' has been los		
Radio Allocation	13-Mar-20 5:20:25 PM		Server	Al	Connection to 'IPSC 1' has been los		
w) Radio Allocation	30 13-Mar-20 5-18-58 PM		Server	ΔΙ	Connection to 'TPSC 1' has been los	a	
Administration	Recent Calls/Events Rec		To Talk Radio State	Active Tasks	Active Routes User Activity M	ap Cameras	
	interest adds/arends inter	request	in the state		and the second second		

- 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 check box on the left (2) to make the patch selected (default) so that the external PTT button can be used to start transmission.



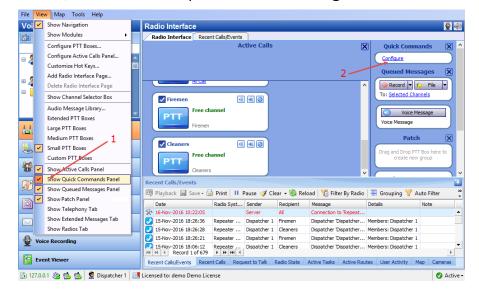
oice Dispatch	Radio Interface						÷
🗄 👶 🗟: 🗟: 🗄: 🍸 💱 🛠 🎽	Radio Interface Telepho	ny Recent Calls/Ever	nts Radios				
c 🔨	1				×	Quick Comma	nds 🛛 🗙
Online, GPS Fixed						Send P	ush
Online, No GPS (1)						nfigure	
Radio 27	✓ Intercom	•) 📲 Ø	Dispatcher Gro	up 1 😐 🔍 🕷 🥥	<u>^</u>	Patch	X
	Free cha	nnel	Free	channel 🤈			
Voice Dispatch	PTT		PTT	4	Ura	g and Drop PTT Box h group	ere to create new
	Al Cal		Dispat	cher Group 1		_/	
Location Tracking	IPSC 1: Slot #1		IPSC 1: Slot #2			Group	🕘 🗙
A	Free cha			channel			Slot #1
Job Ticketing	PTT		PTT			Cleaners Interce	
Route Management	Cleaners		Al Cal			Dispatch	er Group 1
Koute Hanagement	Group 11		Group 22			Firemen - Cles	aners 🕘
Text Messages	Group 11				I [	IPSC 1:	Slot #2
	Recent Calls/Events						
Voice Recording	🖾 Playback 📓 Save 🕶 😓	) Print 📔 Pause 🍕	🕴 Clear 🝷 🇐 Reload 📔	懫 Filter By Radio 🛛 🚟 Gr	rouping 🍸 Au	uto Filter 🍈 Defaul	t Settings
<u>`````````````````````````````````````</u>		Radio System Sende				Details	Note
Reports	🔆 13-Mar-20 5:43:18 PM	Serve		Connection to 'IPSC			
3	- 🔆 13-Mar-20 5:41:49 PM 🔆 13-Mar-20 5:40:28 PM	Serve		Connection to 'IPSC Connection to 'IPSC			
Event Viewer	13-Mar-20 5:39:05 PM	Serve		Connection to 'IPSC			
Radio Allocation	13-Mar-20 5:37:42 PM	Serve		Connection to 'IPSC			
	3 13-Mar-20 5:36:13 PM	Serve	e All	Connection to 'TPSC	1' has been lost		Þ

# 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).



• 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		×
Name:	Test	
Command		
Command:	Send Text Message	•
Message:	This is a test	
C Send to Rad	io Group	
Send to Rad	io	
Recipient:		
		9
13		â
√ ★ 125 √ ★ 235		
× × 255		
3333		Ŭ
<b>(f</b> ) 5555		<b>T</b>
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 Comman	d	×
Name:	Test	
Command		
Command:	Send Telemetry	•
VIO:	VIO 1  Command:	High level 💌
C Send to Ra	idio Group	
Send to Rate	idio	
Recipient:		
		9
13		
125		
235		
555		U
3333		
5555		+
Selected: 2		
d d		<b>7</b> • <b>:</b> = •
		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	
□	
3333	
■ (£) 4444	
5555	
Radio 300	
Radio 333	
🗌 🚯 Radio 3662	
Selected: 2	
a d	
	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 Comman	d			×
Name:	We are o	n fire		
Command				
Command:	Send V	oice Message		•
Load from Record in Play back	<u>iessage</u>			
Call Type		Channel	Call Target	
Group Call		Capacity Plus #1	Firemen	•
Priority:	Remove			
r nority:	Prorinal	_		<u> </u>
		l l	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 1 288.5		Duration (ms) 1000	Pause (ms) 0
🛉 Add 🗙 De	elete		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

Ouish Commend	×
Quick Command	~
Name: Command to Control	Station
Command	
Command: Send command to (	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 R	adio	
Recipient:		-
		9
		Â
235		
C 🔊 555		
3333		
4444		U
🗌 🛞 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

Name:	Swift 1		
Name:	Jamir I		
Command			
Command:	Send Swift Comma	nd	•
Swift Comma	nd: Swift Command 1		•
Parameter 1:			
Parameter 2:	0		
Send to Rate	adio Group		
C Send to Ra	adio		
Recipient:			
System		Group	
Capacity Plus	s #1	Firemen	•
	Delete		
🖶 Add 🗙			

#### Command

From the drop-down list, select **Send Swift Command**.

#### Swift Command

From the drop-down list, select the appropriate Swift command. Enter the required parameters, if any.

#### Send to Radio Group

Choose this option to send the Swift command to radio groups registered in the system. In the **Recipient** box, select target groups.

#### Send to Radio

Choose this option to send the Swift command to individual radios registered in the system. In the **Recipient** box, select target radios.



# 6.5.6.10 Send Push Notification

Quick Comman	d	×
Name:	Send Push	
Command View	1	
Command:	Send Push Notification	*
Subject:	Info	<u>()</u>
Message:	Check connection to J service	Information
Send to Dis	spatcher Group	A Warning
C Send to Ra	dio	
Recipient:	<b>.</b>	
Dispatche     Dispatche	er Group 1 er Group 2	
d d		
	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 Queued Messages

This feature enables dispatchers to send audio messages even if the channel is currently busy. The dispatcher records a message to be sent to a busy channel and then TRBOnet automatically forwards this message as soon as the channel becomes available:



File View Map Tools Help		
Voice Dispatch	Radio Interface	👲 🐠
💼 🗄 🐁 🗶 🍸 🗗 🗗 😒 -	Radio Interface Recent Cals/Events	
	Active Calls	🔇 Quick Commands 🛛 🗙 📤
Anine Dispatchers     Dispatcher 1		Configure Queued Messages
🐵 🧟 Group1		Record V Ly File V
🖂 🔂 Cleaners		To: Selected Channels
🖈 🧭 Radio 200 🛛 📟 📮 📎	Firemen 🕖 📧 🖉	
🚯 🛞 Radio 201 🔛 📮 📎 🚽	Free channel	Voice Message
	PTT	Voice Message
Les Voice Dispatch	Firemen	
Location Tracking	Cleaners I I I I I I I I I I I I I I I I I I I	Patch X Drag and Drop PTT Box here to create new group
🚰 Job Ticketing	Cleaners	
😥 Route Management	Recent Calls/Events	Grouping Y Auto Filter
RFID Tracker	Date 🛆 Radio Syst Sender Recipient Message	Details Note
	Recepter R Precepter R	
Text Messages	15-Nov-2016 18:26:28 Repeater Dispatcher 1 Cleaners Dispatcher 'Dispatcher	Members: Dispatcher 1
	15-Nov-2016 18:26:36 Repeater Dispatcher 1 Firemen Dispatcher 'Dispatcher	
🚭 Voice Recording	16-Nov-2016 10:22:05 Server All Connection to 'Repeat	
-	H4 44 4 Record 679 of 679 > >> >> + ++ ++ ++ ++ ++ ++ ++ ++ ++++++	•
Event Viewer	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Rou	ites User Activity Map Cameras
🔁 127.0.0.1 🔊 🛋 💼 🦉 Dispatcher 1 📑	Licensed to: demo Demo License	Active -

To queue an audio message for delivery to the selected recipients, first record a message by clicking the Record button. Alternatively, you can select a WAV audio file from any storage location, or select a prerecorded message from the library.

## 6.5.7.1 Select Audio File

• Click File > Open Audio File and browse for the audio file on the local PC.



# 6.5.7.2 Audio Message Library

You can select an audio file from the Voice Message templates.

• Click File > Audio Message Library.

	Filename	Description	Severity	Hot Key	Visibility
	Alarm Tone		Alarm		Hidden
,	Bobby.wav		Information		Button
	Daisy.wav		Information		Link

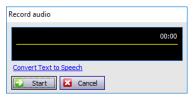
• Select an audio file in the list and click **OK** to use this file as a queued Voice Message.



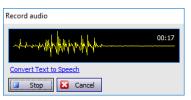
# 6.5.7.3 Record Audio File

You can record a voice message that can be sent to selected radios.

• Click **Record > Record audio** to open the recording tool:



• Click **Start** and start talking to the microphone.



• Click **Stop** to stop recording the message.

Record audio	
	00:25
Convert Text to Speech	
😈 Send 🔀 Cancel	🛃 Save 🔻

- Click **Send** to send the recorded message immediately.
- Click Save > Save as file to save the recorded file as an audio file on the PC.

Or:

 Click Save > Save as Saved Audio File to add the recorded file to a list of the Saved Audio Files.

# 6.5.8 Activity Monitor Panel

While in this panel, the dispatcher can perform a wide range of tasks, including:

- Monitoring and listening to recent calls and viewing system events
- Monitoring selected radio state
- 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.



pice Dispatch	F	Radio Interface						ŝ
💑 🗄 🗇 🗄 🍸 💱 🛠 🛛	a ·	Radio Interface	Telephony Re	cent Calls/Events	1			
							X	Clock
nline Dispatchers (1)								Thursday, September 30
Administrator								
-	-							11:16 AM
Online, Indoor							^	Quick Commands
Online, GPS Fixed		Dispatcher	Group 2		Contact Dia	ler 📧 🕢		
Online, No GPS (2)								Configure
🚯 4444 🛛 😒 🛙	₽	PTT	Dispatcher G	roup 2		*	-	Queued Messages
🚯 Radio 125	7 III					Menu	1	
Offline (19)								🥥 Record 👻 😰 File 💌
			Session:		Line 1	Line 2 Line 3		To: Selected Channels
Voice Dispatch			Free channel		Line 4	Line 5 Line 6		Patch
voice Dispatch								
Location Tracking			Sender:		1	2 3	/	Drag and Drop PTT Box here to create new group
Cocadon Hacking					4	5 6		
Job Ticketing		Recent Calls/Events						
Sob reacting				II Paura of C	lear 🛪 🧐 Reload	🍸 Filter By Radio 🛛 🗮 Grouping 🍸 Au	to Filter 🖉 Details 🥅 Show No	ter 🔛 Add Note
Route Management	Ē	Date Date	System	Sender	Destination	Description	Details	Note
		30-Sep-21 11:12:46		Radio 125	22	Group Call: Radio 125' called '22' (00:04)	Takers: Radio 125	Note
Text Messages		30-Sep-21 11:12:46		Radio 125	11	Group Call: 'Radio 125' called '11' (00:07)	Talkers: Radio 125, Administrator	
		30-Sep-21 11:12:40		Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
Voice Recording		30-Sep-21 11:12:39		Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
- and the second s		30-Sep-21 11:12:11	1 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	2 AM Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Talkers: 4444	
Reports		30-Sep-21 10:57:47		4444	Administrator	Private Call: '4444' called 'Administrator' (00:	Talkers: 4444, Administrator	
Event Viewer		30-Sep-21 10:57:23	7 AM CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
Event viewer		30-Sep-21 10:57:20	DAM CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
		30-Sep-21 10:57:00		Administrator		All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator	
Padia Allocation		30-Sep-21 10:56:10		4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:26)	Talkers: Radio 125, 4444	
Radio Allocation								
Radio Allocation		Recent Calls/Events				e Routes User Activity Map Cameras		

## **Voice Recording**

## Play back selected call(s)

Select the voice call recording you want to play back and click the
 Playback button on the left of the toolbar.

The Audio player box will appear.

🛅 Audio player	×
Duration:	00:03
Left:	00:02
Position	00:01
0	
▶ Play    Pause Stop 🗼 <u>Player</u> ⊗	📥 Open
	<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 | գ 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).

Click the **Default Settings** button to apply default settings to all log records. Click the **Details** button to see voice call participants:

late	System	Sender	Destination	Description	Details	
0-Sep-21 11:12:46 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
0-Sep-21 11:12:46 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (08:07)	Talkers: Radio 125, Administrator	
0-Sep-21 11:12:40 AM	CP1	Radio 125	22	Group Call: 'Radio 125' called '22' (00:04)	Talkers: Radio 125	
0-Sep-21 11:12:39 AM	CP1	Radio 125	11	Group Call: 'Radio 125' called '11' (00:04)	Talkers: Radio 125	
0-Sep-21 11:12:11 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:13)	Talkers: 4444, Radio 125	
0-Sep-21 11:10:52 AM	Mobile 1	4444	Radio 125	Private Call: '4444' called 'Radio 125' (00:09)	Talkers: 4444	
0-Sep-21 10:57:47 AM	Mobile 1	4444	Administrator	Private Call: '4444' called 'Administrator' (00:02)	Talkers: 4444, Administrator	
0-Sep-21 10:57:27 AM	CP1	Administrator	22	Group Call: 'Administrator' called '22' (00:08)	Talkers: Administrator	
0-Sep-21 10:57:20 AM	CP1	Administrator	11	Group Call: 'Administrator' called '11' (00:08)	Talkers: Administrator	
0-Sep-21 10:57:00 AM	Intercom	Administrator	All	All Call: 'Administrator' called 'All' (00:01)	Talkers: Administrator	
0-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 in the Notes column. So, you can mark recent calls and events to later find them by notes.



Click the **Add Note** button to add a note for the selected recording and/or event. The notes will be displayed in the Recent Calls/Events log if the **Show Notes** button stays pressed.

Click the **Add Event** button to add an event to the Recent Calls/Events log.

Add User Event			×
Destination: Severity: Description:	All (i) Information Test	¥	•
		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:

Recent Calls		
Types: 💄 Private 🕌 Group 🔇 All Call 🛛 🍼 Clear 🍸 Filter		
Most Recent Call Taller	Call Number	Actions
□ 27.04.2017 12:19 125 3	5	2 🗘 🞽
All Call Calls: 1 1 2 27.04.2017 12:19 Croup Call Calls: 3 27.04.2017 12:18 Private Calls: 1 27.04.2017 12:18		
+ 27.04.2017 12:03 235	1	S 🚺 🗙
Recent Calls/Events Recent Calls Request To Talk Radio State Active Tasks Active Routes Use	er Activity Map	Cameras

- 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:

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Click the Sender-Radio (Radio is displayed in the Sender column).

Click the 💟 button to mark the calls as viewed.

Click the 😹 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:

	Fo Talk : 🔇 Missed Call	Di avret Ti	o Talk View:	Table III Canda	l 🛹 dun L 🔳	Comunities 🔽 Eil			Outions
Call Types	: Viissed Call	Kequest Id	o talk   view:	Table on Cards	s   💚 Clear   💳	Grouping Tri	ter 🛛 🎯 Default Setti	ngs 🛛 🍠	Options
	First Call	Waiting Time	Call Type	Sender	Target	Queued By	Last Call	Count	
PTT	10-Nov-20 2:19 PM	01:01	🔔 Request To Talk	🖶 Walt	Администратор	Администратор	10-Nov-20 2:19 PM	3	× 🗸 🗙
staating -									
4 4 4 Re	ecord 1 of 1 🕨 🕬 🕬	٩							

#### **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 in a table view.
- Click the **Cards** button to display calls as a set of cards.
- 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 be displayed for all other dispatchers.
- Click the Menu () button and from the drop-down list select one of the following commands:



- Click the Forward (^R) 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 be displayed for all other dispatchers.
- Click the Cancel (^(S)) command to reject the RTT and not to display for all other dispatchers.

## 6.5.8.4 Radio State

On the **Radio State** tab, the dispatcher can see the log of radio states for the radio selected in the Radio List pane (the upper-left-pane of the main window):

Show Notes 📑 Add	Note 👒 Add Message	
Date	Dispatcher	∆ State
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
17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
16-Nov-2016 10:34:20		Radio Online
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
	Date 174\0v-2016 11:35:22 174\0v-2016 11:35:15 174\0v-2016 11:35:15 174\0v-2016 11:35:15 164\0v-2016 10:34:20 154\0v-2016 10:34:20 154\0v-2016 14:01:27 154\0v-2016 14:01:25	Date         Dispatcher           17/Nov-2016         11:35:12           17/Nov-2016         11:35:15           17/Nov-2016         11:35:15           17/Nov-2016         11:35:15           16/Nov-2016         10:34:20           15/Nov-2016         15:47:22           15/Nov-2016         15:47:22           15/Nov-2016         10:127           15/Nov-2016         14:01:25

In the Radio State 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 state records will be shown in the Notes column. So, you can mark radio state records to later find them by notes.

Click the **Add Note** button to add a note for the selected radio state 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 State 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).

Lone Worker 1         125 (Pete)         12:01         12:           Timer         235 (Basi)         0.00:29:16 - Timer started.         12:	Task	Radio	State
Imer         235 (Basi)         0.00:29:16 - Timer started.	Lone Worker 1	125 (Pete)	12:01 - 12:3
	Timer	235 (Basil)	0.00:29:16 - Timer started.

The dispatcher can manage active tasks as follows:

Click the **Stop** button to stop executing the selected task.



Click the **Grouping** button to group the tasks. Select the column you want to group tasks by. Drag and drop the selected column header to the Grouping field.

Click the **Auto Filter** button to set a filter for the active tasks. You can filter the tasks by any parameter. For example, to filter by selected radio select the **Radio** column, and start typing the radio name.

Click the **Default Settings** button to apply default settings to all active tasks.

## 6.5.8.6 Active Routes

On the **Active Routes** tab, the dispatcher can monitor all active routes.

Active Routes															
Start II	Pause	📕 Sto	p   [	🌛 Edit	Sector	ort - 🗧	Groupi	ng 🍸 Aut	o Filter 🌼 Defa	ult Settings					
Name					Route										
Route 1 235 (Basil) 17-Nov-2016 12	:20			00:01	12:21 Point 1	12:21 Point 2	10:00	10:40 Fire dep							
-															
44 4 Recor															
Recent Calls/Ev	ents	Recent C	alls	Reque	st to Talk	Radio	State	Active Tasks	Active Routes	User Activity	Мар	Cameras			

The dispatcher can manually set statuses for route checkpoints. To do this, right-click a route point and from the drop-down menu, select the desired status.

Waiting

The checkpoint is waiting to be attended.

Attended

The checkpoint has been attended on time.

Unattended

The checkpoint hasn't been attended on time.

Alarm

The checkpoint is in Alarm mode.

Note

Click this item to add a note to the selected checkpoint. The note will be displayed in the pop-up window that appears when hovering the mouse pointer over the checkpoint.

## 6.5.8.7 User Activity

• Click the **User Activity** tab to monitor the activity of radio users:

∆ Time	On Dut	γ Δ	Time L	Jser Activity #1	∆ Time
	235		13:15:01	125	13:15:09
				_	
_					
•					
	<b>^</b>				

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



## 6.5.8.8 Map

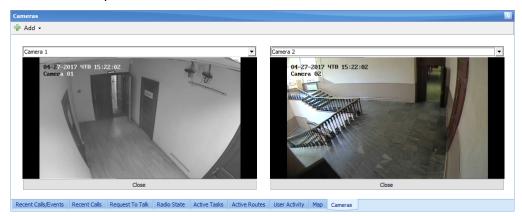
On the **Map** tab of the Activity Monitor panel, you can monitor location of radios on the map and simultaneously perform all available actions in the **Radio Interface** pane (make voice calls, send messages, disable and enable selected radios, and other actions):



For more details on map options, see section <u>6.6</u>, <u>Location Tracking</u> (page 313).

## 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:



<b>°</b> С	ontact Dial	er	2
	Tel: 240	9 🖌	<b>•</b> ···
3-		Menu	-
,	Line 1	Line 2	Line 3
1	Line 4	Line 5	Line 6
÷.,	1	2	3
	4	5	6
	7	8	9
	*	0	#

In the Contact Dialer box, select the Line (1), enter the phone number (2) and click the 
 (3) button.

## Terminate a phone call

• In the Contact Dialer box, click the 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.

🔇 Contact Dial	er	•	0
Tel: 2409	)	· ···	
~	Menu	•	
Line 1	Hold	Call	
Line 4	Man	age Call	
	0 Cont	acts	
1	2	3	_
4	5	6	
7	8	9	
*	0	#	



• In the **Call** dialog box that opens, select the desired contact and click **Forward**.

The Forward Call dialog box opens.



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

## Create a conference call and add participants

- While in a call, click **Menu > Manage Call**.
- In the **Call** dialog box that opens, click **Conference**.
- In the **Conference** dialog box that opens, click **Add**.

Conference	×
Hold	*
Telephony @	
Add Ext	Close

• In the **Add to Conference** dialog box that opens, select the desired contact and click **Call**.

Add to Conference		×
All 👔	Specify text to searh	
-0	All Dispatchers	-
🙎 Dispatcher	🧟 dg3	
🎘 Disp. Group	R Dispatcher Group 1	
Radio	R Dispatcher Group 2	_
	4444	
Radio Group	a Eugene	
Phone	🦓 Julia Lopes 📃	
	🧼 Kirill Vavanov	
1 Pavonices	Imofey Kozhevnikov	
,	User Test	
	Vladimir Gorbachev	-
Call	Cancel	6

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

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# 6.5.9.2 Making Phone Calls from Radios

#### Make a DTMF call

Note: Only 1.07.02 and higher firmware version for all radios equipped with dialing keyboard support DTMF.

To make a DTMF call, do the following:

- Press the PTT button on a portable radio and hold it.
- While holding the PTT button, dial a phone number and press # (For example, 0079521112233#).
- Release the PTT button. The server will automatically initiate a phone call.

## Call by sending Text Message

To make a phone call, send a text message with the text **PrefixN** where:

- Prefix is a short text to define the special text message (for example, sip:);
- **N** the phone number.

For example, to initiate a call to a phone subscriber "123 456 7890", the following text message must be sent to TRBOnet Server: "sip:1234567890".

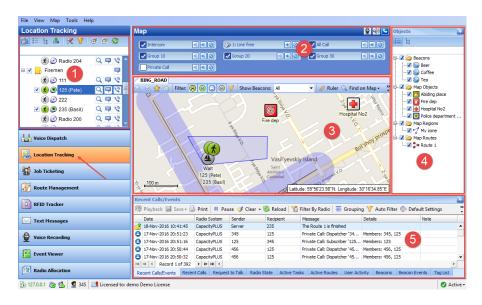
#### Terminate a call

To terminate the call, press the PTT button and then press # twice on the radio.

# 6.6 Location Tracking

In the **Location Tracking** tab, the dispatcher can monitor selected radio location on supported maps, open different maps in separate tabs and toggle between map tabs:





The main user interface elements are as follows:

- 1. Radio List pane
- 2. Voice panel
- 3. Map panel
- 4. Objects panel
- 5. Activity Monitor panel

While in the Activity Monitor panel, the dispatcher can perform a wide range of tasks, including:

- Monitoring and listening to recent calls and viewing system events
- Monitoring selected radio state
- 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:

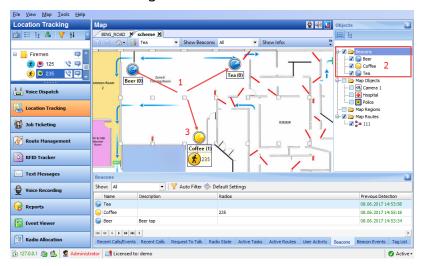
- Beacons all beacons connected to the system.
- **Map Objects** all manually created map objects and predefined objects created with the Map Drawing toolbar.
- **Map Regions** all map regions created with the Map Drawing toolbar (use the Add Polygon tool to create a map region).
- **Map Routes** all 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 356)

# 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>6.6.2.7</u>, <u>Drawing Panel</u> (page 318).

# 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 318).

## 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 321).

# 6.6.2 Map Tools

The Map toolbar is located in the upper part of the Map pane:



# 6.6.2.1 Zoom in/out

- Click 🔍 to zoom in a map.
- Click 🔍 to zoom out a map.

## 6.6.2.2 Bookmarks

- Click 😭 to put a bookmark on the map.
- Click **Save as Bookmark** to save the map region as a bookmark.

Save as Book	mark		×
Name:	Prince garden		
		OK	Cancel

• The dispatcher can create any number of the bookmarks. To open a bookmark, click 😭 and select the bookmark in the list.

## 6.6.2.3 Default View

- Click and choose **Save as Default View** to save current map view as a default view. The dispatcher can save only one default view.
  - To open the default view, click and choose **Show Default View**.

## 6.6.2.4 Filters

Select the filters to display radios on the map:

- 😣 radio is online, beacons are detected;
- I radio is online, GPS data is received;
- 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** states.

Click the  $\boxed{1}$  button and select which radios to hide according to the radio groups and/or logical groups they belong to, and the map regions they are currently in.

Click the solution to toggle showing object names on the map.

# 6.6.2.5 Ruler

- Click 🖉 to enable the tool to measure distances on the map.
- Left-click a point on the map to start measuring. Left-click intermediate points and see the distance displayed at the mouse pointer.

## 6.6.2.6 Search by Address

The dispatcher can search map objects by their address.

Note: For online maps, Internet access is required!

• Click **Click** Find on Map - and choose **Address** to find an address on the map.

Search by Address (BING_ROAD)	×
Broadway18	٩
18 Broadway, Tanytown, NY 10591, USA 18 Broadway, Somerville, MA 02145, USA	
18 Broadway, Denver, CO 80209, USA 18 Broadway, Denver, CO 80203, USA	
To bloddingy, berner, co obzec, cont	
	Close
	Close

• Click the address in the list to display it on the map.



ocation Tracking	Мар				(	👌 📣 🔽 🛛 Obj	ects
1 🗄 E 🖧 🏹 24 🍟	l: Line free	Inter	com 🕠 📢	Group 10		1	ŧ
Firemen 📮 🔦		•) € Ø 🔽 Group •) € Ø 🔽 Priva			y Address (My Map)	×	Beacons
<ul> <li>★ ② 235</li> <li>♥ ♥</li> <li>■ Police</li> <li>■ ♥</li> </ul>	My Map X Floor plan		Show Beacons:	18 Broa 18 Broa 18 Broa	dway, Somerville, MA 02145, USA dway, Tamytown, NY 10591, USA dway, Lawrence, MA 01840, USA		- <table-cell> 🌚 Tea De Map Objects - 🐼 🔍 Camera 1 - 🐼 🖶 Hospital</table-cell>
Voice Dispatch	ourt st		Broadwa	18 Broa 18 Broa 18 Broa 18 Broa 18 Broa 18 Broa	dway, Park Ridge, NU 07656, USA dway, Antiyulie, NY 11701, USA dway, Asheville, NY 28801, USA dway, Asheville, NC 28801, USA dway, Bayone, NJ 07002, USA dway, Newport, RI 02840, USA dway, Denyille, NJ 07834, USA		✓ ✓ Police     Map Regions     ✓ ✓ Region 1     Map Routes     ✓ ✓ 111
Job Ticketing     Route Management     RFID Tracker	JE 140		138		uway, Denville, NJ 07834, USA		
Text Messages	,90 m	-fice 50	140	chool St			
Voice Recording	Recent Calls/Events	Print 🛛 Pause 🥥	Clear 🕶 🏐 Reload	Filter B		Close	tails Show Notes
Reports	Date	Radio System	Sender Server	Recipient	Message Connection to 'Capacity Plus 1' has been.	Details	
Event Viewer	09.06.2017 12:43:30 09.06.2017 12:40:06	Capacity Plus 1 Capacity Plus 1	Administrator 125	11	Dispatcher 'Administrator' calls group '11. Radio '125' calls group '11' (00:08)		
Radio Allocation	09.06.2017 12:39:55 09.06.2017 12:38:34	Capacity Plus 1 Capacity Plus 1	Administrator Administrator	11 Police	Dispatcher 'Administrator' calls group '11. Dispatcher 'Administrator' calls group 'Po.		inistrator
Administration	HI HI H Record 1 of 305	► HH H		Tasks Active Route	es User Activity Beacons Beacon Ever		<u></u>

# 6.6.2.7 Drawing Panel

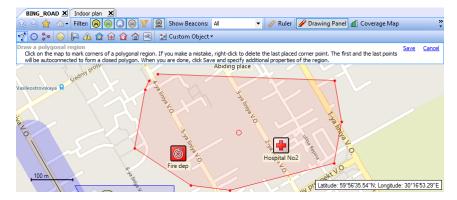
• Click *Prawing Panel* to display the Drawing toolbar:



## **Draw a Polygonal Region**

# Draw a polygonal region manually

- Click 🗹 and choose **Draw on the 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:

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## **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 check box to fill in the region area on the map.
- Transparency

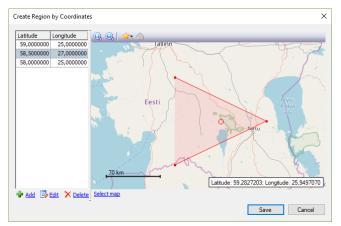
Specify the transparency level (in percent) for the fill color.

## **Logical Groups tab**

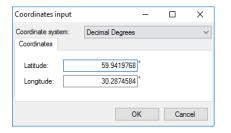
• Select the Logical Groups that will be associated with the map region.

## Draw a polygonal region by coordinates

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



• Click the Add link to add a point.



## Coordinate system

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



#### Latitude/Longitude

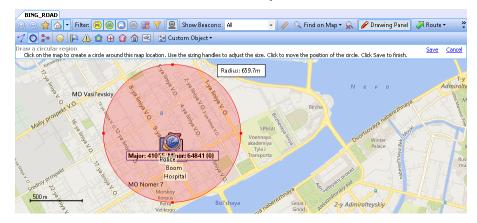
Enter the coordinates of the point.

- 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 the 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 region area

Select this check box 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 **Specify coordinates**.

In the **Circular Region** dialog box, specify the following parameters:

Circular Region	-		×
Coordinate system: Coordinates	Decimal Degrees		,
Latitude:	59.94160000000° 30.27930000000°		
Radius:	600 ‡ m		
	OK	Ca	ancel

#### Coordinate system

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

Latitude/Longitude

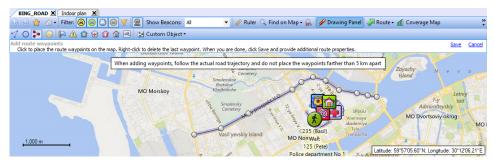
Enter the coordinates of the circle's center.

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: 255; 0; 255	
✓ Fill region area	
Transparency: 90 🔷 %	
Tolerance zone (m): 100	
boto	
OK Cancel	

#### Color

Select the color in which to display the route on the map.

• Fill region area

Select this check box to display a transparent edge around the route line. The edge width is specified by the value of the **Tolerance zone** parameter.

• Transparency

Specify the transparency, in percent, for the line edge.

Tolerance zone

Specify the corridor width (in meters or feet, depending on what is chosen in **Tools > Options > Advanced / Measurement system**). If a radio will pass out of this tolerance zone, the dispatcher will receive an alarm signal.

### Add a Beacon

- Click 🥯 and choose **Place on the 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	5	X
General Logica	al Groups Cameras	
Type:	iBeacon 💌	
Name:	Coffee	
Major ID:	1	
Minor ID:	1	
Description:	Coffee shop at the corner	
	ОК С	Cancel

• Туре

Select the beacon type from the drop-down list.

Name

Specify a name for the beacon.

Major ID and Minor ID

Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

Description

Add a description for the beacon.

On the **Logical Groups** tab, select logical groups that will be associated with the beacon.

On the **Cameras** tab, select the check box beside the camera that will be associated with the beacon.

Note: You can also place a beacon by specifying its coordinates. To

do this, click 🥯 and choose **Specify coordinates**.

## Add a Point of Interest

- Click 🔎 and choose **Place on the map**.
- Click on the map where you want to place a POI.
- Click the **Save** link.

The **Object on Map** dialog box will appear.



Object on Map		×
General Beacon Map	Logical Groups Cameras	
Name:	School dep	
ID:	2	
Description:	Look after	
l	~	
Bind to PTT		
System:	Capacity Plus 1	
Group:	Firemen 💌	
	OK Cancel	
	OK Caricel	

Name

Specify a name for the new map region.

Description

Enter a description for the map region.

Bind to PTT

Select this option to connect the POI to a radio group in your radio system. Clicking the object's icon on the map will start a call on the selected radio group.

• System

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

• Group

From the drop-down list, select the radio group.

On the **Logical Groups** tab, select logical groups that will be associated with the object.

On the **Cameras** tab, select the check box 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 is and choose **Specify coordinates**.



#### **Create a Custom Object**

In addition to objects with predefined icons, you can create your own objects to be then placed on the map.

Click Custom Object and choose Add Custom Object.

Custom Obj	ect on Ma	р		×
Name:	Clown	's nook		
Select image	e			
D:\Images\	Popov2.jp	9		S 🗶
Preview				
16	x 16	24 x 24	32 x 32	48 x 48*
Advanced n	node		Ok	Cancel

Name

Specify a name for the object.

Select image

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

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

After you create a custom object, the corresponding icon will appear along with other predefined icons on the Drawing Panel.

To delete a custom object, click Custom Object and choose
 Delete Custom Object.

#### 6.6.2.8 Route

#### **Show Route**

• Click Route and choose Show Route.

Show Route	×
	0
€         111           ✓         €         125 (Petr           €         222         ✓         €         235 (Basi           €         Radio 200         €         Radio 200           €         Radio 200         €         Radio 200	
00	
Route Type:	Static         ¥           Show Route for Last:         48 ±         Hours         ¥           1224lov-2016 0:00         ¥         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1
From:	22-Nov-2016 0:00
To:	<last known="" location=""></last>
Route Style:	Dots and lines with direction
	Optimize Route (group all nearest points)
	Automatic error correction Configure
	Show Events (telemetry, alarms and etc)
	Show CanLog Events
	OK Cancel



- 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 Route for 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.

- Optimize Route (group all nearest points) 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.

#### **Play Back Route**

• Click Route and choose **Play Back Route**.



Radio		Date	Δ	GPS Da	ita	Speed	Events	
.25	22-Nov	2016	10:17:17	Latitude: 59°56'25.88"N	Longitude: 30°1	0.6 km/h	0	
.25	22-Nov	2016	10:18:17	Latitude: 59°56'25.86"N	Longitude: 30°1	0.0 km/h	0	
.25	22-Nov	2016	10:18:47	Latitude: 59°56'25.16"N	Longitude: 30°1	0.6 km/h	0	
.25	22-Nov	2016	10:19:17	Latitude: 59°56'25.18"N	Longitude: 30°1	0.4 km/h	0	
.25	22-Nov	2016	10:19:47	Latitude: 59°56'25.27"N	Longitude: 30°1	0.9 km/h	0	
.25	22-Nov	2016	10:20:17	Latitude: 59°56'25.37"N	Longitude: 30°1	0.9 km/h	0	
.25	22-Nov	2016	10:20:47	Latitude: 59°56'25.37"N	Longitude: 30°1	0.8 km/h	0	
Total: 66								
Play	From: To:				ints)		•	
		_ <u>c</u>	onfigure	error correction				
		s N	onfiqure how Even	ts (telemetry, alarms and og Events				
Radio		s N	onfiqure how Even	ts (telemetry, alarms and og Events	etc) Color			
		s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color			
<ul> <li>111</li> </ul>		s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color			
<ul> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>		s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color	15		
<ul> <li>✓</li> <li>✓</li></ul>	Pete)	s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color LimeGreen 105, 105, 10 RoyalBlue	15		
<ul> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	Pete)	s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color LimeGreen 105, 105, 10 RoyalBlue Aqua	15		
<ul> <li>✓</li> <li>✓</li></ul>	Pete) Basil)	s N	onfiqure how Even	ts (telemetry, alarms and og Events	Color LimeGreen 105, 105, 10 RoyalBlue	15		

- 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.

Location Tracking	Map			Playback	Route						×	
1 E 1 & X Y 0 0 Q			Line free	Radio 125 125	22-Nov-		Latitude: 59*	GPS Data 56'25.38'N; Longitude: 30*1 56'25.39'N: Longitude: 30*1			•	
Coline Dispatchers	Private Call		sup 20	125 125 125	22-Nov-	2016 10:22:17	Latitude: 59° Latitude: 59°	56'25.41'N; Longitude: 30°1 56'25.42'N; Longitude: 30°1 56'25.42'N; Longitude: 30°1	0.3 km/h	0		
Online, Indoor (0)     Online, GPS Fixed (2)     State (2)     Stat	BING_ROAD X Indoor plan		🖋 Drawing Pa	125 125 Total	22-Nov-			56°25.42°N; Longitude: 30°1 56°25.43°N; Longitude: 30°1			•	
Solution Dispatch				⊵		22-Nov-2016				Load •	J y2	tment No
Location Tracking						Automatic	error correction	nearest points) alarms and etc)				
👔 Route Management	, <u>30 m</u>		~¥	Ra		Show Can	.og Events	△ Celer			_	
RFID Tracker	Recent Calls/Events	rint II Pause	🥩 Clear - 🚳 I	11				LineGreen			- te	5
Text Messages	3 22-Nov-2016 15:22:39 Ca	odio System pacityPLUS	Sender Dispatcher 1	22				105, 105, 1 RoyaElue	.05			
Voice Recording			235 235 235	E Ran	dio 200			SkyBlue DarkGray				
Reports	<ul> <li>※ 22-Nev-2016 12:58:20</li> <li>※ 22-Nev-2016 12:58:20</li> <li>※ 22-Nev-2016 12:58:20</li> <li>② 22-Nev-2016 12:57:11</li> <li>Ca</li> </ul>	padtyPLUS	235 235 Dispatcher 1		sct All	Unselect All Private Call:	Dispatcher 'Dis	patcher Members: Dispatch	her 1, 235			
Radio Allocation	HI HI I Record 1 of 619  Recent Calls/Events Recent C		ale Parlo State	Action T	wire Arthur	Product Line	Artivity Re	arrow Bearing Events Tar	allet			Þ

#### 6.6.2.9 Geofencing

The Geofencing feature allows controlling the location and speed of radios relative to manually defined regions on the map.

The Geofencing monitoring consists of the manually defined regions and the tasks. The regions specify where to apply the rules, while the tasks specify how to apply the rules for the regions and radios.

• On the Map toolbar, click �� Geofencing

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



- For more details on configuring Geofencing rules, see section <u>6.4.5.3</u>, <u>Geofencing</u>.
- To enable Geofencing rules, go to **Administration**, **Tasks**, and in the **Tasks** pane, select the check box next to **Geofencing**.

### 6.6.2.10 Coverage Map

The Coverage Map option allows to see RSSI levels on the map.

• On the Map toolbar, click dig Coverage Map



For more details on configuring the Coverage Maps, see section <u>Coverage Map</u> (page 131).

#### 6.6.2.11 Select Map

• On the Map toolbar, click Select Map

			×
Online maps			~
Му Мар			
Path			State
			ок
			OK
			OK
			ОК
			OK
			OK
			OK
Edit	Remove	OK	Cancel
	My Mapl Path	My Mapl	My Mapl

- 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 122).

#### 6.6.2.12 Google Earth

To open the Google Earth application:



• On the Map toolbar, click Scoogle Earth

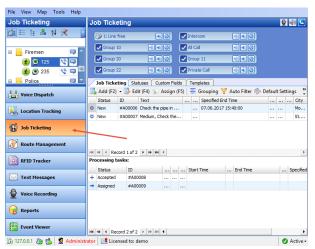
Note: Google Earth must be previously installed on the PC. To download Google Earth, go to the Google Earth website <u>https://www.google.com/intl/en/earth/desktop/</u>, and click **Download**.

## 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.



## 6.7.1 Adding Statuses for Job Ticketing

• In the **Job Ticketing** pane, click the **Statuses** tab to see the statuses available for job tickets.

Job Tick	eting Status	es Custom Fields Te	mplates
🛃 Add 📃	🕨 Edit 📑 De	lete	
Name 🔨	Action	Description	Status
New	New		☆ New
Cancelled	Cancel		× Cancelled
Assigned	Assign		→ Assigned
Accepted	Accept		+ Accepted
Rejected	Reject		- Rejected
Completed	Complete		✓ Completed
In Progress	In Progress		Of In Progress

Þ

```
144 44 4 Record 4 of 7 > >> >> 144 4
```



• Click the **Add** button to add a Job Ticket status.

Job Ticket Status	×
Name:	Accepted
Description:	Accept
Action (CPS):	Accept
Status:	+ Accepted 💌
	+ Accepted
	✓ Completed
	() 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.

Name	Values			
Town	Kotka;Hamina;Loviisa			
Quality	High;Low;Middle	N		

100	н ч	Record 1 of 2	► H H 4

• Click the **Add** button.



Þ

Job Ticket Cu	stom Field		×
Name:	Town		
Values			
Kotka			
Hamina			
Loviisa			
			Total: 3
🖶 <u>Add</u> 🗙	<u>Delete</u>		
		ОК	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.

-	Add (F2)	- Kent	(F4) 🐒 /	Assig	n (F:	<b>)</b>   1	Gro	uping	T AL	uto Filter 🌼 De	ault Sett	ings 📰 Statu	s Colors	÷		
	Status 🔪	ID 🔰	Text				Pe	Cr	Specifi	ied End Time		Created By	Prio	C.	 	Qu
⋭	New	#A00007	Medium,	Chec	k the	pi		07				Administrator	Medi			
⋭	New	#A00010	Medium	%City	%			07				Administrator	Medi			High
	44 4 Re	cord 2 of 2		4										******	 	
			F F F	▲			Start Tin	ne		End Time		Specified End	Time		 	
ro	ocessing t	asks:				5	Start Tin	ne	•••	End Time		Specified End	_	••••	••••	

HI II Record 1 of 2 + H HI I

- Click the **Add** button to create a job ticket.
  - Note: To create a ticket from a template, click the arrow on the right of the **Add** button to select from the available ticket templates. For directions on how to create templates, see section <u>6.7.4, Creating a Ticket Template</u>.



Job Ticket		×
Ticket ID:	#A00000	
Priority:	Medium	~
Deadline:	21.04.2017 11:54	•
	<u>+5min +10min +30min +1hour</u>	
Predefined Texts:		<ul> <li>▼ 1 + -</li> </ul>
Text:	Check the pipe	^
		111 ~
Variables:	Priority Due Date Due Time	
	Notify on status changes	
	Notify if ticket is not accepted by	
	21.04.2017 11:49	-
	Notification List	
Comment:		^
		~
Hide Advanced Option	ons 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.

Add X Delete Priority Due	<u>Date</u> <u>Due Time</u>
	Total: 2
Check the toll fare	
Check the pipeline	
Text	
Name:	
Predifined Text Editing	×

- 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	Х
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.



Bin

- 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**.

Note: For information about the fields, see section <u>6.7.3</u>, <u>Creating a Job Ticket</u>.

In addition, you can enable automatic creation of the template-based tickets by using a scheduler. To do this, go to **Create Automatically by Scheduler**, click the arrow down button and select the corresponding scheduler. Or, click the plus button on the right, and create a new scheduler.

#### 6.7.5 Selecting Ticket Status Color

You can also color tickets based on their statuses.

• Click the **Job Ticketing** tab, and on the toolbar, click the **Status Colors** button.

	Job Ticke	ting Stat	tuses Custom F	ield	s	Те	mplates					
	Add (F2)	🗕 📑 Edi	it (F4) 🐒 Assigi	n (F	5)		🛛 Grouping 🍸 Auto Filter		Stat	tus (	Colo	rs
	Status	ID	Text 4	Δ.			Specified End Time	/				Town
☆	New	#A00010	Medium %City%									Kotka
☆	New	#A00007	Medium, Check				/					St.Peter.

In the Select Job Status Color dialog box that opens:

Status	Color
New	YellowGreen
Cancelled	Custom Web System
Assigned	DarkKhaki
Accepted	Beige
Rejected	LightGoldenrodYellow
Completed	Olive
Progress	LightYellow
Expiring Job Ticket	Ivory OliveDrab
Time to complete Job Ticket (minute	YellowGreen     DarkOliveGreen
Color:	GreenYellow
	Chartreuse
	Default



• 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**.

E.	Add (F2	2) 🔻 🗾 Edit	(F4)	A 🖉	ssign (F5)	🖶 Gro	uping	Y Au	ıto Filter 🌼 De	fault Setti	ngs 📰 Statu	s Colors		3
	Status	ID	Text			Pe	Cr	Specifie	ed End Time		Created By	Prio	C	 Qu
☆	New	#A00007	Medi	3	And a second		Ir				Administrator	Medi		
*	New	#A00010	Medi	-	Assign		_				Administrator	Medi		 High
44	44 4 R	ecord 1 of 2	H	0										
	ocessing	tasks:	• •	0	Cancel	ed on								
			• •		Cancel Archive Create Base Resend				End Time		Specified End	Time  .		 
	ocessing	tasks: ID			Cancel Archive Create Base		•		End Time		Specified End			 

Þ

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

Assign Job	Ticket		×
🐒 Ass	ign Job Ticket		
Radio:			9,
	235 x		î
	3333		U
	√ € 4444 □ € 5555		
	C 🔊 5555		-
	Selected: 2		
	<b>d</b>		<b>7</b> • <b>H</b> •
		OK	Cancel

- In the list, select a radio or multiple radios, radio group(s), or logical group(s) to which to assign the job ticket. To switch between the Radio List, Radio Groups, and Logical Groups, click the *isotometric* button and select the desired list.
- Click **OK** to assign the ticket to the selected radio(s)/radio group(s)/logical group(s).

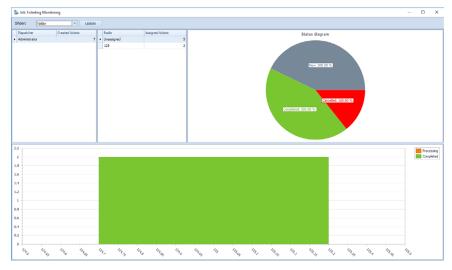
As a result, the selected radio(s)/radio group(s)/logical group(s) will receive the job ticket.



Note: When you assign the job ticket to multiple radios and the first radio accepts the ticket, the behavior of other radios depends on the <u>Job Ticketing Service</u> type configured for these radios. If the **Text Messages** type is configured for the radios, all other radios will receive a corresponding text notification. If the **MSI Proprietary** type is configured for the radios (or Mobile Client is used as a radio), the ticket will be cancelled on all other radios (Mobile Clients).

## 6.7.7 Viewing Job Ticketing Statistics

• On the main menu, select **Tools**, then click **Job Ticketing Monitoring** to see the Job Ticketing statistic diagram:



For more details on the statistics, see <u>Job Ticketing Monitoring</u>.

## 6.7.8 Viewing Job Ticketing Reports

- To view a job ticketing report, go to **Reports** (1), and select **Usage Statistics Reports** (2) **Job Ticketing** (3).
- On the **Usage Statistics Reports** pane, click the **Report Settings** tab, and specify the appropriate parameters and then click **Generate Report**.
- Click the **Job Ticketing** tab to see the generated report.



ports	Usage	Statistics	Reports								Ŷ
System Bridges Channel Changes Usage Statistics Reports	↑ Inte			1: Line free Group 30	बह द •) बह द				Group 10	•) • Ø	
Messages Radio Activity Radio Status Radio Status Summary User Messages and Notes Radio Allocation	Repor		b Ticketing 🗶			<u>,</u>					
Disabled Radios Telemetry Job Ticketing Job Ticketing Job Ticket Statuse	2		<b>icketing</b> 1-2016 0:00 to 21- Text		Status	Creation	Start Time	EndTime	Specified End	Created by	Priority
Location Tracking	3	#A00000	%PRIORITY%% PRIORITY%		New	Time 07-Nov-2016 14:04:31			Time 07-Nov-2016 14:19:00	Administrator	
Job Ticketing		#A00001	%PRIORITY%		Accepted	07-Nov-2016 14:04:58		07-Nov-201 14:49:55	6	Administrator	Medium
Route Management		#A00002	%DATE%		Assigned	07-Nov-2016 14:25:12		07-Nov-201 14:50:09	6	Administrator	Medium
RFID Tracker		#A00003	%TIME%		Accepted	07-Nov-2016 14:25:25		07-Nov-201 15:00:35	6	Administrator	Medium
Text Messages		#A00004	jkg		Assigned	07-Nov-2016 15:01:59		07-Nov-201 15:17:57	6	Administrator	Medium
Voice Recording		#A00005	Abc		Assigned	07-Nov-2016 15:18:13		07-Nov-201 15:21:07		Administrator	Medium
Reports	-1	#A00006	123	125 (Cleaning 1)	Completed	07-Nov-2016 15:29:19		07-Nov-201 15:35:02	6	Administrator	Medium
Event Viewer		#A00007	456		New	07-Nov-2016 15:38:32				Administrator	Medium
Radio Allocation		#A00008 Duration	∨isit mortre <b>1</b> :		Completed	07-Nov-2016 15:38:39	07-Nov-2016 17:58:21 <b>02:19:41</b>	07-Nov-201 17:58:49	6	Administrator	Medium
		Duration	<b>.</b>					00:00:28			

## 6.8 Guard Tour / Route Management

The Guard Tour / Route Management feature allows the user to create routes and assign them to selected radio subscribers or dispatchers.

File View Map Tools Help	
Route Management	Route Management 🔮 🆓 🕒
Start II Pause Stop	
Route 1 00 235 31.05.2017 14:58	Group 22 •1) €Ø Private Cal •1) €Ø
	Management Montoring
Uoice Dispatch	Name         Route           Route 1         15:00         15:15         15:30         16:00
Location Tracking	Test route Coffee Hospital Tes Police
🙀 Job Ticketing	
💓 Route Management 🛛 🔸	1
RFID Tracker	
C Text Messages	141 44 4 Record 1 of 1 1 1 14 141 4
🔮 Voice Recording	Active Routes
Reports	Start         II         Pause         Stop         Elit         Stop         Elit         Grouping         Auto Filter         Default Settings           Name         Route         Route
Event Viewer	P Route 1         00:00         15:00         15:30         16:00           235         235         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236         236
1 Telemetry	
Radio Allocation	
访 127.0.0.1 🛞 🥵 🙎 Administrato	r 📑 Licensed to: demo 🧭 Active

• Click the **Route Management** tab (1).

## 6.8.1 Creating a Route

• In the **Route Management** pane on the right, select the **Management** tab, then click the **Create** button (2) to create a new route.



ute		>
Name:	Route 1	
Description:	Test route	
Rule:	All checkpoints, strict order, strict schedule	•
Start/Stop Rules	Route Points   Checkpoint Statuses   Notifications   Tags   Logical Groups	
Start Route		*
Manually by di	spatcher	
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 🐥	
U Wait for con	firmation from a radio	
Pause Route		*
Resume Route		*
Finish Route		*
Manually by di		
Automatically I	by receiving Text Message from a radio	
Message:		
Automatically I	by receiving Telemetry Command from a radio	
VIO:	1 🗘 Command: Any event 💌	
Automatically	by receiving DTMF command from a radio	
Command:		
Automatically	by receiving Status from a radio	
Status:	0	
Automatically	after all points have been attended	
Limit route	processing time	
Max. Time:	0 h 0 m 💌	
	QK	Cancel

• Name

Specify a name for the route to display in the route list.

• Description

Add a description for the route.

• Rule

Select the type of the rule from the drop-down-list:

- All checkpoints, strict order, strict schedule
   Checkpoints are to be attended in the specified order, each within a specified time range.
- All checkpoints, strict order, loose schedule Checkpoints are to be attended in the specified order. The time for attending each checkpoint is not limited.
- All checkpoints, loose order, loose schedule Checkpoints can be attended in any order, each at any time.
- Click the Start/Stop Rules tab.

#### **Start Route**

Specify the rules to start the route.

Manually by dispatcher

This option is enabled by default and cannot be edited. This option enables the dispatcher to start the route by clicking the **Start** button in the **Route Management** tab or in the **Active Routes** pane.

Automatically by receiving Text Message from a radio
 The route starts when the radio sends a specific text message to
 TRBOnet Server. If you select this option, then specify the text message
 the radio will send in the Message box.



- Automatically by receiving Telemetry Command from a radio
   The route starts when the user presses a preconfigured button on the
   radio and TRBOnet Server receives a telemetry command from the
   user's radio. If you select this option, specify the VIO contact, and from
   the Command drop-down list, select the signal level at which the
   user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio
   The route starts when the user sends a specific DTMF command to
   TRBOnet Server, for instance, #11#. If you select this option, specify a
   DTMF combination without the # characters in the Command box.
- Automatically by receiving Status from a radio
   The route starts when the user sends a specific Status to TRBOnet
   Server, for instance, 1. If you select this option, specify the Status.
- Wait for confirmation from a radio
   Select this option to start the route after the TRBOnet Server receives a
   confirmation from the radio. In this case, the route is assigned to the
   radio or user and paused. The route will be resumed after a
   confirmation is received.

#### **Pause Route**

Specify the rules to pause the route.

**Resume Route** Specify the rules to resume the route.

#### **Finish Route**

Specify the rules to finish or stop the route.

- Automatically after all points have been attended Select this option so that the route is finished automatically after all checkpoints have been attended.
- Limit route processing time

Select this option, and specify the maximum allowed time in the **Max**. **Time** box. If the time is exceeded, the route will stop automatically. All unattended checkpoints automatically change their statuses from 'Waiting' to 'Not Attended'.

• In the **Route** dialog box, click the **Route Points** tab.





Map Type:	Online maps		
Caption:	Му Мар		
Available Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK

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

- Add Edit Remove OK Cancel
- Select the map. For more details on map types, see section <u>Map Types</u> (page 122).
- 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 neters
Intermediate	e 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>5.9.1 Services</u> on page 30).

Name:	Route 1				
Description:	Test route				
Rule:	All checkpo	oints, strict order, stric	schedule		
Start/Stop Rules	Route Points	Checkpoint Statuses	Notifications   Tags   Logic	al Groups	
🖗 Beer			Time:	Specified time of	day
Coffee			Name		Time
🥪 Tea			Point 1		9:00
			Point 2		9:30
			Coffee		10:00
			Fire dep		10:40
			Tea		10:50
	-	Map Objects		Edit 🗙 Dele	

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

Point proper	des		×
Name:	Coffee		
Beacon:	i Coffee		-
Radius:		+ meters	
🕅 Interm	ediate way point (not s	erved)	
Time:	10:00	÷	
Time delta	a: 5	🔹 minutes	
		ОК	Cancel

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

Route				×
Name:	Route 1			
Description:	Test route			
Rule:	All checkpoints, strict order, strict schedule			•
Start/Stop Rules	Route Points Checkpoint Statuses Notifications	Tags Logical	Groups	
Abiding place		Time:	Specified time of	day 💌
Fire dep		Name		Time
Hospital No2		Point 1		9:00
Police departm	ient No 1	Point 2		9:30
		Coffee		10:00
		Fire dep		10:40
GPS Points	Beacons 🗭 Map Objects	Create	🗐 Edit 🗙 Dek	te
			ОК	Cancel

• Click the **Create** link and then click an object in the list.

Point properties		$\times$
Name:	Fire dep	
Map Object:	🛐 Fire dep	-
Radius:	10 neters	
Intermediate	way point (not served)	
Time:	10:40	
Time delta:	5 minutes	
	ОК	Cancel

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



Name:	Route 1
Description:	Test route
Rule:	All checkpoints, strict order, strict schedule
contras puter l p	ute Points Checkpoint Statuses Notifications Tags Logical Groups
Set status	) Attended:
C When radio	enters the point area
By condition	when radio is in the point area
Autom	tically by receiving Text Message from a radio
Messa	
Autom	tically by receiving Telemetry Command from a radio
VIO:	1 🗘 Command: Any event 💌
Autom	tically by receiving DTMF command from a radio
Comm	
	tically by receiving Status from a radio
Status	0
Statuses th	it can be set by dispatcher: Waiting, Attended, U 💌
🗹 Set status	Alarm:
Autom	tically by receiving Text Message from a radio
Messa	ė:
Autom	tically by receiving Telemetry Command from a radio
VIO:	1 🗘 Command: Any event 👻
Autom	tically by receiving DTMF command from a radio
Comm	nd: 5 #5#
Autom	tically by receiving Emergency from a radio
Emg. 1	pe: Emergency Alarm
Autom	tically by receiving Status from a radio
Status	0

#### • 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 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 from a radio
   Select this option to set the point to alarm mode after the dispatcher receives a specific Status from the radio. If you select this option, specify the Status.
- In the **Route** dialog box, click the **Notifications** tab to manage notifications to a radio.



oute						
Name:	Route 1					
Description:	Fest route					
Rule:	Al checkpoi	nts, strict order, stri	ct schedule			•
Start/Stop Rules Ro	ite Rointe	Charlonint Staturar	Notifications	Tage Logical G	rou me l	_
You can use varia {RouteName}, {P	bles in text ointName},	message: {PointTime}, {Next#				
Send a Text Me	ssage on ro	ute assign to radio				
Text Message:		1	ne}			
I Send a Text Me Text Message:	ssage on ro	Start {RouteNam	-1 -1			
Send a Text Me	22202 00 10		-			
Text Message:	sage of the	The {RouteName	is suspended			
Send a Text Me		, .				
Text Message:	sage on ro	The {RouteName	is resumed			
Send a Text Me		, .				
✓ Send a Text Me Text Message:	sage on ro	The {RouteName	is finished			
		1 .				
I✓ Send a Text Me Time before att		approaching attend	minutes			
Text Message:	endence.	Serve {PointName		6		
Send a Text Me		, .				
Text Message:	isage arter		ic corved. Nev	ie /NevtPointNa	me} at {NextPoint	Time\
For the last poi	nt:	The {PointName}		in frexe errere	inc) at (nexa one	
Send a Text Me		,				
Text Message:	saye ii poi	The {PointName}	is not served			
Send a Text Me	sane if nni					
Text Message:		Alarm on {PointNa	ame}			
		, .				

- Note: To enable an option, select the check box. 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 o	rder, strict schedule
	1	Statuses Notifications Tags Logical Groups
Start/Stop Rule Name	s   Route Points   Checkpoint	Description
Clean	ing	0000000
		Cleaning in Department 1
		cical ing in occar and incite a
Co Secur		Groups for Security
C S		
T Analas I a size	Groups to a radio when the	couto atorte

- Select a logical group(s) in the list of available groups.
- Assign Logical Groups to a radio when the route starts
   Select this check box 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>6.4.28, Logical Groups</u> (page 265).

• 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 🛛 Il Pause 📕 Stop	🊱 1: Line free 🛛 📢 🖉 Intercom 🕬 📢 🖉 Group 10	•
Route 1 00:07 235 31.05.2017 14:58	I cal         I me         Group 20         I me         Group 11         Group	00
	Management Monitoring           Start         Start         Create         Edit         Copy         Export         Delete         Encouping         Auto Filter         Delete	fault Settings
Voice Dispatch	Name Route Route 1 15:00 15:15 15:30 16:00	raun settings
Location Tracking	Test route Coffee Hospital Tes Police	
🚮 Job Ticketing		
😥 Route Management	1 2	
RFID Tracker		
V Text Messages	144 44 Record 1 of 1 > 199 44	
🔮 Voice Recording	Active Routes	
🕞 Reports	▶ Start   Il Pause Stop 📑 Edit 🚳 Export • 🐺 Grouping 🍸 Auto Filter 🗇 Default Setting: Name Route	5
Event Viewer	Jk Route 1         00:07         15:00         15:15         15:30         16:00           235         235         236         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	
1 Telemetry		
Radio Allocation	144 44 4 Record 1 of 1 > >> >>> 4	•

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



Start Route		×
Name:	Route 1	
Start Date:	14-Oct-2016 10:58	•
Route:	Route 1	•
	Create Route Modify	
Radio:	🚯 125 (Pete) 125	•
Radio Owner:		•
Dispatcher:	Al	•
	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.

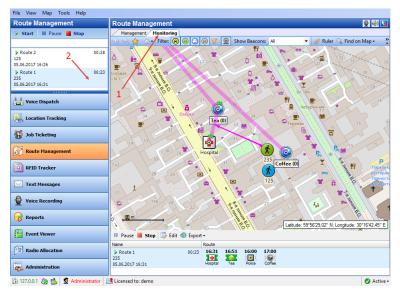
File View Map Tools Help		
Route Management	Route Management	2 🚳 😉
Start II Pause Stop	() 1: Line free 4.0 ✓ Intercom 40.4.0 ✓ Group 10 40.4	
▶ Route 1 00:37 235 31.05.2017 14:58	M Cal         C Group 20         C Group 11         III         IIII         IIII         IIII         IIII         IIII         IIII         IIII         IIII         IIII         IIIII         IIIIII         IIIIII         IIIIIII         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
	Management Monitoring Start   🖏 Create 📑 Edit 🖏 Copy 🐠 Export -   🕵 Delete   🖷 Grouping 🍸 Auto Filter 🗇 Default S	Settings
Voice Dispatch	Name Route Poute 1 15:00 15:15 15:30 16:00	
Location Tracking	Route 1 15:00 15:15 15:30 16:00 Test route 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
😵 Job Ticketing		
Route Management		
RFID Tracker		
C Text Messages	144 44 A Record 1 of 1 > 17 39 4	Þ
👲 Voice Recording	Active Routes	
Reports	▶ Start         II         Pause         ■ Stop         ■ Edit         ● Edit <th></th>	
Event Viewer	b Route 1         00:37         15:08         15:15         15:30         16:00           235         31.05:2017         14:58         Coffeee         Hospital         Image: Coffeee         Hospital	
Telemetry		
[19] Radio Allocation	144 44 4 Record 1 of 1 1 1 14 144 4	Þ
🚯 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 309).

## 6.8.3 Tracing Active Route on Map

• In the **Route Management** pane, click the **Monitoring** tab (1).



• In the upper-left pane, select the route (2) to be traced on the map.

## 6.8.4 Stopping a Route

Depending on the route configuration settings, a route/guard tour can be stopped automatically:

- by a command sent from the radio;
- when all checkpoints are attended;
- when the route time is elapsed.

To manually stop the route:

• Click the **Stop** button to stop the route. Once the route is stopped, it will disappear from the **Active Routes** panel.

After the route is stopped, the checkpoint statuses cannot be modified neither automatically, nor manually.

## 6.8.5 Generating Route Reports

The administrator can generate reports on the finished routes.

 Click the Reports (1) tab, and in the Reports pane select Common reports > Completed Routes (2):



File View Map Tools Help		
Reports	Common reports	👲 🚸 🕒
Lone Worker Activities     A     CAN Graphics	③ 1: Line free	
CAN Graphics	Sales →) 📢 🥥 🗸 Group 10 →) 📢 🥥 disp	
Job Ticketing 2	EMERGENCY GROUP 10 10 Regular GGROUP 10 10 Group 20	
Job Status Changes	Al Cal () € Group 11 () € Group 22	
Completed Routes	Group 1	
Full Movement Details		
Management	Report Settings	
☐ Indoor reports	Completed Routes	
< >	Saved Profiles:Not defined	
11	Select data by period:	
Voice Dispatch	- Start Date: 10/10/2016 12:00 AM	
k Location Tracking	End Date:	
0wA	Filter:	
📅 Job Ticketing	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	$\mathbb{N}_1$	
adartetaturatura	Generate Report Save Report Profile Delete Report Profile	
Administration		
访 Connected 🚷 🕵 🕵 🖉 A	dministrator 📑 Licensed to: demo Demo License	Active

## 6.9 Text Messages

In the Text Messages tab, the dispatcher can review and send text messages to other dispatchers, individual radio subscribers and radio groups:

File View Map Tools Help		
Text Messages	Text Messages	👲 🕪 💆
d: 🗄 1: 💩 🛠 🍸 🗇 🗇	V Intercom 刘 🕊 🥥 🔉 1: Line free 🗨 🕢 🖓 All Call	•
🗆 🧟 Online Dispatchers (1)	✓ Group 10     0	• • 0
🙎 Dispatcher 1 🛛 👔		
Online, Indoor (0)	Simple Extended	
Online, GPS Fixed (2)	🝼 Clear 🥘 Reload 📑 Inbox 🚅 Sent	
💰 🔊 125 (Pete) 🛛 📮 📎	The Point 1 is not served	^
🐔 🕭 235 (Basil) 📮 义	18-Nov-2016 14:05:10 Sent from Server to 125 The Point 2 is not served	
Voice Dispatch	21-Nov-2016 11:08:18 Sent from Server to 125 The Point 1 is served	
Location Tracking	21-Nov-2016 11:08:19 Sent from Server to 125 The Point 2 is served	
🚰 Job Ticketing	21-Nov-2016 12:30:04 Sent from Server to 125 The Route 1is finished 22-Nov-2016 12:20:04 Sent from Server to 125	
💓 Route Management	22-409-2016 17:20149 Sent from Server to 125 Call 5578: Cannot detect channel to execute this operation 22-409-2016 17:21:03 Sent from Server to 125	
RFID Tracker	Call 5578: Cannot detect channel to execute this operation 222-Nov-2016 17:21:15 Sent from Server to 125	- 1
🖂 Text Messages 🛛 🛶	Call 5678: Cannot detect channel to execute this operation	
<b>.</b>	22-Nov-2016 17:21:30 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	~
Voice Recording	Recipient: 🤱 125 (Pete) \cdots 🗈 Send 🎚 Attach File	
Reports	Pete, you're	
Event Viewer		
Radio Allocation	3	113
🚯 127.0.0.1 🔊 🔂 🦉 Dispatcher 1	Licensed to: demo Demo License	Active -

1. Radio List

displays dispatchers and radio subscribers available for text communication.

Note: Radios must be equipped with a display to receive Text Messages.

- 2. Text Messages panel displays the latest messages transmitted via a radio channel.
- 3. New Message panel provides you with text sending options.



4. Calls Panel in compact mode allows making voice calls.

## 6.9.1 Sending Text Messages

The dispatcher can send a text message to:

- Selected Radio
- Selected Radio Group
- Selected Logical Group
- Selected Dispatcher
- All Online Dispatchers or a group of dispatchers

The dispatcher can send a text message to selected subscribers from:

- New Message panel
- Radio List

#### 6.9.1.1 New Message panel

• In the New Message panel, click the ellipsis (...) button.

File View Map Tools Help		
Text Messages	Text Messages	🔮 🚸 🕓
💼 🗄 🛔 🌲 🛠 🏹 🗇 🗗 🍟	🖌 Intercom 🛛 📢 🕢 🐼 1: Line free 🛛 📢 💭 Al Cal	
□ Firemen □ □ ▲	✓ Group 10         ← € € Ø         ✓ Group 20         ← € € Ø         ✓ Group 30           Private Cal         • € € Ø         • € € Ø         • € € Ø         • € € Ø	
125 (Pete)         Image: Constraint of the second sec	Simple Extended	
(중) ② 235 (Basil) 루 ♥ ♥ (중) ② Radio 200 루 ♥ ♥ ▼	18-10	^
Voice Dispatch	21-N & Group1	
Location Tracking	21-19 25 Firemen 21-19 25 Polce 2 111	
📅 Job Ticketing	21-N 2 125 (Pete) 7 222	
Route Management	22-14 2 235 (Basil) C 2 Radio 200	
RFID Tracker	22-14 3 Rado 201 C 3 Rado 202	
Text Messages	22-N Rado 203	
🔮 Voice Recording	C OK Cancel	
Reports	Destination: 🎭 Firemen 🔛 💽 Send 🔋 Attach File	
Event Viewer	Shack # 1 on fire	
1 Telemetry	<b>`</b>	
Radio Allocation		106
🔂 127.0.0.1 🛞 🕵 💆 Dispatcher 1 📑	Licensed to: demo Demo License	🕑 Active -

- In the **Select Destination** dialog box, select the radio, radio group or dispatcher and click **OK**.
- Type the text message you want to send.

Note: The size of a text message is restricted to 125 characters.

- Click the **Attach File** button if you want to attach a file to the message being sent.
- Click the **Send** button.

The text message will be displayed in the Text Messages panel.



The message details highlighted in red indicates that the message recipient is offline and the message will be delivered as soon as the recipient gets back online again.

The message details in grey indicates 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 Message	:		×
Destination:	Firemen; Police; Online	Dispatchers;	
Templates:			~ 🌗
Text:	Shack # 1 is on fire		
			105
Attachments:	Add File		
Select Radios and C	Groups		
Filter:			$\mathcal{P}$
🔽 🎎 Firemen			<b>^</b>
🔲 🦾 Mobile C	lient		
V 🇞 Police	e 11		
🛛 🧶 Online D			
			-
Send copy by Em	ail		
Send copy by SM	IS		
Send to offline ra	adios		
Confirmed Group	Text		
Hide Advanced O	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.
- Send to offline radios

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).



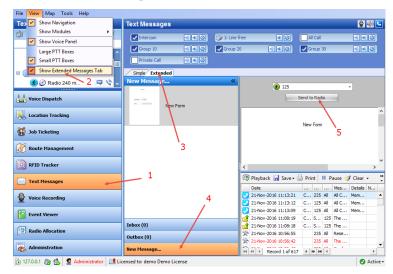
• Click Send.

### 6.9.2 Extended Messages

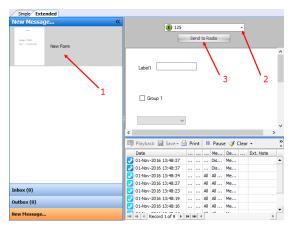
The **Extended Messages** service is a special function allowing users to send/receive detailed preconfigured templates containing necessary information.

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>6.4.20.1</u>, <u>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.

ice Recordi	ng	Voice Recording	1								율 쉐
Time Range:		🕮 Playback 🖬 Savi	🗝 😑 Print -	📑 Grouping 🍾	🌈 Auto Filter 🍥 D	efault Settings					
		Cal Time	Call Duration	System	Call Type	Caller		Destination		Call Status	
Start:	04-May-21 12:00 AM · ···	11-May-21 4:33:26 PM	00:14	Mobile 1	Private Call	Administrator		3333		Success	
End:	<maximum date=""></maximum>		00:10	Mobile 1	Private Call	3333		Administrator		Success	
filter		13-May-21 11:48:49 AM	00:03	Intercom	All Call	3333		Al		Success	
Call Type:	-Not defined	13-May-21 11:48:54 AM	00:01	Intercom	All Call	3333		Al		Success	
		13-May-21 11:50:00 AM	00:07	CP1	Private Call	Administrator		Radio 125		Success	
Call Priority:	Not defined	13-May-21 11:51:05 AM	00:04	CP1	Group Call	Radio 125		11		Success	
Call Status:	Not defined ·	13-May-21 11:51:05 AM	00:05	CP1	Group Call	Radio 125		22		Success	
System:	Not defined	13-May-21 11:52:34 AM	00:07	CP1	Group Call	Radio 125		11		Success	
caler:	-Not defined *	13-May-21 11:52:34 AM	00:07	OP1	Group Call	Radio 125		22		Success	
		13-May-21 11:53:19 AM	00:19	OP1	Private Call	Radio 125		3333		Success	
Destination:	Not defined	13-May-21 11:54:38 AM	00:23	CP1	Private Call	Radio 125		3333		Success	
inits:	-Not defined ·	13-May-21 12:01:08 PM	00:04	CP1	Group Call	Radio 125		11		Success	
ogical Group:	-Not defined +	13-May-21 12:01:09 PM	00:04	CP1	Group Call	Radio 125		22		Success	
tadio ID (e.g. 22.)		13-May-21 1:25:14 PM	00:04	CP1	Group Call	Radio 125		11		Success	
ana a (2.3. 44)	and an and a second of the second sec	13-May-21 1:25:14 PM	00:03	OP1 OP1	Group Call Private Call	Radio 125 3333		22 Radio 125		Success	
		13-May-21 1:26:05 PM	00:31		Private Call	4444		Radio 125		Success	
all Duration:	Any 🔹 - Any 🔹	13-May-21 1:20:29 PM 13-May-21 1:29:17 PM	00:08	Mobile 1 Mobile 1	Private Call Private Call	3333		3333		Success	
ing Time:	Any 💠 - Any 💠		00:02	OP1	Group Call	3333 Radio 125		11		Success	
ak Tine:	Any 🔆 - Any 🔆	13-May-21 3:11:42 PM 13-May-21 3:11:42 PM	00:04	OP1 OP1	Group Call	Radio 125		22		Success	
	1	13-May-21 3:15:13 PM	00:13	Mobile 1	Private Call	Administrator		2222		Success	
Load Data	+ 2	13-May-21 3:16:48 PM	00:04	CP1	Group Call	Radio 125		11		Success	
		13-May-21 3: 16:48 PM	00:04	CP1	Group Call	Radio 125		22		Success	
Voice Dispate		13-May-21 3:20:25 PM	00:05	CP1	Private Call	Radio 125		Dispatcher		Success	
Voice Dispate	•	13-May-21 3:20:39 PM	00:04	CP1	Group Call	Radio 125		11		Success	
		13-May-21 3:20:40 PM	00:04	021	Group Call	Radio 125		22		Success	
Location Trac	king	13-May-21 3:42:26 PM	00:07	CP1	Private Call	3333		Radio 125		Success	
		13-May-21 4:31:50 PM	00:07	CP1	Private Cal	3333		Radio 125		Success	
Job Ticketing		13-May-21 6:09:53 PM	00:03	CP1	Group Call	Radio 125		11		Success	
		13-May-216:09:54 PM	00-03	CP1	Group Call	Radio 125		22		Success	
Route Manag	ement	18-May-21 2:09:07 PM	00:07	CP1	Group Call	3333		11		Success	
		18-May-21 2:09:07 PM	00:07	CP1	Group Call	3333		22		Success	
Text Message	5	18-May-21 2:39:21 PM	00:03	CP1	Group Call	Radio 125		11		Success	
		144 44 4 Record 22 of 3	83 1 10 101 4								
Voice Recordi	ng 🔍			-		Taker	Status	Start	Duration	System	
		Caler:	3333		tay-21 1:26:05 PM	3333	Ringing	00:00	00:00	CP1	
Reports		Destination:	Radio 125	<b>1</b>	Navback 🔓 Save	3333	Taking	00:00	00:00	CP1	
		Private Call: '3333' cal	ed Radio 125		/	8333 Radio 125	Taking	00:00	00:00	CP1	
Event Viewer		Takers: 3333, Radio 1				inversion and	rore ly		*****	<b>S</b> ² 1	
Radio Allocat	on	1			3						
	🔹 🔥 🔥 🧟 Administrator	Ľ									<b>O</b> A

- Click the Voice Recording tab (1).
- In the **Voice Recording** panel, specify the criteria according to which you want to display call recordings, and click **Load Data** (2).
- In the right pane, you will see the list of calls according to the criteria you have specified.
- To play back a recording, select it in the list and click **Playback** (3).

Note: For more actions available in the **Voice Recording** panel, see section <u>6.5.8.1, Recent Calls/Events, Voice Recording</u>.

## 6.11 Reports

The Reports tool provides you with various printing forms with monitored radio network activity data.

• Click the **Reports** tab.



Reports	Usage Statistics Reports	🏻 🎭 🎪 🕒
🗊 General Information	Report Settings	
- Registered Radios		_
Current Reports	Harves Obstation Descute	
	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	The Messages	
System Reports	Rado Adtrity	
- Dier Login History	Colore Radios Summary	
- System Bridges	Onine Radios Details	
🛅 Channel Changes	Rado Status	
Usage Statistics Reports	Rado Status Summary	
- Messages	User Events and Notes	
	V D Radio Alecation	
	Checked Out Radios	
Voice Dispatch	TO Disabled Radies	
	To Telenetry	
鴂 Location Tracking	D Lone Worker Activities	
	TO Request to Tak	
🙀 Job Ticketing	Alarm Escalations	
	Dob Teleting	
Route Management	D Job Ticket Statutes	
	Data Trainet Status Interval	
Text Messages	Dob Ticket Assignments	
	Completed Routes	
🔓 Voice Recording	CAN Charts	
¥	CAN Messages	
Reports *		
Event Viewer		
19 Radio Allocation		
[33] Radio Allocation	5	

## 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 States, 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					👲 🕪 💆
gi 🗄 h 象 🗶 🎝 🖷 🚽	1: Line free	•0	Intercom	• • Ø	All Call	• • •
🚯 🗶 125 (Pete)	Group 10		Group 20	1)	Group 30	• • •
🖈 🕃 222 📃	Private Cal					
🏂 🕒 235 (Basil) 🚽	📑 Take/Return Radio		Data 🗸 🐺 Groupin	g 🍸 Auto Filter 🎯	Default Settings	*
Voice Dispatch	Callsign △ (\$) 111 (\$) 125	Taken by User Pete	Group Firemen, Police	Vehicle Make	Plate Number	Drivers
Location Tracking	222     235	Basi	Firemen, Police			
3ob Ticketing	Radio 200     Radio 201		Al			
😥 Route Management	Radio 202     Radio 203		Al			
RFID Tracker	Radio 204		Al			
Text Messages		\ 2	```	3		
🔮 Voice Recording						
Reports						
Event Viewer						
🔞 Radio Allocation 🔶	1					
Administration	H4 44 4 Record 2 of 9					•
🔂 127.0.0.1 🍇 🕵 💆 Administrator	👤 Licensed to: demo Den	no License				Active •

• Select the radio in the list and click the **Take/Return Radio** button (2):

Take Radio			×
Radio:	125		
User:	Pete		•
Password:	*****		
		Take Radio	Cancel

#### Radio

This box displays the selected radio.

User

From the drop-down list, select the user to allocate the radio to.

Password

Enter the password for the selected user.

Note: For more details on user access to Allocation Console, see section <u>6.4.27 Users</u> (page 261).

• 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.

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	9
System Bridges  Channel Changes Usage Statistics Reports Messages	(a) 1: Une free     (b) (c) Intercom     (c)	
Radio Activity     Radio Status     Radio Status     Radio Status Summary     User Messages and Notes	♥ PSC 1: Sot #1         ● ● ●           ♥ Group 10         ● ●           ♥ Group 20         ● ●           ♥ Report Settings         ●	
Radio Alocation     Disabled Radios     Telemetry     Lone Worker Activities     Job Ticketing	Radio Allocation Saved Profiles:	·
Voice Dispatch	Time Range:	
Location Tracking	To: <pre> <maximum date=""> </maximum></pre>	
📅 Job Ticketing	Radio: -Not defined	
😥 Route Management	Logical Group:Not defined • Radio ID (e.g. 22,33,40-55,88 ):	
C Text Messages	User: -Not defined	
Reports	Grouping:	
Event Viewer	Group by: By radios	
গি Radio Allocation	Generate Report Profile Delete Report Profile Delete Report Profile	ile
Administration	C Administrator III Licensed to: demo Demo License	> Active -

### 6.13 Beacons

TRBOnet Dispatch Console provides the **Indoor Positioning** feature to monitor the location of radios inside a building where GPS signals are not present. The feature requires additional hardware (beacons located around the building and Bluetooth modules/option boards installed in radios). 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. A beacon icon on the map will provide a count of the number of radios that are currently in this beacon's coverage area (for example, Room 1(3) - there are 3 radios in Room 1).

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>5.9.1, Services</u>).

To enable the Indoor Location Tracking feature, your license must include Indoor Positioning (see License information page) and Indoor Service is selected in the list of available services (see Services).

#### 6.13.1 Adding a Floorplan

Click the **Location Tracking** tab (1), then click **Map** (2) and choose **Open New Map in Tab**:



	- 🗆	$\times$
File View Map Tools Help		
Location Tracking Map 🔮 🍘 🕓	Objects	
Ci : ↓ 3 Y 2 · · · · · · · · · · · · · · · · · ·	10 E	
	🖙- 🗹 📴 Beacons	
	🗹 🍥 Coffee	
🚷 🕲 235 🔌 📮 🔤 🖉 Group 22 🚽 🕊 🖉 🖉 Private Cal 🔄 🕊 Ø	🗹 🎯 Tea	
	- V A Camera 1	
Voice Dispatch	🗹 🌞 Hospital	
Select Map X		
Map Type: Beacon2D	🖻 🗹 🦢 Map Routes	
😵 Job Ticketing	L. 🛛 🐎 111	
Ausfahle Mana		
Route Management Name Path State	$\mathbf{A}$	
RFID Tracker D:\scheme.bmap OK		
	3	
Text Messages		
Voice Recording		
4 5		
Reports Recent Calls/Events		2
	uto Filter	» •
	etails Iembers: 235	•
	lembers: 125	-
141 44 4 Record 1 of 289 + 14 14 4		Þ
Administration Recent Calls/E Recent Calls Request To Talk Radio State Active Tasks Active Routes User Activity Beaco	ons Beacon Events Ta	ıg List
🐻 127.0.0.1 🏽 🙀 🕵 🙎 Administrator 📑 Licensed to: demo	0/	Active +

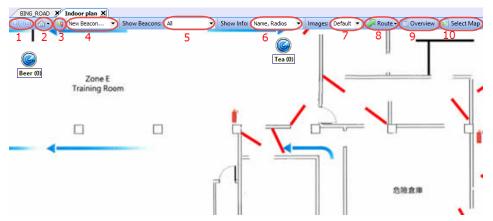
#### • Мар Туре

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

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

#### 6.13.1.1 Floor Plan Toolbar

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



#### 1. Zoom in/out

Click the Zoom buttons to zoom in/out the floor plan.

2. Default View

Click the arrow beside and choose **Save as Default View** to save current floor plan as a default view. The dispatcher can save only one default view.

To open the default view, click the arrow beside and choose **Show Default View**.



#### 3. Set Location

Click the **Set Location** button to manually set a beacon on the floor plan.

#### 4. Available beacons drop-down list

Select a beacon from the list and click the **Set Location** button to put the selected beacon on the floor plan. If you are going to add a beacon, select 'New Beacon' from the drop-down list and click the **Set Location** button to add a beacon to the floor plan.

#### 5. Show Beacons

The dispatcher can select which beacon types to display on the floor plan.

- All all beacons are displayed on the map.
- With Radios beacons with attached radios are displayed on the map.
- Without Radios beacons without radios are displayed on the map.
- **In Alarm** beacons in Alarm mode are displayed on the map.
- **No** all beacons are hidden on the map.

#### 6. Show Info

From the drop-down list, select which information to display for beacons.

#### 7. Images

From the drop-down list, select an image size for beacon icons.

#### 8. Route

 Click Route > Show Route to display a route traveled by the radio for the selected time period.

Show Route	×
Radio:	125 (Pete) ~
From:	15-Nov-2016 0:00 💌
To:	<last known="" location=""></last>
Color:	105, 105, 105
	Optimize Route (group all nearest points)
	OK Cancel

#### • Radio

Select the radio to display the route for.

• From/To

Specify the time period to show the route for.

• Color

Select a color to display the route with.

- Click **OK** to show the route for the selected radio.
- Click Route > Play Back Route.



		_			
Radio		Beacon	Date		State
Radio 240 mobili	e	Coffee	21-Nov-2016 15:16:48	C	etected)
Radio 240 mobile	-	Tea	21-Nov-2016 15:16:54	D	etected
Radio 240 mobile	e	Coffee	21-Nov-2016 15:16:54	L	ost
Radio 240 mobile	e	Tea	21-Nov-2016 15:16:58	Ŀ	ost
Radio 240 mobile	e	Beer	21-Nov-2016 15:17:03	D	etected
					heal
	(d) From:	21-Nov-2016 0:00			Load
			1>	-	Load
	From:	21-Nov-2016 0:00	1>		Load
Radio 201 Radio 202	From:	21-Nov-2016 0:00	<۱>		Load
Radio 201 Radio 202 Radio 203	From:	21-Nov-2016 0:00	1>		Load
Radio 201 Radio 202 Radio 203 Radio 203	From: To:	21-Nov-2016 0:00	1>		Load
Radio 201 Radio 202 Radio 203	From: To:	21-Nov-2016 0:00	1>	2	Load ·

- Select the time period to request data for.
- Select the radio(s) to request data for. Click **Select All** to display history for all radios registered in the system. Click **Clear All** to cancel radio selection.
- Click **Load** to load the history.

#### 9. Overview

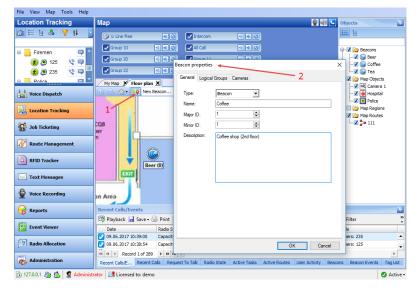
Click this button to view the entire floor plan.

#### 10. Select Map

Click this button to change the map displayed in the current tab.

#### 6.13.2 Adding a Beacon to the Floor Plan

- Click the **Set Location** button (1) and then click on the map to point the location of a physical beacon on the floor.
- In the dialog box that appears (2), specify the beacon properties.





• Туре

Select the beacon type from the drop-down list (**K-Term** or **iBeacon**).

- Name Specify a name for the beacon.
- Major ID and Minor ID

Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

Or, if a **K-Term** beacon is being added:

- Beacon ID
   Enter the beacon's ID exactly as specified on the K-Term device.
- Description

Add a description for the beacon.

#### 6.13.3 Editing Beacon Parameters

• Select a beacon in the **Objects** panel and double-click to edit its parameters.

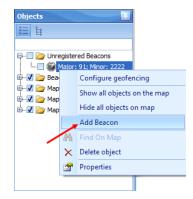


- In the **Beacon properties** dialog box that appears, edit the desired properties.
  - Note: For more details on K-Term beacons, see the following article at <u>https://trbonet.com/kb/how-to-find-out-a-beacon-id/</u>.



## 6.13.4 Unregistered Beacons

If the radio detects an unregistered beacon, this beacon will appear in the **Unregistered Beacons** folder at the top of the **Objects** pane.



To add an unregistered beacon to the Dispatch Console, right-click it and choose **Add Beacon** on the shortcut menu.



# 7 TRBOnet Web Console

TRBOnet Web Console is a special online application. It is an extension for TRBOnet Dispatch Software which allows dispatchers to get access to the system via a Web browser. The Web Console is the best solution for carriers, operators and systems with a huge number of users.

This application allows you to monitor your system without any special software installed on your computer.

## 7.1 Installing Web Console

- Click Start>Control Panel>Programs and Features.
- Click the Turn Windows features on or off link.

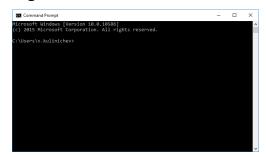
$\leftarrow \rightarrow \land \land \square \rightarrow Control$	Panel > All Control Panel Items > Programs and Features	✓ ♂ Search Pro	grams and Feat	ures 🔎
Control Panel Home	Uninstall or change a program			
View installed updates	To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.		
Turn Windows features on or				
off	Organize 🔻 Uninstall/Change		8==	- 0
Install a program from the network	Name	Publisher	Installed On	Size
	TRBOnet Enterprise 5.1	Neocom Software	21-Oct-2016	510
\ \	TRBOnet.Watch 2.3	Neocom Software	02-Sep-2016	11
\ \	G Unity Web Player	Unity Technologies ApS	25-Aug-20	12,
	4 Unlocker 1.9.2	Cedrick Collomb	09-Dec-2015	
	Visual Studio 2010 Prerequisites - English	Microsoft Corporation	23-Nov-20	47.
	💐 Windows Driver Package - Google, Inc. (WinUSB) An	Google, Inc.	22-Dec-2015	
	📽 Windows Driver Package - Motorola Solutions, Inc. (f	Motorola Solutions, Inc.	18-Nov-20	
	💐 Windows Driver Package - Motorola Solutions, Inc. N	Motorola Solutions, Inc.	18-Nov-20	
	💐 Windows Driver Package - Nokia pccsmcfd LegacyDr	Nokia	25-Aug-20	
	🞯 WinPcap 4.1.3	Riverbed Technology, Inc.	12-Sep-2016	
	Wireshark 2.2.0 (64-bit)	The Wireshark developer comm	15-Sep-2016	17
	I XnView 2.33	Gougelet Pierre-e	07-Sep-2015	16.
	Служба автоматического обновления программ	Mail.Ru	12-Sep-2016	
	🙋 Центр управления мышью и клавиатурой (Micros	Корпорация Майкрософт (Міс	25-Nov-20	37.
	👸 Языковой пакет Microsoft Visual Studio 2010 Tools д	Microsoft Corporation	03-Nov-20	14.0
	<			>

- 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       Image: Constant of the second of th				
To turn a festure on, select its check box. To turn a festure off, clear its check box. A filled box means that only part of the festure is turned on.           (I) Internet Information Services          (I) Its Management Console          (I) Its Management Scrives          (I) Application Development Features          (I) Application Development Features          (I) Application Development Features          (I) Application Intialization         (I) APP Features          (I) SAPI Features          (I) SAPI Features          (I) Education HTTP Features          (I) Default Document          (I) Default Document          (I) Default Document          (I) Default Document          (I) The Redirection          (I) WebDAV Publishing          (V)	Windows Features	-		Х
check box. A filled box means that only part of the feature is turned on.	Turn Windows features on or off			?
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B     Web Management Coole     If 5 Management Console     If 5 Management Console     If 5 Management Console     If 5 Management Scripts and Tools     If 5 Management Scripts     Vestion Scripts and Tools     If 5 Management Scripts and Tools     If 5 M	Internet Information Services			^
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Application Development Features     AFIE Extensibility 3.5     AFIE Extensibility 3.7     Application Initialization     AsP     AsP NET 3.5     ASP NET 3.5     ASP NET 3.7     CGI     SAP INTER 5     SAP INTER 5     SAP Strain S     SAP INTER 5     SAP Strain S     SAP INTER 5     Default Document     Deductory Browsing     HTTP Redirection     Static Content     Static Content     WebDAV Publishing     WebDAV Publishing     V	IIS Management Service			
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APPL Extensibility 4.7     Applexation Initialization     Apple     Applexation Initialization     Applexation Initialization     Applexation Initialization     Applexation Initialization     Applexation Initialization     Applexation     Applexatio	Application Development Features			
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Server-Side Includes  Server-Side Includes  Server-Side Includes  Server-Side Includes  Default Document  Directory Browsing  HTTP Redirection  Static Content  WebDAV Publishing  V	.NET Extensibility 4.7			
Server-Side Includes  Server-Side Includes  Server-Side Includes  Server-Side Includes  Default Document  Directory Browsing  HTTP Redirection  Static Content  WebDAV Publishing  V	Application Initialization			
Server-Side Includes  Server-Side Includes  Server-Side Includes  Server-Side Includes  Default Document  Directory Browsing  HTTP Redirection  Static Content  WebDAV Publishing  V	ASP ASP			
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Server-Side Includes  Server-Side Includes  Server-Side Includes  Server-Side Includes  Default Document  Directory Browsing  HTTP Redirection  Static Content  WebDAV Publishing  V	CGI			
Server-Side Includes  Server-Side Includes  Server-Side Includes  Server-Side Includes  Default Document  Directory Browsing  HTTP Redirection  Static Content  WebDAV Publishing  V	ISAPI Extensions			
WebSocket Protocol     Deduit Document     Deduit Document     Diectory Browsing     HTTP Endirection     Static Content     WebDAV Publishing     V	ISAPI Filters			
Common HTTP Features  Common HTTP Features  Default Document  Directory Browing  HTTP Redirection  Static Content  WebDAV Publishing  V	Server-Side Includes			
Default Document     Default Document     Directory Browning     HiTTP Errors     HiTTP Redirection     Static Content     WebDAV Publishing     V	WebSocket Protocol			
Directory Browsing HTTP Enrors HTTP Redirection Static Content WebDAV Publishing V	🖃 🔳 🔤 Common HTTP Features			
HTTP Errors	Default Document			
HTTP Redirection  Static Content  WebDAV Publishing  V				
Static Content WebDAV Publishing	HTTP Errors	-		
WebDAV Publishing v	HTTP Redirection			
OK Cancel	WebDAV Publishing			¥
	OK	:	Cano	el

- Restart your PC.
- Click Start>All Programs>Accessories>Command Prompt.



• For 32-bit systems:

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

For 64-bit systems:

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

Applici	tion Tools v4.0.30319				-		×
ile Home Share View Mi	inage					~	1
→ → ↑ → This PC → Local Disk (	C:) → Windows → Mic	rosoft.NET > Framework	> v4.0.30319	v ð Se	arch v4.0.30319	,	ρ
Desktop # ^ Name	^	Date modified	Туре	Size			
🗄 Documents 🖈 📃 adonetdiag.m	of	30-Oct-2015 10:19	MOF File	81	38		
👃 Downloads 🖈 📄 adonetdiag.m	of.uninstall	30-Oct-2015 10:19	UNINSTALL File	23	38		
Pictures 💉 🗟 alink.dll		30-Oct-2015 10:19	Application extens	116 #	38		
Images AppLaunch		30-Oct-2015 10:19	Application	958	1B		
applaunch.ex		30-Oct-2015 10:21	XML Configuratio	11	38		
pictures Aspnet		13-Jan-2014 23:28	XML Configuratio	11	38		
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Ttt @ aspnet_filter.d		30-Oct-2015 10:19	Application extens	35 8	38		
OneDrive Spect_isapi.d		30-Oct-2015 10:19	Application extens	251	38		
Aspnet_perf.d		24-Feb-2016 5:12	Application extens	41.8	38		
This PC aspnet_perf.h		30-Oct-2015 10:19	H File	88	38		
Desktop 🥁 aspnet_perf		30-Oct-2015 10:19	Notepad++ Docu	975 8	38		
Documents		30-Oct-2015 10:19	Notepad++ Docu	973 8	38		
Downloads aspnet_rc.dll	-	30-Oct-2015 10:19	Application extens	90 B	:B		
h Music	wsers	30-Oct-2015 10:19	Application	44.8	38		
aspnet regils		30-Oct-2015 10:19	Application	40 8	38		
Pictures aspnet_regsql		30-Oct-2015 10:19	Application	1248	38		
Videos ispnet_state		30-Oct-2015 10:19	Application	453	38		
Local Disk (C:) aspnet_state_	erf.h	30-Oct-2015 10:19	H File	18	38		
👝 Local Disk (D:) 🥁 aspnet_state_p	verf	30-Oct-2015 10:19	Notepad++ Docu	42 8	18		
aspnet_wp		24-Feb-2016 5:12	Application	43 8	38		
Network CasPol		30-Oct-2015 10:19	Application	105 8	:B		
Caspol.exe		30-Oct-2015 10:21	XML Configuratio	18	38		

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



crosoft Windows [Version 10.0.10586] ) 2015 Microsoft Corporation. All rights reserved.				
, tots nice os por action, All rights reserved.				
\Users\v.kulinichevxC:\Windows\Microsoft.NET\Framework\v4	1.0.30319\aspne	t_regii	s.exe	-i

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

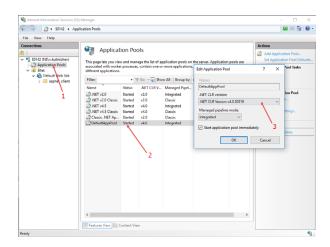
Sinternet Information Services (IIS	) Manager	- 0 X
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21	S0142 Home	Open Feature
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Ready		•1

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

Salaria Internet Information Services (IIS)	Manager				– 🗆 X
← → ♥ + \$0142 +					🖬 🗟 🏠 🔞 •
File View Help					
Connections		. I COLD	Paula -	Action	us
創	SAPI a	nd CGI Restric	tions	A	id
<ul> <li>S0142 (NS\v.kulinichev)</li> <li>Application Pools</li> </ul>		ny			
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	ASP.NET v2.0.5		%windir%\Microsoft.NET\Framework64\v2.0.50727\aspnet_it %windir%\Microsoft.NET\Framework\v2.0.50727\aspnet_isag		
	ASP.NET v4.0.3	Allowed	%windir%\Microsoft.NET\Framework\v4.0.30319\aspnet_isag		
	ASP.NET v4.0.3	Allowed	%windir%\Microsoft.NET\Framework64\v4.0.30319\aspnet_it		
	<				
			3		
	🛐 Features View 👸	Content View			
Configuration: 'localhost' application	Host.config				<b>9</b> 1.:

- Copy the Web Site archive WebConsole to Computer > Local Disc (C: )
   >inetpub to create a folder for the Web Console.
- Go to **Application Pools** (1). Double-click **DefaultAppPool** (2) and check the **.Net CLR Version** (3):





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

Sinternet Information Services (IIS)	Manager					– 🗆 X
(← → (a) + S0142 + Sites						🛄 🖂 🏠 😥 •
File View Help						
Connections	()					Alerts
	Sites			All Group by: No Grouping		This site has multiple bindings
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Ready						4

• Click the Add Application link.

Internet Information Services (IIS)	) Manager				– D X
← →	s 🔸 Default Web Site	•			🖬 🗟 🔞 •
File View Help					
Connections           Image: Solid (NS)v.kulinichev)         Image: Solid (NS)v.kulinichev)           Image: Solid (NS)v.kulinichev)         Image: S	-		plications. Applications contain co	ontent and code.	Actions Add Application Set Application Defaults Help
Spotrad Web Set	Vinui Peñ	Physical Path	Ste	Application PV	
Ready	Part - Colored - Free -				•1

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



Add Application		? >
Site name: Default Web S Path: /	ite	
Alias:	Application pool:	
TRBOnet	DefaultAppPool	Select
Physical path: C:\inetpub\WebConsole Pass-through authentication		
Connect as Test Sel		
Enable Preload		
	ОК	Cancel

- Browse for the folder with unarchived Web Console.
- Click OK.
- Select **Application Pools** (1) and click the **Set Application Pool Defaults** link (2):

Ster     Ster       Ster     Ster <t< th=""><th>File View Help</th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	File View Help						
Constant Water in the page in the pag	Connections	•	Application Pool Defaults	?	×		
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• 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 378, and <u>Appendix C: Granting Sysadmin Role to Local System in</u> <u>SQL Server 2012</u> on page 381) and the database connection is successful (see section <u>5.2, TRBOnet</u> <u>Server Database</u> on page 14).



## 7.2 Configuring Web Console

• If TRBOnet Server is not installed on your PC, select the application and click **Application Settings**:



• Specify the **IP address** and **Port** of the PC with installed TRBOnet Server:

Sinternet Information Services (IIS) M	anager						-		×
(← → () + S0142 + Sites +	Default Web Site 🔸	TRBOnet +					-	2	•
File View Help									
Connections					Act	ions			
2	Applicati	on Settings				Add			
S0142 (NS\v.kulinichev)  Application Pools	Use this feature to store	e name and value pairs that	managed code applications can use	at runtime.		Edit Remove			
🗸 😼 Sites	Group by: No Groupi	ng •							
V 💿 Default Web Site	Name	Value	Entry Type	^		Help			
> aspnet_client	CorrectRoute	False	Local						
> Account	dateTimeFormat		Local						
App_Theme	GoogleClientId		Local						
> - 🔛 Audio	GoogleSignature		Local						
> 🔛 bin	GpsAccuracyOnRo	50 10.10.100.99	Local						
> - Controls	ip MaxSpeedOnRoute	10.10.100.99	Local						
> - CustomData	port	4021	Local						
> Docs	ThunderForestApiK	1021	Local						
S - GeocodingS	UdGetCoordinates		Local	~					
> - Images									
<	🛐 Features View 🔐 Co	ontent View							
Configuration: 'Default Web Site/TRBOn	et' web.config								4

• Right click **TRBOnet Web Console** and choose **Edit Permissions**.

Internet Information Services (IIS) Manager	– 🗆 X
← → ② + S0142 + Sites + Default Web Site + TR8Onet +	🖬 🗟 🔞 🔞
File View Help	
Connections (D) (TD D C) (1)	Actions
/TRBOnet Home	Displore
Sold2 (NS/v.kulinichev)     Filter     ·      Go -      Show All Group by: Area     ·      ·	Edit Permissions
Application Pools	Basic Settings
	View Virtual Directories
v- I Default Web Site >- a spnet_client	Manage Application
TRBOnct .NET .NET .NET Error .NET Profile .NET Roles     Orages Globalization	Browse Application
A record a report	Browse *:80 (http)
Audi Audi	Advanced Settings
Mine Section Add Application     ers Application Connection Machine Key Pages and     Add Virtual Directory     Settings Strings Controls	Help
Custr	
> C Docs Manage Application	
> Form in Refresh tate SMTP E-mail	
Remove	
Switch to Content View Intent View	
leady	•

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

WebConsole Properties >	<
General Sharing Security Previous Versions Customize	
Object name: C:\WebCogsole	
Group or user names:	
Authenticated Users	
SYSTEM .	
Administrators (S0142\Administrators)	
Solution (Solution Solution Soluti Solution Solution Solution Solution Solution Solu	
To change permissions, click Edit.	
Users Allow Deny	
Full control	
Modify 🗸	
Read & execute	
List folder contents	
Read	
Write 🗸 🗸	
For special permissions or advanced settings, Advanced click Advanced.	
OK Cancel Apply	



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

Permissions for WebConsole		×
Security		
Object name: C:\WebConsole		
Group or user names:		
Authenticated Users		
SYSTEM .		
Administrators (S0142\Admin	nistrators)	
Solution (S0142\Users)		
		_
	Add	Remove
Permissions for Пользователи	Allow	Deny
Read & execute	$\checkmark$	
List folder contents	· ·	
Read		
Write		
Special permissions	, in the second	
		•
OK	Cancel	Apply

- Click Apply.
- Click OK.

To open TRBOnet Web Console:

- Go to Internet Information Services (IIS) Manager > Connections
   >Sites > Default Web Site > TRBOnet
- Right-click it and choose **Manage Application > Browse**.



TRBOnet Web Console is now ready for operation.

## 7.3 Using Web Console

#### 7.3.1 Connecting to TRBOnet Server

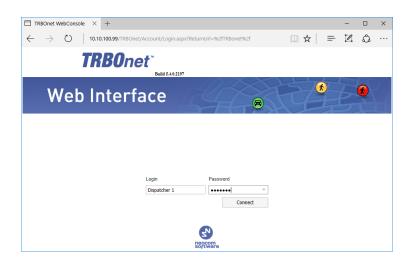
- Launch the browser.
- In the browser's address bar, enter the IP address of the PC with the installed TRBOnet Web Console, and the path (for example, *10.10.100.99/TRBOnet*).

Note: For the path, see section <u>7.1, Installing Web Console</u>, **IIS Manager>Add Application>Alias** 

As a result, the TRBOnet Login page will open:

# **TRBOnet Enterprise** — User Manual





• Login

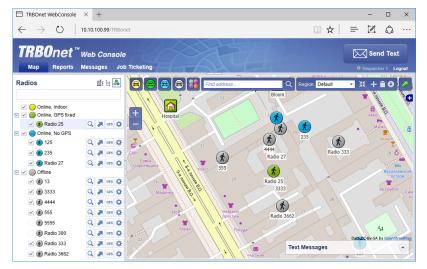
Enter the User Name registered in the TRBOnet Dispatch Console Users list.

• Password

Enter the user password.

• Click Connect.

Once you have connected to TRBOnet Server, you will see a window like this.



#### 7.3.2 Radio List

The Radio List pane is located on the left and contains the list of radios. From this pane, you can perform the following tasks.

Click the  $\bigcirc$  button to see the selected radio in the center of the map.

Click the selected radio on the map.



	oute		,
<ul> <li>(</li> </ul>	125		^
			- 1
			- 1
			- 1
		5.1	~
From:	24-Nov-2016 0:00	Select All	v Deselect Al
		Select All	×
From: To:	24-Nov-2016 0:00 24-Nov-2016 18:41 ☑ Optimize Route points)		×

Specify the **From** and **To** date and time. Select the **Optimize Route** option to group all points in a 100-meter radius.

Click the ^{ess} 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.

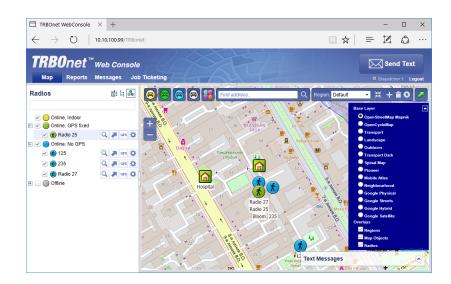
#### 7.3.3 Map

#### 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 check box.

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#### 7.3.3.2 Zoom In/Out

- Click the large plus button on the left of the Map pane to zoom in the map.
- Click the large minus button on the left of the Map pane to zoom out the map.

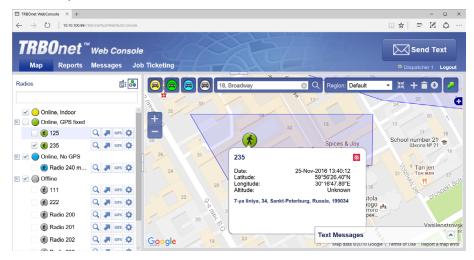
Or:

• Use the mouse wheel to zoom in/out the map.

#### 7.3.3.3 Radio Coordinates and Address

• In the Map pane, click the radio you want to inspect.

As a result, a window will appear displaying the coordinates and address of the inspected radio.



#### 7.3.3.4 Filter Radios

You can filter the display of radios on the map. To do this, use the colored car buttons at the top of the Map pane.



- Click et al.
   Click to remove radios that are online and have a detected beacon position from the map view. Click this button again to bring them back to be displayed.
- Click 💬 to remove radios that are online and have a detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click to remove radios that are online and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 🖾 to remove radios that are offline and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 🕽 and select the visibility of the radios having On Duty and/or Off Duty states.

#### 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.

TRBOnet [™] Map Reports	Web Console Messages Job Tick	seting	© Dispatcher 1 Log
Radios	:		E EIISWUHITAVE
		Found addresses	×
🗹 😑 Online, Indoor	~	18 Broadway, Tarrytown, NY 10591, USA	
Online, GPS fixed	+	18 Prozduzy Somonvilla MA 02145 LISA	ion Cafe
	Q 🚚 ars 🏟 👘	18 Broadway, Denver, CO 80209, USA	
		18 Broadway, Denver, CO 80203, USA	nited
🖸 🌄 200		18 Broadway, Bayonne, NJ 07002, USA	
🖉 🔵 Online, No GPS		18 Broadway, Brooklyn, NY 11249, USA	ige
✓ () Offline	······································		
China (111)	Q 🚚 ars 🔅		
-			
🛞 222	Q 🛪 GPS 🌣		
🛞 Radio 200	🔍 🔎 GPS 🏠		

#### 7.3.4 Text Messages

With TRBOnet Web Console, you can send text messages to radios/radio groups/dispatchers.

- Click the **Messages** tab at the top of the window.
- Click the **Send Text** button.

# **TRBOnet Enterprise** — User Manual



<b>TRBOnet</b> [™] Web Console				Send Text
Map Reports Messages Job 1	īcketing			Dispatcher 1 Lo
I35 ➡ All kay	Send Text	Message	×	25-1
×ay 25⇒ All	Text			18-1
kay	See you		125	
25⇒AII		8	222	18-1
k	-	8	235	
25 → All G		8	Radio 200	18-1
		8	Radio 201	
	12.1	8	Radio 202	
	12		D= 4:- 202	
	Send 1	to Offline		
			Send Cancel	

In the Send Text Message window that appears:

- Enter the text of the message.
- Select the radios/radio groups/dispatchers to send the message to.
- Select the Send to Offline option to send the message to offline radios.

#### 7.3.5 Job Ticketing

With TRBOnet Web Console, you can create, assign, and track job tickets through the radio network.

• Click the **Job Ticketing** tab at the top of the window.

TRE	80net™	Web Cons	sole				Send Tex	t
Мар	Reports	Messages	Job Ticketing	-6		25	C Dispatcher 1 Lo	ogout
🔜 Add	📑 Edit	🐒 Assign	🛃 Archive					_
	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	5
	Q	Q	۹	Q	Q	٩	٩	
	New	#A00011	Check the pipe		07-Nov-2016 16:27:42			0
$\checkmark$	New	#A00017	Get out of there		25-Nov-2016 14:10:25			
	Edit							_
		🐒 Assign	🎨 Resend 🛛 🛃 Archiv	/e 🕜 Cancel				
🛃 Add								
🛃 Add	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	1
Add		ID †	Text Q	Performer	Creation Time ्	Start Time	End Time	5
Add	Status							
Add	Status Q	Q	۹		٩			

In the upper pane, you see the list of created job tickets. In the lower pane, there are assigned job tickets.

#### 7.3.5.1 Add a Job Ticket

• Click the **Add** button.



Job Ticket - Micros	ioft Edge — 🗆
10.10.100.99/TR	8Onet%20Web%20Console/Forms/A
Ticket ID:	#A00000
Text:	Check the pipe
	Enable Deadline
End Time:	25-Nov-2016 14
Priority:	Medium
Comment:	
	OK Cancel

#### • Ticket ID

This value will be set automatically once the ticket has been created.

• Text

Enter the text message in this box.

• Enable Deadline

Select this option and in the **End Time** box, specify a due date and time for the task.

• Priority

From the drop-down list, select the task priority level.

• Comment

Enter a comment for the ticket.

• Click OK.

Once you have added a ticket, it will appear in the list of tickets in the upper pane.

#### 7.3.5.2 Assign a Job Ticket

Select the job ticket in the upper pane, and click the **Assign** button.

Recipients	×
Cleaners	~
Firemen	
Police	
🛞 111	
125	
📃 🛞 222	
🗹 🛞 235	
📃 🛞 Radio 200	
📃 🛞 Radio 201	
📃 🛞 Radio 202	
📃 🛞 Radio 203	
Radio 204	
📃 💰 Radio 240 mobile	
Walt	~
	OK Cancel

- In the list, select a radio(s), radio or logical group to which to assign the job ticket.
- Click **OK** to assign the task to selected radio(s).
   As a result, the selected radio will receive the job ticket. The assigned job ticket will appear in the upper pane.



#### 7.3.6 Reports

• Click the **Reports** tab at the top of the window.



• In the right pane, select report parameters and click **Generate Report**. Once the report is generated, you will see it in a separate tab of your Web browser.

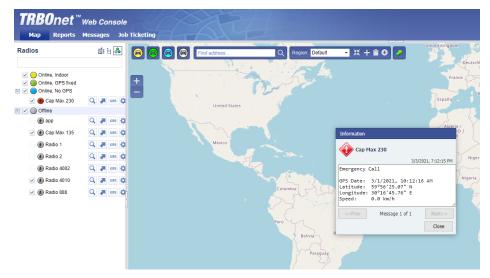
TRBOnet WebConsole	E Location for period $\times$ +										-		×
$\leftrightarrow \rightarrow 0$	10.10.100.99/TRBOnet%20Web%20Console/Re	eports/GPSByFilter/GPS	ByFilterResult.aspx?rac	dio=08minInterval=0	8.showStreetNames=f	alse&unit=18:start	Date=18/11/2016+	11:218kendDate	□ ☆	=	Z	۵	
	S Page 1	▼ of	337	ÞI 🖁	📱 🛛 Pdi	-							
	for period 6 11:21 to 25-Nov-2016 11:21						_						
Radio: 125 (C	leaning 1)												
		Altitude (meter)	Accuracy (meter)		Direction								
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	on map							
18-Nov-2016 11:25:01	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map							
18-Nov-2016 11:25:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
18-Nov-2016	Latitude: 59°56'26.23"N			• •	•								

You can print the report, save it as a file, and so forth.



### 7.3.7 Alarms

When an alarm is received from a radio, the radio icon will turn red, and a corresponding Information window will pop up displaying the radio's name, coordinates, and speed.





# **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**:

Database Engine Config	guration	
	tication 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 FILES Specify the authentication mode and administrators for the Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows aut Specify the password for the SQL Server system administrator Enter password: Confirm password: Specify SQL Server administrators MM_VIN7_602%admin (admin) Add Current User Add Current User Add Current User	Database Engine.

## 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	-?- <b>-</b> ?-
Select this object type:	
Users, Groups, or Built-in security principals	Object Types
rom this location:	
VM_WIN7_002	Locations
Enter the object names to select ( <u>examples</u> ):	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.

# **TRBOnet Enterprise — User Manual**



elect Users or Groups		<u>? ×</u>
Select this object type: Users, Groups, or Built-in security principals		Object Types
From this location:		
MITYA		Locations
Common Queries		
Name: Starts with 💌		Columns
		Find Now
Description: Starts with		Find Now
Disabled accounts		Stop
Non expiring password		
Days since last logon:		
Search results:		OK Cancel
Vame (RDN)	In Folder	
	MITYA	
INTERACTIVE		
LIUSR		
LOCAL SERVICE		
NETWORK		
NETWORK SERVICE		-
OWNER RIGHTS		
restore	MITYA	
SERVICE		
SQLServer2005SQLBrowserUser\$MITYA	MITYA	

• NT AUTHORITY\LOCAL SERVICE (LOCAL SERVICE) will be added to the list of SQL administrators:

Specify Database Engine authe	ntication security mode, administrators and data directories.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration         Data Directories         User Instances         FILESTREAM           Specify the authentication mode and administrators for the Database Engine.         Authentication Mode         Image: Configuration of the Database Engine.           Windows authentication mode         Image: Configuration of the Database Engine.         Image: Configuration of the Database Engine.           Mixed Mode (SQL Server authentication and Windows authentication)         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server system administrator (sa) account.         Image: Configuration of the SQL Server administrators         Image: Configuration of the SQL Server administrator (sa) account.         Image: Configuration of the SQL Server administrators         Image: Configuration of the SQL Server administrators <td< th=""></td<>
	VM_WINZ_002vadmin (edmin)     SQL Server administrator       NT_AUTHORITYLOCAL SERVICE (LOCAL SERVICE)     have unrestricted access to the Database Engine.       Add Current User     Add

• Click **Next** and follow the prompts to finish the installation.



## Mixed Authentication mode

internet Buller		
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration <b>Database Engine Configuration</b> Error Reporting Installation Configuration Rules Ready to Install	Server Configuration Data Directories FLESTREAM Specify the authentication mode and administrators for the Databa Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows authentic Specify the password for the SQL Server system administrator (sa) a Enter password Confirm password: Specify SQL Server administrators	ation)
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 check box.

select a page		
A General	📓 Script 🔻 🚺 Help	
Server Roles		
P User Mapping	Server role is used to grant server-wide security privileges to a user.	
Securables		
A Status		
	Server roles:	
\ \	🔄 bulkadmin	
\ \	m dbcreator	
<b>`</b>	diskadmin	
<b>`</b>	processadmin	
<b>\</b>	public     securityadmin	
	serveradmin	
	E setupadmin	
	🔽 sysadmin	
	1	
onnection		
Server: /M_WIN7_002\SQLEXPRESS	<b>\</b>	
Connection: VM_WIN7_002\admin		
B View connection properties		
rogress		
rogress Ready		
Progress Production Ready		

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



# Appendix D: Backing up and Restoring Database and Audio Recordings

## **Configure Backup**

TRBOnet Dispatch Software has an automatic mechanism for database and audio recordings backup. Initially, it defaults to two paths to store database and audio recordings.

For TRBOnet Enterprise:

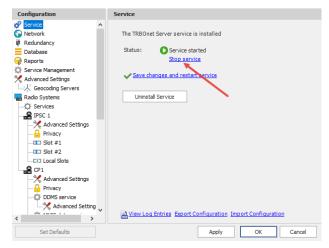
%ProgramData%\Neocom Software\TRBOnet.Enterprise\Backups and %ProgramData%\Neocom Software\TRBOnet.Enterprise\Audio.

For TRBOnet Plus:

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

For your convenience, the default paths can be changed:

• Open TRBOnet Server and stop the TRBOnet Server service.



 To customize these backup folders, on the Configuration pane, select Database, then select the Specify the path for database archives and Use custom folder for audio files options. Next, enter the new (custom) folder for the backup database (for example, C:\TRBOnet\Backup\DB) and custom folder for the audio files (for example,

**C:\TRBOnet\Backup\Audio**). The database and audio backups will be stored in the selected directories.

Note: Older backups are not deleted automatically. It is recommended that you regularly delete the files you no longer need to avoid running out of storage space.

# **TRBOnet Enterprise — User Manual**



Configuration		Database		
🔗 Service	^			
S Network		SQL Server:	(local)	SQLEXPRESS *
Redundancy		Database:	TRBON	et1 -
Database		Authentication:	Window	ue -
Reports		Addicitection	windov	v5 *
Service Management		Login:		
🔀 Advanced Settings		Password:		
Geocoding Servers				
🔜 Radio Systems		Specify the path	for databa	ase archives
Services				
IPSC 1		Path:	C:/IRB	Onet\Backup\DB
Advanced Settings		Use custom fold	er for audio	
🔒 Privacy		Path:	C-JTDD	Onet\Backup\Audio
		Path:	C:\IRD	
Slot #2		Use custom fold	er to store	file attachments
Local Slots		Path:		
		Pdul:		
Advanced Settings				
Privacy		Test Conr	nection	
DDMS service		Unavada Dat		
Advanced Setting		Upgrade Dat	abase	×
<	*	Create Data	abase	*
Set Defaults				Apply OK Cancel

• Save your changes and restart the service.

## Back up Database and Audio Recordings

To back up the database and audio recordings, do the following:

- In the Dispatch Console go to Administration (1), and select Database
   (2) in the Navigation tree.
- Click the **Back Up Database** (3) button:

File View Map Tools Help						
Administration	Database					🔮 📣 🕻
Server	<ul> <li>I: Line free</li> <li>IPSC 1: Slot #1</li> <li>Group 22</li> </ul>	40 • 40 • 40	Intercom IPSC 1: Slot #2 All Call	) = 0 ) = 0	Dispatcher Group 1	) #0 ) #0
System Bridge	Back Up Database	Schedule	_			
Voice Dispatch	Database	Information				
Location Tracking	Server name	:	(local)\SQLEXPRESS			
3 Job Ticketing	3 Database na Backup date:		TRBOnet1 30-Sep-19 12:56:02 PM			
Route Management	Database ve		Microsoft SQL Server 201 Jun 15 2019 00:26:19 Copyright (C) 2017 Micro	soft Corporation	4505224) - 14.0.2027.2 (X6	
Text Messages			Express Edition (64-bit) o	n Windows 10 Pro	10.0 <x64> (Build 18362:</x64>	)
Voice Recording	Data size: Audio size:		163.19 MB 629.43 MB			
Reports						
Event Viewer						
😰 Radio Allocation	1					
Administration						
🚯 Connected 🍇 🥵 🕵 🚮 🥵 💆 Administra	ator 📑 Licensed to: den	no Demo Licen	ie .			Activ

• Specify the backup details:



ack Up Database		×
Remove old data and shrink da	tabase	
Path: C:\ProgramData\Neocom Software\TRB4 Back up data Back up audio	Onet.Enterprise\Backups	
Remove Remove all data older than date: Audio files	27-Nov-19	×
Data		
	ОК	Cancel

Back up audio

Select to back up audio recordings.

Remove

Select to remove audio files and data from the database.

- Remove all data older than date
   Specify the date to remove data older than that specified date.
- Audio Files
   Select to remove audio files.
- **Data** Select to remove data.
- Click **OK** to run the backup procedure.

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

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

For TRBOnet Plus:

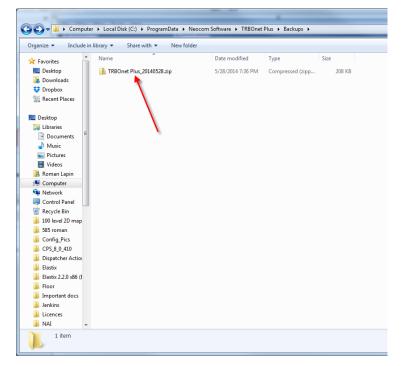
- The default directory is %ProgramData%\Neocom Software\TRBOnet.Plus\Audio for Audio files and %ProgramData%\Neocom Software\TRBOnet.Plus\Backups for backup files.
- The custom directory is specified in TRBOnet Server settings.
- 2. The archive includes the database backup file and audio recordings files. The archive name contains the date of backup. New backup files will be placed in the same directory.

# **TRBOnet Enterprise — User Manual**



		C. 0			_		
Computer + Loc	al Disk (C:) + ProgramData + Neoc	com Software + TRBOnet.	Enterprise + Backups	• •	- 69	Search	Bac
Organize • Include in library •	Share with  New folder				8==	• 🗆	
🚖 Favorites 📫 Name	<u>^</u>	Date modified	Туре	Size			
📃 Desktop 🛛 🗎 Tr	80net.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
🐌 Downloads	<b>*</b>						
Secent Places	1						
Cesktop	\ \						
Cibraries							
Documents							
Music  Pictures =							
Videos							
Roman Lapin							
Computer							
Network							
Control Panel							
Recycle Bin							
CP5_8_0_410							
Elastix							
Important docs							
🇼 Pics							
SASPlanet_12080k							
1 item							
1 nem							

For TRBOnet.Plus:



## **Restore Database**

#### To restore the database

• Open TRBOnet Server and stop the TRBOnet Server service.

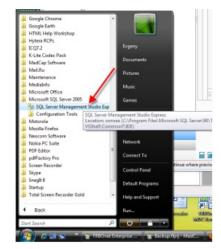


Configuration	Service
Computation         Computation	The TRBOnet Server service is installed Status:  Service started Sop service  Save changes and restart envice  Uninstal Service
Set Defaults	Apply OK Cancel

• Unzip the backup archive and open the folder:

Organize 👻 🛛 🏹 Open	Include in library      Share with	New folder			100	- 11	
🖈 Favorites 🕺	Name	Date modified	Туре	Size			
E Desktop	👃 Audio	8/9/2013 1:09 PM	File folder				
🐌 Downloads	🗋 Info.txt 🕈	8/9/2013 12:54 PM	Text Document	1 KB			
🖳 Recent Places	TRBOnet.Ente prise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Cesktop							
Cibraries							
Documents							
J Music							
Pictures =							
Videos							
🔒 Roman Lapin							
: Computer							
🗣 Network							
Control Panel							
Recycle Bin							
CPS 8_0_410							
🍌 Elestix							
lmportant docs							
Pics							
SASPlanet_12080							
Mennanen Mart							

• Run **SQL Server Management Studio** with sufficient rights to manage databases.



• Select **Database** in the navigation tree (for example, **TRBOnet**):

## **TRBOnet Enterprise** — User Manual



Ele Edit View Debug Iools Window Help		10 11	
1 🔂 • 🗉 • 🥔 🗐 🥥 🤮 New Query 🔓 🔂 🔂 🖉 🖉 🖉	り・(*・二) 二 1	-	
Object Explorer + 0 ×			
Connect * 20 22 = 77 27 35			
Willing our squares (squiserve)     Databases			
🖂 😂 System Databases			
matter     model			
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I I I I I I I I I I I I I I I I I I I			
B Sever Objects			
B      Replication			
🛞 🦳 Maragement			
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Ready			
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• Right-click the selected database, and go to Tasks/Restore/Database:

No backupset selected to be re				
Select a page	Script - Help			
General Files				
Pries Options	Source			
- opeons	🗶 Database:			
	O Device:			
	Ogtabases			
	Destination			
	Database	TRBOnet		
	_			
	Bestore to:			
	Restore plan			
	Backup sets to restores			
	Region Name	Component Type	Server Detabe	e Postion
VM_WIN7_002\SQLEXPRESS [VM_WIN7_002\admin]				
WM_WD#_002\SQLEXPRESS [VM_WD#_002\wdmin] View connection properties				
<u>View connection properties</u> Progress				
WM_WD#_002\SQLEXPRESS [VM_WD#_002\wdmin] View connection properties	r0			Yerily Backup Media

Select Database backup properties:

- In the **Destination** group, type in or select **Database** name to back up to from the drop-down list (for example, **TRBOnet**).
- In the **Source** group, click **Device**.
- Click the ellipsis (...) button to select the directory with database backup:

Sentore Database - TRBOnet				G 12
O No backupset selected to be res	tored.			
Select a page	Script - CHeb			
and Options and Options	Source © Database @ Opvices Dgtabase:			
	Destination Datagene: Bestore tai	1R8Onet	Jimelo	t
	Specify the backup red	is la and its location for your restore operation.	dipert LSN	
	ğackup media type Backup gedia	fie •	866	1
Connections			Brmove	
Universities				
View connection properties				
Progress				
O Ready	L	QK Care	oel Help	* Accla
			CK Cancel He	φ



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

Specify the backup media an	its location for your restore operation	on.
Backup media type:	File	•
Backup media:		
		Add
		Remove
		Contents

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

• Click **OK** to add the directory.

∰ Files ∰ Options	Source - Database	
∰ Files ∰ Options	Source © Dotobase: © Dyvice: Dytobase: Destination	
	Bestore to: Specify the backup device Specify the backup residence Backup media type: Backup gedia:	TBOH
Connection VMUNDE 012/SQLEXPRESS (VM_WINE_012/sdumin) View connection properties		
Programa		
O Ready		Cancal Help

• Click OK.

The database is added to the list of restored databases.

Restore Database - TRBOnet					00
elect a page P General	Script - Help				
Files					
Options	Source				
	C Database:				-
	Devices	Ç:\ProgramData\Nec	com Software\TRBOne	t.Enterprise\Backup\T	R8
	Dgtabase:	TRBOnet			•
	Destination				
	Databases	TRSOnet			
	Bestore to	The last backup take	n (Tuesday, August 06, 2	2013 11:21:27 .	Timeline
	Restore plan				
	Backup sets to restore:				
	Restore Name Component	Type Server	Database Post	tion First LSN	Last LSN
	Database	Full S001\SQLEXP		2400000002180	
onnection	$\backslash$				
VM_WIN7_002\SQLEXPRESS [VM_WIN7_002\admin]					
			1		
iew connection properties					
			1		
Tex connection properties rogress Done	*			Yeri	y Backup Media

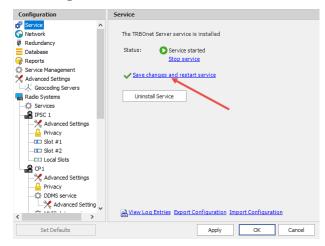
- Select the check box and click **OK** to restore the database.
- In the **Configuration** pane, select **Database**.



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

Configuration	Database		
💣 Service \land			
🕥 Network	SQL Server:	(local)\SQLEXPRESS	Ŧ
🖗 Redundancy	Database:	TRBOnet1	-
Database	Authentication:	TRBOnet	
🔂 Reports	Addienacadon.	TRBOnet VR	
Service Management	Login:	TRBOnet1	
Advanced Settings	Password:	TRBOnet2	
Geocoding Servers		TBBOnetWatch	
Radio Systems	Specify the path for		
Services	Path:	TBBOnetWatch2	÷
IPSC 1	_		
Advanced Settings	✓ Use custom folder	for audio files	
Privacy	Path:	C:\TRBOnet\Backup\Audio	
	Directory Cilder	to store file attachments	
	Use custom tolder	to store file attachments	
CP1	Path:		
Advanced Settings			
Privacy			
DDMS service	Test Connec	tion	
Advanced Setting	Upgrade Datab	ase *	
ste same to set Y	Create Databa	ase -	
< >			
Set Defaults		Apply OK Can	cel

- 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.



## **Restore Audio Recordings**

To restore the audio file:

• Launch TRBOnet Server and stop the TRBOnet Server service.



Configuration	Service
Configuration Co	Service The TRBOnet Server service is installed Status: Service started Stop service Save changes and restart envice Uninstall Service Uninstall Service
Set Defaults	Apply OK Cancel

Go to Database section in the navigation tree and specify custom directory for audio files (for example, for TRBOnet Enterprise
 C:\TRBOnet.Enterprise\Backup\Audio; for TRBOnet Plus:
 C:\TRBOnet.Plus\Backup\Audio).

Configuration	Database	
💣 Service 🔨 🔨		
S Network	SQL Server:	(local)\SQLEXPRESS v
🛱 Redundancy	Database:	TRBOnet1 -
Database     Reports	Authentication:	Windows
🔅 Service Management	Login:	
Advanced Settings	Password:	
Radio Systems	Specify the path for	
PSC 1	Path:	C:\TRBOnet\Backup\DB ····
Advanced Settings	Use custom folder	for audio files
Privacy Slot #1	Path:	C:\TRBOnet\Backup\Audio
<b>III</b> Slot #2	Use custom folder	to store file attachments
CP1	Path:	
····· 🔒 Privacy	Test Connec	tion
DDMS service	Upgrade Datab	ase 👻
< Advanced Setung	Create Databa	ase 👻
Set Defaults		Apply OK Cancel

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

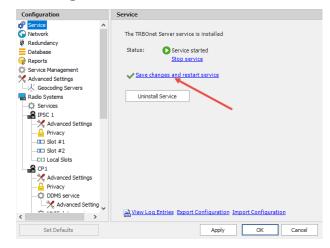
Drganize 👻 🛛 🏹 Op	een Include in library 👻 Share with	<ul> <li>New folder</li> </ul>			355	•	
Favorites	* Name	Date modified	Туре	Size			
E Desktop	🔒 Audio	8/9/2013 1:09 PM	File folder				
bownloads 👔	Info.bt	8/9/2013 12:54 PM	Text Document	1 KB			
Secent Places	TRBOnet.Enterprise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Desktop							
Cibraries							
Documents							
J Music							
Pictures	-						
Videos							
😹 Roman Lapin							
(Second Computer							
Network							
Control Panel							
Recycle Bin							
CPS_8_0_410							
Elastix							
limportant docs							
Pics							
SASPlanet 12080							
Mercannes Mart	-						



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

Drganize • Include	in library      Share with      New	folder	1	ii • 🖬 🖲
Downloads	Name	Date modified	Type Size	
Recent Places	2012 01 31 12	1/31/2012 12:27 PM	File folder	
	2012 01 31 18	1/31/2012 6:06 PM	File folder	
E Desktop	2012 01 31 20	1/31/2012 813 PM	File folder	
Cibraries	2012 02 01 10	2/1/2012 10:48 AM	File folder	
Documents	2012 02 01 18	2/1/2012 6:55 PM	File folder	
J Music	2012 02 01 19	2/1/2012 7/56 PM	File folder	
Pictures	2012 02 01 20	2/1/2012 8:20 PM	File folder	
Videos	2012 02 02 17	2/2/2012 5:29 PM	File folder	
🔏 Roman Lapin	2012 02 03 15	2/3/2012 3:53 PM	File folder	
Computer	2012 02 03 16	2/3/2012 4:10 PM	File folder	
🗣 Network 💡	2012 02 03 18	2/3/2012 643 PM	File folder	
Control Panel	2012 02 06 15	2/6/2012 3:58 PM	File folder	
Recycle Bin	2012_02_06_16	2/6/2012 4-54 PM	File folder	
CP5_8_0_410	2012 02 06 17	2/6/2012 5:24 PM	File folder	
🎍 Electix	2012 02 06 18	2/6/2012 6:02 PM	File folder	
Important docs	2012 02 07 13	2/7/2012 1-35 PM	File folder	
Pics	2012_02_07_15	2/7/2012 3:45 PM	File folder	
SASPlanet_12080	2012 02 07 16	2/7/2012-4:06 PM	File folder	
🎍 Искодники Маф	2012 02 07 18	2/7/2012 6:34 PM	File folder	
🎍 @eno	2012 02 08 13	2/8/2012 1:47 PM	File folder	
	1. 2012 02 08 14	2/0/2012 2:40 014	Distables	

• Click the Save changes and restart service link.



Thus, the audio files will be restored.

## Schedule Backups

To set a scheduled backup for the database and audio recordings, do the following:

- In the Dispatch Console, go to **Administration** section and select **Database** in the Navigation tree:
- Click the Schedule Backup button:



File View Map Tools Help						
Administration	Database					🔮 🛞 🔽
Server  Subbase  Sub	I: Line free FIPSC 1: Slot # Group 22		Intercom IPSC 1: Slot #2 Intercom IPSC 1: Slot #2 Intercom	) #0 ) #0	Dispatcher Group 1 Group 11 Private Call	9 4 0 9 4 0
Voice Dispatch	🤟 Back Up Datab	ase   🥹 Schedule	< <u> </u>			
Location Tracking	Server r	name:	(local)\SQLEXPRESS			
🚰 Job Ticketing	Databas Backup (		TRBOnet1 30-Sep-19 12:56:02 PM			
😥 Route Management	Databas	e version:	Jun 15 2019 00:26:19 Copyright (C) 2017 Micros	soft Corporation	1505224) - 14.0.2027.2 (X6-	
C Text Messages	Data siz	70:	163.19 MB		10.0 < X042 (build 18362. )	
Voice Recording	Audio s	ze:	629.43 MB			
🕞 Reports						
Event Viewer						
8 Radio Allocation						
administration						
🔂 Connected 🔉 🐟 🐟 🗖 🛸 🕏 Administra	tor	demo Demo Licen	e			Active -

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

Enable scheduler	
Scheduler:	Database Backup 🗸 🗸 🗸
Backup data Backup audio Remove Remove all dat Audio files Data	(Select All)     adf     df     rty     qwa     qwa

#### • Enable scheduler

Check to enable the database backup scheduler.

#### • Scheduler

Click the arrow button on the right, and on the drop-down list select the required scheduler(s). Or, click the plus button on the right, and create a new scheduler.

For directions on how to create schedulers, see section <u>6.4.21, Schedulers</u>.

Backup data

Check to back up data.

- **Backup audio** Check to back up audio recording.
- Remove

Check to remove audio files and data from the database.

Remove all data older than [X] days
 Select the number of days to remove all data.



### Audio Files

Check to remove audio files.

- Data
  - Check to remove data.
- Click **OK** to run the backup procedure.



# **Appendix E: SIP Setup for Motorola Phone System**

The native MOTOTRBO phone system is supported in the case of a direct IP connection to the repeater. MOTOTRBO Phone system is recommended for IP Site Connect mode.

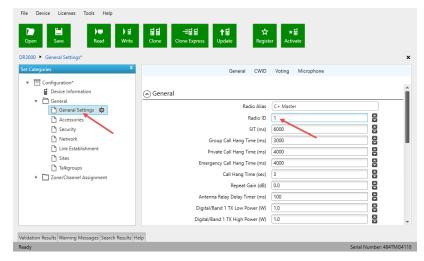
Note: No extra license per repeater is required for Digital Phone Patch from Motorola.

#### **TRBOnet Software and Repeaters**

TRBOnet Server requires a specific setup for a repeater in the IP Site Connect mode as well as for SIP in order to make the phone system work properly.

Note: MOTOTRBO Phone System is available for repeaters in IP Site Connect mode. For a system based on the control stations, use TRBOnet Phone System.

Launch **MOTOTRBO CPS** and go to Repeater's **General > General Settings**:



The **Radio ID** of the repeaters in CPS must differ from the TRBOnet Peer ID. TRBOnet Dispatch Console acts as another virtual peer repeater with a Peer ID. For example, given an IPSC network consisting of 1 master and 3 peers, the repeaters' IDs (Radio IDs in CPS codeplugs for the repeaters) in this example would be 1, 2, 3, 4. The TRBOnet Peer ID must not be a value of 1, 2, 3, or 4, and must differ from all the repeaters (the master and all peers), otherwise a conflict will happen in the network as there are multiple peers with the same ID. The default TRBOnet Radio ID is 64250.

- Open TRBOnet Dispatch Console.
- Go to Administration (1), Phone Calls (2), Configuration (3), Configure (4) and set Access code and Deaccess code (5) to 0 and #, respectively:



dministration	Phone Calls			율
Server A	Configuration Extensions Call Redirection Phone	e Contacts Dial Plans		
U Database	Radio Call Configuration 3 Access code:	Radio Call Configuration	>	<
Age System Bridge Phone Calls Tasks (9) Custom Fields	Deaccess code: Callback Request Options Allow radios to make outgoing calls:	Access code: 5	-	
Hodbus TCP Connections	Send a DTMF command to request a callback:	Callback Request Options		
- 🔆 Virtual Modbus Devices 🗸 🗸	Send a text message to request a callback: Start transmission:	Allow radios to make outgoing calls	a calibadx	
Voice Dispatch	Calls to Radios and PoC Devices	Send a text message to request a	calback	
Location Tracking	Max ring time: Check if the radio is available before making a call:	Use this prefix in text messages: Start transmission:	sp: Wait for answer +	
Route Management	Call notifications: Play a tone when PTT is pressed or released:	Calls to Radios and PoC Devices	Immediately	
Text Messages	Configure 4	Max ring time:	Unlimited 🛨 seconds	
Voice Recording	Inbound Call Configuration Inbound Call Control	Check if the radio is available before m	aking a call	
Reports	Call to Dispatch Center: Call to unregistered number:	Play a tone when PTT is pressed or rel Tone volume level:	eased+	
Event Viewer	Do not establish call until called party responds: Interactive Voice Response (IVR) Options			
Telemetry	Do not wait for Accept code: Maximum number of digits:		OK Cancel	
Administration	Accept code: <u>Number</u>	# 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):

Den Save Read Wr		-=च च ↑ च ☆ one Express Update Register	★ 🖬 Activate	
4801e 🔸 Phone Systems 🕨 Sys1* t Categories	<b>9</b>	Genera	I DTMF	
Configuration*     Device Information				
General     Job Tickets		System Name	Sys1	
▼ 📋 Systems		Gateway ID	100	
Signaling Systems		Access Code	0	
<ul> <li>User Defined 5 Tone</li> <li>5 Tone Systems</li> </ul>		Deaccess Code	#	
MDC Systems				
<ul> <li>Quik-Call II Systems</li> </ul>	· <u> </u>	Pretime (ms)	500	
Digital Emergency Systems		TX Tone Duration (ms)	120	
Capacity Plus Emergency Syste     Phone Systems		TX Tone Interval (ms)	80	8
Sys1 Ø		Pause Duration (ms)	4000	

- Make sure that **Gateway ID** (2) is equal to **TRBOnet Peer ID** in the Repeater settings of TRBOnet Server.
- Set Access Code to 0 and Deaccess Code to #, respectively (3).
- Go to Zone/Channel Assignment >...> Zone> Channel (1) and select the Phone System you have previously specified (2):

File Device Licenses Tools Help		
Den Save Read Write	불료 -=원님 ↑원 ☆ ★용 Cone Cone Express Update Register Activate	
DP4801e  Zone Zone1  Zone Items  Channel1	•	×
Set Categories 📮	General RX/TX	
▼		
Device Information	Voice Announcement File None	^
General	Dual Capacity Direct Mode	
Job Tickets	Timing Leader Preference Eligible	
<ul> <li>Systems</li> </ul>	Scan/Roam List None	
Encoder     Decoder	Auto Scan No	
Contacts	Color Code 5	
RX Group Lists	Extended Range Direct Mode Disabled	
▼ ☐ Zone/Channel Assignment	Inbound Color Code 1	
👻 🗋 Zone		
🖀 Zone1 🥸	Outbound Color Code 1	
Channel Pool	Repeater/Time Slot 1	
Scan Lists	Phone System Sys1	
<ul> <li>Capacity Plus Lists</li> </ul>	ARS On System Change	
	Enhanced GNSS	-
Validation Results Warning Messages Search Results Help		
Ready	Serial Number: 871TSH	/F956



# **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 Servei 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.

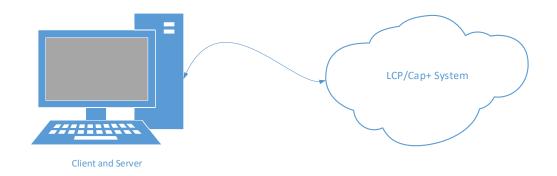
DDMS (aka Presence Notifier) is responsible for ARS and notifies TRBOnet Server when a radio is turned on/off. For more details, see *NAI_RM_Training_v02.pdf*.

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

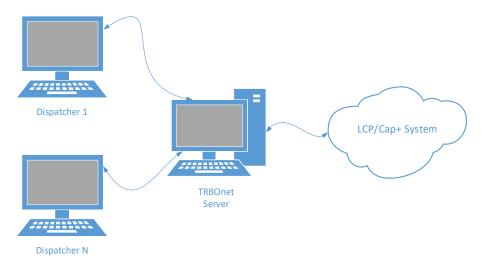
TRBOnet Server and Dispatch Console can be installed on the same computer.





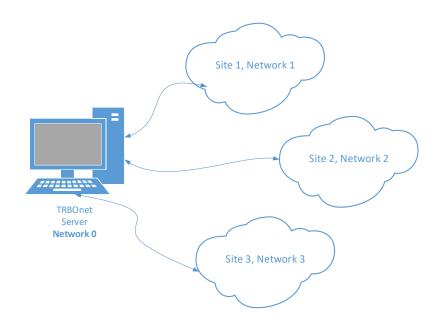
# **Client-Server Installation**

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:

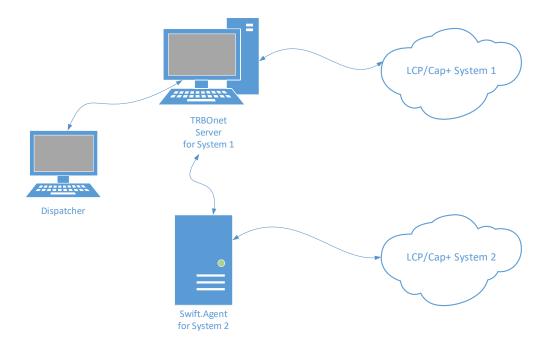




Use the recommended Routers only.

#### 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**

Dpen Save Read	▶ 目 日日 一日日 ↑日 Write Clone Clone Express Update Re	☆ ★量 :gister Activate	
4801e • Network t Categories #	General Radio Network Services Cont	rol Station IP Site Connect Bluetooth	
a categories			<i>c</i> i 1
Configuration     Device Information	Bluetooth Serial Port Profile Data Routing US	B HID Data Routing WAVE 5000 WAVE O	ncioua
■ Device Information ▼ □ General	Services		
Welcome Bitmap	-		
Language Packs	ARS Radio ID	64250	
General Settings	ARS IP	13.0.250.250	
Accessories	ARS UDP Port	4005	
Control Buttons	TMS Radio ID	64250	
Text Messages	TMS IP	13.0.250.250	
Telemetry	TMS UDP Port	4007	
🗅 Menu 🥒	User Defined UDP Port 1	0 - Disabled	8
C Security			
🗋 Network 🔅	User Defined UDP Port 2	0 - Disabled	
Wi-Fi Network	User Defined UDP Port 3	0 - Disabled	
Voice Announcement	XCMP Server ID	0 - (Blank)	
Indoor Location	XCMP Server IP	0.0.0.0	
Job Tickets	Battery Management Server ID	0 - (Blank)	
Systems	Battery Management Server IP	0.0.0.0	-
Encoder			
Decoder     Contacts	<ul> <li>Control Station</li> </ul>		
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	
<ul> <li>▼ □ Configuration*</li> <li>☐ Device Information ◊</li> </ul>	(⋆) 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	
<ul> <li>Zone/Channel Assignment</li> </ul>	Privacy Alias None	
<ul> <li>Zone</li> </ul>	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		

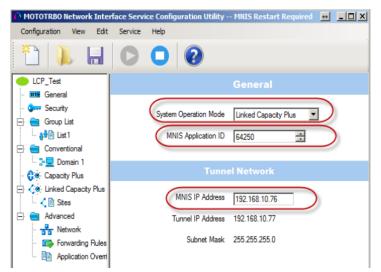
## Personality Settings – 2

		RX/TX	General	
		TV		
		TX	-	
lame Call1	Contact Name			
stem CapacityPlusEmergencySystems/Sys1	Emergency System			
VOX 🗌	VOX			
Level High	Power Level			
(sec) 60	TOT (sec)			
(sec) 0	TOT Rekey Delay (sec)			
ption	Allow Interruption			
ncies 🗌	TX Interruptible Frequencies			
iteria 🛛 Color Code Free	Admit Criteria			
iteria 🛛 Follow Admit Criteria	In Call Criteria			
dBm) -124	RSSI Threshold (dBm)			
med	Private Call Confirmed			
med	Data Call Confirmed			



## **MNIS and DDMS Settings**

#### **General Settings**

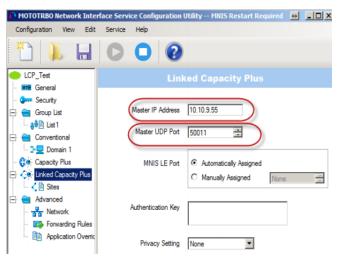


#### **Talk Group Settings**

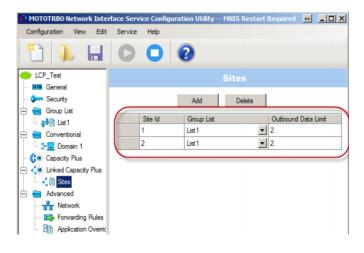
MOTOTRBO Network Inter			guration Utility M	NIS Restart Required	
Configuration View Edit	Service	Help			
1	0	0	?		
LCP_Test			Lis	t1	
- 🕬 Security			Group List Type	Capacity Plus/LCP	
Group List			All Groups	<b>V</b>	5
Conventional			Group Call	ID Ranges	
Capacity Plus     Capacity Plus     Capacity Plus			Add	Delete	
🗌 🕻 🗎 Sites			First Call ID	Last Call ID	
Advanced					
<ul> <li>Forwarding Rules</li> </ul>					
Application Overric					



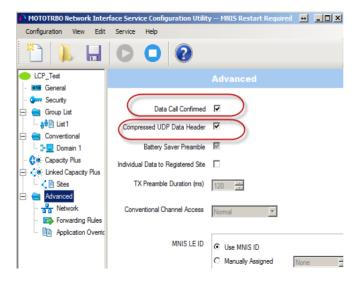
#### **Master Repeater Settings**



#### **LCP Sites Settings**



#### **Advanced Settings**





#### **Network Settings**

NOTOTRBO Network Interfa	ice Service Configuration	on Utility *		-	×
Configuration View Edit	Service Help				
1		?			
··· 💷 General ··· 🚛 Security		CAI Network	12 🜲		
🗇 💼 Group List		CAI Group Network	225		
Conventional     Section 1		s	ervices		
- 🛟 🔅 Capacity Plus		ARS UDP Port	4005		
<ul> <li>Linked Capacity Plus</li> <li>End Advanced</li> </ul>	,	TMS UDP Port	4007 🗢		
······································	e	Telemetry UDP Port	4008		
Application Over		Location Server UDP Port	4001		
		Battery Management UDP Port	4012 ≑		
		User Defined UDP Port 1	Disabled		
		User Defined UDP Port 2	Disabled 💂		
		User Defined UDP Port 3	Disabled		
		XCMP Enable			
		XCMP Server UDP Port	4004 🗘		
		ARS Monitor			
		ARS Monitor ID	None 🔺		
		Device Discover	y and Mobility Service		
		Server Address	127.0.0.1		
		Watcher Port	3000		

## **DDMS Settings**

The **DeviceRefreshTime** parameter defines how often radios should send ARS to TRBOnet Dispatch Software. The value depends on the number of radios and channels.

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



## **ARS TRBOnet Settings**

Configuration	Service Management
Service Network	Presence service
🛱 Redundancy	Auto request presence timeout: 5 \$
Database	ARS refresh interval:
Service Management	Ignore unregistered Radios
Geocoding Servers	Location service
Radio Systems	GPS restart by inactivity timeout: 10 0 minutes
TT over Cellular	Dispatch Console update interval: 5   Automatic error correction
Remote Agents	Configure
Phone Connect	Send the latest GPS data to dispatchers on alert
<ul> <li>↓ Data Sources</li> <li>▶ Email</li> </ul>	For the last:     10     10     10     10
SMS Notifications	Indoor service
	Remove offline radio from beacon
	Ignore beacon position on alarm if GPS is fixed (only K-TERM)
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     Network	System Name:	Repeater #1			
Redundancy	TRBOnet Peer ID:	100			
Database	TRBOnet Radio ID:	64250	*		
Reports			*		
<ul> <li>Service Management</li> <li>Advanced Settings</li> </ul>	TRBOnet Local Port:	50001	*		
Geocoding Servers	Master Repeater Con	nection Info:			
Radio Systems	Master IP Address:	10.10.101.139	Ŧ		
Services	Master UDP Port:	50000	÷	Test	
Repeater #1	Authentication Key:	55555			
X Advanced Settings	System Type:	Linked Capacity Plus			*
DDMS service	System Identifier:				
Advanced Setting	✓ Use NAI Voice				
MNIS data service	✓ Use NAI Data (MNIS and DDMS)				
Advanced Setting	Use RCM for control ra	adio activity			
TT over Cellular					
X Advanced Settings					
TRBOnet.Mobile gateway	,				
< >					
Set Defaults		Apply		ОКС	ancel

Special settings:

- TRBOnet Peer ID any unique value.
- **TRBOnet Radio ID** the default TRBOnet ID.
- **TRBOnet Local Port** any free port on the PC.



#### **Audio Paths**

Configuration	Audio Paths		
Service     A     Service     Network	Load Groups Map		
🛱 Redundancy	Call Type	Group ID	Site ID
Database	Group Call	10	Wide
Reports	Group Call	20	Wide
Service Management	✓ Private Call		
Advanced Settings			
Radio Systems	All Call		
Services			
Repeater #1			
Privacy			
DDMS service			
Advanced Setting			
Advanced Setting			
Audio Paths			
🖵 PTT over Cellular			
TRBOnet.Mobile gateway	Add Delete		
<pre></pre>	Add Delete		Configure
Set Defaults		Apply C	K 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

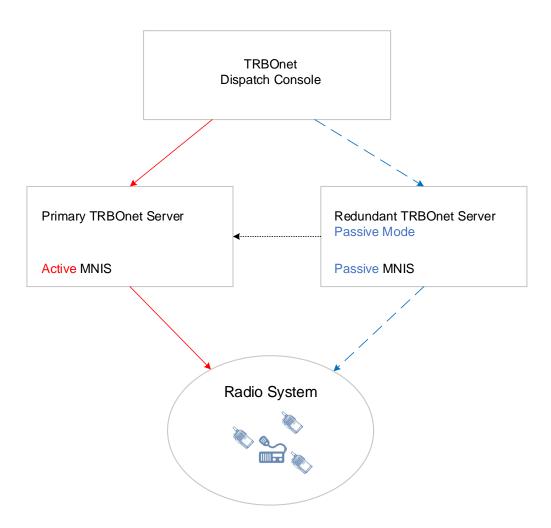
- The radio system's master repeater supports up to 4 simultaneously connected Software Peers (for example, MNIS, RDAC, TRBOnet Enterprise/PLUS or TRBOnet Watch).
- The databases on both servers are not synchronized. Before making a copy of the primary server's database and deploying it on the redundant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

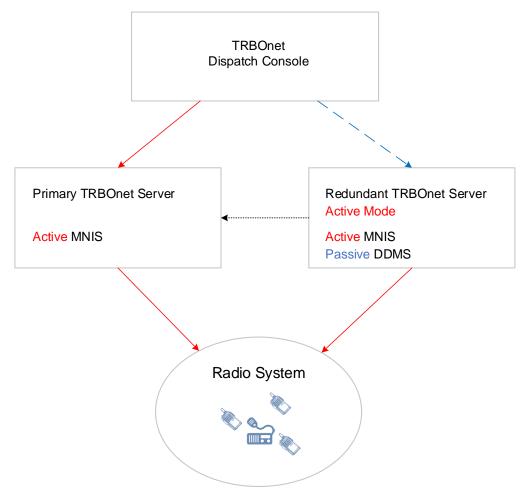


• Note that the databases on both servers are not synchronized. The redundant server's database will have data only for the time period the primary server is down. Once the primary server is restored, the redundant server will stop adding data to its database. Thus, there will be no data in the primary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

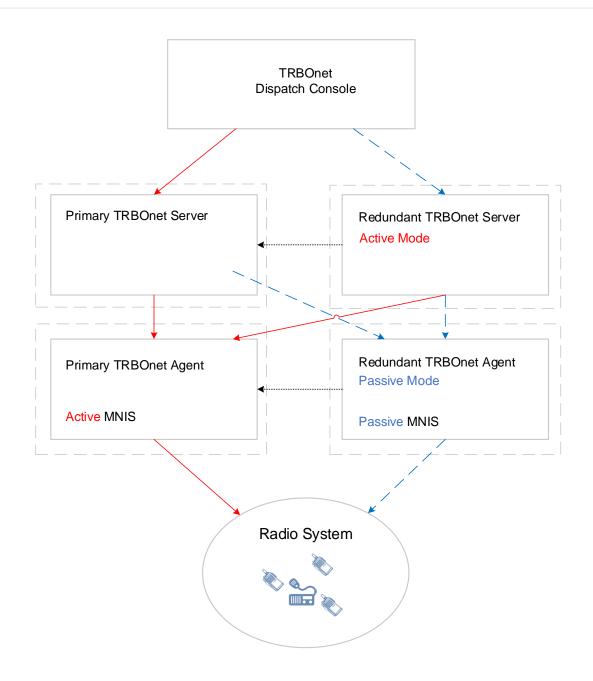
### Active mode and TRBOnet Agents

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).



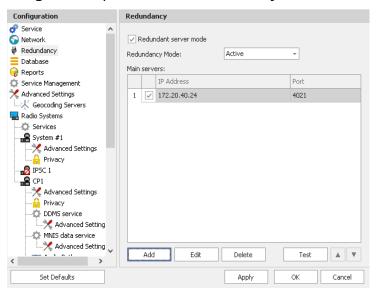


• Note that this is the only feasible solution for running the redundant server in the Active mode when a Capacity Max system is used.



# **Redundant Server Configuration**

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



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

#### • IP Address

Type the IP address of the primary server.

• Port

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

#### 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 **Main Server** dialog box that opens, click the **Copy configuration** link.



Main 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	
Copy configuration	Close

• Verify that the settings in the **Network**, **Redundancy**, and **Database** tabs are correct.

## **Dispatch Console Configuration**

To add a server to the list of servers:

 Launch TRBOnet Dispatch Console to open the Connect to TRBOnet Server dialog box, or on the File menu, click Connect to TRBOnet Server.

Connect to TRBOnet Ser	ver X
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 🗘 Configure
Authentication:	/
Method:	TRBOnet Authentication V
User Name:	admin
Password:	******
Connect on startup	
	OK Cancel

• Click **Configure** to register the new primary server:



Register TRBOnet Servers ×								
🛃 Add 📃	> Edit 🛛 🛃	Delete	•					
Server Label			Server Addre	SS	P	ort		
Server1			10.10.164.45	i	4	021		
Server?	Register TF	BOne	t Server					×
1	Label:		Server 3					
	Address		127.0.0.1					
	Port:		4021	*				
	Redund	ant ser	vers:					
		Add	ress			Port		
						/		
	Ad	ld	Delete		ОК	4	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 Server 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.