



TRBOnet Enterprise User Manual

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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	info@trbonet.com — general and
Americas	+1 872 222 8726	commercial inquiries <u>support@trbonet.com</u> — technical support
АРАС	+61 28 607 8325	http://trbonet.com/kb/ — online knowledge base



2 Hardware and Software Requirements

TRBOnet Server/Agent with IP connection only						
Voice Channels	4	8	16	24	24+	
CPU	Intel Core i3	Intel Core i5	Intel Core i7, 4 Cores	Intel Core i7, 6 Cores		
Memory	2 GB	4 GB	4 GB	8 GB	Contact technical	
HDD 300 MB for installation files, +1 MB per 1 minute of voice recording				support		
Sound Card No						
	Windows 7/8.	k/10, Windows S	Server 2008/2012/2016			
Supported OS	ported OS Note: Windows Server 2008/2012/2016 requires Desktop Experience Role/Feature installed.					
Software .NET Framework 4.6.x, MS SQL Server 2008 R2 or higher						

TRBOnet Server /Agent with Control Stations				
Control Stations	1	2+		
CPU	Intel Core i5			
Memory	2 GB			
HDD	300 MB 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. <u>M-Audio Delta 1010 LT</u> 2. <u>Roland OCTA CAPTURE Hi-SPEED USB</u> <u>Audio Capture</u>		
Additional Devices	Cable connector Motorola PMKN4016			
Supported OS	Windows 7/8.x/10			
Software	.NET Framework 4.6.x, MS SQL Server 2008 R2 or higher			

Dispatch Console				
CPU	Intel Core i3			
Memory	4 GB			
HDD	70 MB for installation files			
Sound Card	Yes			
Display	1280x1024 minimum resolution, 1600x900 recommended resolution			
Additional Devices	Speakers and microphone, or headset; Imtradex devices are recommended			
Supported OS	Windows 7/8.x/10			
Software	.NET Framework 4.6.x			



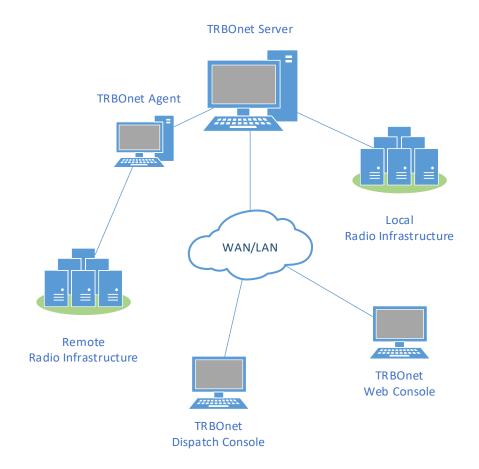
3 System Architecture Overview

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.





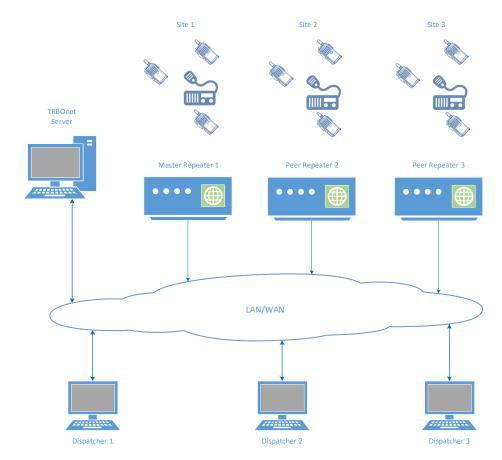
3.2 MOTOTRBO Radio Systems

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

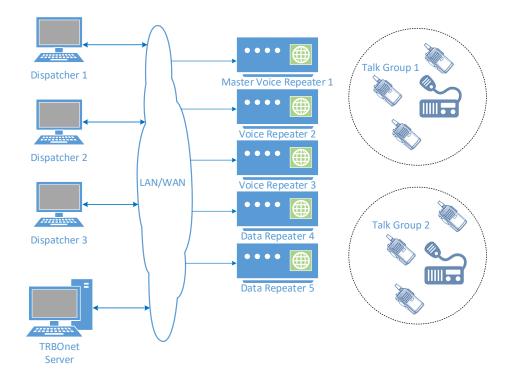
An IP Site Connect (IPSC) system is a digital conventional two-way MOTOTRBO system that provides two wide-area channels to increase your communications RF coverage area. It is possible to connect up to 15 repeaters (each geographical location of a repeater is called a "site") into one system using an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

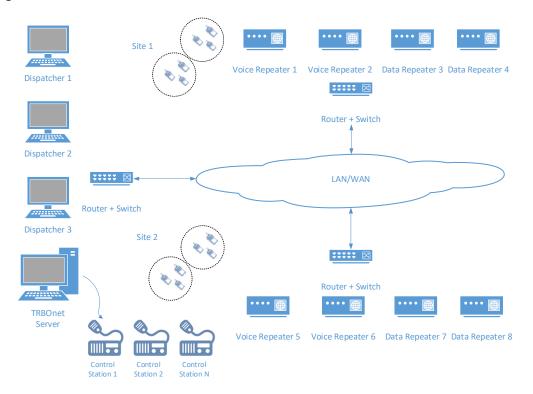
Capacity Plus (also known as Capacity Plus Single Site) is a digital trunked two-way MOTOTRBO system that is designed for high volume communications at a single site location. The system is designed to provide communications among a large number of users within a building, a set of buildings, or a single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





3.2.4 Linked Capacity Plus (LCP)

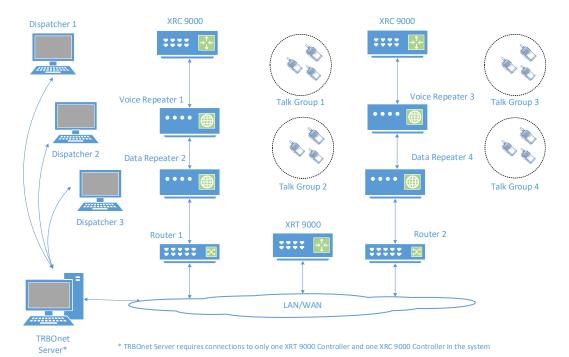
Linked Capacity Plus (also known as Capacity Plus Multi Site) is a digital trunked multisite two-way MOTOTRBO system that enables you to accommodate both high volume and wide area communications. This system design allows you to connect via IP up to 15 Linked Capacity Plus sites located in one geographical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





3.2.5 Connect Plus

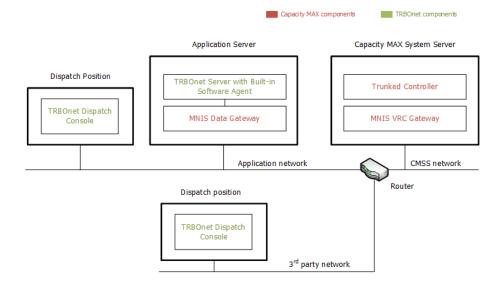
Connect Plus is a digital trunked multisite two-way MOTOTRBO system that enables you to accommodate high volume, wide area communication that's required for your business allowing you to connect via IP multiple sites located in one geographical region or in larger geographically separated territories.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





3.2.6 Capacity Max

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



3.3 IP Backend Network Requirements

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

• Delay/Latency

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

• Jitter

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

• Packet Loss

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

• Bandwidth

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

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



3.3.1 Linked Capacity Plus Specific Requirements

Addresses and Ports

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

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

4 TRBOnet Enterprise and Dependencies Installation

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

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

4.1 Installing Microsoft SQL Server

Download and install Microsoft SQL Server 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 5.2.1.1, Windows Authentication 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-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
	TRBOnet Dispatch Console This is a dispatcher computer and only Dispatch Console must be installed
1 1	TRBONET Server and Dispatch Console This is a Server computer and you need to install Server software and Dispatch Console
	Cystom Allows users to choose which program features will be installed and where they will be installed.
Neocom Software —	< Back Next > Cancel

• 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.

Dispatch Console	TRBOnet Enterprise 5.2 Agent
	This feature requires 199MB on your hard drive.
.ocation: C:\Program Files (x& Enterprise\ m Software	com Software\TRBOnet Brows

For example, you may install only TRBOnet Server Instance:

Custom Setup Select the way you want features to be installed.	TRBORO						
Click on the icons in the tree below to change the way features will be installed.							
X • Dispatch Console TRBOnet Enterprise 5.2 Server Server Instance Agent Instance							
	This feature requires 209MB on your hard drive.						
Location: C:\Program Files (x86)\Neocom Sof Enterprise\	tware\TRBOnet Browse						
Neocom Software							
Reset Disk Usage <	Back Next > Cancel						

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



5 TRBOnet Server

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

5.1 License Information

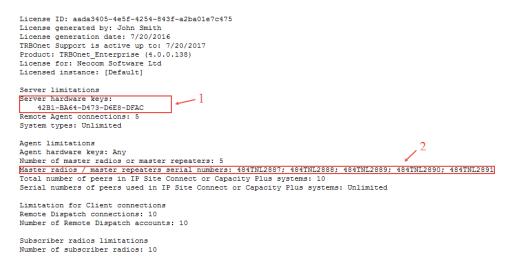
The TRBOnet software requires a valid license in order to operate. Depending on the License Type (see next section), the license can be obtained via TRBOnet's website or from a **Neocom** representative.

5.1.1 License Types

License Demo Trial Commercial Type Validity 60 days By Request Permanent (non-expiring) Up to 2 control stations Quantity of or 1 IP repeater Control By Request According to Customer order connection Stations and Radio Units 10 Radio Units Features Limited functionality By Request According to Customer order Assigned to server's Assigned to server's Hardware ID. Hardware ID. Assigned to the serial numbers of For more details on master repeaters and control How to It can be downloaded Hardware ID, see stations. To retrieve serial obtain from the web page. the article at numbers, use Control Station's https://trbonet.com/kb codeplug (do not rely on a serial number printed on the device's /how-to-get-thehardware-id/. label). For more information on the license and renewals, contact our technical support at info@trbonet.com

There are three license types available for TRBOnet Enterprise:

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):





- 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.

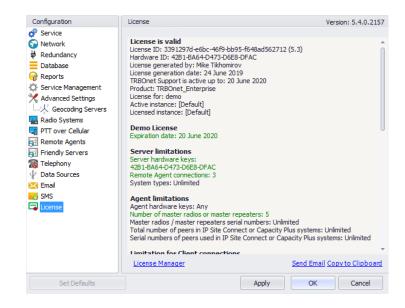
5.1.3 Using Spare Repeaters

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.



To apply the new license:

- 1. Click the **License Manager** link in the right pane. The **License Manager** wizard appears.
- 2. Click Next.
- 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		Versi	ion: 5.4.0.2178
	SQL Server: Database: Authentication: Login: Password: ☑ Specify the path for Path: ☑ Use custom folder Path:	D:\Temp\TRBOnet		· · · · · · · · · · · · · · · · · · ·
SMS	Path: Test Conne Upgrade Datal Create Datab	base 🔻		
Set Defaults		Apply	ОК	Cancel

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

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

Database

Enter the name of the TRBOnet database.

Authentication

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



Path to Audio Files	>
Root Folder:	
D:\Audio	
File Format:	
%YEAR%\%MONTH%\%DAY%	
Year Month Day Hour Minute Second Mi Channel Name System ID System Name C Source ID Recipient Recipient Type Recipi	all 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\Backups for database archives. %ProgramData%\Neocom Software\TRBOnet Enterprise\Audio for audio.

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		Version: 5 4 0 2178
Configuration	Database SQL Server: Database: Authentication: Login: Password: Specify the path f Path: Use custom folder Path: Use custom folder Path: Test Conne	D:\Temp\TRBOnet for audio files D:\Temp\Audio to store file attachments D:\Temp\Attach	Version: 5.4.0.2178
	Upgrade Data	base 🔻	
	Create Datab	ase 🔻	
Set Defaults		Apply	K 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		Version: 5.4.0.2178
Service Service Service Service Service Redundancy Database Redundancy Database Reports Service Management Advanced Settings Kadvanced Settings Redundars Remote Agents R	SQL Server: Database: Authentication: Login: Password: ☑ Specify the path for Path: ☑ Use custom folder Path:	D:\Temp\TRBOnet	VESUIT: 5. T.0. 210
C SMS	Path: Test Conne Upgrade Datal Create Datab	ase 🔻	
Set Defaults		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 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
Configuration Config	Service The TRBOnet Server service is not installed! It is recommended to run TRBOnet Server as a Windows service: it will start automatically after a reboot and run even when no user is logged on. Click the Install Service button below to install the TRBOnet Server service. Service logon type: O Logon as Local System (Recommended) O Logon as User User name: NSV.kulnichev Password: Install Service
	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

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

Logon as Local System

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

Logon as User

Choose this option to use a different account to run the service as a Windows service. This account must allow the user to run services in Windows, have read and write access to the **Neocom Software** folder and subfolders in the "**%ProgramFiles%**" (or, "**%ProgramFiles(x86)%**" for 64bit 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.



Note: If the area, where TRBOnet Enterprise is installed, observes daylight saving time, it is recommended that, when the local time is set one hour back, you should stop the service (**Stop Service** link) immediately before the time change (for example, at 2:59) and start it again after an hour (for example, at 2:59 according to the new time). This procedure is required to prevent database corruption.

5.4 Network Parameters

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

Configuration	Network		Ve	ersion: 5.4.0.2178
Service Service Network Redundancy Database Reports Service Management Advanced Settings Service Management Advanced Settings Service Management Advanced Settings Service Management Service Manag	Network Network interface: Command port: First VoIP port: VoIP protocol: Data protocol: Use broadcast mode for audio Broadcast port: Use proxy server Configure Encrypt data over network	System Default 4021 4022 TCP TCP 5000	Ve + ¢b + + + + + +	rsion: 5,4.0,2176
Email SMS License		Apply	ОК	Cancel

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

Network interface

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

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

Command port

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

First VolP 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 t	he proxy server	×
🔽 Use ar	alternative server	
Settings		
Address	: 177.71.134.70	
Port:	80 🜲	
Authentie	cation	
🗹 Use	authentication	
Login:	User	
Passwor	rd: •••••	
	OK Cancel	

• Use an alternative server

Select this option to enable an alternative proxy server.

✓ Address

Enter the proxy server IP address.



✓ Port

Enter the proxy server port number.

Use authentication

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

✓ 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

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

Configuration	Reports			Ve	ersion: 5.4.0.2178
Service Network Redundancy Database	Save scheduled re Path:	D:\Reports			
Ustabase Ustabase Reports Service Management Advanced Settings ↓ Geocoding Servers Radio Systems I PTT over Cellular Remote Agents Friendly Servers Telephony ↓ Data Sources K Email SMS ↓ License	Format:	PDF			
Set Defaults			Apply	ОК	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).



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**.

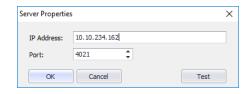
Configuration	Redundancy		Version: 5.4.0.2178
Service Setwork Ketwork Redundancy Database Reports	Redundant server mode Redundancy Mode: Main servers:	Passive 🔻]
Service Management	IP Address		Port
 ✓ Advanced Settings ✓ Geocoding Servers Radio Systems PTT over Cellular Remote Agents Friendly Servers Telephony ✓ Data Sources ✓ Email SMS ↓ License 	1 1 10.10.234.162	Delete	4021 Test
Set Defaults		Apply	OK Cancel

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

• Redundancy Mode

Select a mode for the redundant server from the drop-down list. For details, see sections <u>Passive Mode</u> and <u>Active Mode</u> on page 368.

• To add a main server, click Add.



• 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 367).



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		Version: 5.4.0.2178
Service Network	Presence service		
 International Redundancy ■ Database [®] Reports 	Auto request presence timeout: ARS refresh interval:	5 \$ 1440 \$	minutes minutes
Service Management Advanced Settings	Ignore unregistered Radios Location service		
Radio Systems	GPS restart by inactivity timeout:	10 🗘	minutes
TT over Cellular	Dispatch Console update interval:	5 🗘	seconds
Remote Agents Friendly Servers Telephony	Automatic error correction <u>Configure</u> Send the latest GPS data to dis	patchers on alert	
Email	For the last:	10 _	minutes
SMS	◯ GPS points:	10 ‡	j
	Indoor service		
	🗹 Remove offline radio from beac	on	
	Ignore beacon position on alarm	n if GPS is fixed (only)	K-TERM)
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 Appendix F: NAI VOICE & DATA Support.

• 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:

• 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			
\blacksquare Location accuracy worse than:	50	meters			
\checkmark 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.

 Consider speed zero if 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

- Configuration Advanced Settings Version: 5.4.0.2164 🛷 Service S Network Language: English Redundancy Logging level: Normal Database Administrator Account: Enabled Reports Reset password Service Managem TNA - TRBOnet Audio File Audio Recording format: 💥 Advanced Settings Ceocoding Servers Audio Recording codec: G.711 A-Law/8000 Radio Networks Voice of Text to Speech: Default Remote Agents Friendly Servers Measurement system: Metric Telephony Latitude/Longitudeformat: Degrees, Minutes, Seconds 🖞 Data Sources K Email hours Unlimited TX Passive timeout: SMS 1 hours Unlimited **License** Voice Mail timeout: Text Message Passive timeout: Unlimited hours Apply OK Cancel Set Defaults
- In the Configuration pane, select Advanced Settings.

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 and TNA.

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.

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.

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:

- 1. 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 Version: 5.4.0.217
Service Network Redundancy Database Reports Service Management Advanced Settings Service Management Advanced Settings Remote Agents Remote Agents Remote Agents Telephony Data Sources Setting	Geocoding Servers Version: 5,4,0,217
Set Defaults	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?format=xml⪫={lat}&lon={lon}&zoor	m=18&adressdetails=1
	Test
Get coordinates by address	
http://127.0.0.1/search?q={address}&format=xml	
	Test
0	K 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</u>, <u>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		Version: 5.4.0.2177
 Service Network Redundancy 	^	Inable Radio Systems		
Database		CAI Network:	12	¢
Reports		CAI Group Network:	225	\$
🔀 Advanced Settings		Registered Radio Systems		
Geocoding Servers		Name	Address	Radio ID
Radio Systems		Capacity MAX		2003
Services		IPSC1	10.10.101.137	64250
Capacity MAX		CP1	10.10.188.35	64250
PSC1		TRBOnet Swift Agent #1	192.168.0.100	64250
TRBOnet Swift Agent #1		Analog Station #1	COM1	0
Advanced Settings				
TT over Cellular				
Remote Agents				
Friendly Servers				
Telephony				
🖞 Data Sources	~	Add Delete		Test
Cm-il				
Set Defaults			Apply OK	Cancel

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

CAI Network

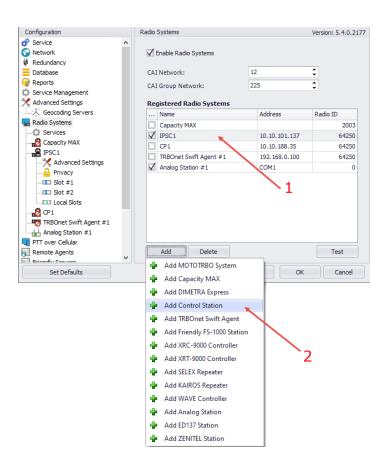
The CAI (Common Air Interface) Network is a value that is combined with the Radio ID to produce the individual radio's air interface network IP address. All radios must use the same CAI Network ID to be able to exchange data. It is recommended that the default value of 12 is used.

CAI Group Network

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

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





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

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

5.9.1 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 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 (GPS / Indoor)

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

• Port

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

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

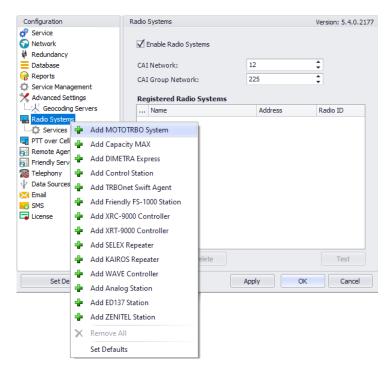
Select this option to enable the Forward Data service. This feature is used to forward "raw data" via the COM port from one device to another.

• 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			Version: 5.4.0.217
💣 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 Co	nnection Info:		
Geocoding Servers	Master IP Address:	10.10.101.137	-	
Radio Systems	Master UDP Port:	50000		Test
Services			•	Test
Repeater #1	Authentication Key:	99999		
	System Type:	IP Site Connect		*
	System Identifier:	Department 1		
	b) bicin identificit	Department 1		
Slot #2	Use NAI Voice			
Ella Local Slots	Use NAI Data (MNIS	and DDMS)		
PTT over Cellular	Use RCM for control r	radio activity		
Remote Agents				
Friendly Servers				
Telephony Data Sources				
< >				
Set Defaults		Apply		OK 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 or Linked Capacity Plus 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:</u> <u>NAI VOICE & DATA Support</u> (page 357).

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</u> <u>VOICE & DATA Support</u> (page 357).

• 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	A	dvanced Settings			Version: 5.4.0.217
	^	Voice Call Hang Time	(ms):		
₩ Redundancy Database		Group Call:	3000	¢	
Reports		Private Call:	4000	÷	
Service Management		Emergency Call:	4000	÷	
Advanced Settings		TX Preamble:	120	÷	
Radio Systems		TX Timeout:	60	¢	seconds
Repeater #1		Phone System:	Motorola Phone S	ystem	•
X Advanced Settings 		Allow CSBK Data			
Slot #2					
PTT over Cellular					
Remote Agents					
Friendly Servers					
Telephony					
↓ Data Sources					
K Fmail	×				
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</u> <u>E: SIP Setup for Motorola Phone System</u> (page 355).

• 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.

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 Service</u> is enabled for the repeater.

5.9.2.2 Privacy

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

Configuration		Privacy				٧	ersion: 5.4.0.217
🔗 Service	^						
🕤 Network		Privacy Type:		Enhan	ced 🔻		
🛱 Redundancy		Basic Privacy Key ID:		1		1	
Database		Enhanced Privacy Ke					
😪 Reports			-				
🔅 Service Management		Alghoritm	ID		Name	Value	
🗶 Advanced Settings		ARC4 (40 bit) 🔻	1				
Geocoding Servers		ARC4 (40 bit)	-				
Radio Systems		AES (256 bit) AES (256 bit) Legac	.				
Services		AES (256 Dit) Legac	У				
Repeater #1							
Advanced Settings							
Privacy							
Local Slots							
🚛 PTT over Cellular							
Remote Agents							
Friendly Servers							
Telephony							
Data Sources							
Fmail	~	Add F	lemov	/e			File
< >							

• 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**.

Configuration	DDMS s	ervice				Version: 5.4.0.2177
Service Network	🗸 Use	DDM	S service			
₩ Redundancy	Loca	al port	:	0	\$	
Reports	Serv	/ice IP	Address:	127.0.0	.1 •	Test
Service Management	Serv	ice po	ort:	3000	* *	
Advanced Settings	Aut	nentic	ation Port:	5055	* *	
Radio Systems	Red	undar	nt services:			
Services			Service IP A		Service port	Local port
Repeater #1	1	\checkmark	10.10.101.2	207	3000	0
Advanced Settings Privacy DDMS service Advanced Sett MNIS data service Advanced Sett MIS data service Advanced Sett						
PTT over Cellular						
Remote Agents						
Image: Sources Image: Sources Image: Sources Image: Sources		Add	D	elete]	Test 🔺 🔻
Set Defaults					Apply	OK Cancel

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

• Use DDMS service

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

Local Port

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

Service IP Address

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

Service port

Enter the service port number.

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



Authentication Port

Enter the authentication server port number.

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

Redundant services

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

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

Advanced Settings

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

Configuration	Advanced Settings			Version: 5.4.0.2177
💣 Service 🔷 🔺				
S Network	Radio ID list:	1-200		?
🔅 Redundancy	Events:	All		•
Database				
😪 Reports	Specify external sites:	1	1	
🔅 Service Management	Site ID	Presence	Voice	Data
🔀 Advanced Settings	251	\checkmark	\checkmark	\checkmark
Geocoding Servers				
🔛 Radio Systems				
Services				
Repeater #1				
Privacy				
DDMS service				
Advanced Sett				
Audio Paths				
TT over Cellular				
Remote Agents				
Friendly Servers				
Telephony				
(Ξ Data Sources ✓	Add D	elete		
Set Defaults		Appl	y Ok	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, 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".



Events

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

Specify external sites

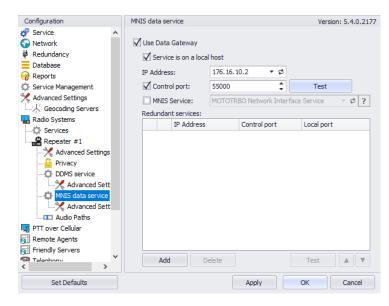
This is the list of sites that is used when the corresponding system has a MOTOROLA System Bridge to the current Capacity MAX system.

 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**.



- In the MNIS data service pane, specify the following MNIS data servicerelated 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

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	1	Advanced Settings				Version: 5.4.0.2177
Service Service Redundancy Database Reports Service Management Advanced Settings Services Radio Systems Services Advanced Settings DDMS service Advanced Settings A	•	-	-	e remote MNI		*
Set Defaults				Apply	ОК	Cancel

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

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.
- Send data to group over control port
 Select this option so that data will be sent via the specified control port.



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	Version: 5.4.0.2177
	☑ Slot #1	
🛱 Redundancy	Name:	Slot 1
Database	Messaging Delay:	Normal 👻
Reports Reports Advanced Settings Geocoding Services Radio Systems Services Repeater #1 Advanced Settings Privacy Slot #3	Use Privacy Privacy Key:	ta only (GPS Revert or Data Revert)
PTT over Cellular Friendly Servers Telephony Data Sources Email	☑ Emergency Call/Alarm	Indication
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.

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**.

Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.



Configuration	Local Slots	Version: 5.4.0.2177
💣 Service \land	Log d Doors Mars	
S Network	Load Peers Map	
🕸 Redundancy	Name	Peer ID Peer Slot
Database	🗹 Local Brine's	1002 Slot #1 🔻
😪 Reports		
Service Management		
X Advanced Settings		
Geocoding Servers		
Radio Systems		
Services		
Repeater #1		
Advanced Settings		
Privacy		
DDMS service		
Advanced Sett		
MNIS data service		
Advanced Sett		
Local Slots		
🛒 PTT over Cellular		
Demote Agente	Add Remove	Configure
< >		
Set Defaults	Apply	OK Cancel

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

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

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

X Configuration			
Name:	.ocal Brine's		
Messaging Delay:	Normal	•	
Use the slot for RX	Data only(GPS Rev	vert or Data Revert)	
Use Privacy			
Privacy Key:			
Allow TX interrupt			
🗌 Always transmit wh	en the PTT is press	ed ("Impolite" channel acce	ess)
Data Call Confirmed			
Private Call Confirm	ed		
Emergency Alarm A	ck		
Emergency Call/Ala	m Indication		
		ОК Са	ancel

 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		Version: 5.4.0.2177
🔗 Service 🔨 🔨	Load Groups Map		
S 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	All Call		
Geocoding Servers			
🖶 Radio Systems			
🗘 Services			
Repeater #1			
DDMS service			
Advanced Sett			
MNIS data service			
Advanced Sett			
Audio Paths			
PTT 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 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	Version: 5.4.0.2177
Configuration	Control Station #1 Name: Radio ID: IP Address: Mode:	Version: 5.4.0.2177 Control Station #1 64250 192.168.10.2 Version Single Control Station
Advanced Settings	System Identifier:	Department 1 Data only (GPS Revert or Data Revert)
Advanced Settings PTT over Cellular Remote Agents	Playback device: Recorder device:	Speakers (Logitech USB Headset) • 여 Line In (2- High Definition Audio Device) • 여
Friendly Servers Telephony Telephony Totata Sources Temail SMS		
License 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 is 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</u>, <u>Control Station</u> <u>Connection Modes</u> (page 46).

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 action to configure the radio channel so that it will only received.

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.

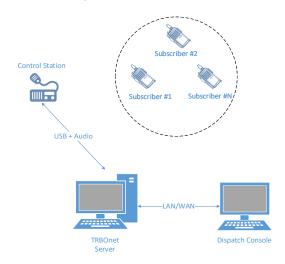
Recorder device

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.



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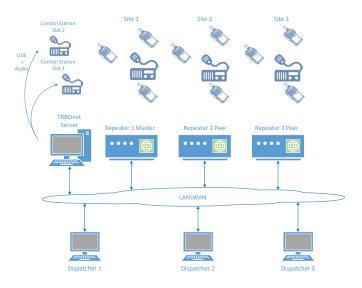


IP Site Connect

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.

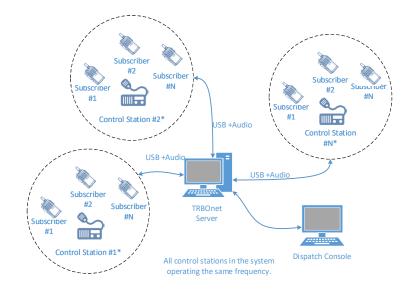
The signal filtering is performed based on the "first packet", that is, only the signal coming first to the server is played back and recorded, while the remaining signals are discarded.

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



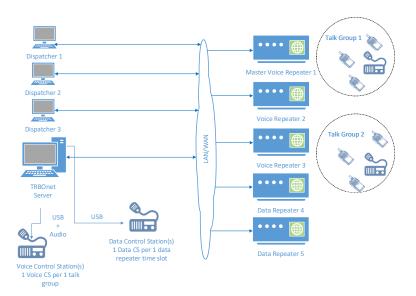
having a Geo-roaming feature, and each geographic area is assigned its own radio channel with the corresponding color code.



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		Version: 5.4.0.2177
Configuration Config	Advanced Settings	ert ation PTT is pressed ("Impo up	ite" channel access) seconds
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 (ASFK) 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, Check Radio, Call Alert, and Enable/Disable Radio.

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

/oice Calls				*
Call Type	Telegram ID	Source ID	Target ID	
Private Call:	1 🗘 Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		
Group Call:	1 🗘 Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		
All Call:	1 🗘 Encoder:		A1 A2 A3 A4	ТI
	Decoder:	A1 A2 A3 A4		, I
heck Radio				8
all Alert				8
nable 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		Version: 5.4.0.2177
💣 Service		1	
S Network	Site ID: 1		
🔅 Redundancy	Call Type	Group ID	Site
Database	Group Call	10	Wide
😪 Reports	Group Call	20	Wide
Service Management	Private Call	20	
🔀 Advanced Settings	All Call		
Geocoding Servers	All Call		
🔛 Radio Systems			
Services			
Control Station #1			
Audio Paths			
TT over Cellular			
Remote Agents			
Friendly Servers			
7 Telephony			
∲ Data Sources			
🔀 Email			
SMS			
🗔 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			Ve	rsion: 5.4.0.2164
💞 Service	^					
😚 Network		Name:	TRBOnet Sw	ift Agent #1		
🛱 Redundancy		Radio ID:	64250	÷		
Database		IP Address:	10.10.110.1	91 🔻		
😽 Reports		I Address.				
Service Management		Port:	8002	÷	Test	
🗶 Advanced Settings		TRBOnet Local Port:	50001	* *		
Geocoding Servers		Mode:	Single Contro	ol Station		-
🔚 Radio Systems		moue:	Single Control	01500001		
🗘 Services		System Identifier:	Department	2		
		Use the radio for RX D	ata only (CPS	Pevert or Da	ta Devert)	
IPSC1					ancevery	
		VoIP port:	4000	÷		
TRBOnet Swift Agent #1		Audio Format:	PCM 8 kHz 1	6 bit		•
🔀 Advanced Settings						
🐺 🛱 Redundancy						
🖵 PTT over Cellular						
🔂 Remote Agents						
📷 Friendly Servers						
🔞 Telephony						
🜵 Data Sources						
🔀 Email						
CMC	× 1					
Set Defaults				Apply	ОК	Cancel

• In the **TRBOnet Swift Agent** pane, specify the following Swift Agent-related 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 Station</u> <u>Connection Modes</u> (page 46).



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		Version: 5.4.0.2177
[™] Service [™] Network [₩] Redundancy Database [™] Reports	Automatically reset ala Emergency Call/Alarm I		te" channel access) seconds
Service Management Advanced Settings	PTT Mode:	KeyUp / DeKey 🔻	seconds
Geocoding Servers Cadio Systems Services Capacity MAX CP1 TRBOnet Swift Agent #1 CP1 CP1 CP1 CP1 CP1 CP1 CP1 CP	Signaling System:	None 🔻	Configure
PTT over Cellular Remote Agents Friendly Servers Telephony Advanced Settings Thernal PBX Server Advanced Settings	v		
Set Defaults		Apply	OK Cancel

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

Automatically reset alarm mode

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

Emergency Call/Alarm indication

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

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



Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.

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, Check Radio, 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		Red	lundan	сy			Ve	rsion: 5.4.0.217
💣 Service	^	Rer	lundar	t agents:				
S Network			unuan	IP Address		Port	Local Por	+
🕸 Redundancy		-			_			
Database		1	\checkmark	10.10.0.210		8002	0	
😪 Reports								
🔅 Service Management								
🔀 Advanced Settings								
Geocoding Servers								
堀 Radio Systems								
Services								
Capacity MAX								
IPSC1								
TRBOnet Swift Agent #1								
Redundancy								
TT over Cellular								
Remote Agents								
Friendly Servers								
Telephony								
↓ Data Sources					_			
Email			Add	Delete			Test	A V
CMC	¥							
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 Version ♂ Service Name: Controller #1 ③ Network Name: Controller #1 ☑ Database IP Address: 10.10.100 ▼ Test ☑ Reports System Identifier: Connect Plus 1	n: 5.4.0.2177
Network Name: Controller #1 ♥ Redundancy IP Address: 10.10.100.100 ▼ ■ Database ■ ■	
Database	
Database	
Reports System Identifier: Connect Plus 1	
🔅 Service Management	
X Advanced Settings	
$\lim_{x \to \infty} \int_{x}^{x}$ Geocoding Servers	
nadio Systems	
Q Services	
Controller #1	
🔤 🛱 Redundancy	
🖵 PTT over Cellular	
Remote Agents	
Friendly Servers	
Telephony	
↓ Data Sources	
🔀 Email	
SMS	
License	
Set Defaults Apply OK	Cancel

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

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

IP Address

Enter the IP Address of the XRC controller network interface.

- Click **Test** to check the connection to the controller.
- System Identifier

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

5.9.7.1 Services

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

Configuration	Services		Version: 5.4.0.2177
 ♂ Service ◇ Network ✓ Redundancy 	Automatic Registration	service (ARS)	
Database	Controller port:	4005 🗘	
Reports	Local port:	0 🗘	
 Service Management Advanced Settings Geocoding Servers 	Controller port:	/ Indoor) 4001	
Radio Systems	Local port:	4001 🗘	
Services	Use adaptive locati	on trigger	
Services	Text Messaging service	e (TMS)	
Advanced Settings	Controller port:	4007 🛟	
🛄 🖗 Redundancy	Local port:	4007 🛟	
Remote Agents	Dispatcher ID:	64250	
Friendly Servers	Multi Gate Connection		
↓ Data Sources	Subscribe ID:	1 🙏	
🔀 Email			
SMS			
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	Advanc	ed Settings			Version: 5.4.0.21
🚰 Service					
😚 Network	Radio	o ID list:	100-200		?
🕏 Redundancy	Spec	ify external sites:			
Database	opec	Site ID	Presence	Voice	Data
😪 Reports	-				
Service Management		251	\checkmark	\checkmark	
X Advanced Settings	\checkmark	252	\checkmark		\checkmark
Geocoding Servers					
Radio Systems					
Services					
XRC Controller #1					
Services					
Advanced Settings					
Redundancy					
TT over Cellular					
Remote Agents					
Friendly Servers					
Telephony					
↓ Data Sources					
Email					
SMS					
		Add D	elete		
- creentae					
Set Defaults			Ar	oply	OK Cancel
Serberduits			AL	, pry	Cancer

• In the **Advanced Settings** pane, specify the following XRC controller-related 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**.



Configuration	Redu	Indan	су		Version: 5.4.0.217
Service Network	Redu	undar	t controllers:		
V Redundancy			IP Address	Controller port	Local port
Database	1	\checkmark	10.10.101.100	4005	0 ‡
Reports					
Service Management					
X Advanced Settings					
Ceocoding Servers					
Radio Systems					
Services					
XRC Controller #1					
Services					
Advanced Settings					
Redundancy					
TT over Cellular					
Remote Agents					
Friendly Servers					
🐞 Telephony					
Ψ Data Sources					
🔀 Email					
SMS				٦ ٦	
📮 License		Add	Delete		Test 🔺 🔻
Set Defaults				Apply	OK Cancel

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

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

Controller Port

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

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

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

5.9.8 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			Version	5.4.0.2177
💣 Service	^					
😚 Network		System Name:	Controller #1			
🛱 Redundancy		Radio ID:	64250	\$		
Database		Start Local Port:	0			
Reports		XRT-9000 Controller I		-		
Service Management		XRI-9000 Controller II	nto:			
X Advanced Settings		Controller IP Address:	10.10.111.102	•		
Geocoding Servers		Controller TCP Port:	10001	\$	Test	
Radio Systems		User Name:	Admin			
XRC Controller #1		Password:	••••			_
Services		System Identifier:	Connect Plus 1			
🛛 💥 Advanced Settings		-,	Connect nuo 1			
🗰 🛱 Redundancy		Monitor Voice sessions	(without audio)			
Controller #1						
Privacy						
🖓 Data Path						
Audio Paths						
🗰 🛱 Redundancy						
🛒 PTT over Cellular						
🔂 Remote Agents						
Friandly Sarvare	*					
Set Defaults			Apply		ОК	Cancel

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

System Name

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

Radio ID

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

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

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

XRT Controller Info:

Controller IP Address

Enter the IP Address of the XRT controller network interface.

Controller TCP Port

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

- Click **Test** to check the connection to the XRT controller.
- User Name

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

Password

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



Note: The user name and password 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**.

		Privacy					Version: 5.4.0.21
🗬 Service	^		_			_	
🕤 Network		Privacy Type:	E	nhanc	ed 🔻		
🛱 Redundancy		Basic Privacy Key ID:	1		A		
Database		Enhanced Privacy Ke			~		
😪 Reports		-	ys:				
Service Management		Alghoritm	ID	1	Name	Value	2
🔀 Advanced Settings		ARC4 (40 bit) 🔻	1				
二人 Geocoding Servers		ARC4 (40 bit)					
Radio Systems		AES (256 bit)					
Services		AES (256 bit) Legac	У				
XRC Controller #1							
Services							
Redundancy							
XRT Controller #1							
Controller #1							
Controller #1							
ART Controller #1							
Controller #1							
Controller #1 Privacy Q Data Path Q Data Pat	~	Add	Remove				File
Controller #1	~	Add	Remove				File

- 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		Ver	sion: 5.4.0.2177
🔗 Service \land				
🛜 Network	Data Service:	Extended Data service		-
🛱 Redundancy	Radio ID:		•	
Database		04231	•	
😪 Reports				
Service Management				
🔀 Advanced Settings				
上人 Geocoding Servers				
🔜 Radio Systems				
Services				
Controller #1				
Services				
🗰 🕸 Redundancy				
Controller #1				
Privacy				
🔅 Data Path				
Audio Paths				
Redundancy				
其 PTT over Cellular				
Remote Agents				
Friandly Carvare				
< >				
Set Defaults		Apply	ОК	Cancel

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

Data Service

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

Radio ID

Enter the Radio ID of the data service.

5.9.8.3 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		Version: 5.4.0.2177
💣 Service \land			
Network	Call Type	Source ID	Target ID
🛱 Redundancy	Group Call		10
Database	Group Call		20
Reports	Private Call	64250	
Service Management	All Call		
X Advanced Settings			
Geocoding Servers			
Radio Systems			
Services			
XRC Controller #1			
Advanced Settings			
Redundancy			
XRT Controller #1			
- Privacy			
Data Path			
Audio Paths			
Redundancy			
PTT over Cellular			
Remote Agents			
Friandly Sarvara	Add Delete		Configure
< >			
Set Defaults		Apply	OK Cancel

• In the Audio Paths pane, specify the following Audio Path-related settings:

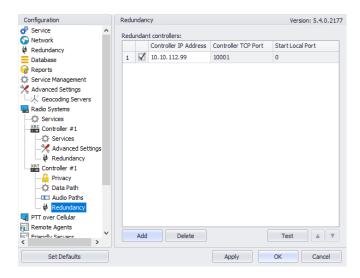


- To add an Audio Path to the system, click Add.
- Make sure the check box in the first column is selected to make and receive Voice Calls from the selected subscriber.
- From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private 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**.



- In the **Redundancy** pane, specify the following Redundant XRT Controllerrelated 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.

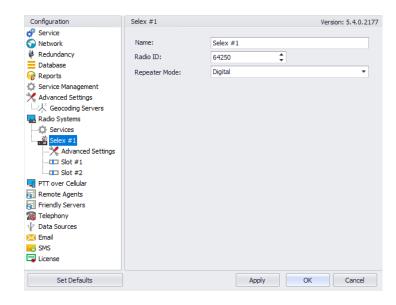


 Click **Test** to check the connection to the Redundant XRT Controller. If the test is successful, you'll see the information on the XRT Controller you are connected to, such as Serial number, Firmware version, and other relevant information.

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.



• 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		Version: 5.4.0.2177
🗬 Service			
S Network	Keep Alive Interval:	10 🗘 seco	onds
🛱 Redundancy	TX Timeout:	60 🌲 seco	onds
Database		• •	
😪 Reports			
Service Management			
🔀 Advanced Settings			
Geocoding Servers			
Radio Systems			
💭 Services			
Selex #1			
X Advanced Settings			
Slot #1			
PTT over Cellular			
Remote Agents			
Friendly Servers			
7 Telephony			
∲ Data Sources			
🔀 Email			
SMS			
📮 License			
Set Defaults		Apply	OK Cancel

• In the **Advanced Settings** pane, specify the following Selex Repeater-related 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).

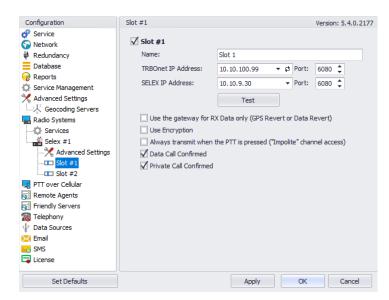
TX Timeout

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).

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**.



• 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).

Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.

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** drop-down list.
- In the Configuration pane, under the corresponding Selex, select Tier III.



Configuration	Tier III			Version: 5.4.0.2177
 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 Address.	10.10.9.30	+ FOIL	6060 -
X Advanced Settings		Test		
Geocoding Servers				
Radio Systems	Use the gateway for R	X Data only (GPS Re	evert or Data R	levert)
🗘 Services	Use Encryption			
Selex #1	Always transmit when	the PTT is pressed ("Impolite" char	nnel access)
Advanced Settings	🗹 Data Call Confirmed			
Tier III	V Private Call Confirmed			
Audio Paths				
PTT over Cellular				
Remote Agents				
Friendly Servers				
78 Telephony				
∯ Data Sources				
🔀 Email				
SMS				
📮 License				
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).

Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.

- 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	Version: 5.4.0.217
🔗 Service		
Network	Call Type	Group ID
Redundancy	Group Call	10
Database	Group Call	20
Reports	Private Call	
Service Management	All Call	
X Advanced Settings		
上人 Geocoding Servers		
Radio Systems		
Services		
Selex #1		
Tier III		
Audio Paths		
🖵 PTT over Cellular		
Remote Agents		
Friendly Servers		
7 Telephony		
🜵 Data Sources		
🔀 Email		
SMS		
📮 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 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				Versio	n: 5.4.0.217
Configuration Service Service Redundancy Database Reports Service Management Geocoling Services Services Services Services Services Services Services Selex #1 Consection To ver Cellular Friendly Servers Friendl	Analog Analog Name: TRBOnet IP Address: SELEX IP Address: Use the gateway for R Use Encryption Always transmit when Data Call Confirmed Private Call Confirmed		evert or		6080 6080 tevert)	÷ ÷
Set Defaults		Apply		OK		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).
 - Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.

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, Disable Radio, Enable Radio, 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	Kairos #1	Version: 5.4.0.2177
🛷 Service	^	
S Network	Name:	Kairos #1
🛱 Redundancy	IP Address:	10, 10, 155, 130
Database		
😪 Reports	User Name:	kairos
Service Management	Password:	•••••
💥 Advanced Settings		Test
Geocoding Servers		rest
🔚 Radio Systems	Radio ID:	64250 🗘
Services	Repeater Mode:	Mixed (Analog and Digital)
Kairos #1		
III Slot #1		
III Slot #2		
Analog		
🖵 PTT over Cellular		
🔂 Remote Agents		
Friendly Servers		
Telephony		
↓ Data Sources		
🔀 Email		
	×	
~		
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 Settings				Version: 5.4.0.2177
🛷 Service	^					
🕤 Network		Keep Alive Interval:	10	÷	seconds	
🛱 Redundancy		TX Timeout:	60	\$	seconds	
Database				•		
😪 Reports		Voice Call Hang Time	(ms):			
Service Management		Group Call:	3000	\$	1	
🔀 Advanced Settings				•	1	
ーズ Geocoding Servers		Private Call:	4000	-		
🔚 Radio Systems		Emergency Call:	4000	¢		
Services						
Kairos #1						
X Advanced Setting						
Analog						
TT over Cellular						
🙀 Remote Agents						
Friendly Servers						
📷 Telephony						
↓ Data Sources						
🔀 Email	J					
	*					
Set Defaults				Apply	OK	Cancel

- In the Advanced Settings pane, specify the following Kairos Repeater-related 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		Version: 5.4.0.2177
Service	✓ Slot #1		
🛱 Redundancy	Name:	Slot 1	
Database	Audio Codec:	G.711µ-Law/8000	•
Service Management	Audio port KAIROS:	40000 🗘	
Advanced Settings	Audio port TRBOnet:	40000	
Radio Systems	Data port KAIROS:	40001	
Kairos #1	Data port TRBOnet:	40001	
Advanced Setting Slot #1 Slot #2 Analog			
🖵 PTT over Cellular			
Remote Agents			
Friendly Servers			
Telephony			
⊈ Data Sources			
Email			
< >			
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 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 Controller.

Configuration	Wave Server #1		Version: 5.4.0.2177
Service Service Service Service Redundancy Database Reports Service Management Advanced Settings Services Services Services PTT over Cellular Remote Agents Friendly Servers Telephony Data Sources Email SMS License	Name: Connection: Use proxy for connect Controller IP Address: Controller Part: TRBOnet Local Port: User Name: Password: Profile:	Wave Server #1 tion 10.10.150.110 4502 0 test4 ******** all-channels Test	version: 5.+.0.21//
Set Defaults		Apply	OK Cancel

• In the **Wave** pane, specify the following Wave controller-related 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 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	Analog Control Station	Version: 5.4.0.217
💣 Service		
S Network	Name:	Analog Control Station
🛱 Redundancy		
Database	Playback device:	Primary Sound Driver 🔹 🕫
😪 Reports	Recorder device:	Primary Sound Capture Driver 🔹 🕫
🔅 Service Management		
🔀 Advanced Settings	Serial port:	COM1 ·
Geocoding Servers		
🔜 Radio Systems	Always transmit when	the PTT is pressed ("Impolite" channel access)
Services	TX Timeout:	60 🔶 seconds
IPSC 1	Mic delay time:	0 milliseconds
	Mic delay une.	• • • • • • • • • • • • • • • • • • •
Analog Control Station		
🛒 PTT over Cellular	Extended protocol:	None
Remote Agents		
Friendly Servers	Signaling System:	Quick Call I
78 Telephony		<u>Configure</u>
🜵 Data Sources		
🔀 Email		
SMS		
📮 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).

Note: This feature is not available in Capacity Plus and Linked Capacity Plus systems.

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.

5.9.12.1 Serial Port

- Note: The serial port settings are available only when the extended protocol **IC-F1721D v1.01** is selected for the analog control station.
- In the **Configuration** pane, under the corresponding **Control Station**, select **Serial Port**.

Configuration	Serial Port			Ver	sion: 5.4.0.2177
💣 Service					
S Network	Baud Rate:	19200		÷	
🛱 Redundancy	Data Bits:	8		•	
Database	Data bitsi	-		•	
😪 Reports	Parity:	None		•	
Service Management	Stee Piter	1		*	
🔀 Advanced Settings	Stop Bits:	-		-	
Geocoding Servers	Handshake:	None		•	
Radio Systems					
Services					
IPSC 1					
Analog Control Station					
Serial Port					
TT over Cellular					
Remote Agents					
Friendly Servers					
Telephony					
↓ Data Sources					
K Email					
SMS					
🗔 License					
*					
Set Defaults			Apply	ОК	Cancel



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

5.10 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.

Configuration		PTT o	ver Cellular	Version: 5.4.0.21
Radio Systems Services IPSC 1 Advanced Settings	^		Enable PoC service gistered PoC Gateways	
Privacy			Name	Port
		\checkmark	TRBOnet.Mobile gateway #1	5070
Local Slots				
🛛 💥 Advanced Settings				
Privacy				
DDMS service				
Advanced Settings				
MNIS data service				
Advanced Settings				
PTT over Cellular				
Advanced Settings				
	1			
Remote Agents	-			
Friendly Servers				
Telephony	~		Add Delete	
2	>			

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:



		The second second				
Configuration		TRBOnet.Mobile gateway #	£1		(ersion: 5.4.0.2177
Radio Systems	^					
Services		Name:	TRBOnet.Mobile	gatew	ay #1	
IPSC 1		System Identifier:	Mobile 1			
-X Advanced Settings						
Privacy		Local Interface:	127.0.0.1			- ¢
III Slot #1		Local Port:	5070	÷		
Slot #2		Public Address/Domain:	84.52.107.217			
Local Slots						
CP1		First VoIP port:	Default	+		
Advanced Settings						
Privacy						
DDMS service						
Advanced Settings						
MNIS data service						
Advanced Settings						
Audio Paths						
🚛 PTT over Cellular						
X Advanced Settings						
🛄 TRBOnet.Mobile gateway #1						
Remote Agents						
Friendly Servers	J					
Talanhony	×.					
Set Defaults			Apply		OK	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. To detect the public address, click the ellipsis (...) button.

Public IP Address					×
Detect pu	blic IP Address	ove	er STUN se	erver	
STUN Server:	stun.ekiga.net				•
Port:	3478	÷			
IP Address detected:	84.52.107.217				
Detect			ОК	Cance	I

• STUN Server

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

• Detect

Click this button to detect your public IP address.

First VolP port

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

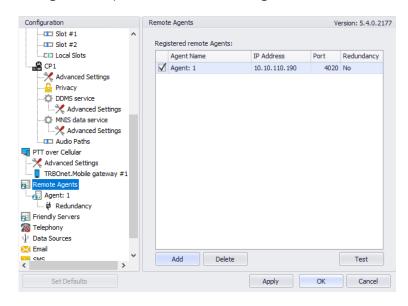
Note: In addition, for a better performance, make sure that the **Data protocol** parameter is set to **UDP** in <u>Network</u> <u>Parameters</u>.



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		Version: 5.4.0.2177
Slot #1 Slot #2 Slot #2 CP1 Advanced Settings MIIS data service Advanced Settings MIIS data service Audio Paths PTT over Cellular Audio Paths PT over Cellular Advanced Settings Advanced Settings CR Advanced Settings Advanced Settings CR Advanced Se	Agent Name: IP Address: Port:	ne	Test
< >>	Load services fr	rom agent	
Set Defaults		Apply	OK Cancel

- 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.

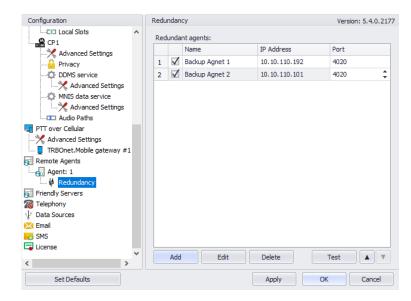
• Use only specified services

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**.

Agent Name:	Backup Agent 2	
IP Address:	10, 10, 110, 101	
Port:		Test
O Use all servic	es	
O Use only spec		
	Name	

- 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	Version: 5.4.0.2177
🔀 Advanced Settings 🛛 🔺		
Geocoding Servers	Registered Friendly Servers:	
Radio Systems	Name	IP Address Port
💭 Services	Region Server 1	10.10.101.167 4021
IPSC 1	Region Server 2	10.10.101.198 4022
Advanced Settings		·
🔒 Privacy		
III Slot #1		
III Slot #2		
Local Slots		
CP1		
PTT over Cellular		
X Advanced Settings		
TRBOnet.Mobile gateway #1		
Remote Agents		
Friendly Servers		
7 Telephony		
↓ Data Sources		
Email		
SMS		
📮 License		
< >	Add Edit Delete	Test
Set Defaults	Apply	OK Cancel

• In the Friendly Servers pane, click Add.

	×
Region Server 1	
10.10.101.167	
4021	Test
OK Ca	ncel
	10.10.101.167 4021

- 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

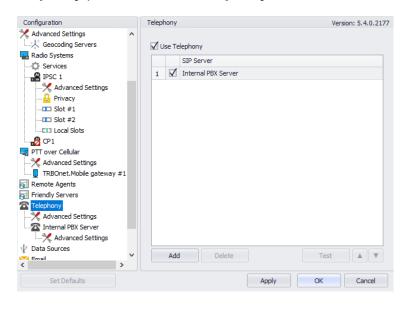
Enter the local port number on the PC to connect to the friendly server.

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

5.13 Telephony

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 **Telephony**
- In the Telephony pane, select Use Telephony.



5.13.1 Advanced Settings

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

Configuration		Advanced Settings			Version: 5.4.0.2177
🔀 Advanced Settings	^				
Geocoding Servers		Max Ring Time:	30 🌲	seconds	
🔚 Radio Systems		Max Call Time:	10	minutes	
Services		Public Address:	84.52.107.217		
IPSC 1		Public Address:			
		Phone owner address:	Take from database	:	-
Privacy					Configure
III Slot #1					
III Slot #2					
Local Slots					
CP1					
PTT over Cellular					
Advanced Settings					
TRBOnet.Mobile gateway #1					
Remote Agents					
Friendly Servers					
Telephony					
Internal PBX Server					
Advanced Settings					
↓ Data Sources ↓ Email	v				
< >>					
Set Defaults			Apply	ОК	Cancel

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• 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. 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:	84.52.107.217	
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: <u>%HOUSE NUMBER% %FLAT NUMBER% %STREET NAME% %COMMUNITY NAME%</u> %STATE NAME% %POSTCODE% %COUNTRY NAME% %EXTRA INFO%	
MULTER MODIFIEL RECEIPTING MELLER RECEIPTION	
OK Cance	1

• 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 Telephony pane.
- In the **Configuration** pane, select **Internal PBX Server**.



Configuration		Internal PBX Server				Version: 5.4.	2177
Radio Systems	^	and har by berver				Version, 5.4.	
Services Price IPSC 1 Advanced Settings Privacy		Use Internal PBX Ser Local IP:	rver 127.0.0.1		• 후 Port:	5060 🗘	
Slot #1		Dispatch Center					
Slot #2		SIP ID:	1234				
CP1		SIP user:	1234				
 PTT over Cellular Advanced Settings TRBOnet.Mobile gateway #1 Remote Agents Friendly Servers Advanced Settings Internal PBX Server Advanced Settings Data Sources Email SMS Internal 	~						
Set Defaults				Apply	ОК	Cano	el

- 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

SIP ID

Enter the SIP ID that will be used by the Dispatch Center.

SIP user

Enter the SIP 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**.



- 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/unselect 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 **Telephony** pane, click **Add**.

Or, in the **Configuration** pane, right-click **Telephony** and choose **Add PBX Server**.

Configuration	E	xternal PBX Server			1	/ersion: !	5.4.0.217
Radio Systems	^	🗸 Use External PBX	Server				
PSC 1		Provider option	IS				
		Address:	yourprovider.com			UDP	•
		Port:	5060 🗘		т	est	
Local Slots		Local IP:	127.0.0.1	- ¢	Port:	5061	÷
FTT over Cellular Remote Agents		Dispatch Cente	r				
Friendly Servers		SIP ID:	57068				
Telephony		SIP user:	User 123				
Thernal PBX Server		Password:	********				
Advanced Settings						st Call	
Advanced Settings							
∲ Data Sources							
Email SMS	~						
Set Defaults			Apply		OK		Cancel

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



Use External PBX Server

Select this option to enable an external PBX server.

Provider options

Address

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

Port

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

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

• Local IP

Enter the IP address of the PC with TRBOnet Server.

• Port

Enter the local port number to make connections from.

Dispatch Center

Note: This information is provided by the SIP provider.

SIP ID

Enter the SIP ID that will be associated with TRBOnet Server to make and receive calls.

SIP user

Enter the SIP user name for the login.

Password

Enter the 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			Version: 5.4.0.2177
Radio Systems	^	, la rance octango			Version: 5: 110:2177
Services		Packet time (ms):	60	÷	
IPSC 1		Codecs:	SPEEX-WB,G711µ,	G711a,OPL	IS,OPUS-WB
		Registration Interval (sec):	3600	÷	
		DTMF Send Mode:	RFC 2833	-	
Slot #2		Do not register users on a	PBX server (SIP trunk	()	
CP1		Do not register internal	users on a PBX serve	er	
TT over Cellular		Configure user's authoriza	ition		
Remote Agents		First VoIP port:	Default	÷	
Friendly Servers		Use VoIP ports:	All	-	
Advanced Settings		Available SIP numbers:	5555-6666		•
Internal PBX Server					
Advanced Settings					
🚳 External PBX Server					
↓ Data Sources					
Email					
SMS	~				
Set Defaults			Apply	OK	Cancel

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

Enter the same value as specified in the phone system;

Codecs

In the drop-down list, select/unselect 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 355).

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 ID	User Name	
r	010101	User # 1	
	■Add × Delete		

- Click Add to add a new user authorization.
- SIP ID

Enter the SIP ID for the new user.

• User Name

Enter the User Name for the new user;

• Click **OK** to save the new user authorization.

First VolP 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).

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**.

Configuration		Redundancy	Version: 5.4.0.2177
Radio Systems	^	Redundant PBX Servers:	
Services		PBX Server Address PBX Server Port	TRBOnet Local Port
IPSC 1		1 123.321.102.201 5060	5061
Privacy			
III Slot #1			
III Slot #2			
Local Slots			
TT over Cellular			
Remote Agents			
Friendly Servers			
Telephony			
Advanced Settings			
Advanced Settings			
External PBX Server			
Advanced Settings			
↓ Data Sources		Reregister users when changing PBX server	
🔀 Email			
SMS	_	Add Delete	Test 🔺 🔻
Licopeo	•		
Set Defaults		Apply	OK Cancel



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

PBX Server Address

Enter the IP address of the redundant server.

- Check the corresponding port numbers (PBX Server Port and TRBOnet Local Port).
- Select the 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.

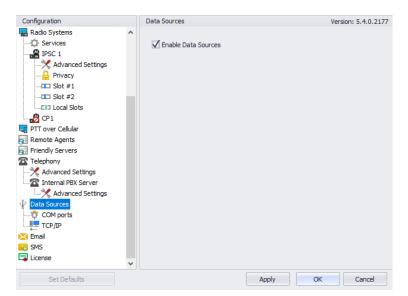
5.14 Data Sources

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**.

• 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.



onfiguration	COM	oorts				V	ersion: 5.4.0.
	^						
Services		Name	Baud	Parity	Data Bits	Handshake	Stop Bits
PSC 1	\checkmark	COM1	9600	None	8	None	1
Advanced Settings	\checkmark	COM2	9600	None	8	None	1
🔒 Privacy							
Local Slots							
CP1							
PTT over Cellular							
Remote Agents							
Telephony							
Telephony X Advanced Settings							
Telephony Advanced Settings Tinternal PBX Server							
Telephony X Advanced Settings Tinternal PBX Server X Advanced Settings							
Telephony Advanced Settings Tinternal PBX Server Advanced Settings Data Sources							
Telephony Advanced Settings Advanced Settings Thermal PBX Server Advanced Settings Data Sources COM ports							
Telephony Advanced Settings Thermal PBX Server Advanced Settings Data Sources COM ports							
Telephony Telephony							
Friendly Servers Telephony Advanced Settings Internal PBX Server Advanced Settings Data Sources Comports Comports TCP/IP Email SMS License		Add		elete			Edit

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

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

• 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 paritychecking 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.

Configuration		TCP/I	b				Version: 5.4.0.21
🔜 Radio Systems	^						
Services			Name	Remote IP	Port	Mode	Encoding
IPSC 1		\checkmark	Terminal 1		11002	Client	UTF8
		\checkmark	Terminal 2	10.10.102.216	11002	Server	UTF8
Privacy							
Slot #1							
Local Slots							
CP1							
PTT over Cellular							
Remote Agents							
Friendly Servers							
Telephony							
🛛 🄀 Advanced Settings							
Internal PBX Server							
Advanced Settings							
🕴 Data Sources							
COM ports							
Email							
SMS							
License	~		Add	Delete			Edit
Set Defaults					Apply	ОК	Cancel

• 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)	Ŧ
Remote IP:	10.10.102.216	_
Port:	11002	÷
Protocol:	Text	Ŧ
Text Encoding:	UTF8	Ŧ
Ignore the fol	lowing 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).
- Note: Microsoft Exchange Server can be used as SMTP and POP3/IMAP servers.
 - In the **Configuration** pane, select **Email**.
 - In the Email pane, select Enable Email Server.

Configuration	Email	Version: 5.4.0.2177
PPC 1 Advanced Settings Privacy Privacy Slot #1 Slot #2 Coll Slot Privacy Privacy Slot #2 Coll Slot Privacy P	Enable Email Server	
Set Defaults	Apply	OK Cancel

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	Version: 5.4.0.2177
Configuration Process Process Proces	 Incoming Mail Server Enable Server: Port: Protocol: Check for new messa every: Connect using Anonymous Windows au Use login an Login: Password: 	imap.gmail.com Imap.gmail.com Imap.gmail.com 993 imap.gmail.com IMAP ages 60 imap.gmail.com access thentication
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>).

- Configuration Outgoing Mail Server Version: 5.4.0.2177 PSC 1 🗹 Enable Advanced Settings Privacy Sender Email: SMTP Server: smtp.gmail.com Local Slots + Encryption: Implicit (SSL) 🔏 CP1 TT over Cellular SMTP Server Port: 465 ÷ Remote Agents Connect using Friendly Servers O Anonymous access Telephony O Windows authentication X Advanced Settings (Use SMTP user name and password Thernal PBX Server Advanced Settings User name: tested383 Data Sources ******** Password: 🕆 COM ports I TCP/IP Type: Auto Email Send Test Message SMS 📮 License Apply Set Defaults Cancel OK
- In the Configuration pane, under Email, select Outgoing Mail Server.

- 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.

✓ Type

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 Settings

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**.
- In the SMS pane, select Enable SMS Server.
- In the Configuration pane, under SMS, select SMS.

Configuration		SMS			Ver	sion: 5.4.0.2164
Advanced Settings	^	Sender:				
		Connection to GS	M via:	Vianett service (www.v	ianett.com)	~
Slot #2						
EII Local Slots		Login:		login@yourcompany.co	m	
		Password:		*******		
Mobile Systems						
Remote Agents				Send Test MMS	Send	Test SMS
Friendly Servers						
Telephony Telephony						
Internal PBX Server						
Advanced Settings						
↓ Data Sources						
COM ports						
TCP/IP						
🔀 Email						
Incoming Mail Server						
Outgoing Mail Server						
SMS						
SMS						
📮 License	~					
Set Defaults				Apply	OK	Cancel

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• In the **SMS** 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 <u>www.clickatell.com</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.



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.

The default Administrator credentials are **admin** for the login and **admin** for the password.

Connect to TRBOnet Ser	ver X
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 Configure
Authentication:	
Method:	TRBOnet Authentication $~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~$
User Name:	admin
Password:	*******
Connect on startup	
	OK Cancel

Connect to:

Address

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

- Note: This is the **Network interface** parameter of TRBOnet Server configured in section <u>5.4, Network Parameters</u> (page 17).
- Port

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

Note: This is the **Command port** parameter of TRBOnet Server configured in section <u>5.4</u>, <u>Network Parameters</u> (page 17).

Authentication:

Method

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

• TRBOnet Authentication

Select this method to log on as a User registered in the TRBOnet Dispatch Console Users list.

Windows Authentication
 Select this method to log on using the D(

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

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



Password

Enter the user password.

Connect on startup

Select this option to launch the Dispatch Console 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.

File View Map Tools Help					
Voice Dispatch	Radio Interface				👲 🗐
gi 🗄 h 👶 🗶 🍸 🖅 🖉	Radio Interface Recent Calls/Events				
		Active C	alls	×	Clock X
					Wednesday, April 25, 2018
🛛 📙 Firemen 📃 🗭					
🚯 111 🔍 🔍					11:17 АМ
🐔 125 (Pete) 🛛 📮 🔇					
🛞 222 🔵 📮 🔇 💻	Intercom	Telephony	Repeater	#1: Slot #1 🕘 📢 🖉	Quick Commands
🗶 235 🤜 II) 📮 🔇		Telephony	Repeater		Configure
👔 Radio 200 📮 🔇	All Call 🔹		T	Firemen 👻	Queued Messages X
🚯 Radio 201 📮 🔇	PTT				
A Radio 201		Menu			🥥 Record 🔻 👥 File 🔻
	Session:	Line 1 Line 2	Line 3	Session:	To: Selected C
Voice Dispatch	Free channel	Line 4 Line 5	Line 6	Free channel	Patch X
Location Tracking	Sender:	1 2	3	Sender:	Drag and Drop PTT Box here to create new group
0-0		4 5	6		d cale new group
🐕 Job Ticketing		7 8	9		Radio Bridge
<u> </u>	RX / TX	• 0	# RX / TX -		- Halmanna -
😿 Route Management					Any Groups
				· · · · · · · · · · · · · · · · · · ·	Canacity Plus
RFID Trat	Recent Calls/Events				
Text Messages	🖾 Playback 🛃 Save - 🕘 Print 🛛 Pause <	🌶 Clear 🝷 🍪 Reload 懫 Filter E	y Radio 🖶 Grouping 🍸 Auto Filter 🤅	Default Settings 2 Petails 2 Show	Notes 🙀 Add Note 🧳
	Date Radio System	Sender Recipient	Message	Details	Note
Voice Recording	2 14-Nov-2016 12:21:24 Repeater #1: Slot #1	125 All	All Call from '125' (00:02)	Members: 125	· ·
¥,	14-Nov-2016 12:21:19 Repeater #1: Slot #1 11-Nov-2016 17:52:44	235 All 235 All	All Call from '235' (00:02) Reset Geofencing Alarm	Members: 235	
Reports	₩ 11-Nov-2016 17:52:44	235 All 235 All	5 kadio left allowed region 'Rout	to 1	
· ·	* 11-Nov-2016 17:52:38	235 Al	Geofencing Alarm [GPS Date:		
Event Viewer	11-Nov-2016 17:52:38	235 Al	Radio left allowed region 'Rout		
	H4 44 4 Record 1 of 605 + H+ HH 4				•
付 Radio Allocation	Recent Calls/Events Recent Calls Request to Ta	k Radio State Active Tasks A	tive Routes User Activity Map Camer	as	
🐻 127.0.0.1 🛞 🕵 🕵 💆 Dispate	ner 1 📑 Licensed to: demo Demo License				🕑 Active -

The main user interface elements are as follows:

- 1. Main menu
- 2. Radio list pane
- 3. Modules tab pane
- 4. Radio Interface pane
- 5. Activity Monitor panel
- 6. Quick Panels pane

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 6.1, Connecting to Server (page 96).

• 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 pane (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 pane. 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/unselect the modules to display in the Modules tab pane.

• View > Additional Tabs

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

• View > Configure PTT Boxes

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

C	Configure PTT Boxes				
	Name:	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 🔹	
					-
	Treate	<u>Eait</u> X <u>velete</u>		OK Cance	I



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

Type

In this column, the box type (for example, Channel, Group, Radio or All Call) is displayed.

Note: The 'Channel' type means that the PTT box has been automatically created by the radio systems connected to TRBOnet Server and it can only be partially edited. The **Edit** link is grayed out when a PTT box of this type is selected.

Name

Enter a name for the selected box. This name will be displayed in the title of the PTT box.

View Mode

From the drop-down list, select the view mode:

• Invisible

Select this mode so that the PTT box will not be displayed.

• Normal

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



• 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 target radios or radio groups for the PTT box.

Create virtual channel boxes

 To create a virtual PTT box, click the Create link in the lower-left corner of the Configure Voice Boxes dialog box.



Virtual Channel	×
Name: Grou	p Call
Call Type: All Call Group Call Private Call	Call Target: Select by Dispatcher Selected from list
Execute call on char Execute call on all av Execute call only on Control Station Intercom	ailable channels selected channels
✓ Local Brine's	
,	OK Cancel

In the **Virtual Channel** dialog box, specify the following virtual channel parameters:

Name

Select this option and enter a name for the virtual channel.

- Choose a **Call Type** for the channel.
- Call Target

(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 Target. Or, choose **Selected from list** and from the list below select the desired group (if the Group Call type is chosen) or individual radio (if the Private Call type is chosen).

Execute call on channels

(available only when All Call or Group Call is selected as the Call Type) Choose **Execute call on all available channels**,

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

• View > Configure Active Calls panel

Choose this menu item to configure call types and advanced settings for the Active Calls panel. This menu item is available if **View > Show Active Calls Panel** is selected.

Call Types

On this tab, you can select which call types to display in the Active Calls panel:



Active Calls	×
Call Types Advanced	
Show All Call	
Show Group Calls	
Show Private Calls	
Show Remote Monitor	
Show Intercom All Calls	
Show Intercom Private Calls	
	OK Cancel

Advanced

On this tab, you can set following options:

- Show Visible Channels Select this option to display Visible channels in the Active Calls panel.
- **Show Hidden Channels** Select this option to display Hidden channels in the Active Calls panel.

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

• Show Requests To Talk

Select this option to display Requests To Talk in the Active Calls panel.

• Show Missed 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 Adv	vanced		
Show Visit	den Channels Juests To Talk	600	▲ seconds
		ОК	Cancel





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

• View > Customize Hot Keys

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

HotKey	Action	Caption	
Shift	Terminate All Transmitions	Terminate all	
Enter	Default PTT channels	Transmit	
[1]	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	

- 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	÷
Action:	Mute channels	-
Channels:		
Telephony		
Intercom		
Group 10		
Group 20		
Slot 1		
Slot 2		
Group 11		-
1		
	ОК	Cancel

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

• Caption

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

• 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.

• Action

From the drop-down list, select the desired action:

✓ Default PTT channel

Selected PTT box functions as a default PTT channel.

✓ Mute channels

This action mutes selected PTT boxes.

✓ Unmute channels

This action unmutes selected PTT boxes.

✓ Voice from channels

This action mutes voice from all PTT boxes except for selected one(s).

Terminate All Transmissions
 This action terminates all transmissions for selected PTT boxes.

Channels

In the list below, select PTT boxes 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 Calls/Events Radios	
		uick Commands
Online Dispatchers (1)	Active Calls 🛛 🔀	figure
Administrator		ueued Messages 🛛 🗙
🛛 📑 Firemen 📮		
Police		Record 🔻 🎦 File 🔻
		Selected Channels
	🗌 Intercom 🛛 🕷 🙆 🔹 Control Station #1 👘 🕷 🥥	Patch X
Voice Dispatch	All Call Channel 4	ig and Drop PTT Box here to
Voice Dispatch		create new group
GPS Positioning)
(II) and the state of the state	Session: Session:	
Job Ticketing	Free channel Free channel	
🕖 Route Management	Sender: Sender:	
RFID Tracker		
	RX / TX RX / TX	
Contemporary Text Messages		
Voice Recording	Recent Calls/Events	1
	🖾 Playback 🚽 Save - 🕘 Print 💷 Pause 🛷 Clear - 🏐 Reload 🎢 Filter By Radio 🗮 Grouping 🍸 Auto Fi	lter 💿 Default Settings 🛛
Reports	Date Radio System Sender Recipient Message Details	Note
	29-Sep-2016 18:15:42 Intercom Administrator All Intercom Call: Dispatcher ' Members: Admini	strator
Event Viewer	29-Sep-2016 17:53:22 RadioServer All Connection to 'Control Sta	
	29-Sep-2016 17:27:01 Intercom Administrator All Intercom Call: Dispatcher ' Members: Administrator 29-Sep-2016 17:27:00 Control Station Administrator Police Dispatcher 'Administrator' Members: Administrator'	
😥 Radio Allocation	29-Sep-2016 17:27:00 Control Station Administrator Police Dispatcher Administrator Members: Administrator Q2-Sep-2016 17:26:48 Intercom Administrator All Intercom Call: Dispatcher Members: Administrator	
	14 44 4 Record 1 of 319 + 3+ 3+ 4	•
s Administration	Recent Calls/Events Recent Calls Radio State Active Tasks Active Routes User Activity Map Cameras	
🐻 127.0.0.1 🏀 🕵 🕵 🕵 🖉 Administr	ator III Licensed to: demo Demo License	🖉 Active -
		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</u> <u>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.



Voice Dispatch		Radio Interface						9
🚮 🗄 🗄 👶 🛠 🍸 🔇		Radio Interface Radio	Interface #1	Recent Calls/Ev	ents Radios	1		
🗉 🧥 Online Dispatchers (1)		Terminate all Transmit	~	Active C	alls	-		Commands (
🙎 Administrator							Queu	ed Messag [
🗉 🔚 Firemen	P							corc 🔻 😰 File 💌
Police	P				.			lected Channels
		Intercom All C				ation #1 🔊 📧 Channel 4 All Call		Patch (
Voice Dispatch						All Call		
GPS Positioning		Sessio Free c	n: hannel			Session: Free channel		
🚰 Job Ticketing		Sende	r:			Sender:		
📝 Route Management					6			
RFID Tracker		RX / TX			RX/TX -			
Text Messages		Recent Calls/Events					~	
Voice Recording		🗐 Playback 🛃 Save • 🖢	Print II Pa	use 🦪 Clear	• 🏐 Reload	ᅚ Filter By Radio 🛛 🚟 🛛	Grouping 🍸 Auto Filte	r
Voice Recording		Date	Radio System	Sender	Recipient	Message	Details	Note
Reports		30-Sep-2016 10:48:54	Intercom	Administrator	All	Intercom Call: Dispatche		
J		29-Sep-2016 18:15:42	Intercom	Administrator	All	Intercom Call: Dispatche		
Event Viewer		29-Sep-2016 17:53:22		RadioServer	All	Connection to 'Control S		
		29-Sep-2016 17:27:01 29-Sep-2016 17:27:00	Intercom Control Statio	Administrator Administrator	All	Intercom Call: Dispatche Dispatcher 'Administrato		
		29-Sep-2016 17:27:00	Intercom	Administrator	Al	Intercom Call: Dispatche		
Radio Allocation			▶ ₩ ₩ 4			and con con population	- Home of Administration	Þ
8 Radio Allocation		HI 41 4 Record 1 of 303						

• View > Delete Radio Interface Tab

Choose this menu item to delete the Radio Interface tab currently selected in the Radio Interface pane.

Note: The default Radio Interface tabs can't be deleted.

• View > Show Channel Selector Box

Select this menu item to display a separate PTT box that allows selecting a channel.

	-
Intercom	
IP Site Conne	
IP Site Conner	ct: Slot #2
	Session:
	Sender:
Ch	annel not selected

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

• View > Show Call Type Buttons

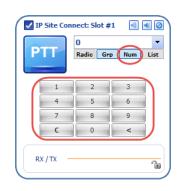
Select this menu item to display the Call Type Buttons panel in PTT boxes.





• View > Show Keypad Panel

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



Note: The Keypad panel will be displayed only when the **Num** button is pressed in the Call Type Buttons panel.

• View > Audio Message Library

Choose this menu item to add configured Voice Messages to the Queued Messages panel. For how to configure Voice Message settings, see <u>Tasks</u>, <u>Voice Message</u>.

Filename	Description	Severity Hot Key	Visibility
Alarm Tone		Alarm	Hidden
Bobby.mp3		Information	Button
Daisy.mp3		Information	Link
			La ac
			Lu n

- 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).



• View > Extended PTT boxes

Select this menu item to display PTT boxes as shown:

1		Con	trol Statio	n #1	
-		Control Sta	ation #1		
P	ſΤ	Channel 1		-	
Tone	& PTT	RX/TX -	Free channel		Terminate
	Call	All Call		•	Check
Ð	•	1	2	3	Call Alert
		4	5	6	Monitor
T	T	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: La	rge PTT Boxes
MasterRadio disconne	cted	^	Control St	ation / Channel 🕘 📧
Free channel	1		Concrors	
Transmit state	a		DTT	Channel
- All Call			PIT	Recipients
Group Call				
Emergency Call				Session:
- Remote Monitor				Free channel
Receive state				
- All Call Group Call				Sender:
		~		
Configure Colors:		Defaults		
Title Font Color:	33; 76; 160	-	RX / TX	
Back Color:	MistyRose	-	C	
Border Color:	69; 116; 159	-		
Font Color:	16; 48; 139	*		
Fields Border Color:	200; 209; 230	*		
Indicator Back Color:	White	•		
Indicator Fore Color:	255; 153; 51	-		
PTT Color:		-		

• View > Show Active Calls Panel

Select this menu item to display the Active Calls panel in the Dispatch Console. See also <u>Configuring Active Calls panel</u>.

- View > Show 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 6.5.6, Quick Commands.
- 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</u>, <u>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</u>, <u>Patches</u>.

• View > Telephony Tab

Select this menu item to display the Telephony 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.

Telephony	×	Clock 1 X Monday, May 27, 2019 12:24 PM
Telephony		Monday, May 27, 2019
Telephony	^	
Hene PTT Line 1 Line 2 Line 3 Line 4 Line 5 Line 6 1 2 3 4 5 6 7 8 9 8 9 RX/TX		Quick Commands 2



6.3.3 Map

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

File View Map Tools Help							
Location Select Active Map.					👲 🕪 🛂	Objects	
Save Online Map D	ata					E E	
Map Content	ee	📧 🧭 🔽 Inter	com 🗾	📢 🕗 🔽 Group 10		and c:	
🛛 🔜 Firei	2	0) 📲 🧭 🔽 Grou	p 20 🕘	🖲 🕢 🖌 🖌 📢		😔- 🗹 🍃 Beacons	
Geocoding	-	🛛 💶 🖉 🔽 Priva	te Cal 🔹	.0		🗹 🥥 Beer	
Open New Map in	Tab					🗹 🎯 Coffee	
Open New Map in	Window			All	Provine Denal »		
😑 📑 Poli 🙈 Google Earth	Filter:		Show Beacons	Al 🔻	🖋 Drawing Panel 🚆	- V A Camera 1	
Delete Poute on G	pogle Farth	🛞 🏠 🏠 😫	Custom Object +			🗹 🚺 Hospital	
Voice Show Radios on Go						🗹 💽 Police	
						😑 👿 🧽 Map Regions	
😹 Location Tracking 🛛 👡	0					L-I Region 1	
~	1					🖮 🖉 🦢 Map Routes	
😸 Job Ticketing					6	····· 🗹 🚰 ····	
Route Management					35		
RFID Tracker		Hospital			125		
C Text Messages	30 m			Latitude: 59*56'27,63" N	4; Longitude: 30*16'49,88" E		
Voice Recording	Recent Calls/Events						÷
	🕮 Playback 📓 Save 🛛 🤤) Print 🛛 II Pause 🤿	🖡 Clear 👻 🏐 Reload	ᅚ Filter By Radio	🐺 Grouping 🍸 Auto Fil	ter 💮 Default Settings	» *
Reports	Date	Radio System Se		ipient Messa		Details	
_	2 09.06.2017 14:43:57		erver All		ction to 'Capacity Plus 1' h		•
Event Viewer	09.06.2017 12:43:30		dministrator 11			Members: Administrator, 125	_
	09.06.2017 12:40:06	Capacity Plus 1 12			125' calls group '11' (00:08)		
Radio Allocation	09.06.2017 12:39:55		dministrator 11 dministrator Polic		her 'Administrator' calls gr her 'Administrator' calls gr		-
	H4 44 4 Record 1 of 305	HP HH 4	anninad ator Polic	Uspati	and Authinistrator cars (F	memoers: Auministrator	•
Administration	Recent Calls/Events Recen	t Calls Request To Ta	k Radio State Act	ive Tasks Active Rout	es User Activity Beacons	Beacon Events Tag List	
🔂 127.0.0.1 🛞 🔥 🙎 Administr	ator 🛛 📑 Licensed to: demo					🕑 A	Active -

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.

Select Map Caption: Available Mopo Mane Path State MARNIK OK CYCLE OK EXALISATION OK EXALORATE OK EXALORATE OK	×
Name Path State MARNIK OK OK CYCLE OK TRAINBORT LNOSCAPE OK OK BING,ROAD OK OK	
МАРЛЫК ОК СYCLE ОК TARASPORT ОК UNISCRAPE ОК BING_ROAD ОК	
СYCLE ОК ТRANSPORT ОК LANDSCAPE ОК BINS_ROAD ОК	
TRANSPORT OK LANDSCAPE OK BING_ROAD OK	
LANDSCAPE OK BING_ROAD OK	
BING_ROAD OK	
BING_AREA OK	
BING_HYBRID OK	
Add Edit Remove OK Can	el

- 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.



		Map 1			
Map Typ		WMS (Web Map Se			
JRL:		http://maps.dgs.ud	lel.edu:80/geoserver/DGS_Sufficial_and_Conta	ict_Geolog	y/wms
~ `	~				Get Capabilities
Mi	ap Title	Identifier	Description	Style	
			This map shows the surficial geology of D		tewide Geologic Map
	-DE DGS	US-DE_DGS	This map shows the surficial geology cont	DGS Geo	logic Statewide Map

• 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*56'48	.68" E	030°19'0	2.27"
Expire tiles days: 30			
Redownload all tiles			
Zoom level: 14 Tiles to download: 40	2		
Status: Finished Loading Joom level: 14 Loading Tim the web. 0 Updated from the web: 39 Load: 1 Faled: 0			
Show tiles preview 🕢 Show tiles progress			
Loaded: 40 of 40 (100 %)			
Start		Clo	ise

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.

Map cache			
Cache folder:			
D:\Temp\Maps			
			Change
Update:	Never	1	
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.

Map Type

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</u>, <u>Map Types</u> (page 112).

<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, see *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

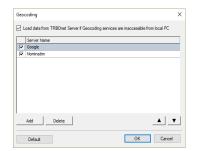
For more details on map calibration, read the following article at: https://trbonet.com/kb/how-do-i-create-a-custom-map-for-trbonet/

- Beacon 2D two-dimension offline map for Indoor positioning. The user can create indoor maps using the Indoor 2D Map Converter. See section <u>6.4.16.2, 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.



 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 25).

• Map > Open New Map in Tab

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



Map Type:	Online maps		
Caption:	Му Мар		
Available Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK

Map Type

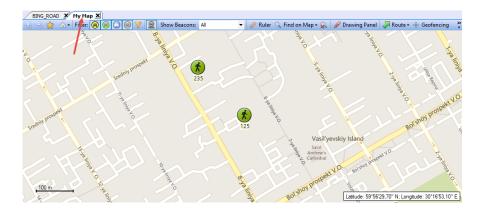
From the drop-down list, select the map type.

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:

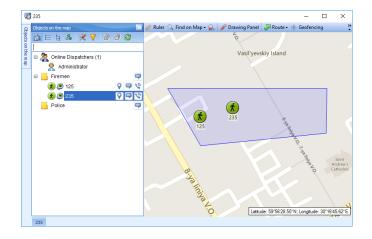


• Map > Open New Map in Window

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.

ilter events	Talk Sessions				
All Messages	🗐 Playback 🛃 Save •	🛚 Pause 🍼 Clear 🍪	Reload 📑 Grouping	🍸 Auto Filter	
- 🚰 Text Messages	Date 🗸	Radio System	Sender	Recipient	
	(i) 05-Oct-2016 15:38:45	Control Station #1	Dispatcher	Al	
Sent Sent	(i) 05-Oct-2016 15:38:43	Control Station #1	Dispatcher	Al	
Telemetry	(i) 05-Oct-2016 15:38:41	Control Station #1	Dispatcher	Al	
	04-Oct-2016 17:38:38	Repeater #1: Slot #1	125	Al	
Talk Sessions	04-Oct-2016 17:38:32	Repeater #1: Slot #1	235	Al	
Registration in a radio network	i 04-Oct-2016 17:32:42	Repeater #1: Slot #2	Administrator	Al	
System Messages	04-Oct-2016 17:31:55	Repeater #1: Slot #2	Administrator	Al	
Liser messages	04-Oct-2016 17:30:50	Repeater #1: Slot #1	125	Al	
over messages	04-Oct-2016 17:30:45	Repeater #1: Slot #1	235	Al	
	(i) 04-Oct-2016 17:30:40	Repeater #1: Slot #1	Administrator	Al	
	04-Oct-2016 17:28:48	Repeater #1: Slot #1	125	Al	
	i 04-Oct-2016 17:28:45	Repeater #1: Slot #1	235	All	
	04-Oct-2016 17:18:05	Repeater #1: Slot #1	235	Al	
	04-Oct-2016 17:16:01	Repeater #1: Slot #1	Administrator	Al	
	04-Oct-2016 17:15:58	Repeater #1: Slot #2	Administrator	Al	
	i 04-Oct-2016 16:56:17	Repeater #1: Slot #2	Administrator	All	
	(i) 03-Oct-2016 10:51:39	Control Station #1	235	All	
	HI HI A Record 12 of 290	► ₩ 4			Þ
	Sender: Recipient: All Call from '235' (00:01) Members: 235	235 All	-	ate: 04-Oct-2016 17:28 ack 🙀 Save 🎆 Add N	

• Tools > Recent Calls/Events in Window

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

	Date	Radio System	Sender	Recipient	Message	Details	Note	
R	05-Oct-2016 15:42:32		RadioServer	Al	Connection to 'Control St			1
2	05-Oct-2016 15:38:45	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			
2	05-Oct-2016 15:38:43	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			
2	05-Oct-2016 15:38:41	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			
R	05-Oct-2016 09:49:04		RadioServer	Al	Connection to 'Repeater			
Þ	04-Oct-2016 17:45:36		Administrator	125	Dispatcher 'Administrator'			
₽	04-Oct-2016 17:43:26		Administrator	125	Dispatcher 'Administrator'			
2	04-Oct-2016 17:38:38	Repeater #1	125	All	All Call from '125' (00:01)	Members: 125		
2	04-Oct-2016 17:38:32	Repeater #1	235	Al	All Call from '235' (00:00)	Members: 235		
2	04-Oct-2016 17:32:42	Repeater #1	Administrator	All	All Call from dispatcher 'A	Members: Administrator		
2	04-Oct-2016 17:31:55	Repeater #1	Administrator	All	All Call from dispatcher 'A	Members: Administrator		
2	04-Oct-2016 17:30:50	Repeater #1	125	All	All Call from '125' (00:00)	Members: 125		
2	04-Oct-2016 17:30:45	Repeater #1	235	Al	All Call from '235' (00:01)	Members: 235		
2	04-Oct-2016 17:30:40	Repeater #1	Administrator	Al	All Call from dispatcher 'A	Members: Administrator		
2	04-Oct-2016 17:28:48	Repeater #1	125	All	All Call from '125' (00:01)	Members: 125		
2	04-Oct-2016 17:28:45	Repeater #1	235	All	All Call from '235' (00:01)	Members: 235		
9	04-Oct-2016 17:28:40		Administrator	125	Dispatcher 'Administrator'			
2	04-Oct-2016 17:18:05	Repeater #1	235	Al	All Call from '235' (00:02)	Members: 235		
1	44 4 Record 8 of 321	F H4 44						Þ
-								
٢	Sender:	125				Date: 04-C	ct-2016 17:38	:38
L	C Recipient:	All				Playback 🛄 S	ave 📖 Add N	lote
l	Recipient:	All				🔞 <u>Playback</u> 🛃 S	ave 📷 Add N	lote

- 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 or *.tna) for the audio file.

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

Note	>
Well done	

- 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.

	toring												 -		
wr: Today	• Upda	te													
spatcher	Created tickets	Ra	do	Assigned tickets					Statu	is diagram		_		-	
dministrator			assigned		5										
		12	5		2										
									2	len: 300.00 %					
										Canceled:	100.00 %				
									Completed: 300.00	195					
									S. 199						
									_						
														Proce	05
] [Proce	os pk
														Proce Comp	os pk
					I									Proce Comp	os pk
														Proce Comp	es pk
														Proce Comp	os pik
					l									Proce Comp	os pk
														Proce	os ple
														Comp	os pk
					1									Proce	os pk
					1									Comp	os
														Comp	os ple
														Comp	os pik
														Comp	os pk
	ito ito			1. I.		4. 4	40 4.	-	40		- Artig	they are	 445	Comp	es pk

In this window, you can perform the following actions:

- Select a time period for which to display Job Ticketing data.
- Monitor tickets created by dispatchers.
- Monitor tickets assigned to radios.

All data are shown in the form of status diagrams.

• Tools > Radios in Window

Click this menu item to open a new window that displays the radios present in the system.



🐨 Radios		- 0	×
Filter: Statuses: (Online, Indoor), (Online	Radio Groups:	All V (Select All) Police	Â
125	235	 ✓ Firemen ✓ Cleaners ✓ 11 ✓ 22 ✓ Mobile Client 	
		OK Cancel]
& Q	S	Ę	

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

• Tools > Telephony in Window

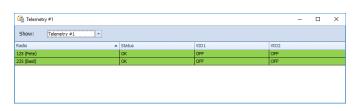
Click this menu item to open a new window that displays the Telephony system present in the system.

			-	0 ×
Walt	Î	•	+	o 🏟
00:15		1	2	3
		4	5	6
Line free		7	8	9
		С	0	<
		<u> </u>	Call	Ш
Line free			Walt	
			235	
Line free			125	
	00:15 Line free	wait 00:15 Line free Line free	wait 00:15 1 4 7 C C Line free Line free	wait 00:15 1 2 Line free 7 8 C 0 Line free - Line free -

In this window, you can make and receive telephone calls.

• 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>6.4.11, Telemetry</u> (page 204).
- Tools > Text Messages in Window

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



🦼 Text Messages			-	×
💼 🗄 🛔 👶 🛠 🍸 🔎 🗇	8	Inbox 🛃 Sent		
		05-Oct-2016 17:51:19 Received from 235 to 125 His be on		
😑 🗥 Online Dispatchers (1)		05-Oct-2016 18:01:43 Received from 235 to 125		
Administrator		only 6 m		
🗉 📑 Firemen	P	05-Oct-2016 18:06:04 Received from 125 to 235		
💰 🔊 125	9 €	no g		
💰 🔊 235	9 \$	05-Oct-2016 18:10:53 Sent from Administrator to Police Stop making me fool		
Police	Ş			
		Recipient: 🎭 Police \cdots 🔁 Send 🕕 Attach Fil	e	
		1		
				125

In this window, you can perform the following tasks:

- View sent messages in the upper-right pane.
- Select online dispatchers and radio groups in the left pane, or by clicking the ellipsis (...) button in the lower-right pane.
- Type messages in the text box in the lower-right pane.
- Send messages by clicking the **Send** button in the lower-right pane.

• Tools > Routes in Window

Click this menu item to open a new window to manage routes.

For more details on Route Management configuration, see section <u>6.8, Guard Tour / Route Management</u> (page 302).

• Tools > Camera in Window

Click this menu item to open a new window with a camera view.



In this window, the 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>, IP Cameras (page 200).

• 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>6.4.26.2</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 > Phone Book

Click this menu item to open the phone book for reference and editing purposes.

🔟 Phone Book				×
🖶 Add 📑 Edit	: 🗙 Remove 🍸 Filter	🛛 漪 Configure 🌖 Im	iport +	
Marker	SIP ID	SIP User	Display Name	
e Yellow	2409	2409	Walt	
Yellow	2235	2235	235	
Yellow	2125	2125	125	
4 4 4 Record	1of 3 > > 3			

- Click the **Add** button to add a new record to the phone book.
- Click the first column, and from the drop-down list select a marker color.
- Double-click the second column.

Phone Number		Х
SIP ID:	2125	
SIP User:	2125	
Display Name:	John	
	OK Cancel	
Display Name:		

- SIP ID
 - Enter the SIP ID that is used by the user.



• SIP Name

Enter the SIP user name that is used by the user.

• Display Name

Enter the name that will be displayed for the user in the Dispatch Console.

• Click **OK** to save the phone book.

6.3.4.1 Options

• On the **Tools** menu, click **Options**.

und	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Telephony
_				Auvanceu	Audio	Avariti	relephon
O,	Cor	figure the Sound	Notification				
Z Us	e Sound	Notifications					
		the individual sou					
even	t from t	he list and specify	a demander	l sound file o	r use a fi	le by def	ault
) Talk I	begin					
•) Talk	end					
•	Line l	busy					
	🕽 Alarn	n or Emergency Ca	all				
	🕽 Text	message received	1				
•	Infor	mation received					
	Warr	ing received					
	Alarn	n received					
) Syste	em error					
	Alarn	1 Tone					
	Priva	te call from a radi	Network to	dispatcher			
	Requ	est To Talk from P	adio Netwo	k to dispatch	ier		
Soun	d:						
(Sou	nd by d	efault)			~	Se	lect
	or Eme	ergency Call durat	ion: 5	\$	second	ls	
Alarn							
Alarn							

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.



ound Map Coverag	e Map Hardwar	e Advanced	Audio	Alarm	Telephony
Configure the	image parameters	that are show	wn on the	map	
Map refresh interval:		30 🜲	seconds		
Show the direction of mo	otion:	\checkmark			
Show names of objects:		\checkmark			
Hide overlapping names	of objects:				
Show PTT on map:		Radios	🗌 Map	Objects	
Default Map Filter:		0	3	0	
Show coodinates on map	b :	Degrees, Min	utes, Sec	onds	•
Select the image size:		32 x 32 pixel	s		-
Select the default image	type:	B Mobile ra	dios		* + -
The images below will be	e shown on the ma	p:			
Path to Google Earth exe C:\Program Files\Google		o\client\google	earth.ex	e	

• 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/unselect the icons for the default map filter (for a description of the icons, see section <u>6.6.2.4</u>, Filters).

Show coordinates on map
 In the dron-down list, select the coordinate system

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.

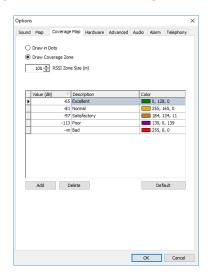
- Select the image size From the drop-down list, select the size of a radio icon.
- Select the default image type From the drop-down list, select the default image type of a radio icon.
- Path to Google Earth exe file Click the ellipsis (...) button and specify the location of the Google Earth exe file 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 signal at a radio's receiver. The RSSI maps can be used by radio system engineers to plan further extension of their radio networks.

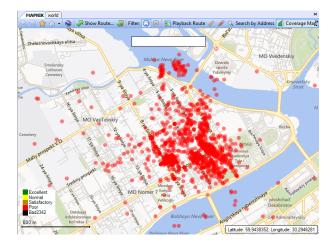


• In the **Options** dialog box, click the **Coverage Map** tab.



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.



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- Click Add to add a new RSSI level.
 - Value

Enter the minimum level for the signal range (for example, -65 means - 65 and higher).

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

Pick a color for the RSSI indicator on the map.

To view RSSI Levels on the map, click the **Location Tracking** tab in the **Navigation** pane, and on the **Map** pane toolbar, click **Coverage Map**. Then set the Start Date and End Date to display RSSI data.

Hardware

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

ound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Telephony	
X		ernal hardware op trol PTT button (fo				al equipm	ient to	
v	se signali	ng device						
S	erial port	:	COM:	L			~	
			Confi	qure				
Exten	nal Devic	es:						
-	Name		D	escription				
÷.	Footswitch			DM3				
100 1	Microphone 1			TRBOnet Mic Adapter				
100	Micropho	ne 1	TF	RBOnet Mic A	dapter			
-	Microphoi Keyboard			RBOnet Mic A				
en al anticipada a la anticipada a nticipada a la anticipada a la anticipada a nticipada a	dd a	Edit X Delete RBOnet Microph RBOnet Media D	w hone Adapt lock 2000	er	¢ 600			
Tirst I	dd S T T T T T	Edit X Delete REOnet Microph RBOnet Media D RBOnet Footswii	w hone Adapt lock 2000	er	d 600			
inst (dd start dd start dd to the st	Edit × Delete RBOnet Microph RBOnet Media D RBOnet Footswit	w hone Adapt lock 2000	er	¢ 600			
inst (dd dd dd dd dd dd dd dd	Edit × Delete RBOnet Microph RBOnet Media D RBOnet Footswit	w hone Adapt lock 2000	er	¢ 600			

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.



The **External Devices** table displays the connected devices (Type/Name/Description).



- Click the **Add** link, and from the pull-down menu select the type of TRBOnet device with a PTT button connected to the PC (Microphone Adapter, Media Dock, or Footswitch), or the device type (HID, DirectX, TIPRO, or COM).
- In the dialog box that opens, specify the desired device parameters and click **OK**.
- First VoIP port

Enter the number of the first VoIP port for audio communications (4022, by default). Each additional Dispatch Console will create a connection on the next port number.

• First IP Camera port

Enter the number of the first IP Camera port for video communications (13152, by default). Each additional Dispatch Console will create a connection on the next port number.

• Use proxy server

Select this option to enable a Proxy Server service in TRBOnet Dispatch Console to access the Internet.

A proxy server can be used when a user's computer cannot be connected directly to the Internet, but there is another computer with Internet access in the network.

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

Configure th	e proxy server	×
Use an a Settings	alternative server	
Address:	177.71.134.70	
Port:	80 🜩	
Authentica	tion uthentication	
Login:	User	
Password	•••••	
	OK Cancel	



Advanced

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

Sound	Мар	Coverage Map	Hardware	Advanced	Audio	Alarm	Telephor	ny
%	Adv	anced application	options					
Confi	guratio	on Scope						^
OP	er machi	ne: all dispatchers	share the s	ame workspa	ce			
Pr	er user:	a separate works	pace for ead	h Windows u	ser acco	unt		
PTT	ptions							
T I	one and	PTT when using a	n external P	TT device				
🗌 U	e Reco	rd Mode with exte	rnal PTT dev	ice				
🗹 SI	uggest (ueued Message v	when channe	l is busy or s	ubscribe	r radio is	offline	
🗹 Ei	nable sti	dky PTT						
🗹 U	se 'Spa	ce' key to press P	TT <u>Configu</u>	e				
🗌 Ei	nable Sir	ngle PTT Select mo	de					
	Option							
_		er dispatchers						
		o-to-radio private						
_		hannels when tran			io			
_		tone when receivi	-					
_	- C	ind when starting						
_		ally set channel to						
		ally unmute chann	nel when trai	nsmitting aud	io			
	Option	s e the automatic s	whereither e		Carlos			
		e the automatic s ended notes	abaciber ii	une pattern	contrac			
_		st note in Unit info	vmation det	ails				
		firmation dialogs	- Horodi dec					
_		ming text messag	es in a non-	in window				
	ion inco	ming text messag	es in a pop-c	ip willoon				~

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 PTT external 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 subscriber radio is offline

Select this option to record a Queued Voice Message when a radio channel is busy or subscriber 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 subscriber name pattern

Select this option and click the **Configure** link to set a custom alias for a radio in the list of subscribers. 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	\times
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 Can	cel

• Radio display name

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



%NAME% (%CHANNEL%)		
Example: My Radio (Master Station /	(Channel)	
Add Field:		
<u>Radio Callsign</u>		
Radio Owner name		
Radio ID		
Active Channel		
<u>Plate Number</u>		
Make		
Phone Number		
Email		

• 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' calls 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 🗸	Radio System	Sender	Recipient	Message	Ext. Note	Note
X	7/7/2014 3:49:56 AM		Radio 11	All	Geofencing Alarm [Dat		
\mathfrak{R}	7/7/2014 3:49:56 AM		Radio 11	All	Radio left allowed region		1
đ	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		
d	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	
Ŕ	7/7/2014 3:32:55 AM		Administrator	Radio 105	Dispatcher 'Administra		
\mathfrak{R}	7/7/2014 3:18:43 AM		105	All	On Duty		> 2
2	7/7/2014 12:56:40 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		14
	7/4/2014 4:01:35 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		
—	44 4 Record 54 of 83	T-1	a distance of the	48	takana oli para		

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 include the latest note about the radio state change in the Radio information window (see section <u>6.5.1.3, Radio Pop-up Window</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:





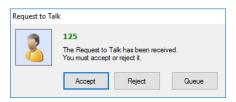
Show incoming text messages in a pop-up window

Select this option so that incoming Text Messages will pop up over the application window.

oice Dispatch		Radio	Interface							÷
i 🗄 h 👶 🛠 🍸	000	Radic	Interface Re	ent Calls/Events						
					Active	Calls		×	Quick Cor	nmands D
Cleaners	🖵 🏫								1	Test
Firemen										are on fire
(f) @ 111	📮 🌾 🗖		Message 1 of 1				×		Configure	are on the
(125 (Pete)	9.9		A 125					<u>^</u>		
		(3)	Capacity Capacity	eyecus message			-0 40		Queued M	essages 👔
(*) 222			Message:	measage		18-Nov-201	6 13:53	-	@ Record	🖬 File 💌
Voice Dispatch			okay						To: Selected	
									Start Voice Me	tssage
Location Tracking									6	
							nnel			e Message
Job Ticketing									Voice Messag	•
Route Management			Do not show	v this message nex	time		on map		Pate	th D
Route Management						Request L	ocation		(PTT Box here to
RFID Tracker				Next>>		d	lose	- V	create r	new group
I to Hacker		Recent	Calls/Events							
Text Messages		回 Play	back 🔄 Save •	🛁 Print 🛙 Pa	suse 🤿 Cle	ar 🔹 🥘 Reload	懫 Filter By Radio 🚍 G	rouping 🍟	🕈 Auto Filter 🌍	Default Setting
		Date		Radio System	Sender	Recipient	Message	Details		Note
Voice Recording			lov-2016 13:53:53		125	Al	okay			
			lov-2016 13:51:19		Server	125	Call Queued			
Event Viewer			lov-2016 13:49:08 lov-2016 13:47:10	CapacityPLUS CapacityPLUS	125	Al	Subscriber '125' has sent			
			lov-2016 13:47:10 lov-2016 13:45:35		125	Al	ok LG			
Radio Allocation		× 18-1	lov-2016 13:39:37		235	Al	Reset Geofencing Alarm			
1.		144 44 4	Record 1 of 65	5 1 10 111 4						
Administration		Recent	Calls Events Rep	cent Calls Reque	st to Talk R	ado State Activi	Tasks Active Routes L	ser Activity	Map Camera	5

Show RTT notifications in a pop-up window

Select this option so that incoming **Request to Talk** messages will pop up over the application window.



Close button minimizes application

Select this option so that clicking the Close button will minimize the Dispatch Console rather than close it.

- Minimize button minimizes 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.



Sound	Map	Coverad	e Map	Hardware	Advanced	Audio	Alarm	Telephon	v
		ıdio devi						Configu	re
R	ecorder		Primar	y Sound Cap	oture Driver				~
PI	ayer:		Primary Sound Driver V						
Se	lected	:hannel:						Defaults	^
R	ecorder		Defaul	t				•	
PI	ayer:		Defaul	t				-	
S	beaker:		Defaul	t				-	
E	cternal F	·ΠΤ:						•	
In	dicator:							-	
Un	selecte	d chann	el:					Defaults	
R	ecorder		Defaul	t				•	
P	ayer:		Defaul	t				•	
S	beaker:		Defaul	t				•	
E	cternal P	TT:						Ŧ	
In	dicator		[•	
Sy	stem s	ounds:						Defaults	
R	ecorder							-	
PI	ayer:		Defaul	t				•	
S	beaker:		Defaul	t				•	
E	cternal P	TT:						Ŧ	~
Res	iet All au	idio device	s to de	fault		M	anage Cu	stom Mode	es

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.

Selected channel

Select the recorder, player, speaker, and external PTT device for radio channel boxes which are selected in Dispatch Console.

Unselected channel

Select the recorder, player, and speaker for the radio channel boxes which are not selected in Dispatch Console.

System sounds

Select the player and speaker for the system sounds. For the list of system sounds, see section <u>Sound</u> (page 120).

Alarm

Select the player and speaker for the alarm sounds.

Telephony/Intercom/Private Calls

Select the recorder, player, speaker, and external PTT device for the appropriate voice boxes.

All Call/Groups/Slots

Select the recorder, player, speaker, external PTT device and volume level for the appropriate voice boxes.



Alarm

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

iound Map	Coverag	e Map	Hardware	Advanced	Audio	Alarm	Telephor
^م	infigure disp	lay optior	ns for radio	os in alarm m	ode		
Alarm Pane	: [Main Win	dow				
Call Button:	[None					-
Always	show radio	on map					
Display	camera in n	ew windo	w				
Display	radio in nev	window					
Map: M Select (
Select I	ыр						

Alarm Panel

From the drop-down list, select where to show the alarm panel (in the main window or in a new window), or select 'None' to hide it.

Call Button

From the drop-down list, select the call destination when the PTT button is pressed in the alarm panel (private call, group call, or all call).

🔶 Radios in A	Alarm	- 🗆 X
235 • Geofer	icing Alarm	×
РТТ	Request Location Copy Coordinates Find on GPS map Find on Beacon map	
 GPS: Region: Coffee 		18 Jul 2018 17:01 Region 1 18 Jul 2018 17:01
		×
125 • Emerge	ency Call	
	Request Location Copy Coordinates Find on GPS map Find on Beacon map	
Emerge	Request Location Copy Coordinates Find on GPS map	18 Jul 2018 16:58 18 Jul 2018 16:57 Region 1

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</u>, <u>Filters</u>).

Note: When this option is selected, you cannot disable the display of radios in alarm mode.



Display camera in new window

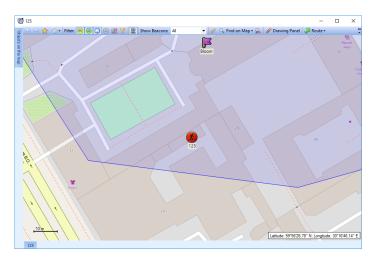
Select this option so that when a radio is in alarm mode, a window will open with the camera associated with the radio.

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.



Telephony

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

Options								×
Sound I	Map Co	werage Map	Hardware	Advanced	Audio	Alarm	Telephony	
2 Qu	eue all inco	ming telephor	ne calls					
Show	this numbe	r of Recent Pl	none Calls:		10	5	3	
Ringt	tone conf	iguration						
Inco	ming Call	Call Waiting	Held Call					
Ca	all Priority	r R	ingtone	Ac	tion			
N	ormal:	0	efault	►	Play			
E	mergency:		efault	►	<u>Play</u>			
	igh:		efault		Play			
Lo	ow:		efault	▶	Play			

Queue all incoming telephone calls

Select this option so that when the telephone 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 Telephony box (see section <u>6.5.9.1, Phone Calls from/to</u> <u>Dispatch Console</u>).

Ringtone configuration

On the Incoming Call (Call Waiting) tab:

- Click a corresponding link in the **Ringtone** column, and from the pulldown 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, map objects, map routes, maps regions, radio users, and radios.

To export objects:

• Click Tools > Export Objects.

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



Objects:		Radios		-			
Radio ID	Radio Nar	Beacons Map Obj Map Reg	ects	Block outgoing calls	CAR_MAKE	DESCRIPTION	EMAIL
125	Radio 125	Map Rou	ites	False			tester@gmai
235	Radio 235	Radio Us Radios	ers	False			
4444	9999			False			
240	Radio 240		False	False			
230	Radio 230)	False	False			
235	Radio 235	5	False	False			
✓ 27	Radio 27		False	False			
155	Radio 155	5	False	False			
16500000	Radio 165	500000	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:

Objects:	Radio Users	•
Object Properties	Ct Beacons Map Objects	
Login	Lo Map Regions	
Name	Na Map Routes	
Password	Pa Radio Users	
AllDevices	AI Radios	
AllowArsLogin	AllowArsLogin	
AllowDtmfLogin	AllowDtmfLogin	
AllowTmsLogin	AllowTmsLogin	
ArsLogin	ArsLogin	
BlockIncomingPhoneCalls	BlockIncomingPhoneCalls	
BlockOutgoingPhoneCalls	BlockOutgoingPhoneCalls	
CAR_MAKE	CAR_MAKE	
DESCRIPTION	DESCRIPTION	

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 encrypted in the data being imported.

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



6.3.4.4 Setting Language

• On the Tools menu, click Set Language

Select Langua	ge	×
Language:	English 🗸	[
	OK Cancel	

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

6.3.4.5 Changing Password

• On the Tools menu, click Change Password

Change Password	×
Change Pass	word
Old password:	••••
New password:	•••••
Repeat password:	•••••
	OK Cancel

- In the **Old password** box, enter your current password.
- In the **New password** box, enter the new password.
- In the **Repeat password** box, enter the new password again.
- Click OK.

6.3.5 Help

• Help > Send Feedback

Click this menu item to send your feedback to Neocom Software, either through E-mail, or online via the site.

• Help > Save System Logs

Click this menu item to save the logs as a .zip file. This .zip file can then be sent to Neocom support.

• Help > About

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



6.4 Administration

This section describes how to configure the most important settings of TRBOnet Enterprise.

• Click the **Administration** tab (1), and see the full system information in the **Server** (2) pane:

dministration	Server				👲 🐠
Server License	1: Line free	Intercom		🗸 All Call	•) < C
Database 2 Radio Systems	Group 10	 ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	•) •: 0	Group 30	1) 46 (2
	Administr	ration			
Voice Dispatch		left menu to administer.			
Location Tracking	Licensed to: demo Demo License				
🚰 Job Ticketing	Server is avai	,			
Route Management	Capacity Plus (D Data (Data) Serial numb Version: 2.0	ber: 484TMG4110			
RFID Tracker	CapacityPLUS	8: Private Call ber: 484TMG4110			
C Text Messages	CapacityPLUS	6: All Call ber: 484TMG4110			
Voice Recording	Version: 2.6	ber: 484TMG4110 5.0.7			
Reports	Version: 2.6	ber: 484TMG4110 5.0.7			
Event Viewer	CapacityPLUS Serial numb Version: 2.6	ber: 484TMG4110			
Badio Allocation	Telephony Service is ave	ailable			
Administration	← 1				

6.4.1 Database

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

File View Map Tools Help					
Administration	Database				🔮 📣 🕒
License Database Radio Systems System Bridging 2 System Bridging 2 2 2 2 2 2 2 2 2 2 2 2 2	Group 10	4.0 ✓ Intercom 4.0 ✓ Group 20 4.0	0) # 0	Ali Cali	0 = 0
Voice Dispatch	Database Infor	mation			
Location Tracking	Server name: Database name:	(local) \SQLEXPRESS TRBOnet			
🚮 Job Ticketing	Backup date: Database version:	Jun 17 2016 19:14:09		21) - 12.0.5000.0 (X64)	
💓 Route Management		Copyright (c) Microsoft Express Edition (64-bit)	Corporation on Windows NT 6.3	8 <x64> (Build 10586:)</x64>	
RFID Tracker	Data size: Audio size:	17.23 MB 22.77 MB			
Text Messages					
Voice Recording	_				
Reports	_				
Event Viewer					
8 Radio Allocation	1				
Administration					
🔂 127.0.0.1 🛞 🕵 🧕 Administrator	E Licensed to: demo Demo Licen	se			Active •

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

For more details on backups, see <u>Appendix D: Backing up and Restoring Database</u> and <u>Audio Recordings</u> (page 344).

6.4.2 Radio Systems

All radio systems registered in the Server are represented on the Radio Systems pane.



File View Map Tools Help Radio Syste 9 🕸 🖸 nistrati Image: Second sec Al Cal License • • • Group 10 G 🔊 📢 🧭 🔽 Group 30 Database Private Cal Properties H Voice Dispatch Location Tracking Capacity Plus CanacityPLUS 😵 Job Ticketing 😿 Route Managemen RFID Tracker 🖂 Text Messages Voice Recording 🔒 Reports Event Viewer Radio Allocation Administration HI HI H Record 1 of 3 + H+ HI 4 🔂 127.0.0.1 🛞 🕵 🙎 tor Elicensed to: de Active •

Go to Administration (1), Radio Systems (2) to see the system parameters:

The administrator is able to see the following radio 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 Radio System Properties

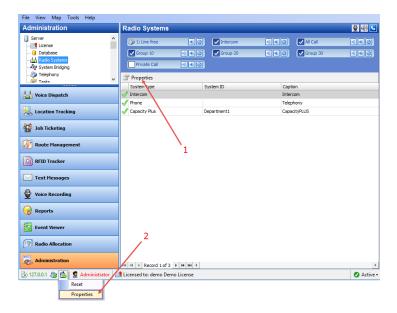
To see the radio system properties, do the following:

 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).





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 Ch	annels Transmits	
System Type	IP Site Connect	
System ID:	Department 1	
Caption:	Repeater #1: Slot #1	

• 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 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:

lepeater #1: Slot #1		×				
Description Channels Transmits						
🚰 Properties 👘 Control 🚔 Reset						
Name	Voice	Data				
Repeater #1: Slot #1	RX, TX	RX, TX				
Channel for private and phone calls:		•				
	ОК	Cancel				

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



epeater #1: S	ilot #1	×
Description	Talk groups Volume	
ID:	8ccc8f18-a3e6-4b4f-b8e7-	-58 1e 19debceb
Name:	Repeater #1: Slot #1	
Type:	MOTOTRBO Repeater	
Mode:	IP Site Connect	
Connect	ed	
Serial I	Number: 484TMG4110	
Firmwa	re version: 2.6.0.7	

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 Station</u> <u>Connection Modes</u> (page 46).

- 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:



epeat	er #1: Slot #1	×
Desc	ription Talk groups Volume	
Sp	ecify available talk groups	
	All Call	
	Firemen	
	Police	
	OK Cance	

• 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	0 🛋 🙆
	All Call	•
PTT	All Call Firemen Police	
	Session:	
	Free channel	
\bigcirc	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:

epeater #1: S	ilot #1			×
Description	Talk groups	Volume		
	۲		۲	
	\ominus		\ominus	
	RX		ТХ	
	Reset		Reset	
Confi	gure system	volume		
			ОК С	ancel

• 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.

Transmits tab

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

peater #1: Slot #1		
Description Channels	Transmits	
Record Audio		
Manage Audio by	DTMF	
Mute channel:		
Unmute channel:		
	,	
	ОК	Cancel

Record audio

Select this option to enable audio recordings for the selected repeater.

Manage Audio by DTMF

Select this option to manage audio on the selected channel by specified DTMF tones.

Mute channel

Enter the DTMF sequence to be used to mute the selected channel.

• Unmute channel

Enter the DTMF sequence to be used to unmute the selected channel.

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>6.4.19</u>, <u>Dispatcher Groups</u>).



Transmits tab

Intercom			Х
Description Channels	Transmits		
Record Audio			
Voice Call Hang Ti	ne (ms):		
Group Call:	3000	*	
Private Call:	4000	<u>^</u>	
TX Timeout:	60	↓ s	econds
	[ОК	Cancel

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, Radio Bridge</u>.
- 2. **System Bridge for Repeaters (Binary Patch)** allows connecting only the repeater slots between IP Site Connect systems without encoding/decoding voice and data. See section <u>6.4.3.2, Binary Patch</u>.

To add a system bridge:

• Go to Administration (1), System Bridge (2).

TRBOnet Enterprise 5.3 / Dispate	h Console	_	οx
File View Map Tools Help			
Administration	System Bridge		ê 🗐 🖸
Server Server Joan Database Madio Systems	Group 10 - Caroling -		
- System Bridge - System Bridge - Tasks - Tasks - System Bridge - Sys	Group 1 Group 2 Group 1 Group 1 Fride: Cal Group 1 Group 1 Group 1 Group 1 Group 1		
Voice Dispatch	Add Delete		0
Location Tracking	Binary Patch (for IPSC Systems only) ✓ Rado Endige Private calls		
😸 Job Ticketing	Radio Bridge Radio Bridge		
💓 Route Management	3		
Contemporary Text Messages			
🔮 Voice Recording			
Reports			
Event Viewer			
😥 Radio Allocation	1		
Administration 🖉	₩ ₩ 4 Record 2 of 3 ▶ ₩ ₩ 4		Þ
🐻 Connected 🏀 🅵 🕵 🕏	🖌 🧟 Administrator 🛛 📑 Licensed to: demo (Walt) Demo License	2	🕑 Active -

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

6.4.3.1 Radio Bridge

dio Bridge						
lame:	Firemen-Police					
/ork Mode:	Channels redirect the calls to each other					
TT Button:	Always Enabled					
Channels Pa	rameters					
Channels to rec	irect calls					
Radio System		Group		Mode		
Control Station	#1	Any Groups	Any Groups			
Repeater #1: S		 Any Groups 	Any Groups			
			3	4		
		2				
Add X Del	/ 1	2				

Name

Specify a name for the Radio Bridge to display in the Radio Interface pane.



Work mode

Select the work mode from the drop-down list. For more details on System Bridge types, see <u>Radio Bridge Types</u> (page 144).

PTT Button

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

- Enable when Bridge enabled
- 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 drop-down list (2).
- In the **Group** column, select available group for the radio channel (3).
- In the **Mode** column, select a mode for the radio channel (4).
 - Always

Enables the System Bridge always, regardless of the radio 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:

Radio Bridge			×			
Name:	Firemen-Police					
Work Mode:	Channels redirect the	Channels redirect the calls to each other				
PTT Button:	Invisible		•			
Channels Pa	arameters					
Specify call	types for System Brid	ge:				
Voice Call		 Text Message 				
Check Rad	io	Telemetry				
Enable/Dis	able Radio	Location (GPS)				
Call Alert		🗌 User Data				
Emergency	Alert					
		ОК	Cancel			

- Select call types to use in System Bridge mode.
- Click **OK** to add a System Bridge for the radio channels.

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



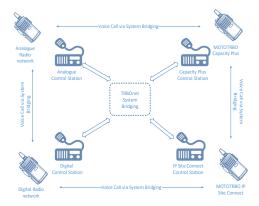
File View Map Tools Help		
Voice Dispatch	Radio Interface 🔮 🐗)
📑 🗄 🛔 👶 🗶 🍸 🔎 🗗 🚽	Radio Interface Recent Calls/Events	
	Active Calls	^
Instruction Instruction	Voice Message Voice Message	
💰 🗶 235 (Basil) 🛛 📮 义 🖕	PTT Free channel	
Voice Dispatch	PTT AI Cal Patch X Drag and Drop PTT Box here to Drag and an opp	
Location Tracking		
🚮 Job Ticketing	PTT Police Administrator Police PTT Administrator	
😥 Route Management	CapacityP Cleaners	
RFID Tracker	PTT Administrator	
Text Messages	Poice Q CapacityP	
Voice Recording	Group 30 () () () () () () () () () () () () ()	,
Reports	🍘 Playback 📓 Save - 🕒 Print 💷 Pause 🛷 Clear - 🏐 Reload 🎬 Filter By Radio 🚟 Grouping 🍸 Auto Filter	•
	Date Radio System Sender Recipient Message Details Note	Ĩ
Event Viewer	18-Nov-2016 17:18:52 CapacityPLUS Administrator Firemen Dispatcher 'Administra Members: Administrator 18-Nov-2016 17:18:52 CapacityPLUS Administrator Police Dispatcher 'Administra Members: Administrator	
	18-Nov-2016 17:18:52 CapacityPLUS Administrator Police Dispatcher 'Administra Members: Administrator 18-Nov-2016 17:18:49 CapacityPLUS Administrator All All Call from dispatche Members: Administrator	
Radio Allocation	2 18-Nov-2016 17:16:31 CapacityPLUS 125 All All Call from '125' (00:01) Members: 125	
administration	Image:	
-		1
🔂 127.0.0.1 🛞 🕵 💆 Administrator 📗	Licensed to: demo Demo License 🕑 Active	•

Radio Bridge Types

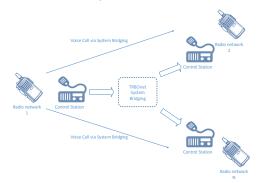
1. Channels redirect the calls to each other

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 subscribers of the specified control stations:

To create this type of System Bridge, add a System Bridge and set the Work Mode as **Channels redirect the calls to each other**.



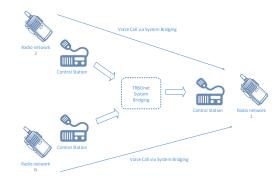
2. A channel redirects calls to many channels



To create this type of System Bridge, add a System Bridge and set the Work Mode as **A Channel redirects calls to many Channels**.

3. Many channels redirect calls to one channel





To create this type of System Bridge, add a System Bridge and set the Work Mode as **Many Channels redirect the calls to one Channel**.

4. Redirect private calls

Select this mode so that private calls can be redirected between radio systems.

5. Redirect private calls to group calls

Select this mode so that private calls will be redirected to group calls within one radio system or between radio systems.

6.4.3.2 Binary Patch

Name:	Binary Pate	h		
Rules				
Rule 1 of 2				^
Slot: Slot 1			Voice V	Data
All Calls Groups: (All C	Groups)	Private Calls	Group Calls	
Repeaters: (All Repeaters)			
Rule 2 of 2				^
Slot: Slot 2			Voice	Data
All Calls Groups: (All C	Groups)	Private Calls	Group Calls	
Repeaters: (All Repeaters)			
Add X Del	da			

• 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:



File View Map Tools Help								
Voice Dispatch	Radio Interface							😫 🐠
💼 🗄 🛔 💑 🛠 🏹 🗊 🚽	Radio Interface Teleph	ony Recent Calls/Ev	rents					
	Terminate all Transmit						Queued Mess	ages 🗙 î
😑 🤶 Online Dispatche 🔼			Active C	alls		×	-	
👷 Administrator							Record To: Selected Char	
Online, Indoor (0)							Daisy.mp3	iners
Online, GPS Fixe			~			^		=
Online, No GPS (0)	Control Station #	L 🔊 🕷 Ø		up 1			Bobby.	.mp3
Offline (2)	Free ch			Free cl			To: Selected Cha	nnels
	PTT	milei	PT		lainei		Patch	X
Voice Dispatch	AL Cal	Channel 4		Eremen				
							Drag and Drop PTT create new	
GPS Positioning	Group 2	•) 🔹 🖉	Rep	eater #1: Slo				
🙀 Job Ticketing	PTT Free cha	innel	РТ	Free ch	hannel		Patch on Repe	aters
B. Job licketing	Police			All Call	J		🔽 Binary Patch	
Route Management						_	Radio Bridg	ie 🔊
	Repeater #1: Slot	#2 🔊 🔣 🖉		call	•) 🛋 🖉		Repeater	
RFID Tracker	Free cha	nnel	РТ	Free cl	hannel		Firemen	PTT
	Al Cal			All Call			Control St Any Groups	
Text Messages	Recent Calls/Events					× I		
Voice Recording	Playback 🖌 Save - 🚽	Print II Paura	🕈 Clear 🕳 🎼	Reland To I	Filter Ry Padio 📃 Grou	ning 😾 Auto Filter	Default Setting	nr Details »
	Date	Radio System	Sender	Recipient	Message	Details	Note	Ext. Note
Reports	17-Oct-2016 14:21:07	Repeater #1: Slot #1		All	All Call from '125' (00:01)	Members: 125	Note	
-	7-Oct-2016 14:21:06	Control Station #1	Dispatcher	All	All Call from dispatcher '			
Event Viewer	17-Oct-2016 14:21:02	Control Station #1	Dispatcher	All	All Call from dispatcher '			
	17-Oct-2016 14:20:57 17-Oct-2016 14:20:51	Control Station #1 Repeater #1: Slot #1	Dispatcher 125	Al	All Call from dispatcher ' All Call from '125' (00:01)			
[9] Radio Allocation	17-0-1-2016 14-20-51	Control Station #1	120 Dispatcher	ΔI	All Call from dispatcher '	Picinocia, 123		
Administration	144 44 4 Record 1 of 333	F HF HI 4				-		•
-	Recent Calls/Events Recen		Active Tasks	Active Routes	User Activity Map	Cameras		
🔂 127.0.0.1 🔊 🛋 🖬 🔂 🕱 Admir	histrator	no Demo License						Active -

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 Telephony

This section describes how to configure the telephony system.

• Click **Administration** (1), and then **Telephony** (2) to configure incoming and outgoing SIP calls:



6.4.4.1 Radio Calls Configuration

• Click the **Configure** button (3) to set radio call configuration parameters:



Radio calls configuration	×
✓ Allow subscribers to make outgoing call	s
Allow to use DTMF	
Allow to use Text Messages	
Prefix:	sip:
Play the incoming call tone on the radio:	After the called party answ 💌
Initialize call to radio:	Start transmission 💌
Initialize call timeout:	Unlimited 🔶 seconds
Execute Check Radio before call	
🔽 Send Text Message if cannot establish	call
✓ Play tone when PTT changed	$\Theta \longrightarrow \Phi$
DTMF Access code:	0
DTMF Deaccess code:	#
	OK Cancel

• Allow subscribers to make outgoing calls

Select this option to enable outgoing phone calls from the radio subscribers.

• Allow to use DTMF

Select this option to allow radio subscribers to dial the phone number as a sequence of DTMF tones.

• Allow to use Text Messages

Select this option to allow radio subscribers to initialize phone calls via sending TMS messages with a specified prefix to the dispatcher.

Prefix

Enter the standard prefix for a text message.

• Play the incoming call tone on the radio

Select the mode for playing the incoming call tone on the radio that initiates a call.

After the called party answers the call

When a radio initiates a phone call to a subscriber via DTMF tones or a TMS message, the incoming call tone will be played on the radio after the called party answers the call.

Immediately

When a radio initiates a phone call to a subscriber via DTMF tones or a TMS message, the incoming call tone will be played on the radio immediately that is without waiting for the called party to answer the call.

• Initialize call to radio

Select the option how to start a call on a radio.

Start transmission

Select to start a call to a radio automatically.

Send ringtone

Select to play a ringtone until the radio user presses the PTT.

• Initialize call timeout

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



- **Execute Check Radio before call** Select this option to execute a Check Radio command before placing a call.
- Send text message if cannot establish call Select this option to send a text message to the radio when the channel is busy and a phone call cannot be established.
- Play tone when PTT changed Select this option so that the phone will sound a tone when the remote radio's PTT is pressed or released.
- DTMF 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>).

• DTMF 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>).

6.4.4.2 Incoming Calls Configuration

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

Call to external r	number:	Use number	as Inte	ernal	
Extention num	ibers (v	oice menu)			
Start call auto	maticaly				
Max. number len	gth:	Unlimited	-	Accept code:	#
Number	Ca	ll Description			
0	Ca	ll dispatcher (ar	ny avai	lable)	
<number></number>	Ca	ll radio with Rad	lio ID =	= <number></number>	

• Call to Dispatch Center

Select the mode for handling incoming calls made to the dispatcher.

- Decline calls
 - All incoming phone calls will be declined.
- Open voice menu

When an incoming call arrives, the subscriber will hear Voice menu commands.

Redirect to dispatchers

All incoming voice calls will be redirected to all dispatchers of the Dispatch center and any free dispatcher will answer the phone call.

• Call to external number

Select the mode for handling incoming calls made from unregistered subscribers.



Decline Calls

Select this option to decline all phone calls from unregistered subscribers.

Use 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 number as Internal

Select this option to allow the system to read unregistered numbers according to Voice Menu rules.

Extension numbers (Voice menu)

• Start call automatically

Select this option to search for the number in the Extensions table automatically. When this option is disabled, the subscriber must dial the number according to the following example: **0(phone number)#**. The character **#** is used to search for the phone number in the table.

• Max. number length

Specify the maximum number of characters allowed in a phone number.

• Accept Code

Specify the character that will be used to finish dialing the 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 number

• Choose **Static number**.

Extension numbe	r		×
Static number			
 Static number 	5 7		
C Dynamic nun	nber		
Number:	123456		
	1		
Call Type:	Call Group		•
Channel:	Control Station #1		•
	·		
Group:	All Call		•
		OK	Cancel

Number

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

Call Type

Select the call type from the drop-down list.

• Call Dispatcher

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

• Call Radio

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

• Call Group

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



Channel

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

Dispatcher/Radio/Group

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

To add a dynamic number

Choose **Dynamic number**.

Extension numb	er X
C Static numb	-
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 telephone.

Channel

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



6.4.4.3 Adding SIP Extensions

• Click Administration (1), Telephony (2), Extensions (3), Add > SIP Phone (4)

File View Map Tools Help	
Administration	Telephony 🔮 🐳 😉
Server	③ 1: Line free €② Intercom •○ €②
····· 🚺 Database ····· : 금 Radio Systems ···· 추행 System Bridging	Configure Calls Extensions Redrect Calls Allases Profiles Add Configure Calls Edit X Delete Grouping Y Auto Filter & Default Settings
	SIP Phone D SIP User Caption
🐼 Tasks 🗡	TRBOnet Mobile Client 1234 Internal PBX Server
llu: n	Radio 125 125 125
Voice Dispatch	👩 Radio 235 235 235
Location Tracking	
Route Management	Ŭ
Contemporary Text Messages	
Radio Allocation	1
Administration	144 44 Record 1 of 3 1 14 14 4
🚯 127.0.0.1 🛞 🧕 Administrator 📑 Lic	ensed to: demo Demo License 🥑 Active

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

Phone User		×
SIP ID:	2409	1
SIP Name:	Walt	
Caption:	Walt	
Password:	•••••]
Password (repeat):	•••••]
	OK Cancel	

SIP ID

Enter the SIP ID that will be used by the phone user.

SIP Name

Enter the SIP user name that will be used by the phone user.

Caption

Enter the caption to be displayed for the phone user.

Password

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

Password (repeat)

Enter the password again.

6.4.4.4 Redirect Calls

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), Telephony (2), Redirect Calls (3), Add (4).



File View Map Tools Help					
Administration	Telephony				👲 🐠 🔽
Hadio Systems A Kadio System Bridging A Telephony A Tasks A Modbus TCP Connections V	 1: Line free disp 15 Slot 2 	•)) == •)) == •)) == •)	2 Slot 1		
			Grouping T Auto Filter	1	
Voice Dispatch			orouping a Auto Friter	Service Settings	
Location Tracking	Drag a column ł _R Call to	edirect Call	3	×	
<u> </u>		Call to:			
📅 Job Ticketing	4	Target:	Sispatcher 1	•	
💓 Route Management		Timeout:	30 🗘 seco	nds	
~		Redirect to:			
V Text Messages		Type:	付 Radio Group	-	
🔮 Voice Recording		Radio System:	Slot 1	•	
<i>6</i>		Target:	付 Firemen	•	
Event Viewer		Priority:	Normal	•	
8 Radio Allocation			ОК	Cancel	
💫 Administration 🛛 🖌	HI I Record	0 of 0 🕨 🕨 树 🖣			•
🔂 127.0.0.1 🛞 🥵 🕵 😼 Administr	rator 🚺 21 days	before your Suppor	t expires 🛛 📑 Licensed to:	demo	🕑 Active 🗸

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

Call to

Target

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

Type

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.

Target

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.

6.4.4.5 Aliases

In addition to SIP extensions, the SIP aliases can also be used in your Telephony system.

• Click Administration (1), Telephony (2), Aliases (3), Add (4)

File View Map Tools	Help						
Administration		Telephony					을 🚸 🕒
Server Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Conse Co	>	 1: Line free Sales Group 20 Group 22 		Intercom Idisp 15 Idisp 15 Idisp All Call Private Call	0 40 0 40 0 40	Maintenace Group 10 Group 11	
Made in TCD Connection	~			ct Calls Aliases Pr			
Voice Dispatch		SIP ID		uping 🍸 AutoFilter		Caption	
Location Tracking		42	Phone Alias		3	×	
😽 Job Ticketing		4	SIP ID: SIP Name:	2411			
Route Management			Caption:	Eugene			
🖂 Text Messages				[ОК	Cancel	
Reports							
Event Viewer							
😰 Radio Allocation		1					
Administration 4	-	HI HI A Record 1 of 1	▶ ₩ 4)
访 127.0.0.1 🛞 🕵 🚺	Adm	inistrator 🛛 📑 Licensed	to: demo Demo Li	cense			Active

In the Phone Alias dialog box, specify the following parameters:

SIP ID

Enter the SIP ID that will be used by the phone user.

SIP Name

Enter the SIP user name that will be used by the phone user.

Caption

Enter the caption to be displayed for the phone user.

6.4.4.6 Profiles

In order to restrict incoming and outgoing calls as well as set priority for calls, SIP profiles can be used in your Telephony system.

• Click Administration (1), Telephony (2), Profiles (3), Add (4).



File View Map Tools He	elp								
Administration		Telephony						9	40 🔽
Server Database Radio Systems System Bridge Telephony Zaka	^	Group 20 •)	40 40 40	Interco disp 19 Al Cal	: Call		Maintenace Group 10	0) 48 0) 48 0) 48	0
Modbus TCP Connections Virtual Modbus Devices	~	Configure Calls Extension			uto Filter		aac	×	
Voice Dispatch		Fedora Mals	General	Patterns	Inheritance				
Location Tracking		\4	Name: Descript	ion:	Droite Restirct dialing	to Jeff		1	
🔡 Job Ticketing									
💓 Route Management									
C Text Messages			Apply	to Incoming	Calls			J	
Reports			Apply	to Outgoing	Calls				
Event Viewer									
8 Radio Allocation		1							
Administration	~	H4 44 4 Record 1 of 2 + H+				ОК	Cancel		Þ
🚯 127.0.0.1 🛞 🥵 🕵 🧕	Adm	inistrator 🛛 📑 Licensed to: dem	o Demo Li	cense				0	Active -

In the **Profile** dialog box, specify the following parameters:

Name

Enter a name for the profile.

Description

Enter a description for the profile.

- **Apply to Incoming Calls** Select this check box to apply the profile to incoming calls.
- Apply to Outgoing Calls

Select this check box to apply the profile to outgoing calls.

• Click the **Patterns** tab.

ofile				
General	Patterns	Inheritance		
* - any nu ? - one ch	mber of cha aracter	thars in pattern: racters mbers from xxx t	ууу	
*411???				×
Call Priorit		Normal		
Cai Phone	у. 	normai		 •
			O	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.



rofile						>
Gen	eral	Patterns	Inher	itance		
	Call	Priority	Prof	ile Name		
\checkmark	Eme	rgency	▼ Fed	ora		
	Inhe		Mals			
	Eme	rgency				
	Nor					
	Low					
					OK	Cancel

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

Call Priority

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

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	📃 🔤 1	lasks				👲 📣
Server Cucese Cuces		9 1: Line free Slot 2 All Call Police	46 0 10 46 0 10 46 0 10 46 0	Intercom Group 11 Private Cal Group 10	Slot 1 Group 22 Firemen Group 20	
(199) Custom Fields		Add 🔹 📑 Edit 🛛	🗼 Delete			
Voice Dispatch		ask Name Dispatcher Prese	aco Control	- 3		
Location Tracking	10	Export to SWD -		- 3		
Job Ticketing		Idle Time				
😿 Route Management		MS and Email no	tifications			
Kara Messages		N.				
🔮 Voice Recording		4				
🕞 Reports						
Event Viewer						
8 Radio Allocation		-1				
Administration		 Record 3 of 7 	b bb bbi 4			

• To create a task, click **Add** (3), and from the drop-down list, select the appropriate task.

Note: After you have created a task you need to enable it. Just select the 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 Control	×
Presence timeout Reminder time	10 iminutes 30 iminutes
All Dispatchers Selected Dispatchers Dispatchers Notifications	<u>×</u>
	OK Cancel

Presence timeout

Enter the time period, in minutes, that will be used as a timeout to check for the presence of dispatchers.

Reminder time

Enter the time period, in seconds, that will be used to show a reminder pop-up dialog before the planned time of performing the check. When the reminder appears on top of the screen, the dispatcher must click the round button in the center to confirm their presence in the system.

All Dispatchers

Choose this option button so that all dispatchers will be checked for presence.

Selected Dispatchers

Choose this option button so that only selected dispatchers will be checked for presence.

• Dispatchers

In the drop-down list, select the dispatchers.

Notifications

Click this link to select who will receive the appropriate notifications. The recipients may include dispatchers, Email groups, SMS groups, radios, and radio groups.

6.4.5.2 Geofencing

The Geofencing feature allows controlling the location and speed of radios relative to manually defined regions on the map.

The Geofencing monitoring consists of the manually defined regions and the tasks. The regions specify where to apply the rules, while the tasks specify how to apply the rules for the regions and radios.

• In the **Tasks** pane, double-click **Geofencing**.



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

Geofencing and Speed Control				×
Rules Monitor Area 1 Monitor Area 3 Monitor Area 3		Speed Regions Radios	Lone Worker	
\backslash_{4}	Name: Description:	Monitor Area 3 Watch out for the workers]	
		Activate the rule on a s Days of week: Start time: Stop time:	chedule Monday, Tuesday, Wednesday, Thursday, • 9:00 • 18:00 •	
	After the rule	is triggered: Irm mode when the rule con	ditions are no longer met	
/ ¹	/2	2 3		
Rerun the rules ofter each rule edit, Add Rule Disable		at the start of each schedule	ed time window (not recommended) (j) OK Cancel	

- Click the **Add Rule** button (1) and select the appropriate rule from the dropdown 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.

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.

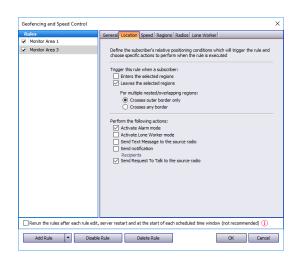
Stop time

Set the time to stop running the rule.

• **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



Trigger this rule when a subscriber:

• Enters the selected regions

Select this option so that the rule will be triggered as soon as a subscriber enters the selected region.

• Leaves the selected regions

Select this option so that the rule will be triggered as soon as a subscriber 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 Rad	ios Lone Worker		
Monitor Area 1 Monitor Area 3	Define the subscriber's motion attribut to perform when the rule is executed	tes which will trigger th	ne rule and choose specific action	ns
	Trigger this rule when a subscriber:			
	Moves faster than:	60 🗘 km	h	
	Moves slower than:	10 🗘 km	h	
	Stands still for longer than:	90 ‡ sec	onds	
	Track speed in relation to regions:	Everywhere	•	
	Send Call Alert to the source rad			
7	server restart and at the start of each sch	eduled time window (n	ot recommended)	
	conver restart and at the start of each sch	eduled time window (n	ot recommended)	_

Trigger the rule when a subscriber:

• 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.

• Stands still for longer than

Select this option and specify the time period, in seconds, during which the vehicle is allowed to stand still. The rule will be triggered when the vehicle with the radio stands still for 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.

Regions tab

Geofencing and Speed Control	×
Rules Monitor Area 1	General Location Speed Regions Radios Lone Worker
Monitor Area 3	Select the regions where this rule can be triggered All regions © Only select derigins Regions Asizes Asizes Raute 1 Raute 2 Or 2 Select All Deselect All
Rerun the rules after each rule	edit, server restart and at the start of each scheduled time window (not recommended) (j)
	able Rule OK Cancel



• 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.

• Clear all

Click this button to unselect all regions in the list.

Radios tab

Geofencing and Speed Con		×
Rules	General Location Speed Regions Radios Lone Worker	
Monitor Area 1		
 Monitor Area 3 	Select radios the rule is applied for:	
	O All radios	
	 Only selected radios 	
		۹,
	🖃 🗹 📜 Firemen	
	125 (Pete) 125	
	🗹 🛞 235 (Basil) 235	
	Police	
	1 2 2 4	5
	1234	5
		1
	8088	5 : •
Rerun the rules after each	rule edit, server restart and at the start of each scheduled time window (not re	commended) (j)
Add Rule 🔻	Disable Rule Delete Rule	OK Cancel

• 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 unselect 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.

• 5

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



Lone Worker tab

Geofencing and Speed Control	×	(
Rules	General Location Speed Regions Radios Lone Worker	
Monitor Area 1		
Monitor Area 3	Select the tasks to be executed when the rule is triggered	
	() All tasks	
	Only selected tasks	
	Lone Workers /	
	Lone Worker	
	Select All Deselect All	
Rerun the rules after each rule edit,	server restart and at the start of each scheduled time window (not recommended) $({f i})$	
Add Rule 🔻 Disable	Rule Delete Rule OK Cancel	

• All Tasks

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

• 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.

Variable settings for Geofencing rules of event types (Map Region, Beacons, Radios and Lone Worker) are represented in the table below:

Event type	Tab Name	Parameters Description
Common Settings	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;
		Select all – click to select all radios in the list;
		Clear all – click to unselect all radios in the list.



Event type	Tab Name	Parameters Description
Map Region.	General	Regions Control – select to enable regions control;
Allows configuring rules when a		Control mode – select the control mode for regions in the dropdown list;
radio(s) enters or leaves the defined map region(s).		Activate Alarm mode if the rule has been triggered – select to activate Alarm mode in the Dispatch Console if Regions Control rule has been triggered;
		Send Text Message to a radio if the rule has been triggered – select to inform radio subscriber if Regions Control rule has been triggered;
		Activate Lone Worker if the rule has been triggered – allows automatically activating a Lone Worker policy for a radio in case of entering or leaving exact region on map. Select to enable this option.
		Speed and Idle Control – select to enable speed and idle control;
		Control mode – select the control mode for speed and idle control in the dropdown list;
		Maximum Speed – set the maximum speed for radio;
		Maximum Idle Time – set the maximum idle time for radio;
		Activate Alarm mode if the rule has been triggered – select to activate Alarm mode in the Dispatch Console if Speed and Idle Control rule has been triggered
		Send Text Message to a radio if the rule has been triggered – select to inform radio subscriber if Speed and Idle Control rule has been triggered;
		Send Call Alert to a radio if the rule has been triggered – select to inform radio subscriber if the rule has been triggered;
		Reset Alarm mode if the rule is not triggered - select to inform radio subscriber if the rule has not been triggered.
	Scheduler	See above.
	Regions.	All regions – choose to apply this rule for all regions;
	Select regions to apply the rule	Only selected regions – choose to apply the rule for one or several regions;
		Select all – click to select all regions in the list;
		Clear all – click to unselect all regions in the list.
	Radios	See above.
	Lone Worker. Enables Lone	All Tasks – choose to apply all tasks configured by the administrator when the rule has been triggered;
	Worker 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.



Event type	Tab Name	Parameters Description
Beacons.	General	Control mode:
Allows configuring rules when a radio (s) enters or leaves		Control entering beacon coverage zone – select to enable the rule when a radio enters beacon coverage zone;
the beacon coverage zone		Control leaving beacon coverage zone - select to enable the rule when a radio leaves beacon coverage zone;
		Activate Alarm mode if the rule has been triggered - select 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 instantly leaves the zone, the alarm mode in the Dispatch Console will be reset automatically)
		Send Call Alert to a radio if the rule has been triggered – select to inform radio subscriber if the rule has been triggered;
		Send Text Message to a radio if the rule has been triggered – select to inform radio subscriber if Beacons rule has been triggered;
		Activate Lone Worker if the rule has been triggered – allows automatically activating a Lone Worker policy for a radio in case of entering or leaving beacon coverage zone. Select to enable this option.
	Scheduler	See above.
	Radios	See above.
	Beacons.	All Beacons – choose to apply this rule for all beacons;
	Enables the rule for selected beacons	Only selected beacons – choose to apply the rule for one or several beacons.
	Lone Worker	See above.



Event type	Tab Name	Parameters Description
Radios.	General	Control mode:
Allows using radio(s)1 as a map region and monitor		Control Entering Region – select to enable the rule when a radio enters the coverage zone associated with another radio;
when another radio(s) enters or leaves radio's		Control Leaving Region - select to enable the rule when a radio leaves the coverage zone associated with another radio;
coverage 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 coverage 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 subscriber if Radios rule has been triggered;
		Send Call Alert to a radio if the rule has been triggered – select to inform radio subscriber if the rule has been triggered;
		Minimum distance between radios – specify the distance, in meters. When a distance is less than the selected value, the rule will be triggered according to the settings above.
		Color of region – select the radio coverage zone color.
	Scheduler	See above.
	Regions	Select radio coverage zones the rule is applied for.
	Radios	See above.
Lone Worker. Allows configuring	General	Days of week - select the days 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 all configured by Administrator Lone Worker tasks or several configured tasks.
		When a Lone Worker task is mentioned as Disabled, the administrator should enable the task.

6.4.5.3 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.

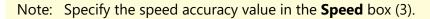
Stop

• 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 😫 🌒 🕒
Creation for Pend Location for Pend Location for Pend Location for Pend Drive Activity Summar Super Region Set of Pend Lide Time Summar Lide Time Extent Voice Dispatch	>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Location Tracking	Saved Profiles:Not defined-
Route Management	Start Date: 4/26/2017 12:00 AM
Mark Messages	Radio: -Not defined
Voice Recording	Logical Group:Not defined
Reports	Speed: 1 🚔 km/h
Administration	1 3 Generate Report Save Report Profile Delete Report Profile
🔂 Connected 🍇 🔂 🔂 🖉 Admin	istrator 🔄 Licensed to: demo Demo License 🥑 Active -



6.4.5.4 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:



adio Allocation (Spi	ite Forms)		×
Form Description:			
FORMATTED= 0203000FB98C0AI 0FB00F502536869 AS_ARRAY=0x02, 0x4E, 0x5A, 0x20, 0x05, 0x00, 0x02, 0	12/12/2012 8:21:05 a.m. 502FB004E5A2042757301800 6674206E756D62657235AD76 0x03, 0x00, 0x0F, 0x89, 0x86, 0x42, 0x75, 0x73, 0x01, 0x80, 0 x87, 0x68, 0xCE, 0x0F, 0x10, 0 x74, 0x20, 0x6E, 0x75, 0x60, 0	81E 0x0A, 0xF5, 0x02, 0xFB, 0x1 0x00, 0x00, 0x01, 0x06, 0x18 0xFB, 0x00, 0xF5, 0x02, 0x5	00. ≡ 3. 3.
FORM_TITLE=NZ FORM_ID=2 FORM_REVISION			
[Field Data #0] Prompt="Shift num!	per"		~
		L	.oad
Field Name:	Shift number		-
		OK Ca	ancel

• Click **OK** to add a Sprite Form.

6.4.5.5 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

/IS and Email	notifications		
SMS settings	Outgoing Email settings (SMTP)	Incoming Email settings	
	15 to recipients if ALARM has bee		
Send M	MS to recipients if ALARM has bee	en activated	
	xt Messages to cell phone recipie		
	essages (from radionetwork to di	· · · · · · · · · · · · · · · · · · ·	
Cutput	messages (from dispatchers to ra	idionetwork)	
SMS Groups			
			OK Cancel

 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, Outgoing Mail Server</u> (page 93).

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

1S and Email notific	ations			
SMS settings Outgo	ing Email settings (SMTP)	Incoming Email settings		
Send Email to re	ecipients if ALARM has bee	en activated		
Forward Text Mess	ages to email recipients			
Input messages	(from radionetwork to dis	spatchers)		
Output messag	es (from dispatchers to ra	dionetwork)		
Email Groups				
			ОК	Car

• 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.
- 2. Send an email to <u>radioserver@yourcompany.com</u>. In the **Subject** field, enter either 'RadioID:XXX' to send an email to a selected radio, or 'GroupID:XXX' to send an email to a selected radio group.



- Note: If you don't properly specify the email **Subject**, or specified a non-existing **RadioID** (or **GroupID**), a corresponding notification will appear in the Event Viewer of the Dispatch Console.
- Forward incoming emails to radio network (from email box to radios) Select this option to forward incoming emails to radio network.

6.4.5.6 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 Activity	×
Lists of radios Advanced	
Name	Description
🚯 Off Duty	
🛞 On Duty	
🛞 User Activity # 1	
Add	Edit Delete
	OK Cancel
	OK Cancer

• Click Add to add a list of radio activities:

User Act	User Activity List Settings X						
General	Logical Gro	ups					
Name: Descrip		User Activity # 1					
Backgr		🛞 Violet	▼ + -				
🗹 Ma	Move a radio to this list if: ☑ Manually by dispatcher □ Automatically by receiving Text Message from a radio						
	essage: tomatically l	y receiving Telemetry Command from	a radio				
VI	D:	1 🔄 Command: High level	•				
	Automatically by receiving DTMF command from a radio Command:						
	tomatically l atus:	y receiving Status from a radio					
		OK	Cancel				



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 default status for offline radios	
Timeout: 10 🔿 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.

6.4.5.7 Lone Worker

The Lone Worker policy lets the dispatcher set a time interval the communication with a subscriber 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:

Lone Worker	×
Task name: Lone Worker 1	
Task Start Conditions Task Stop	
Manually by dispatcher	
Automatically by receiving Text Message from a radio	
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: 0 🗢	
Send the following text message to the radio	_
Message:	
OK Ca	ncel

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		×
Task name:	one Worker	
Task Start Condition	ns Task Stop	
Response time	30	÷ minutes
Send notificati	on to radio	
Reminder time	60	seconds
Send Required	est To Talk	
Send Text	lessage	
Message:		
Reset Lone Wo	rker when receiving Text Message	
Message:		
Reset Lone Wo	rker when receiving Telemetry comman	d
VIO:	1 🗘 Command: Any even	nt 💌
Reset Lone We	rker when the distance has been trave	led
Distance:	5 🚖 km	
Do not trigger	alarm 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

one Worker		\times
Task name:	Lone Worker 1	
Task Start Cond	ditions Task Stop	
Manually (or	n demand of dispatcher)	
Automatical	ly by receiving Text Message from a radio	
Message:		
Automatical	ly by receiving Telemetry Command from a radio	
VIO:	1 Command: Any event	
Automatical	ly by receiving DTMF command from subscriber	
Command:	123 #123#	
Automatical	ly by receive Status from subscriber	
Status:	0	
Send Text N	lessage to a radio	
Message:	-	
-		
	OK Cano	el

In the **Task Stop** tab, you can specify how to stop the Lone Worker task. The available options are similar to those you specified on the **Task Start** tab.

Enabling Lone Worker

• To enable the Lone Worker task for a selected radio, go to **Voice Dispatch** (1), right-click the selected radio (2), and choose **Start Lone Worker** (3):



File View Map Tools	Н	elp									
Voice Dispatch			Radio Interface								🔮 🚸
💼 🗄 🗄 🕺 🛠 '	7	a -	Radio Interface	Telepho	ny Recent Calls/	Events					
			Terminate all Tran	smit						Quick Comma	ands 🛛 🗙 🔷
🗉 🦲 Online, GPS	_		_ 2			Active Ca	lls		X	Configure	
🚯 🛞 125 (P 🕇	-	- 60 -								Oueued Mess	
🗶 🕑 235 (B	٩	Presence i	n Network							<u> </u>	
x (9 235 (8		Private Ca	1							🥥 Record 🔻 🚺	
Voice Dispatch		Send Call							<u>^</u>	To: Selected Char	inels
Torce Dispatch		Request L	ocation			2 🛛 L	Intercom	-0)		Daisy.mp3	
GPS Positioning	2	Send Mes	sage		-	[PTT	ree channel		Bobby	
(B)		Advanced	•		Menu			I Cal		To: Selected Cha	
🙀 Job Ticketing 👖	孡	Find on G	oogle Earth							To: Selected Cila	
	7	Show Rou	te on Google Earth		1		Group 2	-0		Patch	X
🕢 Route Management		Monitorin	q 🕨	ee cha			F	ree channel		Drag and Drop PTT	
		Specify Cr	ustom lcons	-	3		PTT			create new	
RFID Tracker		Set Radio	Channel •	emen	<u> </u>		P	olice			
_		Set On Du	hy 🖉			56	-			Patch on Repe	aters
Context Messages		Start Lone		L: Slot :	#1 🔟 🛃	a 🔲 🗌	Repeater #	1: Slot #2		_	~
A .	-	Start Time									· · · · · »
👻 Voice Recording	-	Start Hille					-	🍯 Filter By Radio 🕴			
Reports			Date		Radio System Repeater #1: Slo	Sender	Recipient	Message Dispatcher 'Administr	Details	Note	Ext. Note
S Reports			21-Oct-2016 17:56		Repeater #1: Sio Repeater #1: Slo			Dispatcher 'Administr Dispatcher 'Administr			-
Event Viewer			21-Oct-2016 17:56		Repeater #1: Slo			All Call from dispatch			
			21-Oct-2016 17:56		Repeater #1: Slo		Al	All Call from '125' (00			
Radio Allocation			21-Oct-2016 17:56	6:14	Repeater #1: Slo	235	Al	All Call from '235' (00	Members: 235		
			21-0-t-2016 17-56		Peneater ±1-Sh	235	۵1	All Call from '235' (00	Members: 235		•
Administration						Active Ta	veles Active R	Routes User Activity	Map Cameras		<u>_</u>
			L	<i>.</i>	16	incove re	Acorer	Cost Acounty	- op - comeros		1 -
127.0.0.1 🚷 🕵	8	Administra	tor 📑 Licensed to: d	lemo De	mo License						Active

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

File View Map Tools Help				
Voice Dispatch	Radio Interface			😫 🗐
d: 🗄 h 💩 🛠 🍸 🖉 🍟	Radio Interface Telephony Terminate all Transmit	Recent Calls/Events		Quick Commands 🗙 📤
Conline, GPS		Active Calls		Configure Queued Messages
235 (B 🛡 🔍				Record File To: Selected Channels
Voice Dispatch	Telephony	 ■ ■ 		Daisy.mp3
GPS Positioning	4 5 6 • Men			Bobby.mp3 To: Selected Channels
3ob Ticketing	Intercom			Patch X
💓 Route Management	PTT Free channel			Drag and Drop PTT Box here to create new group
RFID Tracker				Patch on Repeaters
Text Messages	Group 1 Active Tasks			V Binary Patch V
Voice Recording	📕 Stop 🚍 Grouping 🍸 Auto			
Reports	Task Lone Worker 1	Radio 125 (Pete) 125	Sta 1	6:55 - 17:25
Event Viewer			,	
8 Radio Allocation	H4 44 4 Record 1 of 1 ▶ HP HH		/	
administration	Recent Calls/Events Recent Calls		Active Routes User Activity	Map Cameras
🔂 127.0.0.1 🛞 🔂 🔂 🙎 Administra	ator Licensed to: demo Demo Li	icense		🕑 Active 🗸

Enabling Lone Worker from Geofencing

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



ation Tracking	Мар						🔮 剩 🕓 Objects
🗄 🗄 😽 💡 💱	1: Line free	Interc	om 🕕 📢 🧭	Group 10	🗉 🕷 🖉 🔽 Al Cal	•) • Ø	E ٤
Firemen 📮 📤	Group 20			Group 22	 Image: Second se		e- 🖉 🍃 Beacons
 ★ 235 ★ 235 ★ 235 		n X er 88387	Show Beacons: All	🔻 🥒 Rul	er 🔍 Find on Map • 💂 🖋 Dra	wing Panel 🏼 🐊 Route = 🔞 G	eofencing " Goffee
Police	ya Innya V.O.		alling		All a Market		- 🖉 🦢 Map Objects 🖉 🔍 Camera 1
Voice Dispatch			Te P	4.0	Camera	asil'yevskiy Island	- V Hospital - V Police
Location Tracking	Inda	IIII A VO		F			- V Map Regions
Job Ticketing		Na 4.0			Tea (0)	-	L- 🖉 🗫 111
Route Management		N N		-			
RFID Tracker				Hosp	ital		
Text Messages	, <u>60 m</u>				125 Coff	ae (0) ude: 59'56'30,23" N; Longitude: 3	0'16'57.04" E
Voice Recording	Recent Calls/Events	🚽 🕒 Print 🛛 🛙 Pause 🕩	Clear 🕶 🏐 Reload 🏻 🌾 I	Filter By Radio 🐺 Gro	uping 🍸 Auto Filter 🗇 Default	Settings 🚰 Details 🚞 Sho	w Notes 🤯 Add Note 🖙 Add Message
Reports	Date	Radio System	Sender	Redpient	Message		Details
	W 09.06.2017 14:43:57 O9.06.2017 12:43:30 O9.06.2017 O9.06.201 O9.06.2017 O9.06.201 O9.06 O9.06 O	Capacity Plus 1	Server Administrator	Al 11		tity Plus 1'has been lost ator' calls group '11' (00:07)	Members: Administrator, 125
		Capacity Plus 1	125	11	Radio '125' calls gro		Members: 125
Event Viewer	09.06.2017 12:40:06					ator' calls group '11' (00:05)	Members: Administrator
	09.06.2017 12:39:55	Capacity Plus 1	Administrator	11			Members: Administrator
Event Viewer Radio Allocation		Capacity Plus 1 Capacity Plus 1	Administrator Administrator	11 Police		ator' calls group 'Police' (01:00)	Members: Administrator

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

📑 TRBOnet.Enterprise 5.1 / Dispatch C	onsole					-	
File View Map Tools Help							
GPS Positioning	Geofencing and Speed Control			×	🔮 📣 🔽	Objects	
🗟 🗄 🗄 💑 🛠 🍸 🔎	Rules	General Radios Lone	Worker			ii ii	
	Monitor Area 1						
🗆 🦲 Online, GPS	Monitor Area 3 Lone Worker 2	Name:	Lone Worker 2			🖻 - 🗹 🦢 E	eacons Beer
💰 🗶 125 (P 💡 寻 💸	Lone Worker 2	Description:	Department 1				Coffee
💰 🗶 235 (B 💡 루 🔌						🗹 🌘	
1.4					encing		1ap Objects Abiding place
Le Voice Dispatch						🗷 🚺	Fire dep
GPS Positioning		Days of week:	Monday, Wednesday	•	e v a		Hospital No2
		Start time:	0:00 🗘				Police depar
😸 Job Ticketing		Stop time:	0:00			L 🗸 •	7 My zone
1					ayana	🖻 🗹 🍃 M	Ap Routes
Route Management					Wortsovaya ne		Route 1
RFID Tracker					Palace		
Contemporary Text Messages							
Voice Recording					The second		
. 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 (not	recommended) (j)			
Radio Allocation	Add Rule	e Rule Delete	a Dula	OK Cancel			
	7 Map Region	Delet	- NON	UN Cancel	18'40.14"E		
Administration	Beacons Recent Cale	s Radio State Active	Tasks Active Routes User Activity E	Beacons Beacon Events Tag List	MINCERIO		
🔂 127.0.0.1 🏀 🔂 🕵 🕱 Adminis	🛞 Radios		Taxa Acuve Routes User Acuvity D	eacons beacon events Tag List			🕢 Active -
The residence of the two	Lone Worker	LICENSE					Active

• Specify 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 add radios to which to apply the Lone Worker rule:



eofencing and Speed Contr		
tules	General Radios Lone Worker	
Monitor Area 1		
Monitor Area 3	Select radios the rule is applied for:	
< rule name >	All radios	
	 Only selected radios 	
	(f) 125 (Pete) 125	
	235 (Basil) 235	
	<i>a a</i>	1
	N	
JRerun the rules after each r	le edit, server restart and at the start of each scheduled time window (r	ot recommended) (j)

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 unselect 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
Rules j Montor Area 1 i Montor Area 3	Seneral Location Speed Regions Rados Lone Worker Select the tasks to be executed when the rule is triggered O all tasks O any selected tasks I ane Workers / I lone Worker Select All Deselect All
Rerun the rules after each rule edit,	server restart and at the start of each scheduled time window (not recommended) $({f i})$
Add Rule 🔻 Disable	Rule Delete Rule 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.

6.4.5.8 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: Expo		Export to databa	ise table - L	ocation of	radio	
Type:	- F	Export to databa	ase table			•
Data:	Ī	ocation of radio				-
Connection	Data	Scheduler A	dvanced			
C Defau © Specif						
Server na	ame	(local)\SQL	EXPRESS			
Database	name	TRBOnet				•
Vinda	ws aut	hentication				
User nam	e					
User pass	sword					
					OK	Cancel .:

Connection tab

• Task name

Specify 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 unselect it to use **SQL Server authentication** (SQL Server user name and password will be required).

Data tab

Export Data				×	
Task name:	ask name: Export to database table - Location of radio				
Type:	Export to dat	tabase table		-	
Data:	Location of re	adio		•	
Connection Data	a Scheduler	Advanced			
Table:	[Export_Loc		ate table Load	l columns list	
Column mappi	-	1			
Table column		Data			
Date		Location date			
Latitude		Latitude			
Longitude		Longitude			
Speed		Speed			
Direction		Direction			
Precision		Accuracy			
RadioID		Radio ID		-	
			OK	Cancel	

• 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:

eat	e table	>		
þ.	Create new table to export data Active database connection			
Tab	le name:	Export_Locations		
Colu	umn list:			
	Table column	Data		
•	Date	Location date		
V	Latitude	Latitude		
V	Longitude	Longitude		
V	Speed	Speed		
•	Direction	Direction		
•	Precision	Accuracy		
¥	RadioID	Radio ID		
•	ID	Unique radio ID		
•	Name	Radio name		
¥	ExportDate	Export date		
-	a.b.s. 1	ales 1		

• Select the data fields to add to the table.



Scheduler tab

Export Data		×		
Task name:	Export to database table - Location of rad	Export to database table - Location of radio		
Type:	Export to database table	_		
Data:	Location of radio	•		
Connection Da	ata Scheduler Advanced			
Days of week:	(All days)	•		
Execute rec	urrently with interval			
Start time:	13:00			
Stop time:	15:00			
Repeat ev				
C Execute at p	particular 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	>	K	
Task name:	Export to database table - Location of radio		
Type:	Export to database table	•	
Data:	Location of radio	•	
Export mod Alwa	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.

6.4.5.9 Scheduled Task

This task allows sending scheduled messages to radios.

- To add a scheduled task, in the Tasks pane, click Add > Scheduled Task.
- In the Scheduled Task dialog box, specify the following parameters:

Scheduled Task	>	×
Task name:	Scheduled Task	
Command Sch	eduler	
Command:	Send Text Message	
Message:	Alarm	
Send to rate	dio group	
C Send to su	bscribed radio	
Recipient		
Firemen		
	OK Cancel	

Task name

Specify a name for the task.

Command

From the drop-down list, select what to send to selected radios.

Send Text Message

• Message

Enter the message text in this box.

Send Telemetry

Select this command to send scheduled telemetry commands to selected radios/groups, or request telemetry states from selected radios/groups.

• VIO

Specify the VIO contact.

• Command

From the drop-down list, select the signal level at which to send the telemetry command to selected radios/groups, or select 'Request state' to receive telemetry states from selected radios/groups.



Request Location

Select this command to receive location data from selected radios/groups.

Send to radio group

Choose this option to send the specified command to selected radio groups.

Send to subscribed radio

Choose this option to send the specified command to selected radios.

Recipient

In this list, select the radio groups/radios to send the specified command to, or receive telemetry/location data from.

Send Voice Message

Select this command to send a voice message to selected radios/groups:

Schedule	Scheduled Task X			
Task nar	ne: Scheduled	l Task 1		
Comman	d Scheduler			
Comm	and: Send Ve	pice Message		•
<u>کا آھ</u>	ad from file			
<u> </u>	ecord message			
🔍 PI	ayback message			
Call T	ype	Channel	Call Target	
Privat	e Call	Auto Detect	125	
Group	Call	🔡 Repeater #1: Slot	Firemen	
Interd	om call	Intercom	All	•
- Ac	ld 🗙 <u>Remove</u>			
Imp	olite channel access	;		
		L	OK	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 subscriber from the phone book, click the ellipsis (...) button in the Call Target column and select a contact from the phone book.

Impolite channel access

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



Scheduler tab

Scheduled Task	×
Task name: Sched	uled Task 1
Command Scheduler	
Start date:	01 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.

6.4.5.10 Voice Message

The Voice Message allows automatically broadcasting 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	:	×			
Task name:	Task name: Voice Message				
Task Start Task	Process Task Stop Message Telemetry				
Manually by	dispatcher				
Automatically	y by receiving Text Message from a radio				
Message:					
Automatically	y by receiving Telemetry Command from a radio				
VIO:	1 Command: High level				
Automatically	y by receiving DTMF command from a radio				
Command:					
Automatically	y 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 Cancel				

• Manually by dispatcher

Select this option to allow the dispatcher to manually start the Voice Message task.

• Automatically by receiving Text Message from a radio

Select this option to start the Voice Message task after receiving a specified text message from a radio. If you select this option, specify a brief text message in the **Message** box.

Automatically by receiving Telemetry Command from a radio

Select this option to start the Voice Message task after receiving a telemetry command. If you select this option, specify the **VIO** contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.

Automatically by receiving DTMF command from a radio

Select this option to start the Voice Message task after receiving a DTMF command from a radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the **Command** box.

- Automatically by receiving Emergency from a radio Select this option to start the Voice Message task after receiving an emergency command from a radio.
 - 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

Voice Message				×
Task name: Voice N	lessage 1			
Task Start Task Process	Task Stop	Message	Telemetry	
C Send voice message				
Send voice message i	repeatable			
Repeat Interval:	60	*	second(s)	
Repeat Count:	10	\$	[
Impolite channel acce	SS			
Delay on start:	1	* *	second(s)	
			OK	Cancel

• 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.



/oice Message	×
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:	
Send the following text message to the radio	
Message:	
OK	Cancel

• Manually by dispatcher

Select this option to allow the dispatcher to manually stop the Voice Message task.

• Automatically by receiving Text Message from a radio

Select this option to stop the Voice Message task after receiving a message from a radio. If you select this option, specify a text message in the **Message** box.

• Automatically by receiving Telemetry Command from a radio

Select this option to stop the Voice Message task after receiving a telemetry command from a radio: If you select this option, specify the **VIO** contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.

Automatically by receiving DTMF command from a radio Select this option to stop the Voice Message task after receiving a DTMF

command from a radio, for instance, #11#. If you select this option, specify a DTMF combination without the # characters in the **Command** box.

• Send Text Message to 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 Image: Load from file Image: Record message				
Play back message Call Type Private Call Group Call	Channel Auto Detect	Call Target Radio 27 10		
Phone Call	Telephony	2410		
Add Remove Priority: Normal				
		OK 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 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.



Telemetry tab

Start Task Process Task Stop Message Telemetry Send Telemetry before starting task VIO: 1 Command: High level Image: Command: Delay after send: 0 second(s) second(s) Send Telemetry after stopping task VIO: 1 Command: Toogle level Image: Command:Image: Command: Command:Image: Comman	k name: Voice M	lessage 1	
VIO: 1 Command: High level Delay after send: 0 Second(s) Send Telemetry after stopping task VIO: 1 Command: Toqqle level Delay before send: 0 Second(s) cipient: Selected Radios: 1; Selected Radio Groups: 2 V	k Start Task Process	Task Stop Messa	age Telemetry
Delay after send: Delay after send: Send Telemetry after stopping task VIO: 1 Command: Toqqle level Delay before send: 0 Second(s) cipient: Selected Radios: 1; Selected Radio Groups: 2 V	Send Telemetry befo	re starting task	
Send Telemetry after stopping task VIO: 1 Command: Toggle level Delay before send: 0 Selected Radio Groups: 2 Selected Radios: 1; Selected Radio Groups: 2	VIO: 1	Command:	High level 🔹
VIO: 1 Command: Toggle level Delay before send: 0 Second(s) cipient: Selected Radios: 1; Selected Radio Groups: 2 V	Delay after send:		0 🗘 second(s)
Delay before send: 0 second(s) cipient: Selected Radios: 1; Selected Radio Groups: 2 v	Send Telemetry after	r stopping task	
cipient: Selected Radios: 1; Selected Radio Groups: 2	VIO: 1	Command:	Toggle level
	Delay before send:		
Send Telemetry on every Voice Message			 second(s)
			ted Radio Groups: 2

• 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.

6.4.5.11 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 Record	er X	
Task name:	Audio Recorder]
Settings		
IP:	10.10.169.121	
Port:	9094	
Test of	Channels	
	OK Cancel	
	On Cancer	1

• Task name

Specify 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.

6.4.5.12 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		
C:\Incoming		
Wait for response(sec): Text to confirm:	120 🚖 OK	
	OK Cancel	

Task name

Specify 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.

6.4.5.13 Import Phone Addresses

The **Import Phone Addresses** option allows importing phone/address data from a NENA database to TRBOnet database.

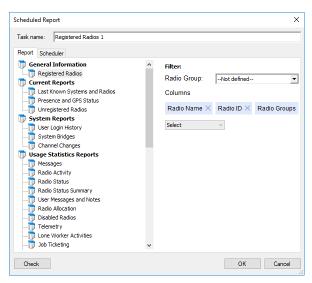
To perform this task:

- 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**.

6.4.5.14 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>6.4.21, Email Groups</u> (page 230).
- 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.





• 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 317).

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

Scheduled Report		×
Task name: Mesag	jes 1	
Report Scheduler		
Start date: Stop date:	26 October 2016 27 October 2016	•
Days of week:	Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday	•
Start time:	8:00	
Statistic period:	1 Hours	
Email groups:	S Polce dep	
Check	OK	Cancel

• Start date and Stop date

Select the time period over which to generate reports and send them to email group.

Note: The start date may be any date you choose to start the task on. The stop date must be later or the same as the current date.

• Days of week

In the drop-down list, select the days of the week you want to generate reports on.

• Start time

Specify the time to start generating the report at.

• Statistic period

Select the time interval (in minutes, hours, days, weeks, or months) to collect the data.

• 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 ■ License ■ Database ■ Radio Systems ■ System Bridging	Intercom	
Virtual Modbus Devices	v ► GRI + Delete	Δ
Voice Dispatch	Substater Presence Control Substater Presence Presen	
Job Ticketing	✓	
😥 Route Management	Images in pressure to retroit Images in pressure to the state Images in the state <tr< td=""><td></td></tr<>	
RFID Tracker Text Messages	C Scheduled Report 1_Messages for Period_26-Nov-2016 00:00:00 G SMS and Email notifications	
Voice Recording	♥ ♥ ♥ ● ♥ </td <td></td>	
Event Viewer	Voice Message	
Radio Allocation		
Administration	H4 44 4 Record 10 of 15 + >> >>> +> +> 4	Þ
💿 127.0.0.1 🖓 🔥 🤦 Administrator	Licensed 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.

6.4.5.15 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 d	ata from DB "Firebird"		×
Name:	Import beacon data from DE	3 "Firebird"	
Settings Import		User:	
localhost		SYSDBA	
Database p	ath:	Password:	
Port: 3050	÷	Update (sec):	
Test			
		OK Cance	1

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 beac	on da										
Name:		Imp	ort be	acon d	lata fron	n DB "F	irebird'				
Settings In	port										
Import of	lata fre										
<the (<="" td=""><td></td><td></td><td>Poss</td><td>ible></td><td></td><td>-</td><td>In</td><td>port</td><td></td><td></td><td></td></the>			Poss	ible>		-	In	port			
⊓ IZ Del	ata ald										
	ele uit	dati	3								
	ele oit	dati	9								
		1 dati	3								
Report:		dati	3								7
		dati	3						 	 	
		dati	3								
		dati	3							 	
			3							 	
									OK	Canc	

• 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.

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

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.

6.4.5.17 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://fc.int.hot-sos.net/api/service.svc/soap	
Login:	Tester 123	
Password:	*****	
Provider:	MOTOTRBO	
Polling Interval:	15 🔶 seconds	
Text Messages:		
Message Format:	%TEXT%%PRIORITY%%ORDER_ID% Text Priority Room Name Room Number Remark Order ID Message ID	
Status	HotSOS Status	٦
New	N .	•
Cancelled	Ca	
Assigned	Ass	
Accepted	Acc	
Rejected	R	
Completed	c .	•
	OK Cancel	



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.

6.4.5.18 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: Automatic Data Retrieval (Swift GPS	5)
General Radios	
Maximum number of simultaneous requests:	3 ਦ
Data upload	
Retrieve missing locations if the data gap exceeds:	30 🔶 seconds
Do not retrieve missing locations older than:	30 🛖 minutes 💌
	,,
	OK Cancel

Maximum number of simultaneous requests

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

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.

6.4.5.19 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).

eral F	Radios	
	n number of simultaneous requests:	3
ave to:	C:\	
Source	fonth Day Hour Minute Second Call Type In Recipient Recipient Type Recipient ID	Source Source Type
Source I Example	ID Recipient Recipient Type Recipient ID	Source Source Type

- 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.

6.4.5.20 Sign-in Reminder

The **Sign-in Reminder** task is used to remind users to sign in into radios.

- 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:



Sign-in Reminder	Text to Speech	×
General Radios	Timeout: Text to speech:	01:00 🛓
Pakt my r in presse	Huny up with signing in	OK Cancel
Add X Delete Disable the radio(s)) if not signed in during the timeout afte	
Timeout: 3 minute		,
		OK Cancel

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.

6.4.5.21 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 is	more than 30 minutes 🔶
Background Foreground	RoyalBlue
Text TRBOnet	
All Dispatchers Selected Dispatchers Dispatchers:	v
Т	est
	OK Cancel

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.

6.4.5.22 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	×
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:



Enter a name for the task.

General tab

Object Type

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

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 existing 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>6.4.17, 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.

6.4.5.23 Export Objects

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

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

Export Objects to I	File		×
Name: Export Rad	lios		
Object Type:	Radio		-
Columns:	All		•
Scheduler:	Not defined		× +
File Path			
D:\CSV\radios.csv			
		ОК	Cancel



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

Name

Enter a name for the task.

Object Type

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

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>6.4.17</u>, <u>Schedulers</u>).

File Path

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

6.4.6 Custom Fields

In this section, you can add custom fields that can later be used when registering radios (see section <u>6.4.27</u>, <u>Radios</u>, <u>Additional</u> tab) and users (see section <u>6.4.23</u>, <u>Users</u>, Custom Fields tab).

dministration	Custom Fields	\$				👲 🔿
Server	▲ ② 1: Line free		Intercom	•)) 🛋	All Call	•) •: 0
💮 🗍 Database	Private Call		Cleaners	•)) 🛋 (Firemen	•)) 🛋 🖉
Radio Systems	Group 10		Group 20	•)) 📢	2	
Telephony 2	Custom Fields					
🐺 Tasks	Add Edit	Velete				
	Name	∆ Key	Туре	Description		
Virtual Modbus Devices	✓ Car make	CAR_MAKE	Text	_		
	Description	DESCRIPTION	Text	Custom Field		×
Voice Dispatch	Email	3 EMAIL	Email	Name:	Car make	
	Name	NAME	Text			
Location Tracking	Phone	PHONE	Phone	Key:	CAR MAKE	
Route Management	Plate number	PLATE_NUMBER	Text	Туре:	Text	
() Route Hanagement				Description:	1	
Text Messages						
Reports	1				ОК	Cancel
Administration	HI HI A Record 1 o	f6 🕨 🙌 🕂 🕯				

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

- 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, or Email), 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:



Administration	Modbus					👲 🐠 🕻
·····································	🔊 1: Line fi	ree	•0	Interc	om	•) < Ø
Telephony	disp 15			Slot 1		•) 📢 🥝
····· 😽 Tasks ····· 🙀 Modbus TCP Connections	Slot 2		• • •			
Virtual Modbus Devices	🛃 Add 🌛 I	Edit 🛃 I	Delete			
< >	Nama 🛆	Mode	IP Address	Port	Slave ID	Behavior
1.1	ModBus1	Master	192, 168, 77, 10	502		
Voice Dispatch	ModBus2	Slave		502	1	Custom
Location Tracking		\backslash				
🔡 Job Ticketing		3				
💓 Route Management						
Radio Allocation	1					
Administration	HI HI I Reco	ord 1 of 2				

• Go to Administration (1), Modbus TCP Connections (2):

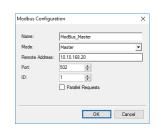
• In the **Modbus** pane, click **Add** (3).

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

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

Leave **Behavior** as Custom if this connection will be used for 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

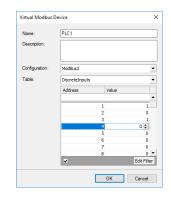
Select this check box so that TRBOnet Server can send multiple requests without waiting for responses from the Modbus device.

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.





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.

- 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:

Description:			
Disposal dump			
JRI:			
tsp://10.10.102.243	:554/		
rotocol:			
UDP	_		
	-		
Authorization			
User			
Password [

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 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:

File View Map Tools Help		
Administration	Event/Alarm Management	을 🐠 🕒
Server Sucese Database Kadio Systems System Bridging 2	✓ Intercon ≤ € 0 Al Cal ✓ Group 10 ≤ € 0 ✓ Group 20 ≤ € 0 Private Cal ≤ € 0 ✓ Group 30 < € 0) #0) #0
Telephony Tasks Virtual Modbus Devices Event/Alarm Management	Add Example Add	Δ
Uoice Dispatch	3	
😸 Job Ticketing		
Route Management		
Text Messages		
Voice Recording	4	
Event Viewer	1	
Administration	HH HH A Record 2 of 2 > >> >+ H A	Þ
🔂 127.0.0.1 🛞 🥵 💆 Administrator 📑	Licensed to: demo Demo License	🕑 Active -

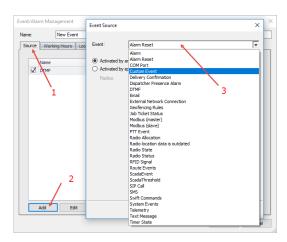
• Click Add (3) to add a new Event/Alarm Management rule.

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.



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.

ame:	New E	vent
Source	Working Hour	s Location Action
	Name	Description
	Text Message	Active Radios: All; Text: ;
	COM Port	Port: COM1; Text: alarm;

• 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.

ame:	New Event
Source Work	king Hours Location Action
🗹 Enable	
Radio Locatio	n: Inside Regions
O All Region	
 All Region Selected 	
Region	/ Kegors
Region 2	
Region_	
wq	
	Select All Clear All
	Select AllClear All

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

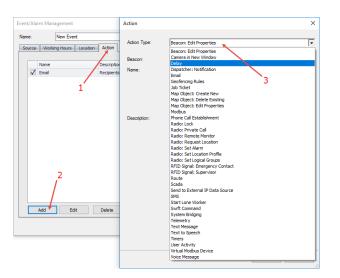
In the list, select the region(s).

• 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.

Administration	Event/Alarm Ma	nagement			🕹 🚳 🕻
Administration Administration Server Lecrose Lecrose Lecrose Red Systems Reg System Bridging Telephony Telephony What Modus Devices What Modus Devices What Modus Devices Voice Dispatch Location Tracking Dob Ticketing Reg Job Ticketing Reg Route Management	Event/Alarm Ma Phereon Group 10 Howe Cal Add Ethe Name Here Event Send Diffe) * 0) * 0) * 0	 ⇒ 1: Line free ✓ Group 20 ⇒ Delete 	Al Cal	
RFID Tracker Text Messages					
👲 Voice Recording					
Event Viewer Radio Allocation					

6.4.11 Telemetry

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

6.4.11.1 Radio Groups Telemetry

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

- Click Radio Groups Telemetry in the Administration pane.
- In the Telemetry configuration pane, click Edit.



File View Map Tools Help						
Administration	Telemetry confi	guration				🔮 🐠 🕒
Telephony Tasis Torial Modous Devices Torial Modous Devices Swift Event Profiles Government Government Government Government Government Government	Intercom Group 10 Private Cal Edit) & 0) & 0	i: Line free ✓ Group 20	4:0 •) 4:0	All Call	9) 4E (2)
Voice Dispatch	Telemetry Type Radio Groups To Digital Outputs	elemetry				
Job Ticketing	 VIO2: VIO2 VIO3: VIO3 VIO4: VIO4 	: High level (High le : High level (High le : High level (High le : High level (High le : High level (High le	vel) vel) vel)			
RFID Tracker						
Voice Recording	-					
Event Viewer Radio Allocation Administration						
🔂 127.0.0.1 🎘 🅵 🙎 Administrator 📑 Li	icensed to: demo Demo L	icense				🕑 Active -

elemetry Type:	MOTOTRBO			
ofile Name:	Radio Groups Telemetry			
Digital Outputs				
ID	Name	Command		
VIO1	VIO1: High level	High level		
VIO2	VIO2: High level	High level		
VIO3	VIO3: High level	High level		
VIO4	VIO4: High level	High level		
VIO5	VIOS: High level	High level		
Description ID: Name: Command:	V101 V Hgh level V	Αρρίγ		

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

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

6.4.11.2 Adding Telemetry Profile for Radios

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

File View Map Tools Help					
Administration	Telemetry confi	guration			😫 🕪 🕒
Administration Administration Take Takenov Take Takenov Taken	Intercom frop 10 Private Cal Add Edit Jogital Inputs divide Cal Mode Digital Inputs divide Cal Mode Cal	•) •: •) •) •: •) •) •: •) •: MOTOTRBO	ප) ප) ප) ප)	Al Cal	
Administration					
🔂 127.0.0.1 🛞 🕵 💆 Administrator 📑	Licensed to: demo Demo L	icense			🕑 Active -



Telemetry Profile	×
Telemetry type: Profile name:	MOTOTRBO
Telemetry #2	
	OK Cancel

- Specify Telemetry Type for Radio groups:
 - 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.

elemetry #1		×
Telemetry Type:	MOTOTRBO	
Profile Name:	Telemetry #1	
Common Digital I	inputs Digital Outputs	
Auto requ	est input states nterval: 600 🔦 second	
Trace digit	tal inputs	
Replace st	ate event to VIO events	
	OK	Cancel

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

emetry #1		
elemetry Type:	MOTOTRBO	
rofile Name:	Telemetry #1	
Common Digita	Inputs Digital Outputs	
ID	Name	Event
VIO1	③ VIO1	High level
VIO2	VIO2	High level
ID:	VIO2	
ID: Name:	VIO2 VI	
Name:	VIO2	
Name: Reset Name:		
Name: Reset Name: Event:	High level	
Name: Reset Name:		
Name: Reset Name: Event: Severity: Display as :	High level ▼ Might level ▼ Might level ▼ Might level ▼ Might level ▼	
Name: Reset Name: Event: Severity: Display as : Auto reset	High level High level High warning Warning Warning High kate state	
Name: Reset Name: Event: Severity: Display as : Auto reset	High level ▼ Might level ▼ Might level ▼ Might level ▼ Might level ▼	Apply
Name: Reset Name: Event: Severity: Display as : Auto reset	High level High level High warning Warning Warning High kate state	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 T	Type:	MOT	OTRBO	
Profile Name:		Teler	metry #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				
		104	Toggle	Toggle level
Descripti ID: Name: Commar		[v	103 •	logge level

- 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.

6.4.12 Text Messages

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

6.4.12.1 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>6.4.12.2</u>, <u>Adding Text</u> <u>Message Profile</u>.

6.4.12.2 Adding Text Message Profile

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



File View Map Tools Help		
Administration	Text Messages configuration	🔮 🚸 🕓
Virtual Modbus Devices P IP Cameras Event/Alarm Management C Remetry Radio Groups Telemetry	3: Line free	4 0 4 0
Text Messages 2	Add Detate Profile Type: MOTOTRBO Data protocol: MSI Proprietary	
Location Tracking	Stet Message format: Sender and Text Max. message length: 140 Spit long message itro multiple messages: No Text Messages Profile	×
😵 Job Ticketing	Profile type: MOTOTRBO	
Text Messages	Text Messages #1 OK Cancel OK Cancel	
Telemetry	1	
Administration	nistrator 📴 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.

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

- 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.

6.4.13 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).

6.4.14 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			
Administration	Location Profile		🔮 🐠 🕓
Swift Commands Profiles	🔉 1: Line free 🔳 🥑	Intercom	Maintenace 🕘 📢 🧭
🗄 📑 Radio Statuses	🖌 Sales 🛛 📢 🧭	🖌 disp 15 💿 📢 🧭	✔ Group 10 🗾 🛒 🖉
Location Profile Mobile Client Profile	🗸 Group 20 🛛 📢 🍕 🥥	🗸 Al Cal 🕘 📢 🥥	🔽 Group 11 💿 📢 🧭
Tools 2	🗸 Group 22 🔊 📢 🧭	Private Call	
Dispatcher Croups	📑 Add 📑 Edit 🗐 Delete		
Voice Dispatch	Profile type: MOTOTRBO		
Location Tracking	Manage trigger manually:	Yes	
🚼 Job Ticketing	Channel type: Location priority: GPS data	Non-scheduled (Regular GPS over \ GPS Latitude. Longitude. Direction. Spee	
Route Management	iBeacon data:	1 iBeacon: Major, Minor	u, medision
	Fast GPS on Connect Plus systems:	No	
Contemporary Text Messages	Periodic Trigger:	Interval 30.0 sec	
Reports	Distance Trigger: Telemetry Trigger:	No No	
Event Viewer	Emergency Trigger:	No	
8 Radio Allocation			λ_{3}
Administration -	1		
🐻 127.0.0.1 🛞 🕵 🕵 🙎 Adr	ninistrator 🛛 📑 Licensed to: demo Demo L	cense	🕑 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.

6.4.14.1 Adding a Location Profile

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

Location Profile	×
Profile type:	MOTOTRBO -
Profile name:	MOTOTRBO FS 5000
Location Profile #4	Extended device
	OK Cancel

Profile type

Select the Profile type (MOTOTRBO, FS 500, or Extended device).

Profile name

Enter the name of the profile.



cation Profile		
Name:	Location Profile #4	
Description:		1
		~
🔽 Save GPS data to	latabase	
Manage trigger ma	nually	
Channel type:	Non-scheduled (Regular GPS over Voice or Da	ata Revert Channel)
Location priority:	Beacon	
🔽 GPS data:	Latitude, Longitude, Precision, Direction, Spe	ed
🗌 Beacon data:	Major, Minor	
Number of iBeaco	IS: 1	
Fast GPS on Conn	ect Plus systems	
Periodic trigger		
Interval:	30.0 🛨 second	
Distance trigger		
Distance:	1000 meters	
Min. interval:	10 second	
Telemetry trigger		
Emergency trigger		
M Show emergen	y mode for Radio when Emergency GPS message	is received
		OK Cancel

• 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 will be started 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.

• Location Priority

This option is used when beacons are placed on the maps. If the radio having a GPS fix enters the range of a beacon placed on the map, its location tracking will be performed according to the selected priority.

Beacon

Location tracking will be performed based only on the GPS coordinates of the beacons placed on the map.



GPS

Location tracking will be performed based only on the GPS coordinates received from the radio.

• 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.

• 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.

• Telemetry trigger

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

• 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.

• Click **OK** to save the location profile settings.



To apply Location Profile to a radio:

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

ile View Map Tools Help									
Administration		Registered	radio grou	ps and rac	dios				👲 🚯 🔽
MS Groups Users Logical Groups Radio Groups Radio Groups Radio S	^ •	1: Line free	‡1: Slot #1 🐠		Group 1 Repeater #1: Si	•)) 48 ot #2 •)) 48) . 0
Voice Dispatch		Registered		OTRBO Radio	📑 Add WAVE	Radio 🔜 Ad	dd TRBOnet Mo	bile 📑 Edit	
			Туре	Radio ID	MDC / Sel-5			Logical Groups	Description
GPS Positioning		 125 235 	MOTOTRBO		0	2125 2235	Firemen		
📅 Job Ticketing									
💓 Route Management								3	
RFID Tracker									
Text Messages									
Voice Recording									
Reports									
Event Viewer									
Badio Allocation		_1							
Administration	-	HI 41 4 Record	1of2 ⊧ ⊮ H	нч					
🖞 127.0.0.1 🛞 🕵 🕵 🙎 Administrat		nsed to: demo D							Activ

eneral Logical Grou	ps Additional SIP Call Cameras		
Callsign:	125]
Radio ID:	125 🚔 MDC ID: 0	¢	
Radio Groups:	All	~ +	1
Home Group:	Cleaners	~ +]
Use icon:	🚯 Portable Radios 🗸 🗸	+ -	1
Extended Device:	None V Test		
Location Service			
Location Source:	Built-in GPS receiver 🗸		
Location Profile:	(Default)		
	(Default)		
Telemetry Serv	Location Profile #1		
TLM Source:	Built-in Telemetry V		ľ
TLM Profile:	(Default) V +		
Text Messages	Service		
TMS Type:	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**.

6.4.15 Mobile Client Profile

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>6.4.27.1</u>, <u>Adding TRBOnet</u> <u>Mobile</u>.

• Go to Administration, Mobile Client Profile.

You can see the default Mobile Client Profile settings in the **Mobile Client Profile** pane.



6.4.15.1 Adding a Mobile Client Profile

- In the Mobile Client Profile pane, click the Add button.
- In the **Mobile Client Profile** dialog box, specify the following parameters:

Mobile Client Profile		×
Client Type:	fault) SOnet Mobile ce Calls, Text Messages, Location, Job Tickets	-
Location Location priority:	Beacon 💽	
Use GPS location Trigger interval: Emergency interv Use Indoor locati Trigger interval: Emergency interv	n 30 🛖 seconds	
Number of iBeaco		
Defaults	OK Cancel	

Available Modes

In the drop-down list, select/unselect the features that will be available to the associated Mobile Client.

Monitor location from other stations

Select this option so that the Mobile Client 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, used to send GPS location data.

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.

• 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 arrow on the right and enter (**Add** link) 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.

6.4.16 Tools

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



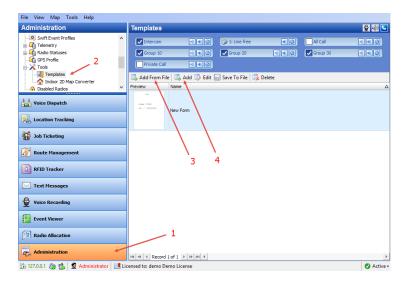
6.4.16.1 Templates for Extended Messages

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:



• 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:

Elements:		Template ID: 75/4e975	d966-48c0-add7-679ef109192b
A Label sbl Textbox CheckBox ComboBox	New Form	CataBindings)	Genereate new
Drag selected element to the workspace		Accessible Description Accessible Name Accessible Role Allow Drop	Default False
Template size: Width: 400 🔹	Text Message Critical	Anchor Appearance AutoCheck	Top, Left Normal True
Height: 500 🜩	Group	Auto Ellipsis Auto Size BackColor	False True ControlLightLight
		Backgroundimage BackgroundimageLayou CausesValidation	True
		CheckAlign Checked CheckState	MiddleLeft False Unchecked
		ContextMenuStrip Cursor Dock	(none) Default None
		Enabled > FlatAppearance FlatStyle	True Standard
		Checked Indicates whether the compo	nent is in the checked state.



• 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</u>, <u>Send Extended Text Message to a Radio</u>.

6.4.16.2 Indoor 2D Map Converter

TRBOnet Dispatch Console provides the Map Converter to use custom images as Indoor 2D Floor plans. The tool allows converting images to the BMAP format that is supported in Indoor Positioning.

• Click Administration (1), Tools > Indoor 2D Map Converter (2).

Administration Indoor 2D Map Converter Image: Distriction Image: Distriction	File View Map Tools Help					
Image: Image: <th>Administration</th> <th>Indoor 2D Map (</th> <th>Converter</th> <th></th> <th></th> <th>😫 🕪 🕒</th>	Administration	Indoor 2D Map (Converter			😫 🕪 🕒
Voice Dispatch Image: Droople 1 Image	GPS Profile	Group 10				
Instant	Dispatcher Groups 2	Floorplan 1				
Start	Voice Dispatch		tcher-2D-Floor-Plar	ns.jpg		
Image: Sob Ticketing Image: Start Image: Rrito Tracker Start Image: Rrito Tracker Image: Start Image: Voice Recording Image: Start Image: Event Viewer Image: Start Image: Relia Allocation Image: Start	Location Tracking					
Route Management RFID Tracker Text Messages Voice Recording E Event Viewer Fig. Radio Allocation	😸 Job Ticketing	D:\Images\Bmaps				
	😿 Route Management	Start				
Voice Recording Voice Recordi	RFID Tracker					
Event Viewer	C Text Messages					
f B Radio Allocation	Voice Recording					
	Event Viewer					
Administration		1				
D 127.0.0.1 D C Administrator C Licensed to: damo Damo License						

• 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):



File View Map	Fools Help							
	ect Active Map					ê 🕸 🖸	Objects	
	e Online Map Data		_		_		E ti	
Si Ma	p Content	ee 🔳 🥥	Intercom		Group 10	•) • 0		
🛛 📊 Firei 🔛 Pri			Group 20		Group 11	• • 0	🕀 🗹 🦢 Beacons	
	ocoding		Private Call				🗹 🎯 Beer 📝 🎯 Coffee	
Op Op	en New Map in Tab	Floor plan 🗶					Tea	
E Polic	en New Map in Window	💊 - Filter 🙆 🙆 🖸	🔘 🍸 🧕 Sho	v Beacons: Al	- 🥖	Drawing Panel	🖶 🗹 📴 Map Objects	
	ogle Earth ete Route on Google Earth	📐 🕼 😭 î î	👌 🛃 🔝 Custom (Object •			🗹 < Camera 1	
Voice	w Radios on Google Earth		10	41		L.		
	-	2	Yay			TH.	Hap Regions	
Location Track			.0			Camera Yasil'yevskiy	🖻 😨 🗁 Map Routes	
射 Job Ticketing	N A						i 📝 🗫 111	
~								
🥂 Route Manage	ment			Tea (0)				
RFID Tracker								
		1		<u>}</u>	Ŕ			
🖂 Text Message	<u>60 m</u>	1		HospiLattude	: 59"56"29.53" N: Lo	ngtude: 30"16'52,71" E		
0	Decemb Coll	ls/Events			125			1
Voice Recordin	9	:k 📓 Save + 🕒 Print 🛙 🛙	Pause 🥩 Clear 🕇	💁 Reload 🛛 🎢 Fi	lter By Radio 🛛 🐺	Grouping 🍸 Auto Filt	ter @ Default Settings	»
Reports	Date	Radio Syste		Redplent	Message	1.5.	Details	
· ·		017 14:43:57	Server	All		to 'Capacity Plus 1' h		•
Event Viewer		017 12:43:30 Capacity Pk 017 12:40:06 Capacity Pk		11		'Administrator' calls gr calls group '11' (00:08)	Members: Administrator, 125	
Radio Allocatio		017 12:39:55 Capacity Plu 017 12:39:55		11		'Administrator' calls gr		
Badio Allocatio	09.06.2	017 12:38:34 Capacity Plu	s 1 Administrator	Police		'Administrator' calls gr		•
Administration		Record 1 of 305 + ++ ++ · s/Events Recent Calls Re		tate Active Tasks	Active Routes	Liser Activity Beacons	Beacon Events Tao List	
- 127001 @ R	🙎 Administrator 📑 Lic			31		· · ·		Active
() 12110.001 () ()		enseu to. dento					•	Active
	Select Map						×	
	Map Type:	Beacon2D					\sim	
		Dedeonizo						
	Caption:							
	Available Maps							
	Name	Path				State		
	Floorplan 1	D:\Images\Br	naps\Floorplan	1.bmap		ОК		
	tillininit							
					-			
	Add		Remov	e	OK	Cance	4	
	Add	Edit	Remov	/e	OK	Cance	el	

- From the Map Type list box, select 'Beacon 2D'.
- Click Add to and browse for the map you have converted.
- Click **OK** to open the Indoor map in the Map pane.

6.4.17 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.

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



File View Map Tools Help		
Administration	Scheduler	ê 🚳 🖸
P Caneras B Caneras Construction B Caneras Construction Depatherer Construction	Seles Intercom Intercom Intercom Seles Image: Seles Image: Seles Image: Seles Seles Image:	
Woice Dispatch Image: Location Tracking Image: Dob Ticketing Image: Route Management	Shed1 Core ime Constanty Privacy Productory Touchary Tuesday	
Text Messages Voice Recording	Start: 5/21/2018 12:00 AM Stop:	
Reports Radio Allocation	CK Cancel	
🐻 Connected 🚷 🕵 🕵 🥵	💆 Administrator 🛛 🛄 Licensed to: demo Demo License	🕑 Active -

In the **Scheduler** dialog box, specify the following parameters:

Name

Enter the name of the scheduler.

Recurrence Pattern

Choose one of the recurrence patterns for the scheduler:

Days of Week

Specify the time and select the day(s) of the week.

Monthly

Specify one of the following options:

• Specific Day

Specify the ordinal day of the month (in the range 1-31, or select Last).

• Day of Week

Specify the week number in a month (in the range 1-4, or **Last**) and select the day of the week.

One time

Specify the date and time.

Periodically

Specify the time interval, the repetition period (in seconds/minutes/hours), and select the day(s) of the week.

Recurrence Range

Start

Specify the start date/time.

• **Stop** Specify the stop date/time.

6.4.18 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>6.4.20</u>, <u>Dispatchers</u> on page 224).
- Go to **Administration** (1), **Disabled Radios** (2) to disable/enable selected radio:

Administration	Dis	sabled Radi	DS			👲 🚳 🛂
Swift Event Profiles Factor Statuses Factor Statuses F		✓ Intercom ✓ Group 10 Private Call	I I I I I I I I I I I I I I I I I I I	Reason	Al Cal	
Event Viewer Radio Allocation		_1				
Administration			2 1 10 101 1			

• 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 Can	cel

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.



lessage 1 of 3	×
235 Repeater #1: Slot #1 Disabling	
The command has been executed.	01-Nov-2016 17:48
Do not show this message next time	Show on map Request Location

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



- 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.

6.4.18.1 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.

6.4.19 Dispatcher Groups

The administrator can add, edit, and delete dispatcher groups in the system.

• Go to **Administration** (1), **Dispatcher Groups** (2) to work with dispatcher groups:

File View Map Tools Help						
Administration	Registered Dispat	chers				🔮 剩 🕒
Radio Statuses GPS Profile GPS Profile Disabled Radios Dispatchers Groups Dispatchers Dispatchers 2	 I: Line free Al Cal Group 22 Sales 		Intercom Group 20 Private Call	*) =: 0 *) =: 0	Group 10	9 E0 9 E0
Voice Dispatch	📑 Add 📑 Edit 📑 D					
		adio ID	SIP ID	Descript	tion	
Location Tracking		0400	60400			
	Sales 61	0500	60500			
🐮 Job Ticketing						
Route Management	`3					
RFID Tracker						
Mark Messages						
🔮 Voice Recording						
Event Viewer						
Radio Allocation	1					
Administration	HH HH H Record 1 of 2 ▶	₩ 4				Þ
🔂 127.0.0.1 🚷 🕵 📓 Administra	tor 📑 Licensed to: demo					Active •



• Click Add (3) to add a dispatcher group.

Dispatcher	Group		×
General	Call Group	p Request To Talk	
Name:	м	laintenace	
Descrip	tion:		
		OK Cancel	

On the **General** tab, specify general parameters for the new dispatcher group.

• Display Name

Specify a name for the dispatcher group to display in the Dispatch Console.

• Description

Add a description for the dispatcher group.

On the **Call Group** tab, specify the following parameters:

Dispatcher Group		×
General Call Gro	up Request To Talk	
Radio ID:	60400	
Phone Call		
SIP ID:	60400	
SIP Name:	Maintenance	
Password:	******	
	OK Can	icel

• Radio ID

Specify the Radio ID of the dispatcher group.

Phone Call

SIP ID

Enter the SIP ID that will be used by the dispatcher group.



• SIP Name

Enter the SIP user name that will be used by the dispatcher group.

• Password

Enter the password for the dispatcher group to be authenticated by the telephone system.

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

ispatche	Group				×
General	Call Group	Request To	Talk		
🗹 AI	utomatically b	oy receiving	Text Message fi	rom a radio	
м	essage:	60400			
🗹 AI	utomatically b	y receiving	Telemetry Com	nand from a radio	
VI	0:	1	Command:	Any event	•
🗹 Ai	utomatically b	by receiving	DTMF command	from a radio	
C	ommand:	60400		#60400#	
	utomatically b	by receiving	Status from a ra	adio	
St	atus:	0			
				OK	Cancel

- Automatically by receiving Text Message from a radio Select this option to request a call from the dispatcher group when a radio sends a predefined text message. If you select this option, specify a brief text message in the **Message** box.
- Automatically by receiving Telemetry Command from a radio Select this option to request a call from the dispatcher group when a radio sends a predefined telemetry command. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Automatically by receiving DTMF command from a radio
 Select this option to request a call from the dispatcher group when a radio sends the specified DTMF tones. If you select this option, specify a DTMF combination without the # characters in the Command box.
- Automatically by receiving Status 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.



6.4.20 Dispatchers

The administrator can add, edit, and delete dispatchers in the system.

• Go to Administration (1), Dispatchers (2) to work with dispatchers:

	Registered Dis	natchare						😫 🗟
dministration	Registered Dis	patchers						<u>v</u> 1
	1: Line free	•0	Intercom	•) • Ø	Maintenace		Sales	
Disabled Radios	Group 10		disp	•) • Ø	EMERGENCY GROUP		Regular GGR	.OUP 🔊 📢 🥥
	Slot 1	1) 46 (0)	Group 20		Slot 2		Al Cal	
- 🤄 Email Groups	Group 11		Group 22		Group 1		Private Cal	
SMS Groups 2	Dispatchers Role							
Logical Groups			rouping 🍸 Au	uto Filter 🐵 Default Set	tings			
Radio Groune	User Name	∆ Role		Display Name	Radio ID	SIP ID		Description
	R Disp 1	Dispatcher		Dispatcher 1	60100	60100		
Voice Dispatch	R Disp 2	Dispatcher	1	Dispatcher 2	60200	60200		
	🧌 ivan 🔪	Dispatcher	1	ivan	25			
Location Tracking		\mathbf{X}						
🐕 Job Ticketing		3						
		3						
- -		3						
_		3						
Route Management		3						
Route Hanagement Text Messages Voice Recording	-1	3						

• Click Add (3) to add a dispatcher.

General	Dispatcher Rights	Radio Systems	Radio Groups	Dispatcher Grou	4
Authen	tication:	TRBOnet Authen	tication	~	
User Na	ame:	Dispatcher 1			1
Passwo	rd :	******]
Repeat	password:	******			j
Display	Name:	Dispatcher 1]
Descrip	tion:				1
Dispate	her Role:	Dispatcher		•	I
Invi	isible to all other use	ers			
Invi	isible to all except th	ne assigned group	S		
	w multiple simultane	ous logons			

- 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, section see section <u>6.4.23</u>, <u>Users</u> (page 232).

User Name

Specify a user name for the dispatcher registered in TRBOnet Dispatch Software 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. For 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 **Dispatcher Rights** tab, select the available modules and specify the available access rights for the dispatcher.

General	Dispatcher Rights	Radio Systems	Radio Groups	Dispatcher Grou	•
Availab	le Modules:	(All Modes)		•	
_	Dispatch Function	•			
✓ Us	e the Voice Dispatch	module			
\checkmark	Intercom calls				
\checkmark	Telephone calls via	the SIP 2.0 phone	e interconnect		
\checkmark	Initialize Private call	s			
🗹 Pla	y back the recorded	voice communica	tions		
Vie Vie	w all other voice call	s in addition to as	signed groups		
🗹 Ch	ange control station	channels			
🗸 Co	nfigure audio				
✓ To	ne and PTT				
	ow to send audio rec	ords			
Sa Sa	ve and export record	ded voice commur	nications		
Vie Vie	w System Bridge/Pa	tch			
	Enable/disable Syste	em Bridge/Patch			
	able/disable encrypti	on			
_	ow Call Preemption M		30	÷ minutes	
_	ation		100	•	4



On the **Radio Systems** tab, specify the radio system(s) that will be available for the dispatcher.

Dispatche	r				×
General	Dispatcher Rights	Radio Systems	Radio Groups	Logical Groups	• •
0.4	ll Radio Systems avai				
-	nly selected Radio Systems avai				
Ē	Radio System			TX	ī
T T	Control Station #	1			
F	Repeater #1: Slo	t #1			
F	 Repeater #1: Slo 	t #2		V	
C	heck All Uncheck Al	l			
			OK	Cance	el

• All Radio Systems are available

Choose this option to make all radio systems available for the dispatcher to transmit and receive Voice and Data.

• Only selected Radio 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.



ispatcher					
General	Dispatcher Rights	Radio Systems	Radio Groups	Logical Groups	•
	groups are available				
_	ly selected groups a				
	Firemen				
	Police				
	and all trade at all	1			
	eck All Uncheck All	L			
			OK	Can	el

• 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.

Dispatcher				×
Radio Systems	Radio Groups	Dispatcher Grou	Ips Logical Groups	Dispatch • •
·	are available cted groups are	مادانديد		
Name	cteu groups are	Descript	ion	
₽ □ 2	Cleaning	Cleaning	in Department 1	
	Cleaning 2 Security		or Security	
	Security 2			
Select All	Deselect All			
			ОК	Cancel

On the **Dispatcher Groups** tab, select the dispatcher group(s) the dispatcher will belong to:



Dispatcher				×
Dispatcher Rights	Radio Systems	Radio Groups	Dispatcher Group	S Logic + +
All groups an	re available			
Only selected	ed groups are ava	ilable		
Group				TX
Mainter	nace			
✓ Sales				
Check All L	Incheck All			
CHECK AIL C	DITCHECK MIL			
			OK	Cancel

On the **Dispatch Call** tab, specify Dispatch Call and SIP call settings for the dispatcher:

Radio Groups Logi	10	Dispatch Call	Request to Talk	Describe	4
Radio Groups Logi	cal Groups	Dispateri Cali	Request to Talk	Reports	
Radio ID:	60100	ł	<u>*</u>		
Phone Number:	123-4567	,			
Email:	billy@gma	ail.com			
Phone Call					
SIP ID:	60100				
SIP User:	60100				
Password:	•••••	••••			
SIP Profile:					\sim

• Radio ID

Specify the Radio ID of the dispatcher.

- **Phone number** Specify the dispatcher's phone number (additional data).
- Email

Specify the dispatcher's Email (additional data).

Phone Call

• SIP ID

Enter the SIP ID that will be used by the dispatcher.

• SIP Name

Enter the SIP user name that will be used by the dispatcher.



• Password

Enter the password for the dispatcher to be authenticated by the telephone system.

• SIP Profile

From the drop-down list, select the SIP profile to use.

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

Radio Groups	Logical Groups	Dispatch Cal	Request to Talk	Reports	4
Automa	tically by receivi	ng Text Messa	ge from a radio		
Messag	e: 60100				
🗹 Automa	tically by receivi	ng Telemetry C	ommand from a rad	dio	
VIO:	1	Command	High level	•	-
Automa	tically by receivi	ng DTMF comm	and from a radio		_
Comma	nd: 60100		#60100#		
Automa	, tically by receivi	ng Status from	a radio		
Status:	0				

• Automatically by receiving Text Message from a radio Select this option to request a call from the dispatcher when a radio sends a predefined text message. If you select this option, specify a brief text message in the **Message** box.

• Automatically by receiving Telemetry Command from a radio Select this option to request a call from the dispatcher when a radio sends a predefined telemetry command. If you select this option, specify the VIO contact, and from the **Command** drop-down list, select the signal level at which the user's radio should send the telemetry command.

- Automatically by receiving DTMF command from a radio
 Select this option to request a call from the dispatcher when a radio sends the specified DTMF tones. If you select this option, specify a DTMF combination without the # characters in the Command box.
- Automatically by receiving Status 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					×
Radio Groups	Logical Groups	Dispatch Call	Request to Talk	Reports	4 1
	ts are available				
0	ected reports are	available			
	ueries				^
	Lost Device	s			
📑 S	stem reports				
	🗊 Registered	Radios			
	📑 Unregistere	ed Radios			
	📑 GPS Status				
		ection History			
		lging Activity			
	Channel Ch	-			
	ommon reports				
	State of Ra				
		iges and Notes			
	Radio Alloci	-			
	Radio Disab	ling			
	Telemetry				~
Check A	II Uncheck All				
			OK		ancel

• All reports are available

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

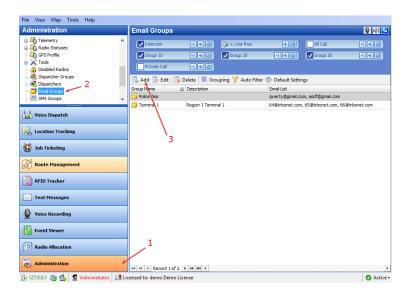
• Only selected reports are available

Choose this option and in the list below select/unselect the reports to include/exclude.

6.4.21 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.



Add/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.

6.4.22 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:

File View Map Tools Help							
Administration		Caller Groups					👲 🕪 🕒
	^	Group 10	0 C 0	 I: Line free Group 20 	•••••••••••••••••••••••••••••••••••••••	Al Cal	0) 4: 0
Dispatchers Dispatchers Single Groups Single Grou	*	Group Name Department 2 Department 3	∠ Delete Gro △ Description Regio 1 Departs Region 1 Departs	ment 2	 Default Setti Phone Numbers 79117894561, 7 792112374567, 	9217894561	
Voice Dispatch		3			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
 3ob Ticketing Route Management 							
RFID Tracker							
Voice Recording							
Image: Second Viewer		1					
		HI 41 4 Record 2 of 2	construction of the second second				•
🚯 127.0.0.1 🛞 🔂 💆 Administrator	r 📑 Lie	censed to: demo Demo I	icense				🕜 Active -

• Click **Add** to create a new SMS group:



Add/Edit SMS Grou	ips	\times
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.

6.4.23 Users

The administrator can add/edit/delete users in the system. In addition, the dispatcher can export/import users (see section <u>6.3.4.3</u>, <u>Exporting/Importing</u> <u>Objects</u>).

• Go to Administration (1), Users (2) to add/edit/delete users in the system:

File View Map Tools Help							
Administration		Users					😫 🕪 🕒
Disabled Radios Dispatcher Groups Dispatchers Dispatchers Dispatchers Dispatchers Dispatchers	^	Interc	10 🜒 🕷	Group 20		All Call	
SMS Groups	v	Private Add Login Basil		Grouping 🍸 Aut	o Filter 🍥 Default Settir ription	ngs	
Voice Dispatch		Pete	Pete	2401			
Location Tracking			3				
🚰 Job Ticketing							
Route Management							
RFID Tracker							
Text Messages							
Voice Recording							
Event Viewer [b] Radio Allocation		_ 1					
Administration		HI 41 4 Re	ecord 1 of 2 🕨 🗰 🖮	C			Þ
🐻 127.0.0.1 🛞 🕵 🙎 Admini	istrator 📑 Lic	ensed to: den	no Demo License				🕑 Active -

- Click **Add** (3) to add a new user to the system:
- On the **General** tab, set general parameters for the user:



/Edit U	Jser				
eneral	Radios	Advanced	User Call	Logical Groups	Custom Fields
\$ 0	Specify	user inform	ation		
.ogin:			Basil		
asswo	rd :		*******		
Repeat	passwor	d:	*******		
Display	Name:	İ	Basil		
Max rad	dios coun	t:	1	-	
Descrip	tion:	ĺ			
		I			
				OK	Can

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 radios count
 - Select a number of radios that will be available for the user.
- Description

Add a description for the user.

• On the **Radios** tab, specify the radios that will be available to the user.

Add/Edit U	lser					×		
General	Radios	Advanced	User Call	Logical Groups	Custom Fields			
Þ	Specify radios that the user can take							
	/ all radios	s						
Only	selected	radios						
	Callsign			Group				
🖌 🐼	111			Police, Fireme	en 🛛			
ی 🖌	✓ 125				Firemen			
	222			Police, Fireme	Police, Firemen			
	235			Firemen				
H4 44	4 Reco	rd 2 of 4 ▶				4		
	· Acco	142014 <u></u>		1		·		
				OK	Cance	el		

Allow all radios

Choose this option to allow using all radios in the system.



Only selected radios

Choose this option and specify which radios will be available to the user.

• On the **Advanced** tab, specify settings related to taking/returning radios:

Add/Edit User						×
General Radios	Advanced	User Call	Logical Grou	lps	Custom Fields	
Disable rac						
C Allow DTMF		1234		#123	34#	
Return rad	1	nagement				
Take radio:	: 6	Bsile				
Return rad	io: E	Bsilexit				
🗌 Allow Sign I	n / Sign Out	managemer	nt			
Sign-in ID:						
Allow beaco	on manageme	ent				
Major ID:	Γ	10	÷			
Minor ID:	Γ	20	÷			
Send notification to radio after it is taken/returned						
				OK	Can	cel

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/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/returns it.

• On the User Call tab, specify SIP Call settings for the user:

Camanal	Dedice		Licer Call	Logical Groups	Oustan Calda	
General	Raulus	Auvanceu	ober com	Logical Groups	Custom Fields	
Phor	ne Numbe	r: 79211	234567			
Emai	l:	2401@	gmail.com			
SIP	Call					
211	Can					
SIP I	ID:	2401				
SIP	Name:	2401				
Dage	word:					_
PdSS	word:					_
SIP F	Profile:					~
E	Block inco	ming calls				
	Block outo	joing calls				

Phone number

Specify the user's phone number (additional data).

Email

Specify the user's email address (additional data).

SIP Call

SIP ID

Enter the SIP ID that will be used by the user.

SIP Name

Enter the SIP user name that will be used by the user.

Password

Enter the password for the user to be authenticated by the telephone system

SIP Profile

From the drop-down list, select the SIP profile to use.

Block incoming calls

Select this option to block all incoming SIP calls for the user.



Block outgoing 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>6.4.24</u>, <u>Logical</u> <u>Groups</u> (page 236).
- On the **Custom Fields** tab, specify the desired values for the fields (see section <u>6.4.6, Custom Fields</u>).

6.4.24 Logical Groups

TRBOnet Dispatch Console allows adding custom logical groups in addition to radio groups. You can create groups and subgroups and then assign radios/users/dispatchers to these groups.

• Go to Administration (1), Logical groups (2) to work with Logical Groups:

File View Map Tools Help					
Administration	Logical Groups				🔮 🕪 🛂
Disabled Radios Dispatcher Groups Dispatchers Dispatchers SMS Groups SMS Groups	✓ Intercom 00 € Ø ✓ Group 10 •0 € Ø Private Cal •0 € Ø	1: Line free Group 20	40 1) 40	Al Cal	*) #: Ø
Logical Groups Radio Groups Radios	✓ Add → Edit → Delete Add as a Child Add as a Root Image: Add as a Root Image: Add as a Root		escription leaning in Departme	nt 1	
Voice Dispatch	L	G	roups for Security		
Location Tracking	Security 1				
😵 Job Ticketing	3				
😥 Route Management					
RFID Tracker					
C Text Messages					
🔮 Voice Recording					
Event Viewer					
Badio Allocation	1				
Administration					
🔂 127.0.0.1 🛞 🕵 🧕 Administrator 📗	Licensed to: demo Demo License				🕑 Active -

- Click **Add** (3) to add a logical group.
 - Select **Add as 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	×
Name:	Cleaning 1
Description:	Cleaning in Department 1
	OK Cancel

- Specify a **Name** and **Description** for the logical group.
- Click **OK** to add the logical group.

To display logical groups, enable the Logical Group view:

Voice Dispatch	
d: = = & % Y @ # &	
Cogical Groups Online Disparchers (1)	
Administrator	
😑 🏪 Cleaning	9
🗉 🚰 Cleaning 1	9
Ҟ 💌 125 (Pete) 125	9 V?
Cleaning 2	9
😑 1 Security	
😑 🐴 Security 1	9
💰 🔊 235 (Basil) 235	9 😒
Security 2	9
Voice Dispatch	
3 Job Ticketing	
😿 Route Management	
RFID Tracker	
RFID Tracker Text Messages	

All created logical groups are displayed in the list of radios.

6.4.25 Radio Groups

• Go to **Administration** (1), **Radio Group** (2) to add/edit/delete Radio Groups in the system.



	😫 🐠 😫
	Al Cal •) • •
Auto Filter 🗇 Default Settings	Description
5	Cleaning group
0	

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

Group Properti	es X
Name:	Cleaners
Group ID:	30 • <u>MDC ID:</u> 5 •
Description:	Cleaning group
Use custom	n Call Tone
🔊 Load fr	
🧐 Play ba	ck message
Use Broadd	ast mode for call (only for IPSC)
Use Open	/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, MP3) 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 Boxes</u>).

Use Broadcast mode for calls

Select this option so that a group call will be made in the Broadcast mode, causing that the group call receivers won't be able to answer (talk back) to this group call.

Use Open Voice Channel mode for calls

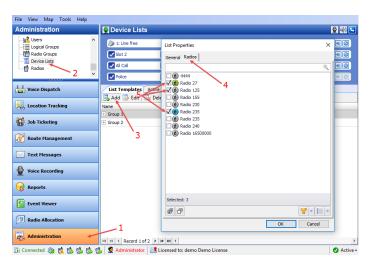
Select this option so that a group call will be made in the Open Voice Channel mode, causing that the group call will be received by all radios staying on the channel (and capable of receiving OVCM calls) rather than only by the group participants.

6.4.26 Device Lists

The Device Lists are used to dynamically group radios based on current needs.

6.4.26.1 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.

6.4.26.2 Dynamic Regrouping

Note: The Dynamic Regrouping feature is available only for Capacity MAX systems.

To assign radios to dynamic groups:

Note: To use the Broadcast and OVC modes for group calls, the **Use NAI Voice** option must be enabled for the repeater (see section <u>5.9.2</u>, Adding a MOTOTRBO Repeater).



• 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**.

Action:	Assign to dynam	ic group 💌	-
Group:	Group 50 AES		
Radios:			
Radio		Active Group	Progress
🗹 💰 Rad	io 135	Group 20	A Target radio is not authorized to receive the call
🔽 🛞 Rad	io 567	Group 50 AES	Command executed
🗹 🛞 Rad	io 35521	Test 10	🛕 Target radio does not respond. The radio could be in a call or out of the network coverage

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, select the desired radios.
- Click the **Execute** button.

6.4.27 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, Exporting/Importing</u> <u>Objects</u>).

• Go to Administration (1), Radios (2).



File View Map Tools Help		
Administration	Radios	🔮 🕪 🕒
Dispatcher Groups Dispatchers Dis	>> 1: Line free ■ ● Inter Private Cal 0 ■ ● Grou Group 20 0 ■ ● A	p 10 🗾 🕷 🖉
Logical Groups 2		Add WAVE Radio 🗟 Add TRBOnet Mobile 🗟 Add Range 👻
< >	Radio Name∆ Type Radio ID M 125 MOTOTRBO Radio 125 0	DC ID SIP ID Radio Gro Logical Gr Description 125 11; Firemen Cleaning,
	13 MOTOTRBO Radio 13 0	All
Voice Dispatch	235 MOTOTRBO Radio 235 0	235 Firemen; P Cleaning
Location Tracking	3333 TRBOnet Mobile 3333 0	3333 11: 22
The control fracking	6 555 MOTOTRBO Radio 555 0	All
🙀 Job Ticketing	Radio 300 MOTOTRBO Radio 300 0	All
Route Management	Ì	3
V Text Messages		
Voice Recording		
Event Viewer		
[19] Radio Allocation	1	
Administration	144 44 4 Record 1 of 6 + +++ +++ 4	Þ
🔂 127.0.0.1 🚷 🥵 🙎 Administrator 📑	Licensed to: demo	🖉 Active -

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

Voice Dispatch 125		Х
General Logical Group	os Additional SIP Call Cameras	1
Radio Name:	125	
Radio ID:	125 MDC ID: 0	
Radio Groups:	All 🗸 +	
Home Group:	Cleaners 🗸 +	
Use icon:	🕐 Portable Radios 🛛 🗸 🔸 –	
Extended Device:	None V Test	^
Location Service	:	
Location Source:	Built-in GPS receiver 🗸 🗸	
Location Profile:	(Default) V +	
	✓ Location Enabled	
Telemetry Servi	ce	
TLM Source:	Built-in Telemetry V	
TLM Profile:	(Default) V +	
Text Messages	Service	
TMS Type Hide Advanced Set	Standard V	*
	OK Cancel	

• 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>6.4.14</u>, <u>Location Profile</u> (page 210).

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>6.4.11, Telemetry</u> (page 204).

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>6.4.12</u>, <u>Text</u> <u>Messages</u> (page 208).

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.

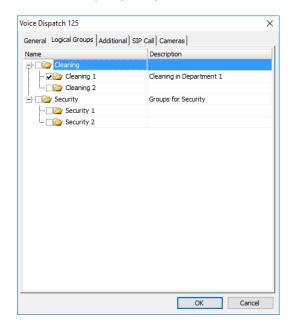
Radio Status Service

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>6.4.13</u>, <u>Radio Statuses</u> (page 208).

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>6.4.24</u>, <u>Logical Groups</u> (page 236).

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



Voice Dispatch Radio 125			×
General Logical Groups A	dditional SIP Call Cameras		
Load Image	Max speed: Route Color:	60 <u>*</u> ▼ Navajo… ▼	
Name	♥ Value		
Name			
Description			
Car make	Hyundai		
Plate number	RAMBO 01		
S Phone	+7 911 123-4567		
🖼 Email	tester@gmail.com		
		OK Cancel	

• Max speed

Specify the maximum speed allowed for the vehicle, in kilometers per hour or in miles per hour, depending on the measurement system specified in TRBOnet server.

Route Color

Specify a color to display the route passed by the radio on the map.

• Load Image

Click this button and browse for the photo or image to assign to the radio.

 In the table below, specify the desired values for the custom fields (see section <u>6.4.6, Custom Fields</u>).

Note: To automatically create and assign job tickets to the radio (see section <u>6.4.5.16</u>, <u>HotSOS (Email)</u>), there must be present at least one field with the 'Email' type.

On the SIP Call tab, specify SIP Call settings for the radio:



Voice Dispatch 125	i	×
General Logical G	roups Additional SIP Call Cameras	
SIP ID:	2125	
SIP Name:	2125	
Password:	•••••	
SIP Profile:	SIP 1	\sim
Block incomi		
	ОК	Cancel

SIP ID

Enter the SIP ID that will be used by the radio.

• SIP Name

Enter the SIP user name that will be used by the radio.

• Password

Enter the password for the authentication.

SIP Profile

From the drop-down list, select the SIP profile to use for the radio.

• Block incoming calls

Select this option to block all incoming SIP calls for the radio.

• Block outgoing 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:



oice Dis	spatch 125				×
General	Logical Groups	Additional SIP	Call Camer	as	
Name					
Came	era 1				
Came					
				01/	Consel
				OK	Cancel

6.4.27.1 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.

Voice Disp	atch 3333						×
General	Logical Group	s Additional	Cameras				
						_	
Radio	Name:	3333					
Radio	ID:	3333	* *				
Radio	Groups:	Firemen			\sim	+	
Home	Group:	Firemen			\sim	+	
Dispat	tcher Groups:	All			\sim	+	
Profile		Mobile Client Pr	ofile #1		\sim	+	
Use ic	on:	🛞 Portable Ra	adios			\sim	
SIP ID):	3333					
SIP U	ser:	3333					
Passw	vord:	•••••					
Passw	ord (repeat):	•••••					
🗌 Blo	ock incoming pł	none calls					
							_
				OK	Car	ncel	

In addition to digital radio parameters, TRBOnet Mobile has two more parameters: **Dispatcher Groups** and **Profile**.

• Dispatcher Groups

In the drop-down list, select a dispatcher group(s) which to assign to the mobile client.

• 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>6.4.15.1</u>, Adding a Mobile Client Profile.

6.4.27.2 Adding WAVE Radio

If the WAVE controller is connected, you can add WAVE radios to your radio systems.

• Click Add WAVE Radio.

logical croo	ps Additional SIP Call Cameras	
Radio Name:	Wave 145	
Radio ID:	145 🔛 Wave ID: 145	$\mathbf{\Sigma}$
Radio Groups:	Firemen ~	+
Home Group:	Firemen 🗸	+
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:	~	
TLM Profile:	*	
Text Messages	Service	
TMS Type	× .	

In addition to Radio ID, the WAVE radio has the Wave ID parameter.

Radio ID

Specify a Radio ID for the WAVE radio. This ID is used by other calling radios when addressing the radio, for instance, when making a private call or sending a text message.

WAVE ID

Enter the Wave ID that corresponds to the user registered in the WAVE server's user database.

6.5 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:





- 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.

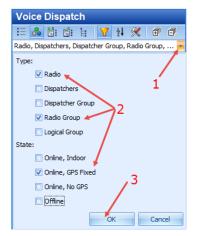
Green

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 🔽, and select which radio list elements to display 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 [1], and from the drop-down list, select how to sort the radios in the Radio List (Name, Radio ID, State).
- Click sto open the **Settings** dialog box to specify which quick buttons to display in the Radio List pane.

Settings	×
Hide/Show quick buttons	
Dispatcher Buttons	
Send Message	🕅 Request To Talk
Radio Buttons	
V Find on Map	Private Call
📰 Find on Google Earth	V Send Message
Show Route	🕅 Request To Talk
Show Route on Google Earth	E Blocking On/Off
Coogle Street View	Monitoring Radio
E Set Device Location	Presence in Network
On/Off Location Trigger	Remote Monitor
Radio Group Buttons	
Send Message	Reset Location Trigger
🗹 Request To Talk	
Logical Group Buttons	
Send Message	
Additional Options	
Show checkboxes	Show Location trigger state
Preview:	
🗆 🤵 Online Dispatchers	
Jonny	
😑 📴 Radio Group	🖵 🔔
🖈 Radio 1	📴 🔍 📮 😵
Radio2	📟 Q 📮 😵
<u> </u>	ars
	OK Cancel

Dispatcher Buttons

In this group, select the quick buttons to be displayed in the Radio List for dispatchers.

Radio Buttons

In this group, select the quick buttons to be displayed in the Radio List for radios.

Radio Groups Buttons

In this group, select the quick buttons to be displayed in the Radio List for radio groups.

Logical Group Buttons

In this group, select the quick buttons to be displayed in the Radio List for logical groups.

Note: For the preview, see the lower part of the **Settings** dialog box.

Additional Options

Show checkboxes

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 Location trigger state

Select this option to display the Location trigger state for a radio in the Radio List pane.

Ξ	📙 Fi	rem	en			Ş	1
	*	۲	111	on GPS	Ş	6	
	Ŕ	۲	125 (Pete)	on GPS	P	6	
	Ŕ	۲	222	on GPS	Ş	6	
	۴	۲	235 (Basil)	on GPS	Ş	6	
	Ŕ	۲	Radio 200	on GPS	Ş	6	
	4		Radio 201	on		6	-

✓ 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:

Voice Dispatch	
🔢 💑 🕼 🕼 E: 🔤 🔽 🛠 🕮	đ
27	P
Online, Indoor (0)	
🗉 🥚 Online, GPS Fixed (1)	
🚯 Radio 27	
Online, No GPS (1)	
Offline (8)	

6.5.1.3 Radio Pop-up Window

The dispatcher can see the last received radio data in the Radio pop-up window. Select a radio in the Radio List and hover the mouse pointer over it:

Capacity Plus Online by AR Battery: On Duty Lone Work	s 2 60% 3 4	
12:44 PM City Mall	6	12:45 PM
Accepted Accepted		7
GPS:	7/12/2018	6:24:36 PM
Speed:	1.9 km/h	
Altitude:	Unknown	8
Region:	No	Ŭ
Latitude:	59°56'27.8	5" N
Longitude:	30°16'47.7	1" E
	isil'yevsko <u>o</u> Peterburg,	



The following information on the radio is displayed in this pop-up window:

- 1. The current channel/radio system the radio is on.
- 2. The note about the radio state (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:

• Presence in Network

Choose this menu item to send a Check Radio 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 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).

• 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	Х
Reset Location Trigger	
Reset location trigger	
○ Stop location trigger	
O Start location trigger	
Change periodic interval	
Interval: 30,0 second	
OK Can	icel

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 > Send Audio Record

Choose this menu item to send an audio record to the selected radio.

Record audio	
	00:00
Convert Text to Speech	
Start Cancel	📔 Load 🔻

Click Start and start talking to the microphone.

Record audio	
www	00:34
Convert Text to Speech	
🖸 Send 🔀 Cancel	📄 Load 🔻

• 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	A
	•
Listen	OK Cancel

• Advanced > Send Coordinates To

Choose this menu item to send the coordinates of the selected radio to selected recipients.

Send Text Message	1	×
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 (àroups	
Filter:	235	
🗑 💈 235 (Ba		
Send copy by En	ail	
Send copy by SN	IS	
Send to offline ra	adios	
Hide Advanced O	ptions SEND	Cancel

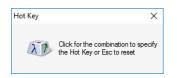
 In the dialog box that appears, specify the radio/radio group/dispatcher to send the coordinates to.

• Advanced > Send Email

Choose this menu item to send an Email message to the selected radio mailbox.

• 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.



• Find on Google Earth

Choose this menu item to display the selected radio location on Google Earth.



• Show Route on Google Earth

Choose this menu item to display a route traveled by the selected radio on Google Earth for the specified time period.

Show Route	×
Radio:	125 (Pete) ~
From:	15-Nov-2016 0:00
To:	<last known="" location=""></last>
Color:	105, 105, 105
	Optimize Route (group all nearest points)
	OK Cancel

Monitoring > Monitoring in New Window

Choose this menu item to open a new Map window for the selected radio.

• Monitoring > Google Street View

Choose this menu item to open Google Street View with the latest location and direction of the selected radio.

• Monitoring > 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				
Þ	Offline	۲	Offline		•	+	
	Online, No GPS	۲	Online, No GPS		•	+	
	Online, GPS Fixed	۲	Online, GPS Fixed		•	+	
	Online, Indoor	۲	Online, Indoor		•	+	
	Alarm	۲	Alarm		-	+	
					Re	eset	
re	view						
	view Offline	Online	Online (GPS)	Online (Beacon)	A	am	



- 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/unselect 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>6.4.5.6</u>, <u>User Activity</u> (page 168).

6.5.2 PTT Boxes

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

Control 5	tation #1 💿 📧 🖉
PTT	Channel 1
	All Call 🔻
	Session:
	Free channel
	Sender:
]

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	×
	Defaults
Recorder:	Default 💌
Player:	Default 💌
Speaker:	Default 💌
Volume:	\odot \bigcirc \bigcirc
External PTT:	Footswitch (Footswitch PTT)
Indicator:	Footswitch (RTS)
Theme:	Default 💌
	OK Cancel

• Private Call Mode

Select this mode to allow making private calls from the PTT box.

• 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 Sutton 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 98.

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.



• 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	

• 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 98.

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	
	All Call 🔹
PTT	All Call
	Group1
	Offline: Dispatcher 2
	Session:
	Free channel
	Sender:
S	
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:

ice Dispatch	Radio Interface							
🗄 h 象 🗶 7 🗇 🗗 🔇	Radio Interface Reco	ent Calls/Events						
			Active Calls			×	Quick Comman	nds
🎓 🛞 Radio 204 🛛 📟 🛡 🔌							Configure	
🕏 🎯 Radio 205 🛛 🔐 寻 🔌							Queued Messa	iges
Firemen 📮						^	🎯 Record 🔻 😰	File
🚯 🧭 111 🛛 📟 🖵 😒	Repeater #1: Sk	ot #1 🔳 🖷		tepeater #1: Slot	#2 🔊 📧 🙆		To: Selected Channels	
💰 这 125 (Pete) 🛛 🚟 寻 😒				All Ca				
🗶 🕑 222 🛛 🛄 🖵 🔇	PTT	udii		TT			Voice Mes	sage
🐔 🔊 235 (Basil) 🛛 🐺 📮 🔇							Voice Message	
🖹 🖉 Radio 200 🔤 📮 🔇								
	Sessi	on: channel		Session Free ch			Patch	
Ҟ 🖉 Radio 201 🛛 📴 🛡 🔇		channel		Free of	annei		Drag and Drop PTT Box here	
🚯 🔊 Radio 202 🛄 🖬 👀							Drag and Drop PTT Box here	to create new gro
Voice Dispatch	Send	er:		Sender	:			
							Patch on Repeaters	
Location Tracking							Binary Patch	
	RX / TX		76 J	x / x	1 0		System Bridge	
Job Ticketing							System Bridge Repeater #1: Slot #2	_
	_					~	Repeater #1: Slot #4	2 рті
Route Management	Recent Calls/Events							
	🔄 🖾 Playback 🔙 Save 🕇	🚽 Print 📔 Paus	se 🛷 Clear 🛛 🧐	Reload 🛛 🎁 Filte	er By Radio 📑 Grouping	I 🝸 A	uto Filter 🗇 Default Settin	gs 🛛 😭 Details
RFID Tracker	Date	Radio System	Sender	Recipient	Message		Details	Note
	15-Nov-2016 15:43:52	Repeater #1: Sl		125		spat	Members: Dispatcher 1, 125	
Text Messages	2015-Nov-2016 13:28:52		235	All	Reset Geofencing Alarm			
	15-Nov-2016 13:28:48 3 15-Nov-2016 13:28:48		235	All	The Geofencing - Monitor A			
Voice Recording	3 15-Nov-2016 13:28:48		235	All	Radio left allowed region 'N Radio left allowed region 'N			
	HI HI HI A Record 1 of 578	F H H 4	233	- MI	Rauio iei caioweo region in	IV 2		
Event Viewer	Recent Calls/Events Reco	and the second	- Tall Death on	te Active Tasks	Active Routes User Activ			

- 访 127.0.0.1 🛞 🥵 🕵 🧕 Dispatcher 1 📑 Licensed to: demo Demo License
- 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 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 police).



File View Map Tools Help		
Voice Dispatch	Radio Interface	🔮 🗐
💼 🗄 🛔 👶 🛠 🍸 🗊 🗇 😒	Radio Interface Recent Cals/Events	
	Active Calls	-) (
🚷 🎯 Radio 203 🛛 🔛 📮 🔌 🌥	To: <u>Selected Channels</u>	— J
🚷 🤔 Radio 204 🛛 🔛 🔍		5
🚷 🧭 Radio 205 🛛 🔛 🔍 🗕	Voice Message	_
😑 📑 Firemen 🛛 📮 =	Repeater #1: Slot #1 Repeater #1: Slot #2 Repeater #1: Slot #2 Voice Message	
🎓 🛞 111 🛛 🔛 📮 🔇 🗖	Police • Patch	×
💰 🔊 125 (Pete) 🛛 🔐 🖵 📎	PTT PTT	
🎓 🛞 222 🛛 🔛 📮 🔌	Drag and Drop PTT Box here to create new	group
💰 🕭 235 (Basil) 🛛 🐺 📮 🔇	Session:	\leq
	A A A A A A A A A A A A A A A A A A A	
Voice Dispatch	Sender:	
	Dispatcher 1 Dispatcher 1 Dispatcher 1 Dispatcher 1	•)
Location Tracking	Poice P	т
😸 Job Ticketing	RX /TX RX /TX RX /TX Repeater #1: Slot #1	_]
Route Management	Recent Calls/Events	
Koute Hanagement	🏾 🖤 Playback 📓 Save - 🕘 Print 📕 Pause 🍼 Clear - 🏐 Reload 🏋 Filter By Radio 📑 Grouping 🍸 Auto Filter 🍥 Default Settings 🚰 Deta	ails
RFID Tracker	Date Radio System Sender Recipient Message Details Note	
_	- 💋 15-Nov-2016 17:35:17 Repeater #1: Sl 125 Firemen Radio '125' calls group 'Fireme Members: 125	•
Contemporary Text Messages	2 15-Nov-2016 17:35:17 Repeater #1: Sl 125 Police Radio '125' calls group 'Police' (Members: 125	
A	2 15-Nov-2016 17:35:09 Repeater #1: Sl 235 Polce Radio '235' cals group 'Polce' (Members: 235 7 15-Nov-2016 17:35:08 Repeater #1: Sl 235 Firemen Radio '235' cals group 'Firemen Members: 235	
🔮 Voice Recording	15-Nov-2016 17:34:37 Repeater #1: Sl 235 All Al Call from '235' (00:01) Members: 235	-
Event Viewer		Þ
	Recent Cals/Events Recent Cals Request to Tak Radio State Active Tasks Active Routes User Activity Map Cameras	
🔂 127.0.0.1 🚷 🕵 🕵 💆 Dispatcher 1 📑	Licensed to: demo Demo License	Active

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			Q
1 🗄 1 👶 🛠 7 🖉 8 🛇	Radio Interface Recent Calls/Events Active Calls	X	Quick Command	5 X
🚯 🛞 Radio 203 🛛 🐺 📮 🔇 🎽			Configure	
🖈 🕑 Radio 204 🛛 🐺 📮 🔇			Queued Message	s 🗴
🖈 🕑 Radio 205 🔤 📮 🔇				
Firemen 9	Telephony		🥥 Record 🔻 😰	File 🔻
🖈 🕑 111 🛛 🐺 🖵 🔇 =			To: Selected Channels	
💰 🔊 125 (Pete)	PTT		Voice Messac	e
	Al Cal		Voice Message	
🖈 🕑 222 🔤 🐺 🖵 🔇				
🛣 🥑 235 (Basii) 🔤 🖵 💙			Patch	2
	PTT Free channel PTT Free channel		Firemen	
👔 🖉 Radio 201 🔤 🛡 义	Al Cal		Cleaners	Clear
Voice Dispatch		2-		
- voice Dispatch	🛛 🗹 Firemen 🛛 🕷 🖉 🔽 Cleaners 🔊 🕷 🥥		Patch on Repeaters	
Location Tracking	PTT Free channel PTT Free channel		Binary Patch	
	Firemen Deaners		Firemen - Police	N
🚰 Job Ticketing			Repeater #1: Slot #2	PTT
7	Recent Calls/Events		Delice	PIL
🕐 Route Management	🗐 Playback 🚽 Save - 😑 Print 💷 Pause 🛷 Clear - 🧐 Reload 🍸 Filter By Radio 🚍 Group	oina 💙	Auto Filter 🌰 Default Settings	🐨 Details
RFID Tracker	Date Radio System Sender Recipient Message			Vote
		1' cals	Members: Dispatcher 1	
Text Messages			Members: Dispatcher 1	
			Members: Dispatcher 1	
Voice Recording			Members: Dispatcher 1 Members: Dispatcher 1	
3	Image: Intervention Image: Intervention	1 colo	manuala, papataler 1	
Event Viewer	Recent Cals/Events Recent Cals Request to Talk Radio State Active Tasks Active Routes User	Activity	Map Cameras	

- 1. In the **Radio Interface** pane, select the PTT boxes you want to combine in a group. Drag and drop them 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. Select the check box to activate the patch.



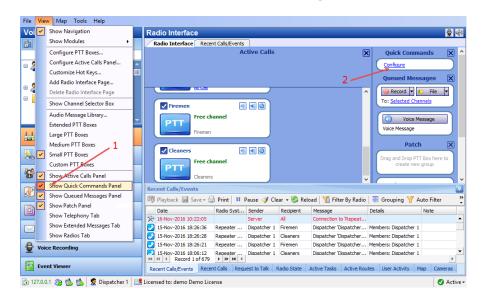
Voice Dispatch	Radio Interface	÷
di 🗄 h 🍰 🛠 🍸 🖻 🗗 🐼	Radio Interface Recent Calls/Events	
€ C		Voice Message Voice Message Patch
€ ○ Rado 205 □ • • •	Image: Solid State Image: Solid State Image: Solid State Image: Solid State <td>Patch on Repeaters Brary Patch Group /td>	Patch on Repeaters Brary Patch Group
A Radio 201 A Radio 201 Conce Dispatch Location Tracking Dob Ticketing	PTT A.Cal Ø Freen Ø Ø Ø PTT Free channel PTT Free channel PTT Free channel	Central #1.500 #2 PTT Repeater #1.500 #1 Fremen Firemen - Police Repeater #1.500 #2 Police Repeater #1.500 #1 PTT
Route Management	Recent Calls/Events	
RFID Tracker Text Messages	Date Radio System Sender Recipient Message Dr 0 54%v-2016 18:06:05 Repeater #1:S.m. Dispatcher 1 Firemen Dispatcher Dispatcher 1 Galaxi Mi 0 154%v-2016 18:06:05 Repeater #1:S.m. Dispatcher 1 Firemen Dispatcher Dispatcher 1 Galax Mi 0 154%v-2016 18:06:05 Repeater #1:S.m. Dispatcher 1 Firemen Dispatcher Dispatcher 1 Galax Mi 0 154%v-2016 18:06:06 Receiter #1:S.m. Dispatcher 1 Cleaners Dispatcher Tiggatcher 1 Galax Mi	embers: Dispatcher 1
Voice Recording	IS-two-20 is 1500/300 kepeater #15 Upgather 1 Peren Dispather Upgather Upgather 1 Cals M IS-two-20 is 1503:01 Repeater #15 Databeter 1 Firemen Dispather Upgather Upgather Cals M Is-two-20 is 17:58:21 Repeater #15 Databeter 1 Firemen Dispather Upgather U	embers: Dispatcher 1

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:	est	
Command		
Command:	Send Text Message	
Message:	This is a test	
C Send to Radio	Group	
Send to Radio		
Recipient:		
	9	
13		
125		
235 💽 🖌		
555	U	
3333		
6 4444		
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 Group

Choose this option to send the text message to radio groups registered in the system. In the **Recipient** box, select target groups.

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.

6.5.6.2 Send Telemetry

Quick Command		×
Name:	Test	
Command		
Command:	Send Telemetry	•
VIO:	VIO 1 Command:	High level 💌
C Send to Rad	lio Group	
Send to Rad	lio	
Recipient:		
		0
13		
15		0
235		
555		
3333		Ŭ
☐ ★ 4444		
□ € 5555		T
Selected: 2		
ē ī		*=
		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	Х
Name: Location of 125 and 235	
Command	
Command: Request Location	-
Recipient	
<u></u>	
13	
125	
235	
555	
3333	
□	
C 🕤 🛞 5555	
🗆 🛞 Radio 300	
🗌 🛞 Radio 333	
🗌 😥 Radio 3662	
Selected: 2	
7 · ·	j
OK Cance	

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 Comm	and			×
Name:	We are or	n fire		
Command				
Command:	Send Vo	pice Message		•
Juad fi	rom file			
Record				
	ack message			
Call Type		Channel	Call Target	
Group Call		Capacity Plus #1	Firemen	-
- Add	× Remove			
Priority:	Normal			•
			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: Si	ignal 1		
Command			
Command:	Send Signaling		•
Radio System:	Capacity Plus #1		-
Target:	Firemen		-
Type:	Custom		-
Freq. 1 (Hz)		Duration (ms)	Pause (ms)
1 288.5	0.	1000	0
🖶 <u>Add</u> 🗙 Del	ete		p 😸 Move Down
		OK	Cancel

Command

From the drop-down list, select **Send Signaling**.

Radio System

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

Target

From the drop-down list, select the target group to which the signal will be sent.

• Туре

From the drop-down list, select the signaling system type (Quick Call I, Quick Call II, DTMF, or Custom).

If the **Custom** type is selected, specify the **Frequency 1**, **Frequency 2**, **Duration**, and **Pause** for the signal to be sent.

6.5.6.6 Send Command to Control Station

Quick Command	×
Name: Command to Control	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
	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 Command	×
Name: RTT 1	
Command	
Command: Request To Talk	•
C Send to Radio Group	
Send to Radio	
Recipient:	
	9
13	*
125	<u> </u>
235	
555	
(*) 3333 (*) 4444	
(*) 5555	U
Radio 300	
- ă	*
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

Quick Command				×
Name: S	wift 1			
Command				
Command:	Send Swift Command	ł		•
Swift Command:	Swift Command 1			-
Parameter 1:				
Parameter 2:	0			
Send to Radio	Group			
C Send to Radio				
Recipient:				
System		Group		
Capacity Plus #1	1	Firemen		•
🖶 Add 🗙 Del	lete			
			ОК	Cancel

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.

6.5.7 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 Interfac	ce					Ŷ	1
💼 🗄 🐁 🗶 7 🖉 🖓 🕲	Radio Interface	Recent Calls/E	vents					
			Active Calls		٥	Quick Com	nands 🛛 🗙	<
😑 🤶 Online Dispatchers	1					Configure		
-6.5								
2 Dispatcher 1						Queued Me	ssages 🛛 🗙	4
🗉 🧏 Group1		Alicar			/	Record 🔻	😰 File 🔻	1
😑 📙 Cleaners 📮						To: Selected Ch	annels	J
🛣 🧭 Radio 200 🛛 🔛 🔍	Firemen		•) 📧 🖉					1
🚯 🛞 Radio 201 🛛 🔛 🔍 📼	PTT	Free channel				Voice	Message	
and the second		Firemen				Voice Message		
Voice Dispatch				/				
	Cleaners					Pat	ch 🗙	
Location Tracking		Free channel				Drag and Drop P		
8-4	PTT	free channel				create ne	w group	
鑙 Job Ticketing		Cleaners	J					Ο,
1	Recent Calls/Even	its						
🥂 Route Management	Dindrack 🗐	Dint Drint	II Daura di Ci	oor - 🦗 Rol	load 🛛 🍸 Filter By Radio	Crowning 🔽	Auto Eiltor	"
B				1	1			
RFID Tracker	Date	A Radio S	yst Sender	Recipient	Message	Details	Note	
-	1							-
Text Messages	15-Nov-2016 18 15-Nov-2016 18		er Dispatcher 1 er Dispatcher 1		Dispatcher 'Dispatcher Dispatcher 'Dispatcher			
A win Brenton	315-Nov-2016 18		Server	Al	Connection to 'Repeat		1	
👻 Voice Recording				~	connection to Repeat			•
Event Viewer	144 44 4 Record 6							•
Lvent viewer	Recent Calls/Events	Recent Calls	Request to Talk	Radio State	Active Tasks Active Rou	utes User Activity	Map Cameras	
访 127.0.0.1 🔉 🕵 🕵 💆 Dispatcher 1 📑	Licensed to: demo D	emo License					🕑 Ac	tive

To queue an audio message for delivery to the selected recipients, first record a message by clicking the Record button. Alternatively, you can select an MP3 or 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.

Ī	Filename	Description	Severity	Hot Key	Visibility
Ī	Alarm Tone		Alarm		Hidden
·	Bobby.mp3		Information		Button
	Daisy.mp3		Information		Link

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



6.5.7.3 Record Audio File

You can record a voice message that can be sent to selected radios.

• Click **Record > Record audio** to open the recording tool:



• Click **Start** and start talking to the microphone.

Record audio	
-hannethy the pathy have	00:17
Convert Text to Speech	
Stop Cancel	

• Click **Stop** to stop recording the message.

Record audio	
	00:25
Convert Text to Speech	
😈 Send 🔀 Cancel	🛃 Save 🔻

- Click **Send** to send the recorded message immediately.
- Click Save > Save as file to save the recorded file as an audio file on the PC.

Or:

 Click Save > Save as Saved Audio File to add the recorded file to a list of the Saved Audio Files.

6.5.8 Activity Monitor Panel

While in this panel, the dispatcher can perform a wide range of tasks, including:

- Monitoring and listening to recent calls and viewing system events
- Monitoring selected radio 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.



oice Dispatch	Radio Interface						₽
i 🗄 🗄 👶 🗶 🏹 🖻 🗗 🛇	Radio Interface Re	ecent Calls/Events					
	Repeater #1:	Slot #1 🔊 🛋				Quick Con	imands 🛛 🗙
🚯 🕑 111 🛛 🔡 📮 义		channel	²			Configure	
🐔 💌 125 (Pete)	PTT	chalinei				Queued Me	essages 🛛 🗙
 ★ ≥ 222 ★ ≥ 222 	ALC:	<u></u>	J	1		Queued Mo	
			\leq			🧼 Record 🔻	🎦 File 🔻
💰 🔊 235 (Basil) 🛛 📟 早 🔇	Repeater #1: 1	Slot #2 🛛 💓 📧 🛛	2)			To: Selected O	hannels
觰 🧭 Radio 200 🛛 📴 寻 🔌		channel					
👔 🧭 Radio 201 🛛 📟 📮 🔇	- PTT						Message
1	ALC:			1		Voice Message	•
Voice Dispatch	Cecent Calls/Events						
Voice Dispatch	Cecent Calls/Events	- Drint II David	d Class - 10	Deleval Stra	han Da Badia 🖉 Cas	uning 🔽 Auto Ciltor	
-	🖾 Playback 🛃 Save -						
Location Tracking		Print 11 Pause Radio System	≪ Clear - 🧐 Sender	Reload T Fi Recipient	Iter By Radio 🐺 Gro Message	Details	Note
Location Tracking	Playback Save - Date	Radio System	Sender	Recipient	Message	Details	
Jocation Tracking Job Ticketing	Playback Save - Date	Radio System	Sender Administrator	All	Message All Call from dispat	Details Members: Administrator	7
Location Tracking	Playback Save - Date 2 16-Nov-2016 15:22:16 2 16-Nov-2016 15:22:10	Radio System 5 Repeater #1: Slot #2 5 Repeater #1: Slot #1	Sender	Recipient	Message All Call from dispat All Call from dispat	Details Members: Administrator Members: Administrator	7
Location Tracking Job Ticketing Noute Management	Playback Save Date 216-Nov-2016 15:22:16 16-Nov-2016 15:22:11 16-Nov-2016 15:22:12	Radio System 5 Repeater #1: Slot #2 5 Repeater #1: Slot #1 5 Intercom	Sender Administrator Administrator	All All	Message All Call from dispat All Call from dispat Intercom Call: Disp	Details Members: Administrator Members: Administrator Members: Administrator	r r r
Location Tracking Job Ticketing	Playback Save Date Date 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1	Radio System 5 Repeater #1: Slot #2 5 Repeater #1: Slot #1	Sender Administrator Administrator Administrator	All All All	Message All Call from dispat All Call from dispat Intercom Call: Disp Dispatcher 'Adminis	Details Members: Administrator Members: Administrator	
Location Tracking Do Ticketing Route Management RFJD Tracker	 Playback J Save Date 16-Nov-2016 15:22:16 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 16-Nov-2016 15:22:1 	Radio System Repeater #1: Slot #2 Repeater #1: Slot #1 Repeater #1: Slot #1 Intercom Repeater #1: Slot #2 Repeater #1: Slot #2	Sender Administrator Administrator Administrator Administrator	Redpient All All Cleaners	Message All Call from dispat All Call from dispat Intercom Call: Disp Dispatcher 'Adminis Dispatcher 'Adminis	Details Members: Administrator Members: Administrator Members: Administrator Members: Administrator	
Location Tracking Job Ticketing	 Playback J Save Date 16-Nov-2016 15:22:11 16-Nov-2016 15:22:12 16-Nov-2016 15:22:12 16-Nov-2016 15:22:11 16-Nov-2016 15:22:11 16-Nov-2016 15:22:12 16-Nov-2016 15:22:10 	Radio System Repeater #1: Slot #2 Repeater #1: Slot #1 Intercom Repeater #1: Slot #2 Repeater #1: Slot #2 Repeater #1: Slot #1	Sender Administrator Administrator Administrator Administrator Administrator	Redpient All All All Cleaners Firemen	Message All Call from dispat All Call from dispat Intercom Call: Disp Dispatcher 'Adminis Dispatcher 'Adminis All Call from dispat	Details Members: Administrator Members: Administrator Members: Administrator Members: Administrator Members: Administrator	
Location Tracking Do Ticketing Route Management RFJD Tracker	Image: Second	Radio System 5 Repeater #1: Slot #2 6 Repeater #1: Slot #1 2 Repeater #1: Slot #2 2 Repeater #1: Slot #1 7 Repeater #1: Slot #1 7 Repeater #1: Slot #2 6 Intercom	Sender Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator	All All All Cleaners Firemen All All All All	Message All Call from dispat All Call from dispat Dispatcher 'Adminis Dispatcher 'Adminis All Call from dispat Intercom Call: Disp Intercom Call: Disp	Details Members: Administrator Members: Administrator Members: Administrator Members: Administrator Members: Administrator Members: Administrator	
Location Tracking Job Ticketing Route Hanagement RFID Tracker Text Hessages	 Playback Save - Date 16-Nov-2016 15:22:10 16-Nov-2016 15:22:10 16-Nov-2016 15:22:11 16-Nov-2016 15:22:10 16-Nov-2016 15:22:10 16-Nov-2016 15:22:00 16-Nov-2016 15:22:00 	Radio System 6 Repeater #1: Slot #2 7 Repeater #1: Slot #1 9 Intercom 2 Repeater #1: Slot #2 2 Repeater #1: Slot #1 7 Repeater #1: Slot #1 7 Repeater #1: Slot #2 5 Intercom	Sender Administrator Administrator Administrator Administrator Administrator Administrator Administrator	All All All Cleaners Firemen All All	All Call from dispat All Call from dispat Intercom Call: Disp Dispatcher 'Adminis All Call from dispat All Call from dispat	Details Members: Administrator Members: Administrator Members: Administrator Members: Administrator Members: Administrator Members: Administrator	

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: Left: Position	00:03 00:02 00:01
▶ Play <mark> Pause</mark> Stop ↓ <u>Player</u> ≽	📥 Open
All Call from dispatcher 'Administrator' (00:03)	
1	<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 🛛 幕 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).

9	Playback 📓 Save 🗸	실 Print 🛛 🛚 Pause 🛷 Clea	ar 👻 🏐 Reload 🏾 🌇 Filter By Radio 🗌	📑 Grouping 🍸 Auto Filte	r 🚰 Details 🧮 Show Notes 🚆
	Date	Radio System	Sender	Recipient	Message
			disl 🔶 2		•
ø	16-Nov-2016 16:54:16	Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' calls group '
0	16-Nov-2016 16:54:09	Repeater #1: Slot #2	Dispatcher 1	AL	All Call from dispatcher 'Dispatcher 1'
2	16-Nov-2016 16:53:57	Repeater #1: Slot #2	Dispatcher 1	Police	Dispatcher 'Dispatcher 1' calls group '
2	16-Nov-2016 16:53:57	Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' calls group '
2	16-Nov-2016 15:35:23	Repeater #1: Slot #1	Dispatcher 1	Al	All Call from dispatcher 'Dispatcher 1'
2	16-Nov-2016 15:35:16	Repeater #1: Slot #1	Dispatcher 1	Al	All Call from dispatcher 'Dispatcher 1'
2	15-Nov-2016 18:26:36		Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' calls group '
144	44 4 Record 0 of 80		Constehns 1	Clanance	Diensteher 'Diensteher 1' calls ereun '
×	Contains([Sender],	'dis') 🔻			Edit Filter
Re	cent Calls/Events Rec	ent Calls Request to Talk R	adio State Active Tasks Active Route	s User Activity Map Ca	meras

Click the **Default Settings** button to apply default settings to all log records. Click the **Details** button to see the talk session participants:

Date		Radio System	Sender 🗵	Recipient	Message	Details	
16-Nov-2	2016 16:54:16	Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
16-Nov-2	2016 16:54:09	Repeater #1: Slot #2	Dispatcher 1	All	All Call from dispatcher 'Dis	Members: Dispatcher 1	
16-Nov-2	016 16:53:57	Repeater #1: Slot #2	Dispatcher 1	Police	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
16-Nov-2	2016 16:53:57	Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
16-Nov-2	2016 15:35:23	Repeater #1: Slot #1	Dispatcher 1	All	All Call from dispatcher 'Dis	Members: Dispatcher 1	
16-Nov-2	016 15:35:16	Repeater #1: Slot #1	Dispatcher 1	All	All Call from dispatcher 'Dis	Members: Dispatcher 1	
15-Nov-2	2016 18:26:36	Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
15-Nov-2	2016 18:26:28	Repeater #1: Slot #2	Dispatcher 1	Cleaners	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
		Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c	Members: Dispatcher 1	
144 4 R	ecord 0 of 80	F 101 4					

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** mode enabled:

Click the **Add Message** button to add a message for dispatchers to the Recent Calls/Events log.

Add user message			×
Recipient: Severity: Message:	All i Information Test	•	•
Message:			-
		ОК	Cancel

Recipient

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.
 - Message

Enter the message text.

Click OK.

As a result, the message will be added an event to the Recent Calls/Events pane.

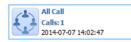
6.5.8.2 Recent Calls

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			Call Number	Actions
- 27.04.2017 12:19 125	\ 3		5	2 🗘 💥
All Call Calls: 1 27.04.2017 12:19	2 Group Call Calls: 3 27.04.2017 12		Private Call 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	s User Activity M	ap 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:



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 Request to Talk

On the **Request to Talk** tab, the dispatcher can see Missed Calls and Requests to Talk:

Types: 🤇 🍳 Missed Call	🔔 Request To Talk	View: Table	🔡 Cards 🛛 🚿	Clear 🍸 Filter	📑 Options
Most Recent Call	Caller	Accepted/Queued	Call Type	Call Number	Actions
	0				
18.04.2017 17:30	🚯 125	Dispatcher 1	Request To T		1 🙄 🕐 🖉
18.04.2017 17:30	(*) 125	Dispatcher 1	Request To T	:	1 🔇 🖉 👂
18.04.2017 17:30	(f) 125	Dispatcher 1	Request To T	:	1 🗳 🕖 🎽
18.04.2017 17:30		Dispatcher 1	Request To T		1 🕓 🕖 🌶

- Click the Missed Call button to display Missed calls.
- Click the **Request to Talk** button to display Requests to talk.
- Click the **Table** button to display the calls in a table view.
- Click the **Cards** button to display the 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:

Request To Talk	×
Dispatcher Notifications	
 Enable Request To Talk workflow Show RTT notifications in a pop-up window After clicking Accept, start a return call 	
$\overline{\mathbf{V}}$ Play a sound when RTT notifications arrive	
✓ Show notification in the Windows tray	
Synchronize with other dispatchers	
🔽 Automatically delete Request To Talk record after responding	
☑ Wait for response from caller	
✓ Enable Responses to a Radio Group	
Talk Group: Home Radio Group	•
OK	Cancel

Show RTT notifications in a pop-up window

Select this option so that incoming **Request to Talk** messages will pop up over the application window.



Request to Ta	lk		
2	125 The Request to T You must accept		eived.
	Accept	Reject	Queue

• After clicking Accept, start a return call Select this option so that a return call will start as soon as the Accept button is clicked.

Play a sound when RTT notifications arrive Select this option so that an alert tone will sound when a Request to Talk arrives.

- Display 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.
- Synchronize with other dispatchers
 Select this option so that a Request to Talk sent to one dispatcher will automatically be forwarded to all dispatchers.
- Automatically delete Request to Talk record after responding Select this option to automatically delete the corresponding record after the Request to Talk call is responded.

• Wait for response from caller

Select this option so that a Request to Talk will be considered responded only if the radio has answered to the return call.

Enable Responses to a Radio Group

Select this option so that a response to a Request to Talk will be made to the selected radio group.

• Talk Group

From the drop-down list, select the radio group.

Note: If the **Home Radio 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.



On the Notifications	tab,	specify	the	following	parameters:
----------------------	------	---------	-----	-----------	-------------

Request To Talk		×
Dispatcher Notificati	ons	_
Send notification	ns to caller	
Autodetect r	notification type	
C Send Text M	essage	
C Send Audio I	Message	
Notification to	exts:	
Queued:	Call queued	
Rejected:	Call rejected	
Not Available:	Dispatcher is not available	
	OK Cancel	

Send notifications to caller

Select this check box to notify the radio when a request is rejected, queued, or the dispatcher is unavailable.

- Choose one of the option 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 Message Choose this option button to send text notifications to the radio.
- Send Audio Message
 Choose this option button to send voice notifications to the radio.
- In the **Notification texts** boxes, enter the corresponding notification texts. These texts will be used when sending text notifications to the radio.

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):

125 (Pete)	🛄 Show	Notes 🧾 Add No	ite 👒 Add Message		
	Date		Dispatcher .	State	Τ
Repeater #1: Slot #2	17-Nov-20	16 11:35:22		Reset Geofencing Alarm	
GPS: 17-Nov-2016 11:	17-Nov-20	16 11:35:15		Geofencing Alarm [GPS Date: 17-Nov-2016 11:35:15; Latitude: 59°56'27.78'N; Longitud	
Speed: 0.4 km/h	17-Nov-20	16 11:35:15		Radio left allowed region 'Route 1'	
Altitude: Unknown	17-Nov-20	16 11:35:15		Radio left allowed region 'Route 1'	
Latitude: 59°56'27.70	"N 16-Nov-20	16 10:34:20		Radio Online	
Longitude: 30°16'47.08	8"N 15-Nov-20	16 18:47:22		Radio Offline	
	15-Nov-20	16 14:01:27		Radio Online	
	15-Nov-20	16 14:00:25		Radio Online	
	15-Nov-20	16 11:29:26		Radio Online	1

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).

ask	Radio		State	
one Worker 1	125 (Pete)		12:01 -	12:3
imer	235 (Basi)		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 🔢 Pause 📕	Stop 📑 Ed	it 🦪 Exp	ort + 📑 Gro	uping 🍸 Auto	o Filter 🌼 Defa	ult Settings		
Name		Route						
Route 1 235 (Basil) 17-Nov-2016 12:20	00:01	12:21 Point 1	12:21 10: Point 2 Con					
🖽 🖽 🔸 Record 1 of 1 🕨	₩ ₩ 4							
Recent Calls/Events Rece			Radio State	Active Tasks	Active Routes	User Activity Ma	p Cameras	

The dispatcher can manually set statuses for route checkpoints. To do this, rightclick 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:

Off Duty	∆ Time		On Duty	∆ Time	User Activ	ity #1	∆ Time
111		-	235	13:15:0	25		13:15:09
222			-				
Radio 200							
Radio 201							
Radio 202							
Radio 203							
Radio 204							
D 0 205		-					

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

6.5.8.8 Map

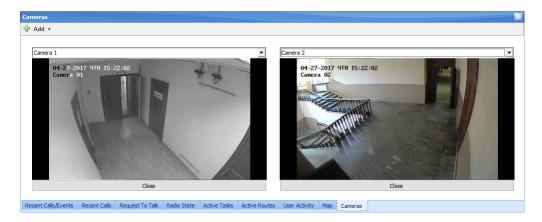
On the **Map** tab of the Activity Monitor panel, you can monitor location of radios on the map and simultaneously perform all available actions in the **Radio Interface** pane (make voice calls, send messages, disable and enable selected radios, and other actions):



For more details on map options, see section <u>6.6, Location Tracking</u> (page 280).

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 Telephony function allows making calls from telephones 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:

Telephony	/	2
Tel: 240	9 🖌	• ···
3	Menu	-
Line 1	Line 2	Line 3
Line 4	Line 5	Line 6
1	2	3
4	5	6
7	8	9
*	0	#

In the Telephony box, select the Line (1), enter the phone number (2) and click the (3) button.

Terminate a phone call

• In the Telephony box, click the button.

Open a phone book

 In the Telephony box, click the ellipsis (...) button (2) or click Menu > Phone Book (2):

🔊 т	elephony	2		
		Menu	• •	
	Line 1 Line 4	Hold Forw	ard Call	
		2	3	
1-	4	5	6	
	7	8	9]
	*	0	#)



Answer an incoming call

Valt		
~	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 Telephony box, click the (3) button.

Forwarding Phone Call to a Radio

• While in a call, click **Menu > Forward Call**.



Forward Call	×
All Specify text to searh	
125 (Pete)	
A Dispatcher (* 235 (Basil)	
Radio1	
Radio Group 2	
Phone 4 3	
Conference Forward	Cancel

• Click the Radio tab (1), select the radio (2) and click Forward (3).

Add call participant(s)

• Click **Conference** (4).

Note: Only one radio or radio group can participate in a conference call.



6.5.9.2 Making Telephone 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:

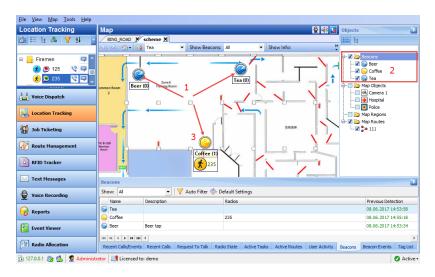
- Beacons all beacons connected to the system.
- **Map Objects** all manually created map objects and predefined objects created with the Map Drawing toolbar.
- **Map Regions** all map regions created with the Map Drawing toolbar (use the Add Polygon tool to create a map region).
- **Map Routes** all 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,</u> <u>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 amount 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, Beacons</u> (page 320)

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 284).

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 Map Region</u> (page 285).

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 287).

6.6.2 Map Tools

The Map toolbar is located in the upper part of the Map pane:





6.6.2.1 Zoom in/out

- Click 🙆 to zoom in a map.
- Click 🔍 to zoom out a map.

6.6.2.2 Bookmarks

- Click 🔯 to put a bookmark on the map.
- Click **Save as Bookmark** to save the map region as a bookmark.

Save as Boo	kmark		×
Name:	Prince garden		
		ОК	Cancel

• The dispatcher can create any number of the bookmarks. To open a bookmark, click and select the bookmark in the list.

6.6.2.3 Default View

• Click and choose **Save as Default View** to save current map view as a default view. The dispatcher can save only one default view.

To open the default view, click and choose **Show Default View**.

6.6.2.4 Filters

Select the filters to display radios on the map:

- radio is online, beacons are detected;
- I radio is online, GPS data is received;
- I radio is online, no GPS data is received;
- I radio is off, no GPS data is received.

All filters are enabled by default. Click the selected icon to disable selected radios on the map.

Click the **button** and select the visibility of the radios having **On Duty** and/or **Off Duty** states.

Click the *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 showing object names on the map.

6.6.2.5 Ruler

- Click 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.

Broadway 18	(
biodanay 20	
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 broadway, Deriver, CO 60205, OSA	

• Click the address in the list to display it on the map.

ocation Tracking	Мар				👳	🜒 🔽 Obje	ects
11 🗄 🗄 💑 🍸 24 🧧	1: Line free	Intero	iom 🔊 📧	Group 10			ŧ
Firemen 📮 🕇	Group 22	0 € Ø ✓ Group			Address (My Map) 18	×	Beacons - 🛛 🎯 Beer - 🖉 🎯 Coffee
€ © 235 🔇 🗭 📕	My Map X Floor plan		Show Beacons:	18 Broadw 18 Broadw	ray, Somerville, MA 02145, USA ray, Tamytown, NY 10591, USA		- 🗹 🎯 Tea D Map Objects - 🖉 🔍 Camera 1 - 🗭 🖶 Hospital
Voice Dispatch	Our senter		Broad	18 Broadw 18 Broadw 18 Broadw 18 Broadw	ray, Lawrence, MA 01840, USA (ay, Park Ridge, NJ 07656, USA (ay, Anityville, NY 11701, USA (ay, Aniteville, NC 28801, USA (ay, Bayonne, NJ 07002, USA		Map Regions
B Job Ticketing	Ourt St 140		L'AND Y	18 Broady	ay, Bayonne, NJ 07002, USA ray, Newport, RI 02840, USA ray, Denville, NJ 07834, USA		i Map Routes -√ III → 111
Route Management			138				
RFID Tracker	, 90 m	138 . fice \$9	140	chool St			
Voice Recording	Recent Calls/Events		Clear + 🖗 Reload			Close	tails Show Note
Reports	Date	Radio System	Sender Server	Recipient	Message Connection to 'Capacity Plus 1' has been	Details	J
Event Viewer	 09.06.2017 14:43:37 09.06.2017 12:43:30 09.06.2017 12:40:06 	Capacity Plus 1 Capacity Plus 1	Administrator 125	11 11	Dispatcher 'Administrator' calls group '11 Radio '125' calls group '11' (00:08)		nistrator, 125
8 Radio Allocation	09.06.2017 12:39:55 09.06.2017 12:38:34 44 44 Record 1 of 305	Capacity Plus 1 Capacity Plus 1	Administrator Administrator	11 Police	Dispatcher 'Administrator' calls group '11 Dispatcher 'Administrator' calls group 'Po		
s Administration					User Activity Beacons Beacon Events		

6.6.2.7 Drawing Panel

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





Draw a Map Region

Draw a region manually

- Click 📝 and choose **Draw on the map**.
- Left-click points on the map to create a new map region.

BING_ROAD X Indoor plan X	
💿 😔 🏫 🗸 Filter: 🛞 🛞 💭 🚳 🍸 📓 Show Beacons: All 🔹 🗸 🖉 Ruler 🥜 Drawing Panel 📶 Coverage Map	
🌱 🐎 🥥 📭 🕼 🎓 🏦 🙆 🛃 😟 Custom Object -	
Draw a polygonal region Click on the map to mark corners of a polygonal region. If you make a mistake, right-click to delete the last placed corner point. The first and the last points will be autoconnected to form a closed polygon. When you are done, click Save and specify additional properties of the region.	Save Cance
Vasileostrovskaya Referrit Abiding place	
I A A A A A A A A A A A A A A A A A A A	
100 m	
PL Latitude: 59'56'35:54''N; Longitude	: 30°16'53.29"E

• Click the **Save** link to add a new polygon region.

bject on	Map		>
General	Region	Logical Groups	
Name:		Zone 2	
Descrip	tion:	þecrete area	^
			~
		_	
			OK Cancel

Name

Specify a name for the new map region.

Description

Enter a description for the map region.



Region tab

Object on Map	×
General Region Logical Groups	
Color: 0, 0, 255	
✓ Fill region area	
Transparency: 90 🔦 %	
OK Cancel	
OK Cancel	

Color

Select a color to display the region on the map.

Fill region area

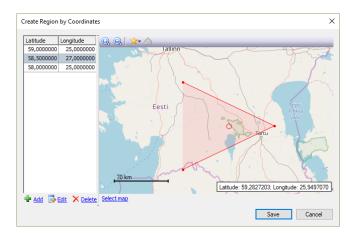
Select this check box to fill in the region area on the map.

Transparency

Specify the transparency level (in percent) for the fill color.

Draw a region by coordinates

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



• Click the **Add** link to add a point.



Coordinates input	-		×
Coordinate system:	Decimal Degrees		~
Coordinates	L		
Latitude:	59.9419768°		
Longitude:	30.2874584 °		
	ОК	Car	rcel

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.
- Click the **Save** button to add a region.

Draw a Route

• Click and then set route points one after another by clicking on the map.

BING_ROAD X Indoor plan X	Reacons: All	- Pular O E	ind on Map + 👷 🥜 Drawing	Panel Route all Course	age Man 👌
			ind on map . 🗶 🍞 brawing	France Cover	sge map
Add route waypoints Click to place the route waypoints on the r	ap. Right-dick to delete the last wayp	oint. When you are done, click Save a	and provide additional route proper	ties.	<u>Save</u> <u>Cancel</u>
	When adding waypoints, follow t	the actual road trajectory and do n Cometery Bratskoe Kladbishche	not place the waypoints farther the	han 5 km apart Zayachy Island	N e v a Letniy
		Smolensky Cemetery 3 Vasil'yevskiy Island	o (235 (Basil)	SPbGU	1-y sad Admiralteyskiy vortsoviy okrug Ma
▶ <u>1.000 m</u>			MO NonWalt 125 (Pete) Police department No 1	Latitude: 59°57'05.60"	'N; Longitude: 30'12'06.21''I

- 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 X
General Route Logical Groups
Color: 255; 0; 255
☑ Fill region area
Transparency: 90 🔺 %
Tolerance zone (m): 100 🚔 meters
0-10-0-
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. 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 pro	perties						×
General	Logical	Groups	Cameras				
Type:		iBeaco		•			
Name:		Coffee					
Major II	D:	1		-			
Minor I	D:	1		•			
Descrip	tion:	Coffee	shop at the	e comer			
							_
					ОК	Cancel	

Type

Select the beacon type from the drop-down list.

Name

Specify a name for the beacon.

Major ID and Minor ID

Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

Description

Add a description for the beacon.

On the **Logical Groups** tab, select logical groups that will be associated with the beacon.

On the **Cameras** tab, select the 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.



eneral Beacon	Map Logical Groups Cameras	
Name:	School dep	
ID:	2	
Description:	Look after	^
		~
Bind to PTT		
System:	Capacity Plus 1	•
Group:	Firemen	-

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 and choose **Specify coordinates**.

Note: Similarly, you can place other objects with predefined icons, such as Warning points, Police departments, Emergence departments, Fire departments, Houses, and Cameras. To do this, click one of the following icons on the toolbar:



Create a Custom Object

In addition to objects with predefined icons, you can create your own objects to be then placed on the map.

• Click Custom Object - and choose Add Custom Object.

Custom 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.

iow Route		
		9
(₹) 111	LimeGreen	
🗸 🗭 125 (Pete) 105, 105, 105	T
222	RoyalBlue	
🔽 💰 235 (Basil)) Aqua	
🗆 🖈 Radio 200	SkyBlue	
🗆 🛞 Radio 201	DarkGray	
🗌 🛞 Radio 202	DeepSkyBlue	
🗆 🛞 Radio 203	DarkSlateBlue	
🗆 🛞 Radio 204		-
🗖 👧 Radio 240	i mobile	•
0		•
Route Type:	Static	•
	Show Route for Last: 48 + Hours	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	



 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.

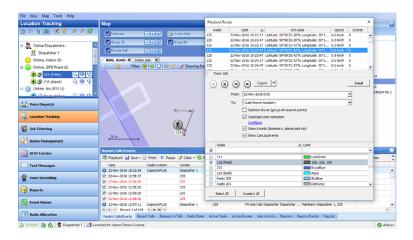
Radio	Date	Δ	GPS Data	Speed	Events	
.25	22-Nov-2016 10:	17:17 Latitude: 59°5	6'25.88"N; Longitude: 30	°1 0.6 km/h	0	
.25	22-Nov-2016 10:	18:17 Latitude: 59°5	6'25.86"N; Longitude: 30	°1 0.0 km/h	0	
.25	22-Nov-2016 10:	18:47 Latitude: 59°5	6'25.16"N; Longitude: 30	°1 0.6 km/h	0	
.25	22-Nov-2016 10:	19:17 Latitude: 59°5	6'25.18"N; Longitude: 30	°1 0.4 km/h	0	
.25	22-Nov-2016 10:	19:47 Latitude: 59°5	6'25.27"N; Longitude: 30	°1 0.9 km/h	0	
.25	22-Nov-2016 10:	20:17 Latitude: 59°5	6'25.37"N; Longitude: 30	°1 0.9 km/h	0	
25	22-Nov-2016 10:	20:47 Latitude: 59°5	6'25.37"N; Longitude: 30	°1 0.8 km/h	0	
Total: 6	50					
		Export 💌			Load	
Play	From: 22-Nov	-2016 0:00			•	
					-	
	To: <last k<="" td=""><td>nown location></td><td></td><td></td><td>-</td><td></td></last>	nown location>			-	
	Opti	mize Route (group all r	nearest points)			
		matic error correction				
		figure				
	_	w Events (telemetry, a	larms and etc)			
	Shou	w CanLog Events				
Radio			△ Color			
V						
111			LimeGr			
🖌 125 (F	Pete)		105, 10	05, 105		
222			RoyalB	ue		1
235 (E	Basil)		Aqua			
	200		SkyBlue	•		
Radio						



- In the list of radios, select the radio and the color with which to display the route for the radio.
- From/To

Specify the start and end dates of the time period for which to show the route.

- Click the **Load** button.
- Once you have loaded the route points, click the Play button to play back the route on the map.



6.6.2.9 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>6.4.5.2</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 director Coverage Map



Location Tracking	Map						🔮 剩 🔽 Обја	cts	
li 🗄 li 🤷 🛠 🎙 🖉 🖉 🛇			1: Line free		AI Col		E		
Conline Dispatchers	Group 10		Group 20		Group 30			Beacons - 🗹 🍛 Beer - 📝 🍛 Coffee	
 Online, Indoor (0) 	BING_ROAD X Inde	orplan 🗶						- 🗹 🍚 Coffee 2	
Online, GPS Fixed (2)	🔍 🔍 😭 🏠 • Filte	r 😣 😣 🔾	le Y le Sho	w Beacons: All		r 🥜 Drawing Panel 📶 Co		- 📝 🌍 Tea Map Objects	
★ ● 125 (Pete) Q □ ♥ ★ ● 235 (Basil) Q □ ♥				4	Select RSSI dat		×		
Online, No GPS (1)	· · · · ·				4	15-Nov-2016 16:39			
A O Decention O D 10	ゴム・シップ			A	End Date:	22-Nov-2016 0:00	e-	Map Regions	1102111110
Voice Dispatch				*	Rado:	Selected Radios: 2	F	- 7 My zone - 7 Zone 2	
Location Tracking	Excellent Normal Satisfactory			235 (Basil) Walt 125 (Pete)	2		-	- Map Routes	
🔓 Job Ticketing	Bad	1			4	☐ 🕑 222 🗸 😰 235 (Basil)		- 🛄 🗫 Route 2	
📝 Route Management	100 m	20		erun er. 8	Bol shoy P	thude: 53 (c) Radio 200 (c) Radio 201 (c) Radio 202			
RFID Tracker	Recent Calls/Events	🔒 Print 🛙 🛙	Pause 🦪 Clear - I	🔕 Reload 🛛 🏌 Fi	lter By Radio 🛛 🐺 Gro	Radio 203	- Det	ails 🛛 🧮 Show Note	5
Text Messages	Date	Radio System		Recipient	Message	80	Radio	100.00	
Voice Recording	22-Nov-2016 15:22:39	,	S Dispatcher 1 235 235	235 All	Private Call: Reset Geofe			I Groups	
😚 Reports	 	1	235 235	AI Al	Radio left all Radio left all	owed region 'My zone' owed region 'My zone'	-		
Event Viewer	22-Nov-2016 12:58:20 22-Nov-2016 12:57:11	CapacityPLU		All 235		Narm (GPS Date: 22-No Dispatcher 'Dispatcher Memb	vers: Dispatcher 1, 235		
2 Radio Allocation	H H H Record 1 of 6				Antine Denders - Libre	Activity Beacons Beacon B			Þ

For more details on configuring the Coverage Maps, see section <u>Coverage Map</u> (page 121).

6.6.2.11 Select Map

On the Map toolbar, click Select Map

lap Type:	Online maps	
aption:	Му Мар	
vailable Maps		
Name	Path	State
MAPNIK		OK
CYCLE		ОК
TRANSPORT		OK
LANDSCAPE		ОК
BING_ROAD		OK
BING_AREA		OK
BING_HYBRID		ОК

- 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</u> <u>Types</u> (page 112).

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.

File View Map Tools Help							
Job Ticketing	Job Ticket	ing				₽	ت (ک
💼 🗄 🗄 🍰 💱 🗶 💡	1: Line fre	e 4	0	Intercom			
🛛 📙 Firemen 🛛 📮 🦰	Group 10	•))		All Call			
	Group 20	•)	0	Group 11			
🐔 💌 235 🛛 🔍 📮 🗏	Group 22	•)) 📢	0	Private Call			
😑 📕 Police 📃 📮 🔽	Job Ticketir	ng Statuses Cu	stom Fields	Templates			
Voice Dispatch	🛃 Add (F2) 🔻	📑 Edit (F4) 🐒	Assign (F5)	🖶 Grouping	🍸 Auto Filter 🌼	Default Sett	ings
	Status II			Specified			City
Location Tracking		A00006 Check the		07.06.20	17 15:40:00		Mo
9	🔅 New 🗯	A00007 Medium, C	neck the				St
📲 Job Ticketing 🛛 🔶							
Route Management	141 41 4 Recor	d1of2 ⊧ ⊮ ₩	4				×
RFID Tracker	Processing tas						
<u> </u>	Status	ID		Start Time	End Time		Specified
🖂 Text Messages	+ Accepted	#A00008					
-	→ Assigned	#A00009					
Voice Recording							
Reports							
Event Viewer	HI 41 4 Recor	d 2 of 2 ▶ ₩ ₩	4				Þ
🚯 127.0.0.1 🙈 🛸 🕱 Administ	rator 📑 Licens	ed to: demo				0	Active -

6.7.1 Adding Statuses for Job Ticketing

• In the **Job Ticketing** pane, click the **Statuses** tab to see the statuses available for job tickets.

Job Ticke	ting Status	es Custom Fields Ter	mplates
🛃 Add 📑	🕨 Edit 📑 Del	ete	
Name 🔨	Action	Description	Status
New	New		* New
Cancelled	Cancel	N N	× Cancelled
Assigned	Assign		→ Assigned
Accepted	Accept		+ Accepted
Rejected	Reject		- Rejected
Completed	Complete		✓ Completed
In Progress	In Progress		(In Progress

14	44	4	Record 4 of 7	₽	*	нч∢	Þ	

• Click the **Add** button to add a Job Ticket status.

Job Ticket Status	×
Name:	Accepted
Description:	Accept
Action (CPS):	Accept
Status:	+ Accepted
	+ Accepted
	✓ Completed
	(3 In Progress
	- Rejected



Name

Specify a Job Ticket status name to display in the system.

Description

Add a description for the job ticket status.

Action (CPS)

Enter the action name as specified in MOTOTRBO CPS.

- Note: The **Action (CPS)** value must match the value of the corresponding *Action/Response* field configured for a radio in *MOTOTRBO CPS, Job Tickets*.
- Status

From the drop-down list, select the Job Ticket status (Accepted, Completed, In Progress, or Rejected).

6.7.2 Adding Custom Fields for Job Ticketing

In addition to the default fields (Priority, Deadline, etc.), you can add custom fields with pre-defined values to be used in tickets/ticket templates.

• In the **Job Ticketing** pane, click the **Custom Fields** tab to see the list of custom fields available for job tickets.

Job Ticke	eting	Statuses Custom	ields Templates
🛃 Add 📃	Ec	lit 🛃 Delete	
Name		Values	
Town		Kotka;Hamina;Loviisa	
Quality	`	High;Low;Middle	N

HI HI I Record 1 of 2	۲	₩	н	
-----------------------	---	---	---	--

۱.

• Click the **Add** button.

lame:	Town		
Values		 	
Kotka			
Hamina			
Loviisa			
			Total: 3
Add	Delete		
- <u>//dd</u>	Delete		

In the Job Ticket Custom Field dialog box, specify the following:

Name

Enter a name for the field.

Values

Click the **Add** link and enter a pre-defined value for the field.



Þ

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) 🛛 📐 Edit	(F4) 🐒 /	Assig	n (F	5) -	Gro	uping	🍸 Au	ıto Filter 🌼 Del	ault Setti	ngs 🔠 Statu	s Color	5			
	Status	ID	Text				Pe	Cr	Specifi	ed End Time		Created By	Prio	C		 Qu	i
\$	New	#A00007	Medium,	Ched	k the	pi		07				Administrator	Medi				
ž.	New	#A00010	Medium	%City	%			07				Administrator	Medi			 Hig	h
M	44 4 Re	ecord 2 of 2		4												 	
M		ecord 2 of 2		4												 	
1	44 4 Re	ecord 2 of 2				5	Start Tim	1e		End Time		Specified End	Time			 	
H Pro	44 4 Re ocessing	ecord 2 of 2 tasks: ID	• • • •			5	Start Tin	ie		End Time		Specified End			_	 	

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

₩ ₩ 4 Record 1 of 2 ► ₩ ₩ 4

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</u>, <u>Creating a Ticket Template</u>.

Job Ticket	×
Ticket ID:	#A00000
Priority:	Medium \checkmark
Deadline:	21.04.2017 11:54
	<u>+5min +10min +30min +1hour</u>
Predefined Texts:	- 12 -
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 Op	tions OK Cancel

In the **Job Ticket** dialog box, specify the following parameters:

Ticket ID

This value will be set automatically once the ticket has been created.

Priority

From the drop-down list, select the task priority.

Deadline

Select this option and in the box to the right, enter a due date and time for the task.



Predefined Texts

From the drop-down list, select a predefined text for the Job Ticket.

• Click the 🔊 button to edit the predefined text.

Predifined Text Editing	;
Name:	
Text	
Check the pipeline	
Check the toll fare	
	Total: 2
Add X Delete	Priority Due Date Due Time
	OK Cancel

- Click the **Add** link and type the text in the line that appears. In addition, you can also add to this text:
 - ✓ Priority
 - Click this link to add the ticket priority to the text.
 - ✓ Due date

Click this link to add the ticket due date to the text.

✓ Due time

Click this link to add the ticket due time to the text.

Text

Enter the text message in this box.

Notify on status changes

Select this option to send notifications to Dispatchers, Email and/or SMS groups when a Job Ticket status changes.

Notify if ticket is not accepted by

Select this option to send notifications to dispatchers, Email and/or SMS groups if a radio does not accept the Job Ticket at the time specified in the box below.

Notification List

Click this link and choose the recipients of selected notifications.

Notification List	×
Dispatchers Email SMS Radios Radio Groups	
Notify Dispatchers Administrator Dispatcher 1 Dispatcher 2	
OK Cancel	



Þ

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.

Name	Priority	Text	Specified End Time	Comment	Bin.
Towns	Medium	%PRIORITY% in %City%			
Cleaning	Medium	Do cleaning in %Town%			
	\mathbf{N}				
	N				

• Click the **Templates** tab to see the list of templates available for job tickets.

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

₩ ₩ 4 Record 1 of 2 ► ₩ ₩ 4

• 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, Creating</u>
<u>a Job Ticket</u>.
```

In addition, you can enable automatic creation of the template-based tickets by using a scheduler. For 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 Ticketing Statuses Custom Fields Templates											
🛃 Add (F2) 🔹 🛃 Edit (F4) 🌜 Assign (F5) 🛛 🚟 Grouping 🍸 Auto Filter 🔡 Status Colors									rs			
	Status	ID	Text	Δ			Specified End Time	Γ				Town
☆	New	#A00010	Medium %City%									Kotka
☆	New	#A00007	Medium, Check				/					St.Peter.

In the Select Job Status Color dialog box that opens:



Status	Color
New	YellowGreen
Cancelled	Custom Web System
Assigned	DarkKhaki
Accepted	Beige
Rejected	LightGoldenrodYellow
Completed	Olive
Progress	Yellow
Expiring Job Ticket	Ivory OliveDrab
Time to complete Job Ticket (mini	
Color:	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**.

	, Aud (12	2) 🗕 📑 Edit	()	e re	saigh (F3)	- 010	uping	g 🍸 Auto Filter 🌼 D	craunt Setti	ings in Statu	a color:	•	 	
	Status	ID	Text			Pe	Cr	Specified End Time		Created By	Prio	C.	 	Qu
☆	New	#A00007	Medi	4	Assign					Administrator	Medi			
*	New	#A00010	Medi	$\stackrel{\sim}{\equiv}$	Edit					Administrator	Medi			High
44 Dec		ecord 1 of 2	• ••	° ₽ ₽	Cancel Archive Create Base	ed on							 	
44 Pro	ocessing	tasks:	• •	õ I	Cancel Archive	ed on	~						 	
41 Pro			• •		Cancel Archive Create Base Resend		~	End Time		Specified End	Time)
«	ocessing	tasks: ID			Cancel Archive Create Base		•	End Time		Specified End)

►

In the Assign Job Ticket dialog box that appears:

Assign Job	Ticket		×
🐒 Ass	ign Job Ticket		
Radio:	✓ € 125 ✓ € 235 ✓ € 3333 ✓ € ✓ € 4444 ✓ € 5555 ✓ € Radio 25 Selected: 2 2 Ø □ □		• • • •
		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



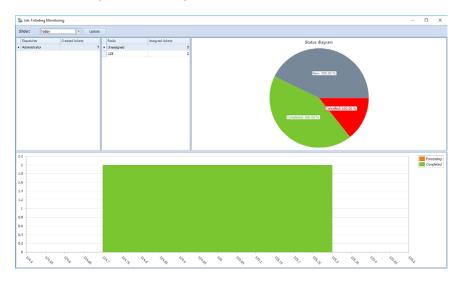
Click **OK** to assign the ticket to the selected radio(s)/radio group(s)/logical group(s).

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 Job Ticketing Service 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 Job Ticketing Monitoring.

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	Usag	e Statistics	Reports								Ð
System Bridges Channel Changes Usage Statistics Reports		ntercom		1: Line free Group 30					Group 10	•) • Ø	
Messages Radio Activity Radio Status Radio Status Summary User Messages and Notes Radio Allocation Disabled Radios	Rep	oort Settings Jo l	Ticketing 🗶	 ▲ ▶ ▶ ₿ 							_
Telemetry Lone Worker Activities Job Ticketing Job Ticket Statuse	2	from 06-Jul	icketing	Nov-2016 0:00		Creation		- 1 m	Specified End		
Voice Dispatch	3	Ticket ID #A00000	Text %PRIORITY%%	Performer	Status	Time 07-Nov-2016	Start Time	End Time	Time 07-Nov-2016	Created by Administrator	Priority Medium
Location Tracking Job Ticketing		#A00001	PRIORITY% %PRIORITY%		Accepted	14:04:31 07-Nov-2016 14:04:58		07-Nov-2016 14:49:55	14:19:00	Administrator	
Route Management		#A00002	%date%		Assigned	07-Nov-2016 14:25:12		07-Nov-2016 14:50:09		Administrator	Medium
RFID Tracker		#A00003	%TIME%		Accepted	07-Nov-2016 14:25:25		07-Nov-2016 15:00:35		Administrator	Medium
Text Messages		#A00004	jkg		Assigned	07-Nov-2016 15:01:59		07-Nov-2016 15:17:57		Administrator	Medium
Voice Recording		#A00005	Abc	tor (class)	Assigned	07-Nov-2016 15:18:13		07-Nov-2016 15:21:07		Administrator	Medium
Reports		#A00006	123	125 (Cleaning 1)	Completed	07-Nov-2016 15:29:19		07-Nov-2016 15:35:02		Administrator	Medium
Event Viewer		#A00007	456		New	07-Nov-2016 15:38:32				Administrator	Medium
Radio Allocation		#A00008 Duration:	∨isit mortre L:		Completed	07-Nov-2016 15:38:39	07-Nov-2016 17:58:21 02:19:41	07-Nov-2016 17:58:49		Administrator	Medium
Administration		Duration	7 .					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	> 1: Line free 4.0
Route 1 235 31.05.2017 14:58	Official O E (C) O mop 20 C mop 11 C mop 11
	Management Monitoring ▶ Start 🗟 Create 📴 Edit 🗟 Copy 🌍 Export - 📴 Delete 🗮 Grouping 🍸 Auto Filter ⊚ Default Settings
Voice Dispatch	Name Route 1 15:00 15:15 15:30 16:00
Location Tracking	Test route 1 Coffee Hospital Tes Police
🚰 Job Ticketing	
💓 Route Management	
RFID Tracker	
Mark Messages	
🔮 Voice Recording	iiii iiii iiii Active Routes
Reports	▶ Start II Pause Stop ▷ Edit ③ Export = 등 Grouping ♥ Auto Filter ۞ Default Settings Name Route
Event Viewer	Poute 1 00:00 15:00 15:15 15:30 15:00 225 31.05.2017 14:58 Coffee Hospital Tes Pole
Telemetry	
গি Radio Allocation	144 44 Record 1 of 1 + 34 139 4
🔂 127.0.0.1 🛞 🥵 💆 Administr	tor 📑 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.



Name:	Route 1	
Description:	Test route	
Rule:	All checkpoints, strict order, strict schedule	1
Start/Stop Rules	Route Points Checkpoint Statuses Notifications Tags Logical Groups	
Start Route		\$
Manually by	dispatcher	
Automatical	y by receiving Text Message from a radio	
Message:	12	
	y by receiving Telemetry Command from a radio	
VIO:	1 Command: Any event	
_	y by receiving DTMF command from a radio	
Command:	123 #123#	
Automatical	y by receiving Status from a radio	
Status:	0	
Wait for co	onfirmation from a radio	
Pause Route		3
Resume Route		3
Finish Route		3
Manually by	dispatcher	
Automatical	y by receiving Text Message from a radio	
Message:		
Message:	y by receiving Telemetry Command from a radio	
Message:	y by receiving Telemetry Command from a radio	
Message: Automatical VIO:		
Message: Automatical VIO:	1 Command: Any event	
Message: Automaticali VIO: Automaticali Command:	Command: Any event V	
Message: Automaticali VIO: Automaticali Command:	1 © Command: Any event v y by receiving DTMF command from a rado	
Message: Automaticali VIO: Automaticali Command: Automaticali Status:	Command: Any event V	
Message: Automaticali VIO: Automaticali Command: Automaticali Status: Automaticali	Command: Any event Vy receiving DTMF command from a rado Vy receiving Status from a rado 0 0	
Message: Automaticali VIO: Automaticali Command: Automaticali Status: Automaticali	Command: Any event vy preceiving DTMF command from a rado vy preceiving Status from a rado vy receiving Status from a rado vy after all points have been attended	
Message: Automatical ¹ VIO: Automatical ¹ Command: Automatical ¹ Status: Automatical ¹ Limit route	Command: Any event Command: Any event vortexiving OTMP command from a rade vortexiving Status from a rade vortexity of the status of the sta	

• 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.

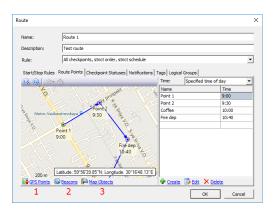
Automatically when all points have been attended

Select this option so that the route is finished automatically when all checkpoints have been attended.

Limit route processing time

Select this option, and specify the maximum allowed time in the **Max. Time** box. If the time is exceeded, the route will stop automatically. All unattended checkpoints automatically change their statuses from 'Waiting' to 'Not Attended'.

• In the Route dialog box, click the Route Points tab.





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

State
OK

- Select the map. For more details on map types, see section <u>Map Types</u> (page 112).
- Click the **Create** link or double-click a selected point on the map to create a new route point:

Point properties	×
Name:	Bank
Location:	Latitude: 59°56'35.20"N; Longitude: 30°16'4 💌
Radius:	10 meters
Intermediate	e way point (not served)
Time:	15:00
Time delta:	5 🚔 minutes
	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 29).



Name:	Route 1				
Description:	Test route				
Rule:	All checkpoints, strict order, strict sche	edule			•
Start/Stop Rules	Route Points Checkpoint Statuses Noti	fications Tags Logica	Groups		
🖗 Beer		Time:	Specified time o	fday	•
Coffee		Name		Time	
🥪 Tea		Point 1		9:00	
		Point 2		9:30	
		Coffee		10:00	
		Fire dep		10:40	
		Tea		10:50	-
and name	Beacons Map Objects	dia constr	🗐 Edit 🗙 De		

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

Point properties		×
Name:	Coffee	
Beacon:	G Coffee	•
Radius:	meters	
□ Intermediate	e way point (not served)	
Time:	10:00	
Time delta:	5 🛉 minutes	
	ОК	Cancel

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

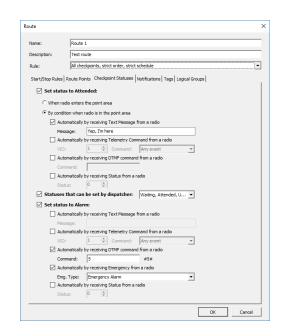
oute						
Name:	Route 1					
Description:	Test route					
Rule:	All checkpo	ints, strict order, strict	schedule			•
Start/Stop Rules	Route Points	Checkpoint Statuses	Notifications] T	ags Logical	Groups	
Abiding place				Time:	Specifier	d time of day 💌
Fire dep				Name		Time
Hospital No2				Point 1		9:00
Police departme	ent No 1			Point 2		9:30
				Coffee		10:00
				Fire dep		10:40
GPS Points	Beacons	Map Objects		Create	📑 Edit	X Delete

• Click the **Create** link and then click an object in the list.

oint properties		×
Name:	Fire dep	
Map Object:	🛐 Fire dep	•
Radius:	10 meters	
Intermediate	way point (not served)	
Time:	10:40	
Time delta:	5 🔹 minutes	
	ОК	Cancel

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





• 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.



_	
Name: R	oute 1
Description: Te	est route
Rule: Al	Il checkpoints, strict order, strict schedule
Start/Stop Rules Rout	te Points Checkpoint Statuses Notifications Tags Logical Groups
	iles in text message: intName), (PointTime), (NextPointName), (NextPointTime)
Send a Text Mess	sage on route assign to radio
Text Message:	Assign {RouteName}
🔽 Send a Text Mess	sage on route start
Text Message:	Start {RouteName}
🔽 Send a Text Mess	sage on route suspend
Text Message:	The {RouteName} is suspended
Send a Text Mess	sage on route resume
Text Message:	The (RouteName) is resumed
Send a Text Mess	sage on route finish
Text Message:	The {RouteName} is finished
Time before atte	sage when approaching attendance time endance: 5
Text Message:	Serve (PointName) at (PointTime)
	sage after point is attended
Text Message:	The {PointName} is served. Next is {NextPointName} at {NextPointTime}
For the last point	t: The {PointName} is served
Send a Text Mess	sage if point is not attended
Text Message:	The {PointName} is not served
Send a Text Mess	sage if point is in alarm mode
Text Message:	Alarm on {PointName}

- 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 ord	ler, strict schedule	
Start/Stop Rule	s Route Points Checkpoint S	tatuses Notifications Tags Logical Groups	
Name		Description	
🖶 🗋 🦢 Clean	ing		
🖌 🦢 O	eaning 1	Cleaning in Department 1	
L 🏠 d	leaning 2		
🗄 🗌 🗁 Secur	ity	Groups for Security	
🗆 🦢 💈	ecurity 1		
🗆 🗁 Si	ecurity 2		

- 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>6.4.24, Logical Groups</u> (page 236).
- Click **OK** to save settings.

The new route is now added to the route list (1):

6.8.2 Starting a Route

File View Map Tools Help	
Route Management	Route Management 🔮 🆓 🕓
Start II Pause Stop	[2] 1: Line free 특히 (2)
▶ Route 1 00:07 235 31.05.2017 14:58	Al Cal E # 0 Ø # 0 Ø # 0 p1 E # 0 Ø Group 22 E # 0 Private Cal E # 0 E # 0 F Hanagement Montoring E
Voice Dispatch	▶ Start □ Create □ Copy □ Export • □ ○ Default Settings Name Route Route □ 15:00 15:15 15:30 16:00 Retrow □ □ □ □ □ □
Job Ticketing	Coffee Holpfall Tes Police
RFID Tracker Text Messages	1
Voice Recording	wi (i < Record 1 of 1 ≥ W W < > Active Routes > > Start II Pause Stop []> Edit @ Export + Ξ Grouping ♥ Auto Filter @ Default Settings
Reports	Name Route koute1 00:07 15:00 15:15 15:30 16:00 235 Image: Section 10:00 Image: Section 10:00 Image: Section 10:00 Image: Section 10:00
Telemetry	31.05.2017.14:58 Coffee Hospital Tea Police
(3) Radio Allocation	HI HI 4 Record 1 of 1 + H HI 4
🔂 127.0.0.1 🛞 🕵 🙎 Administrator 🛛	Licensed to: demo 🔮 Active -

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

Start Route		>
Name:	Route 1	
Start Date:	14-Oct-2016 10:58	·
Route:	Route 1	·
	Create Route Modify	
Radio:	💰 125 (Pete) 125 💌]
Radio Owner:		-
Dispatcher:	All]
	OK Cancel	



In the Start Route dialog box, specify the following parameters:

Name

Enter a name for the route to be started. This name will be displayed in the **Active Routes** pane.

Start Date

Select a date to start the route on.

Route

From the drop-down list, select the route to start. Click the **Create Route** button to create a new route based on the selected route. Click the **Modify** button to modify selected route parameters.

Radio

From the drop-down list, select the radio to assign the route to.

Radio Owner

From the drop-down list, select the Users to assign the route to.

Note: Select only one of the two (**Radio** or **Radio Owner**) to prevent an incorrect route.

Dispatcher

From the drop-down list, select the dispatcher to monitor the route.

• Click **OK** to start the route.

The active route appears (1) in the Active Routes panel.

File View Map Tools Help	
Route Management	Route Management 🔮 🌒 🕒
🕨 Start 🛛 II Pause 🧧 Stop	③ 1: Line free 4: Ø ✓ Intercom 4: 4: Ø ✓ Group 10 4: Ø
▶ Route 1 00:37 235 31.05.2017 14:58	Call C mop 20 C mop 11 C mop 11 <th< th=""></th<>
	Management Monitoring Start 🔂 Create 🔂 Edit 🖏 Copy 🐠 Export - 🔀 Delete 🖷 Grouping 🍸 Auto Filter 🐵 Default Settings
Voice Dispatch	Name Route Route 1 15:00 15:15 15:30 16:00
Location Tracking	Route 1 15:00 15:15 15:20 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	.1
Contemporary Text Messages	1 / *** 4 Record 1 of 1 > /* /* /* /* /*
Uvice Recording	Active Routes
😡 Reports	Start II Paule Stop Edit Export + Error Grouping Auto Filter Default Settings Name Route
Event Viewer	PRoute 1 00:37 15:08 15:15 15:30 16:00 235 31:05:2017 14:58 Image: Conference Hexpital Team Image: Conference Team Imag
Telemetry	$\langle 2 \rangle_3$
💷 Radio Allocation	144 44 Record 1 of 1 1 14 14 14
🚯 127.0.0.1 🎘 🍓 🙎 Administrator 🚺	Licensed to: demo

If a route point is attended in time, it is displayed in green (2)

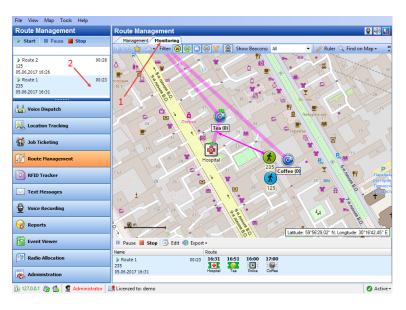
If a route point is not attended in time, it is displayed in red (3).

For more operations with checkpoints, see section <u>6.5.8.6</u>, <u>Active Routes</u> (page 276).

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 CAN Graphics CAN Graphics CAN Messages Job Ticket na 2 Job Status Changer Job Ticket Assignments Completed Rourds Full Movement Details	Sales C & O Intercon C & O If Maintenace Sales C & O O forup 10 C & O O dap DEFERCENCY GROUP C & O Regular GGROUP C & O Group 20 Al Call U & O O roup 11 C & O Group 22 Group 1 U & O Private Call C & O	
Security reports Management Movement Details	Report Settings Completed Routes Saved Profiles: -+lot defined-	
Voice Dispatch	Select data by period: Start Date: 10/10/2015 12:00 AM ••• End Date: •••	
Job Ticketing	Filter: Radio:Not defined • Logical Group:Not defined •	
Text Messages	Radio ID (e. g. 22, 33, 40-55,88):	
Voice Recording	Dispatcher:Not defined Route Name:	
Event Viewer	Show routes with exceptions only Print detailed data	
[**] Radio Allocation Image: Administration	Generate Report Save Report Profie Delete Report Profie	
🖒 Connected 🛞 🔂 🔂 🗴	ministrator 🔣 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: 🚵 🛠 🍸 🗇 🗗 🍟	🖌 Intercom 🕡 📲 🥥 🔉 1: Line free 📲 🕢 🔤 All Call	•
Online Dispatchers (1)	Croup 10	
Online, Indoor (0)	Simple Extended	
Online, GPS Fixed (2)	Ilear 🥘 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 1 is finished	
💓 Route Management	22-Nov-2016 17:20:44 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	
RFID Tracker	22-Wov-2016 17:21:03 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	
Text Messages	22-Nov-2016 17:21:15 Sent from Server to 125 Call 5678: Cannot detect channel to execute this operation	
A	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		
্ঞি 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.
- 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	ê
📴 🗄 🛔 🌲 🛠 🍸 🗇 🗗 🍟	Intercom	
🛛 📙 Firemen 📮 🗖	Croup 10 U ≪ Ø Croup 20 U ≪ Ø Croup 30 Private Call U ≪ Ø	• • •
🖈 🥑 ۱۱۱ 🛛 🖵 😢		
💰 💌 125 (Pete) 🛛 💷 💟 📃	Simple Extended	
🎓 🧭 222 📃 🤿 💙	Select Recipient X	
🏂 🗶 235 (Basil) 🛛 📮 🔌		^
😭 🛞 Radio 200 🛛 📮 🔇 📼	18-10 Online Dispatchers	
Voice Dispatch	21-N & Group1 21-N & Cleaners	
Location Tracking	21-W & Police	
😽 Job Ticketing	21-12 (Pete)	
Route Management	222 22-11 235 (Basil)	
~	C & Radio 200	
RFID Tracker	22.4% & Kalo 201	
C Text Messages	22-N Kado 203	
🔮 Voice Recording	C OK Cancel	
Reports	Recipient: 👶 Firemen \cdots 🔛 Send 🕡 Attach File	~
Event Viewer	Shack # 1 on fire	
Telemetry	N N	
[생] Radio Allocation		106
访 127.0.0.1 🛞 🕵 🙎 Dispatcher 1 📑	Licensed to: demo Demo License	🕑 Active -

- In the **Select Recipient** 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**.

😑 📑 Firemen	E 🛓
	Send Message
	Advanced
(*) 🔊 12	Specify Status Colors
1 22	VIO1: High level
🏂 💌 23	VIO2: High level

• In the **Send Text Message** dialog box that appears, specify the following parameters:

Send Text Message	• X					
Target:	Firemen; Police; Online Dispatchers;					
Templates:	~ 					
Text:	Shack #1 is on fire					
	105					
Attachments:	0 Add File					
Select Radios and C	Groups					
Filter:	Q					
Image: Second						
🔲 Send copy by Em	nail					
Send copy by SM	IS					
Send to offline radios						
Confirmed Group	Text					
Hide Advanced O	Hide Advanced Options SEND Cancel					

Target

This box displays the target for 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 Target list, add recipients by selecting radios/radio groups/logical groups/dispatchers.
- Store and attempt to deliver if the user is offline

Select this option to store the message on the server if a radio is offline, and to send it as soon as the radio becomes online.

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

Click Send.

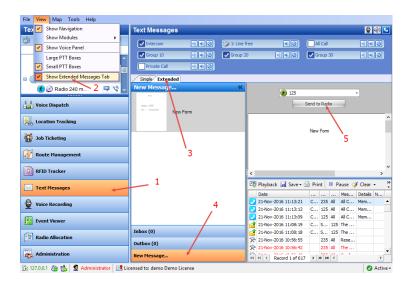


6.9.2 Extended Messages

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

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

6.9.2.1 Send Extended Text Message to a Radio



- Click the **Text Messages** tab (1).
- Click the View menu, and select Show Extended Messages Tab (2).
- In the Text Messages pane, click the Extended tab (3), and New message (4).

Simple Extended								
New Message «	👔 125 🔹							
1	- Group 1							
	< · · · · · · · · · · · · · · · · · · ·							
	🕮 Playback 📓 Save - 🚽 Print 🔢 Pause 🛷 Clear - 🛛 🎇							
	Date Me De Ext. Note							
	2 01-Nov-2016 13:48:37 Dis Me							
	01-Nov-2016 13:48:37 Dis Me							
	Ol-Nov-2016 13:48:34 All All Me Ol-Nov-2016 13:48:27 All All Me							
Inbox (0)	O1-Nov-2016 13:48:23 All All Me							
	01-Nov-2016 13:48:19 All All Me							
Outbox (0)	01-Nov-2016 13:48:16 All All Me							
New Message	H 4 4 Record 1 of 9 + ++ ++ 4							

- Select the template in the list (1). For instructions on how to create templates, see section <u>6.4.16.1</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 calls according to certain criteria, listen to the calls and save them to file.

				Date	Radio Sy	Sender	Recipient	Message	Details	Note	Т
Time Range:			0	17-Nov-2016 18:37:28	Capacity	Administr	235	Private Call: Dispat	Members: Adminis		1
From:	16-Nov-2016 0:00	•	0	17-Nov-2016 18:47:41	Capacity	Tel: 2409	125	Private Call: Dispat	Members: Tel: 24		
To:	24-Nov-2016 0:00	•	0	17-Nov-2016 19 59:46	Capacity	Administr	Radio 24	Private Call: Dispat	Members: Adminis		
	1		0	17-Nov-2016 19:59:56	Capacity	Administr	Radio 24	Private Call: Dispat	Members: Adminis		
Filter:			0	17-Nov-2016 20:30:22	Capacity	345	125	Private Call: Dispat	Members: 345, 125		
Call Type:	Private Call	-	0	17-Nov-2016 20:30:42	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
Radio System:	Al	-	0	17-Nov-2016 20:30:52	Capacity	125	345	Private Call: Subscr	Members: 125		
Units:	AI		0	17-Nov-2016 20:32:46	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
Units:	IAI	-	0	17-Nov-2016 20:32:54	Capacity	235	456	Private Call: Subscr	Members: 235		
Radio Group:	Selected items: 1	-	0	17-Nov-2016 20:33:06	Capacity	345	235	Private Call: Dispat	Members: 345, 235		
Logical Group:	Al	-	0	17-Nov-2016 20:33:14	Capacity	345	235	Private Call: Dispat	Members: 345, 235		
a generation of the second			0	17-Nov-2016 20:34:58	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
Radio ID (e.g. 22,	33,40-55,88):		0	17-Nov-2016 20:37:00	Capacity	345	235	Private Call: Dispat	Members: 345, 235		
			0	17-Nov-2016 20:37:12	Capacity	345	235	Private Call: Dispat	Members: 345, 235		
Find Text:			0	17-Nov-2016 20:39:23	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
			0	17-Nov-2016 20:40:16	Capacity	235	456	Private Call: Subscr	Members: 235		
Hide zero sessi	on audio message		0	17-Nov-2016 20:40:50	Capacity	235	456	Private Call: Subscr	Members: 235		
	2		0	17-Nov-2016 20:42:05	Capacity	345	125	Private Call: Dispat	Members: 345, 125		
Load Data	-		0	17-Nov-2016 20:42:11	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
			0	17-Nov-2016 20:44:00	Capacity	125	345	Private Call: Subscr	Members: 125		
Voice Dispat	ch		0	17-Nov-2016 20:44:16	Capacity	125	456	Private Call: Subscr	Members: 125		
			0	17-Nov-2016 20:44:49	Capacity	125	456	Private Call: Subscr	Members: 125		
Location Tra	cking		0	17-Nov-2016 20:45:07	Capacity	125	456	Private Call: Subscr	Members: 125		
»			0	17-Nov-2016 20:48:46	Capacity	125	456	Private Call: Subscr	Members: 125		
Job Ticketin			0	17-Nov-2016 20:49:05	Capacity	125	345	Private Call: Subscr	Members: 125		
- Job Hekeun	9		0	17-Nov-2016 20:49:14	Capacity	125	345	Private Call: Subscr	Members: 125		
a			0	17-Nov-2016 20:49:30	Capacity	125	345	Private Call: Subscr	Members: 125		
Route Mana	gement			17-Nov-2016 20:49:49	Capacity	125	456	Private Call: Subscr	Members: 125		Ŀ
			144	44 4 Record 4 of 45	F HH 44						
RFID Tracke	r										-
				Sender:	Administrator				Date: 17-Nov-2	016 19:59:56	j -
🖉 Text Messag	les			Recipient:	Radio 240 mol	ole			Playt	ack 📕 Savi	2
								1.1 (00. 40)			
Voice Record	ling			Private Call: Dispatcher 'Au Juits: Administrator, Radi		is the radio F	cacio 240 mo	Die (00:10)			
Reports				- 1							

- Click the **Voice Recording** tab (1).
- In the **Voice Recording** panel, specify the criteria according to which you want to display call records, 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 record, select it in the list and click **Playback** (3).

Note: For more actions available in the **Voice Recording** panel, see section <u>6.5.8.1, Recent Calls/Events, Voice Recording</u>.

6.11 Reports

The Reports tool provides you with various printing forms with monitored radio network activity data.

• Click the **Reports** tab.

File View Map Tools Help	University of the Descents	0 20
Reports	Usage Statistics Reports	ê 🗐 🖸
General Jofsmaton Control Reporter Datos Current Reports Last Yoom System and Rados Presence and GPS Status Presence and GPS S	Substance Substance	-0 = 0
Rado Status Rado Status Summary User Messages and Notes Rado Allocation Diabled Radios Telemetry Voice Dispatch	Vedeo Statuta Construction deale Statuta Construction deale Ancorean Construction Construction Construction Construction Construction Construction Construction	
Location Tracking	Dab Ticket Statuses	
😿 Route Management	Condeted Routes	
C Text Messages		
Administration		
🐻 Connected 🍇 🥵 🕵 🙎 Adm	ministrator 📃 Licensed to: demo Demo License	Active



6.11.1 Report Types

TRBOnet Dispatch Console supports the following report types:

• General Information

These reports contain general information on the radio systems registered in TRBOnet.

• Current Reports

These reports contain current information on the radio systems registered in TRBOnet.

• System Reports

These reports contain system information on the radio systems registered in TRBOnet.

• Usage Statistics Reports

These reports provide information on various activities that occurred in the radio systems during a specified time range. The reported information may include information about Messages, Radio States, User Messages 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

• From

The date from which to start reporting.

То

The date on which to finish reporting.

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.

6.12 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:

Radio Allocation	Radio Al	locatio	n				👲 🐵
1 🗄 1 🕹 🕺 🎢 🍯 6	🤊 🕐 🔊 1: Line	free		✓ Intercom		All Call	
	Group	10		Group 20		Group 30	
🚯 🔊 125 (Pete)	Privat	Call					
* 222							
🎊 🔊 235 (Basil)	· .			Data - 🐺 Groupin			
Voice Dispatch	Callsign		Taken by User	Group Firemen, Police	Vehicle Make	Plate Number	Drivers
Carl Voice Dispatch	125		Pete	Firemen			
Location Tracking	£ 222			Firemen, Police			
	235		Basil	Firemen			
🙀 Job Ticketing	Radio 20)	Λ.	All			
	Radio 20	L	$\mathbf{\Lambda}$	All			
📝 Route Management	🛞 Radio 20	2		All			
2	🛞 Radio 20	3		All			
RFID Tracker	🛞 Radio 20	ŧ		All			
C Text Messages			2				
Voice Recording			2				
Reports							
Event Viewer							
-		1					
Badio Allocation	-	L					
nterministration			F H4 4				

• 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>6.4.23 Users</u> (page 232).
- Click the Take Radio button to assign the radio to the selected user.

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	🔮 🚸 🔽
System Bridges Channel Changes	Sy 1: Line free	
Usage Statistics Reports	Private Call 🔊 🕷 🥥 🗸 Cleaners 🔊 🕷 🧭 📝 Firemen 🔊 🕷 🧭	
Messages	✓ IPSC 1: Slot #1 🔄 🕊 Ø 🗸 IPSC 1: Slot #2 🔄 📢 🐨 Ø Group 10 🚽 🕊 Ø	
Radio Activity		
	🗹 Group 20 🛛 🗐 🐨 🞯	
	Report Settings	
Radio Alocation		^
Disabled Radios	Radio Allocation Saved Profiles:Not defined	•
Lone Worker Activities	This report contains information on the allocated radios (radio, user, time the radio was taken/returned) within the specified time range.	
Job Ticketing 🗸		
	Time Range:	
Voice Dispatch	From: 23-Sep-19 12:00 AM 💌	
N	To:	
Location Tracking	Filter	
🙀 Job Ticketing		
3 Job Ticketing		
Route Management	Logical Group:Not defined	
	Radio ID (e.g. 22,33,40-55,88):	
Text Messages		
-	User: -Not defined	
Reports	Grouping:	
Event Viewer	Group by: By radios	
<i>a</i>		
Radio Allocation		
	Generate Report Profile Delete Report Profile Delete Report Profile	ofile
Administration	<	>
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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**:

TRBOnet Enterprise 5.2 / Dispatc	n Console	- 🗆 X
File View Map Tools Help		
Location Tracking	Map 🔮 🐗	Objects
🔂 🗄 👍 🕺 🦞 💱	🔉 1: Line free 📧 🕢 🔽 Intercom 🕘 📧 🥥	iii li
	Group 10 → € Ø ▲ Al Cal → € Ø	- 70
🛛 🔁 Firemen 🛛 🖵 🌰		E- Z Cr Beacons
2 🚯 🕲 125 💉 🛡		🗹 🍥 Coffee
📌 💌 235 🛛 💐 루 🕇	Group 22 🔹 🕷 🥥 🗹 Private Call 👘 🕷 🧭	
n Rolice 🛛 🗖 🗹	My Map	
Voice Dispatch	Q Q ☆ ☆ Filter: ⑧ ⑧ Q ◎ ♥ 🖳 Show Beacons: 🖋 Drawing Panel	🐣 🗹 💽 Hospital
😹 Location Tracking 🛛 👞		Police Police
00	Map Type: Beacon2D	Map Routes
😵 Job Ticketing	Stel Caption:	
Route Management	Available Maps	
	Name Path State	
RFID Tracker	scheme D:\scheme.bmap OK	3
C Text Messages		5
Voice Recording	4 5	T.
😪 Reports	Recent Calls/Events	
Event Viewer	Date	Auto Filter Details
Radio Allocation	09.06.2017 10:39:0 Add Edit Remove OK Cancel 09.06.2017 10:38:5 Edit Remove OK Cancel	Members: 235 Members: 125
administration	with with the second 1 of 289 wi	Beacons Beacon Events Tag Lis
访 127.0.0.1 🙈 🔥 💆 Administ	rator III Licensed to: demo	🕑 Activ

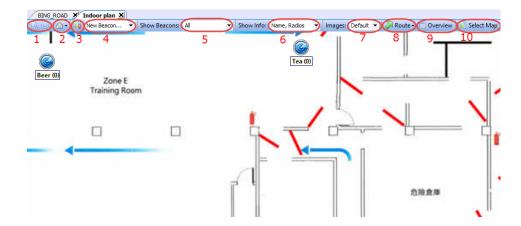
Map Type

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

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

6.13.1.1 Floor Plan Toolbar

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



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 new beacon, select 'New Beacon' from the drop-down list and click the **Set Location** button to add a new 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 mob	ile	Coffee	21-Nov-2016 15:16:48	Detected
Radio 240 mob	ile	Tea	21-Nov-2016 15:16:54	Detected
Radio 240 mob	ile	Coffee	21-Nov-2016 15:16:54	Lost
Radio 240 mob	ile	Tea	21-Nov-2016 15:16:58	Lost
Radio 240 mob	ile	Beer	21-Nov-2016 15:17:03	Detected
~ ~	0	0		
•	(4) From:			Load
•	From:	21-Nov-2016 0:00		Load
•			n>	Load v
	From:	21-Nov-2016 0:00	n>	Load v
Radio 201	From:	21-Nov-2016 0:00	n>	•
Radio 201 Radio 202 Radio 203	From:	21-Nov-2016 0:00	n>	•
Radio 201 Radio 202 Radio 203 Radio 203	From: To:	21-Nov-2016 0:00	n>	•
Radio 201 Radio 202 Radio 203	From: To:	21-Nov-2016 0:00	n>	•

- 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 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.



File View Map Tools Help		
Location Tracking	Мар	😫 剩 🕓 Objects 🔛
🚮 🗄 🗄 👶 🍸 💱 🚽	🔉 1: Line free 📧 🥥 🗸 Intercom 🔊 🕫 🥥	10 L
🖻 📙 Firemen 🛛 📮 🦳		
💰 🔊 125 🛛 😒 📮	Group 20	X - V G Coffee
Ҟ 👏 235 🛛 🔇 📮 🖥	🗹 Group 22 🛛 🔍 🕊 🖉	🗹 🍥 Tea
😑 📃 Police 👘 🗖 🗖	My Map X ^P Floor plan X	Map Objects
Voice Dispatch	💽 🔍 🏠 🗾 New Beacon Type: Beacon 💌	- V de Camera I
	Name; Coffee	📝 💽 Police
Location Tracking	1 Aajor ID: 1	Map Regions
0-0	CQB Minor ID: 1	L. V >= 111
🚰 Job Ticketing	ser H	
😿 Route Management	Description: Coffee shop (2nd floor)	
RFID Tracker	Beer (0)	
	Extr	
Text Messages		
🚭 Voice Recording		
x	on Area	
😪 Reports	Recent Calls/Events	
-	🕾 Playback 🛃 Save 🕶 😓 Print	Filter 💝
Event Viewer	Date Radio S	ls
Radio Allocation	2 09.06.2017 10:39:00 Capacit 09.06.2017 10:38:54 Capacit	Cancel vers: 125
	OK 09.06.2017 10:38:54 Capacit OK	Cancel ers: 125
Administration	Recent Calls/E Recent Calls Request To Talk Radio State Active Tasks Active Routes User Ac	
-		
访 127.0.0.1 🚷 🕵 💆 Administi	ator 🛄 Licensed to: demo	Active •

Type

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.



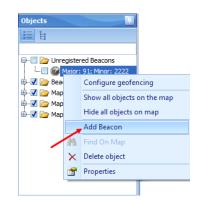
• In the **Beacon properties** dialog box that appears, edit the desired properties.



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.

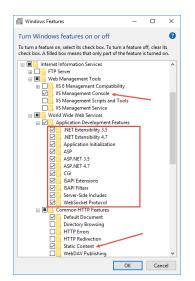
This application allows you to monitor your system without any special software installed on your computer.

7.1 Installing Web Console

- Click Start>Control Panel>Programs and Features.
- Click the Turn Windows features on or off link.

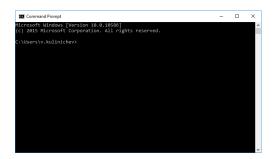
Programs and Features				1 X
← → * ↑ □ > Control	Panel > All Control Panel Items > Programs and Features	マ ひ Search Pro	grams and Feat	ures 🔎
Control Panel Home	Uninstall or change a program			
View installed updates	To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.		
Turn Windows features on or				
off 🔪	Organize 🔻 Uninstall/Change		8==	- 🕐
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	111
· · · · · · · · · · · · · · · · · · ·	G Unity Web Player	Unity Technologies ApS	25-Aug-20	12.0
	4 Unlocker 1.9.2	Cedrick Collomb	09-Dec-2015	
	Visual Studio 2010 Prerequisites - English	Microsoft Corporation	23-Nov-20	47.1
	💐 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
	III XnView 2.33	Gougelet Pierre-e	07-Sep-2015	16.3
	Служба автоматического обновления программ	Mail.Ru	12-Sep-2016	
	💋 Центр управления мышью и клавиатурой (Micros	Корпорация Майкрософт (Міс	25-Nov-20	37.3
	🙀 Языковой пакет Microsoft Visual Studio 2010 Tools д	Microsoft Corporation	03-Nov-20	14.6
	<			>
	Motorola Solutions, Inc. Product version:	12/16/2013 03.06.00.00		

- 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.





- 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.

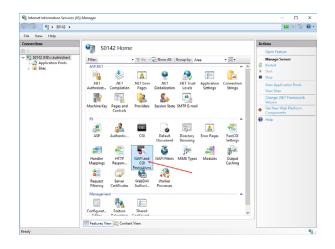
I 🔽 📕 ቛ I Ic Home Share	Application Tools v4.0.30319 View Manage			_	
ightarrow 🕇 📙 > Thi	s PC > Local Disk (C:) > Windows > Micro	osoft.NET > Framework >	v4.0.30319 v	C Search v4.0.30319	م,
🔤 Desktop 🛛 🖈 ^	Name	Date modified	Туре	Size	
🗄 Documents 🖈	adonetdiag.mof	30-Oct-2015 10:19	MOF File	8 KB	
🕹 Downloads 🖈	adonetdiag.mof.uninstall	30-Oct-2015 10:19	UNINSTALL File	2 KB	
Pictures *	🗟 alink.dll	30-Oct-2015 10:19	Application extens	116 KB	
Images	AppLaunch	30-Oct-2015 10:19	Application	95 KB	
	applaunch.exe	30-Oct-2015 10:21	XML Configuratio	1 KB	
pictures	Aspnet 📄	13-Jan-2014 23:28	XML Configuratio	1 KB	
TRBOnet_5.1	aspnet_compiler	30-Oct-2015 10:19	Application	55 KB	
Ttt	aspnet_filter.dll	30-Oct-2015 10:19	Application extens	35 KB	
OneDrive	aspnet_isapi.dll	30-Oct-2015 10:19	Application extens	25 KB	
- Onconne	Aspnet_perf.dll	24-Feb-2016 5:12	Application extens	41 KB	
This PC	aspnet_perf.h	30-Oct-2015 10:19	H File	8 KB	
Desktop	🥁 aspnet_perf	30-Oct-2015 10:19	Notepad++ Docu	975 KB	
Documents	aspnet_perf2	30-Oct-2015 10:19	Notepad++ Docu	973 KB	
Downloads	aspnet_rc.dll	30-Oct-2015 10:19	Application extens	90 KB	
h Music	aspnet_regbrowsers	30-Oct-2015 10:19	Application	44 KB	
	💽 aspnet_regiis	30-Oct-2015 10:19	Application	40 KB	
Pictures	aspnet_regsql	30-Oct-2015 10:19	Application	124 KB	
Videos	aspnet_state	30-Oct-2015 10:19	Application	45 KB	
Local Disk (C:)	aspnet_state_perf.h	30-Oct-2015 10:19	H File	1 KB	
Local Disk (D:)	aspnet_state_perf	30-Oct-2015 10:19	Notepad++ Docu	42 KB	
	aspnet_wp	24-Feb-2016 5:12	Application	43 KB	
Network	CasPol	30-Oct-2015 10:19	Application	105 KB	
*	aspol.exe	30-Oct-2015 10:21	XML Configuratio	1 KB	

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

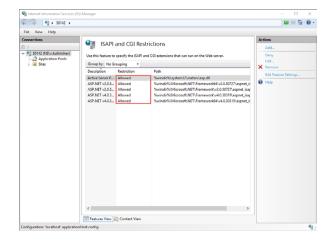
Command Prompt	-	-		×
Microsoft Windows [Version 10.0.10586] (c) 2015 Microsoft Corporation. All rights reserved.				^
C:\Users\v.kulinichev> <mark>C:\Windows\Microsoft.NET\Framewor</mark>	rk\v4.0.30319\aspnet_re	giis.	.exe -i	1
				~

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





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



- 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):

9 S0142 (NS\v.kulinichev)	associated with worke	w and man	age the list of a	pplication pools on r more applications	the server. Application pools are	d Applic	tion Pool tion Pool Defa
v ₩ ten	different applications. Filter: D. MT v20 D. MT v20	Started Started Started Started Started Started	NET CUR Y v2.0 v4.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v2.0 v4.0 v4.0 v4.0 v5.0 v4.0 v5.0 v4.0 v5.0 v4.0 v5.0 v5.0 v4.0 v5.0	w All Group by: Managed Pipel Integrated Classic Integrated Classic Integrated Classic		× 3	ion Pool

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



Sites	File View Help								
1 1 </th <th>Connections</th> <th>Charles Charles</th> <th></th> <th></th> <th></th> <th></th> <th>Ale</th> <th>erts</th> <th></th>	Connections	Charles Charles					Ale	erts	
Processor State Biology Paint 1 0 State State Paint 1 0 State State State 2 State State State 2 State State State 3 State State State 4 State State State 5 State State State 6 State State State	S0142 (NS\v.kulinichev)	19		The Share	All Group has Ma Councilor		0		
Concernant Web Site Concernant - Statistical Board Prost Light Dearthous - Statistical Concernant - Statistical Board Prost Light Dearthous - Statistical Concernant - Statistical Board Prost Light Dearthous - Statistical Concernant - Statistical Board Prost Light Dearthous - Statistical Concernant - Statistical Board Prost Light Dearthous - Statistical Concernant - Statistical Board Prost Light Dearthous - Statistical Board Prost - S		-					Ac	tions	
1 2 Set Waske Defuels Endogen 2 Endogen 3 Endogen 3 Endogen 3 Endogen 3 Endogen 3 Endogen 4 Endoge	🗸 🌚 Default Web Site		1	Started (ht			•		
	> _ pont_siter	2	ت م	Set Website Defa Bindings Basic Settings Explore Edit Permissions. Remove Rename View Application View Virtual Dire Manage Website			Ma Ala Ala Ala Ala Ala Ala Ala Ala Ala Al	Edit Site Bindings Basic Settings Explore Edit Permissions Remove Rename View Applications View Virtual Directories anage Website Restart Start	
		<	-			>	8	Help	

• Click the Add Application link.

S0142 (NS\v.kulinichev) Application Pools Sites	-		plications. Applications contain		Actions Actions Act Application
 ✓ CD Defails Web Site 3 → aport_client 	Vinuel Path	Physical Path	Sat	Application Pc	

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

Add Application		? ×
Site name: Default Web Site Path: /		
Alias:	Application pool:	
TRBOnet	DefaultAppPool	Select
Example: sales Physical path: C:\inetpub\WebConsole		
Pass-through authentication		
Connect as Test Settin	ngs	
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):



File View Help					
Sonnections	🌒 /	Application Pool Defaults	?	×	Actions Add Application Pool
Application Pools Sine Default Wey Size Default Wey Size SizeCVLDRN 1 2 3 Acrobal Pro DC Decs Inages Minual of Skyle Portable Sociat71 SCL2012 skyles	Associated different a Filter: Name M.NET v M.NET v M.NET v Classic Classic Defaul	ANT CLR Version Enable 2:3 eVariable Thable 2:3 eVariable Cover Length Sant Mode CPU Limit (percent) Limit Action Interval (minutes) Processor Affinity Mask Processor Affinity Mask Processor Affinity Mask Colorest Model Searcter Process Model Event	L	• • opplication	2
 styles System Webme Inform Transport All Artup Transport All Artup Transport All Artup Web Web Web Web Web Web Web 	_		AppEnsionTooldentity 20 Terminate True 1 type Https/evel and the application pool is TTP 503 error. If set to TcpLevel, HTTP OK Cancel	×	

• Set Enable 32-Bit Applications to True (3).

The Web Console will be added as an application to under the Default Web Site:

Name Information Services (IIS) Manager	– 🗆 X
(→) \$ \$0142 + Sites + Default Web Site + TR8Onet +	😰 🗵 🖄 🔞 ·
File View Help	
Connections Provide the second s	Actions Explore Edit Permissions
	Basic Settings View Virtual Directories Manage Application Browse Application Browse Application Browse Application Advanced Settings Help
Colombia Colomb	v
Ready	4

Note: Make sure your account has sysadmin privileges (for more details, see

Appendix B: Configuring SQL Server 2012 for Local System Account on page 340, and <u>Appendix C: Granting Sysadmin</u> <u>Role to Local System in SQL Server 2012</u> on page 343) and the database connection is successful (see section <u>5.2,</u> <u>TRBOnet Server Database</u> on page 13).

To open Web Console, right-click your application, choose **Manage Application > Browse**.

(€ → (P + S0142 + Sites + Default Web Site + TR8Onet +	😐 🖂 🟠 😥 •
File View Help	
	Action
Manage Application	

TRBOnet Web Console is now ready for operation.



7.2 Configuring Web Console

• If TRBOnet Server is not installed on your PC, select the application and click **Application Settings**:

Internet Information Services (IIS) I ← → Ø ► \$0142 ► Sites	Default Web Site TR8Onet	×
File View Help		
Connections	0 mma	Actions
2	/TRBOnet Home	Open Feature
S0142 (NS\v.kulinichev)	Filter: • T Go - C Show All Group by: Area • C -	Explore Edit Permissions
V 🚱 Default Web Site		Basic Settings
> - 🛄 aspnet_client		View Virtual Directories
- TRBOnet	.NET .NET .NET Error .NET .NET Profile .NET Roles Authorizet Compilation Pages Globalization	Manage Application
> - App_Themes > - Audio	🔗 🛝 📧 🖡 🖏 🖷	Browse Application Browse "180 (http)
> - bin > - Controls	.NET Trust .NET Users Application Connection Machine Key Pages and Levels Settings Strings Controls	Advanced Settings
>	Providers Session State SMITP E-mail	Help
< Images v	🛐 Features View 🖓 Content View	
Ready		

• Specify the **IP address** and **Port** of the PC with installed TRBOnet Server:

→ ③ + S0142 + Sites	Default Web Site	TRBOnet +					40	20	
ile View Help									
nnections	Applicati	on Settings			Acti	ons Add			
S0142 (NS\v.kulinichev) Application Pools Sites	Use this feature to stor Group by: No Group		is that managed code application	is can use at runtime.		Edit Remove			
🗸 😝 Default Web Site	Name	Value	Entry Type	^		lelp			
> - aspnet_client • - TRBOnet	CorrectRoute	False	Local						
> - Account	dateTimeFormat		Local						
> - App_Theme	GoogleClientId		Local						
Audio	GoogleSignature		Local						
> 🎬 bin	GpsAccuracyOnRo	50	Local						
> - Controls	ip	10.10.100.99	Local						
> - Custom Data	MaxSpeedOnRoute	120	Local						
> - Oocs	port	4021	Local						
> - Company - Forms	ThunderForestApiK		Local						
> - GeocodingS	UrlGetCoordinates		Local	v					
> - 🛄 Images 🗸 🗸	Features View C								

• Right click **TRBOnet Web Console** and choose **Edit Permissions**.

	😐 🖂 🟠 😥
e View Help	
mections (D) (TDDO) + 111-111	Actions
/TRBOnet Home	🔉 Explore
S0142 (NS\v.kulinichev) A Filter. Go - Show All Group by: Area .	Edit Permissions
Application Pools ASP.NET ASP.NET	Basic Settings
	View Virtual Directories
V 🗣 Default Web Site	Manage Application
TRBOnet .NET .NET	Browse Application
	Browse *:80 (http)
> 🖆 Audi 🔄 🔨 📜 📜 🚺	Advanced Settings
Add Application ers Application Connection Machine Key Pages and Settings Strings Controls	😧 Help
Custr	
Docs Manage Application	
Form in Refresh tate SMTP E-mail	
> Geo Kernove	v
Switch to Content View Intent View	

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



General Sharing Object name: C:	X	s Versions Cus	tomize
Group or user name	es:		
State Authenticated	Users		
SYSTEM 38			
🞎 Administrate	ors (S0142\Admin	nistrators)	
🚨 Users (S014)	2\Users)		
To change permissi	ions, click Edit.		Edit
Permissions for Aut	heatiented		Euit
Users		Allow	Deny
Full control			^
Modify		1	
		1	
Read & execute			
Read & execute List folder conter	nts		
	nts	- X	
List folder conter	nts	Š	~
List folder conter Read		settings.	v

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

Permissions for WebConsole	2	×
Security		
Object name: C:\WebConsole		
Group or user names:		
Authenticated Users		
SYSTEM		
Administrators (S0142\Adm	inistrators)	
Solution (Solution (Solution)		
	Add	Remove
Permissions for Пользователи	Allow	Deny
Read & execute	~	
List folder contents		
Read		
Write		
Special permissions		
ОК	Cancel	Apply
0.11	Janoor	

- Click Apply.
- Click OK.



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 WebConsole × +				-		×
\leftarrow \rightarrow \circlearrowright 10.10.100.99/TRBON	et/Account/Login.aspx?Re	turnUrl=%2fTRBonet%2f	□ ☆ =	1	٩	
TRBO nd	et" Build 5.4.0.2197					
Web Interf	ace		*		•	
	Login Dispatcher 1	Password				
		Connect				
		neocom				

• 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.

TRBOnet WebConsole	× +							-		×
\leftrightarrow \rightarrow O	10.10.100.99/TRBon	et				□ ☆	=	I	٩	
TRBOnet [™] Map Reports		Ticketing		1C				Sen Dispatche	d Text	
Radios	🕼 🗄 💏			Find address	٩	Region: Default	- X	(+i	0	2
			and a second sec	Ŕ	-	235 Radio 3		i i	ko Pron 28 Č Bocunee ocrp es pyóna	еский ов Сим к



7.3.2 Radio List

The Radio List pane is located on the left and contains the list of radios. From this pane, you can perform the following tasks.

Click the \bigcirc button to see the selected radio in the center of the map.

Click the Abutton to button to display a route traveled by the selected radio on the map.

Show Ro	ute		5
 Image: A second s	125		^
			- 1
		Select All	v Deselect Al
From:	24-Nov-2016 0:00	Select All	⊽ Deselect Al
From: To:	24-Nov-2016 0:00 24-Nov-2016 18:41	Select All	Deselect Al
			×

Specify the **From** and **To** date and time. Select the **Optimize Route** option to group all points in a 100-meter radius.

Click the ^{GPS} button to request a location of the selected radio.



Click the 🏝 button to display the selected radio properties.



7.3.2.1 Disabling a radio

To disable a radio:

- Right-click the desired radio in the Radio List pane.
- In the shortcut menu that opens, click **Disable**.
- Enter the **Reason** and click **OK**.

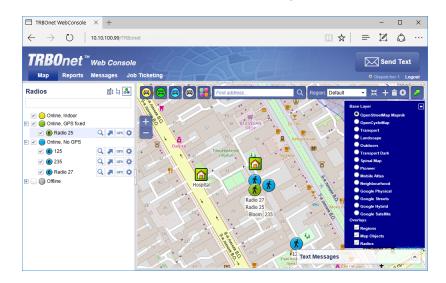
Note: The dispatcher can disable a radio when they have relevant Access Rights.



7.3.3 Map

7.3.3.1 Map Layers

- Click the small plus button on the right of the Map pane.
- Choose the map layer to display in the Map pane.
- In the Overlays list, select whether to display Regions, Map Objects and Radios on the map. Just select/clear the corresponding check box.



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.

← → ♡ 10.10.10099/11 TRBOnet [™] Map Reports	^{ISCNETHEZOWEDWEZOCONSOLE} Web Console Messages Job Ticketin		□ ☆ =	nd Text
Radios		9 🗃 📾 18, Broadway	© Dispate	cher 1 Logout
Online, Indoor Online, Indoor Online, GPS fixed € 125 € 235 € 235		5 33 34 34 34 34 34 34 34 34 34 34 34 34	24 22 32 32 32 32 35 5pices & Joy 35 5chool num Ulice	20
 Online, No GPS Radio 240 m Offline (f) 111 	Q.# == \$	4 Date: Latitude: Longitude: Altitude:	25-NOV-2016 13:40:12 59*56'26.40'N 30°16'47.89"E Unknown	PIOSPEKT B
		22 0 7-ya liniya, 34, Sar 20 1111 2	kkt-Peterburg, Russia, 199034	Vasileostrov



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 e 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 ²² 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.

RBO net"					Send Text
Map Reports		o Ticketing			Dispatcher 1 Lo
dios	E: 🚴		😑 📾 18, Broadway	🛛 🔍 Region: Default	• 💥 + 🖬 O
		Fou	ind addresses		×
Online, Indoor	^	18	Broadway, Tarrytown, NY 10591, USA		
Online, GPS fixed			Broadway, Somerville, MA 02145, USA		ion Cafe
🗹 💰 125	Q 🚚 ars 🔅	18	Broadway, Denver, CO 80209, USA		
235	Q 🚚 GPS 🔅		Broadway, Denver, CO 80203, USA		nited
🖉 🔵 Online, No GPS			Broadway, Bayonne, NJ 07002, USA		
🗌 👧 Radio 240 m	Q 🚚 GFS 🔅	18	Broadway, Brooklyn, NY 11249, USA		зge
Offline					
- C (f) 111	Q 🚚 ars 🔅				
(€) 222	Q 🐊 ars 🔅				
🔿 🔿 Radio 200	Q 🖉 ars 🕸				

7.3.4 Text Messages

With TRBOnet Web Console, you can send text messages to radios/radio groups/dispatchers.

- Click the **Messages** tab at the top of the window.
- Click the **Send Text** button.



TRBOnet [™] Web Console				Send Text
Map Reports Messages Jol	Ticketing	172		Ö Dispatcher 1 Log
35 → All (ay	Send Text	Message	×	25-N
25 ⇒ All kay	Text See you			18-N
25 → All		8	222	18-N
25 → All	V	8	235 Radio 200	18-N
		8	Radio 200	
		8	Radio 202	
	Send	a to Offline	D-JI- 000	
			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.

	80net™	Web Con	and the second				Send Tex	
Мар	Reports	Messages	Job Ticketing				Oispatcher 1 Lo	gou
🛃 Add	📑 Edit	🐒 Assign	🛃 Archive					
	Status	ID †	Text	Performer	Creation Time	Start Time	End Time	
	Q	Q	Q	Q	Q	Q	٩	
	New	#A00011	Check the pipe		07-Nov-2016 16:27:42			
\checkmark	New	#A00017	Get out of there		25-Nov-2016 14:10:25			
	Edit	🐒 Assign	🎨 Resend 📑 Archi	ve 🕜 Cancel				
🛃 Add		lip †	Text	Performer	Creation Time	Start Time	End Time	
Ndd	Status	ID I			Q	Q	Q	
Add	Status Q	9,	Q	Q	~			
Add	Q		Q 456	٩	07-Nov-2016 15:38:32	```		
Add		۹		Q.				

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/Ad
Ticket ID:	#A00000
Text:	Check the pipe
End Time:	Enable Deadline 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.

TRBOnet WebConsole × +			- 🗆 X
\leftrightarrow \rightarrow \circlearrowright 10.10.100.99/TRBOnet%	20Web%20Console		
TRBOnet [™] well Map Reports Mest	b <i>Console</i> sages Job Tick	eting	Send Text Olispatcher 1 Logout
🕞 GPS Reports	Location for	period	
 Decation for Period 			
 Drive Activity Detailed 	Select data by peri	od:	
Staying in a region	Start Date:	18-Nov-2016 11:21	
🗌 🔲 Idle time detailed	End Date:	25-Nov-2016 11:21	
Common Reports	Filter:		
Messages for Period	Radio:	All 🛛 🖓 🔽	
GPS Export	Min.Interval:	0 🛞 🚔 Seconds 💙	
 Decation for Period 		Show street names	
Drive Activity Detailed			
Staying in a region	Generate Repo	rt 🔤	

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.

3 TRBOnet WebConsole	\Box Location for period \times +										-		>
- > O	10.10.100.99/TRBOnet%20Web%20Console/R	eports/GPSByFilter/GPS	ByFilterResult.aspx?rad	dio=08:minInterval=0	8.showStreetNames=	alse&unit=1&start	Date=18/11/201	5+11:218xendDat	• 💷 🖈	=	Z	٥	
1	🥸 🛤 🔺 Page <mark>1</mark>	▼ of	337	M 🗒	📱 🛛 Pd	F 💌							
	for period												
rom 18-Nov-201	6 11:21 to 25-Nov-2016 11:21						-						
Radio: 125 (C	eaning 1)												
		Altitude (meter)	Accuracy (meter)										
8-Nov-2016 1:21:29	Latitude: 59°56'25.95"N Longitude: 30°16'47.96"E	Unknown	37	0.0	0	<u>on map</u>							
18-Nov-2016	Latitude: 59°56'25.96"N Longitude: 30°16'47.91"E	Unknown	35	0.0	0	<u>on map</u>							
8-Nov-2016 1:22:59	Latitude: 59°56'25.96"N Longitude: 30°16'47.90"E	Unknown	46	0.2	0	<u>on map</u>							
8-Nov-2016 1:23:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
l8-Nov-2016 l1:23:59	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
l8-Nov-2016 l1:24:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
8-Nov-2016 1:25:01	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
l8-Nov-2016 l1:25:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	<u>on map</u>							
l8-Nov-2016	Latitude: 59°56'26.23"N												

You can print the report, save it as a file, and so forth.



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**:

Specify Database Engine author	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 I Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows authenticatio Specify the password for the SQL Server system administrator (sa) acce Enter password: Confirm password: Specify SQL Server administrators	n)
	VM_WIN7_002\admin (admin) Add Current User Add. Remove	SQL Server administrators have unrestricted access to the 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	8
Select this object type:	
Users, Groups, or Built-in security principals	Object Types
From this location:	
VM_WIN7_002	Locations
Enter the object names to select (<u>examples</u>):	
	Check Names
Advanced	OK Cancel

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

ect Users or Groups				?
Select this object type: Users, Groups, or Built-in security principals			Object	Types
rom this location:				
MITYA			Loca	ations
Common Queries				
Name: Starts with 💌				Columns
				Find Now
Description: Starts with				
Disabled accounts				Stop
Non expiring password				
Days since last logon:				£7
Days since last logon.				T-1
earch results:		0	K	Cancel
ame (RDN)	In Folder			
IIS_IUSRS	MITYA			
INTERACTIVE				
LOCAL SERVICE				
NETWORK				
NETWORK SERVICE				
OWNER RIGHTS				
REMOTE INTERACTIVE LOGON				
restore				
	MITYA			
SERVICE SQLServer2005SQLBrowserUser\$MITYA	MITYA			

• Select NT AUTHORITY\LOCAL SERVICE (LOCAL SERVICE):



Database Engine Confi Specify Database Engine auther	guration 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 Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: Confirm password: Specify SQL Server administrators
	VM_WINZ_002x4dmin (4dmin) NT_AUTHORSTYLLOCAL_SERVICE (LOCAL_SERVICE) Add Current User Add Remove < Back Next > Cancel Help

• Click **Next** and follow the prompts to finish the installation.

Mixed Authentication mode

Database Engine Confi Specify Database Engine authe	guration ntication security mode, administrators and data directories.
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Dick Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress	Server Configuration Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode Image: Configuration mode Image: Mode Windows authentication Image: Configuration mode Image: Configuration mode Image: Configuration mode Image: Specify the password Image: Configuration mode Image
Complete	TRBOnet-PC\Adminuser SQL Server administrators have unrestricted access to the Database Engine. Add Current User Add
	< Back Next > Cancel Help

- 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	(P	
A General	Script 👻 🚺 Help	
Server Roles User Mappur Securables	Server role is used to grant server-wide security privileges to a user.	
Status	Server roles:	
\ \	bulkadmin	
	dicreator diskadmin processadmin	
1	v public securityadmin	
	serveradmin	
	setupadmin	
	🔽 sysadmin	
	1	
Connection		
Server: //M_WIN7_002\SQLEXPRESS		
Connection: /M_WIN7_002\admin		
Hew connection properties		
rogress		
C) 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.

Configuration	Service Version	: 5.4.0.2210
🔗 Service \land		
S Network	The TRBOnet Server service is installed	
🛱 Redundancy		
Database	Status: 🜔 Service started	
😪 Reports	Stop service	
Service Management	A former all second and the second seco	
🔀 Advanced Settings	Save changes and restart service	
Geocoding Servers		
Radio Systems	Uninstall Service	
Services		
IPSC 1		
🔒 Privacy		
III Slot #1		
III Slot #2		
Local Slots		
CP1		
DDMS service		
Advanced Settings		
MNITS data convince	View Log Entries Export Configuration Import Configuration	
Set Defaults	Apply OK	Cancel

 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.



Configuration	Database	Version: 5.4.0.221
💣 Service	^	
S Network	SQL Server:	(local)\SQLEXPRESS
Redundancy	Database:	TRBOnet1 •
Database	Authentication:	Windows •
Reports	Audientication.	windows +
Service Management	Login:	
🔀 Advanced Settings	Password:	
Geocoding Servers		
Radio Systems	Specify the path fo	r database archives
Services		C:\TRBOnet\Backup\DB
IPSC 1	Path:	C:\IRBONEt\packup\pB
	✓ Use custom folder	for audio files
Privacy	Path:	C:\TRBOnet\Backup\Audio
Slot #1	raui.	
III Slot #2	Use custom folder	to store file attachments
Local Slots	Path:	
CP1		
Privacy	Test Connec	tion
DDMS service	Unavada Datab	
Advanced Settings	Upgrade Datab	ase 🗸
3 th MNITS data convice	Create Databa	ase 🔻
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 **Backup** (3) button:

Administration		Databas	e					🔒 🚯 😫
Server	<	Sroup Privat	o 10 🔊 📢		Intercom Group 20	0 4 0	All Call	•) • 0
Voice Dispatch			Database Inform	ation				
Location Tracking			Server name: Database name:	TR	cal)\SQLEXPRESS BOnet			
🚰 Job Ticketing		Ĩ	Backup date: Database version:	Mir	n 17 2016 19:14:09	2014 (SP2) (KB31710	21) - 12.0.5000.0 (X64)	
📝 Route Management				Co Ex	pyright (c) Microsof press Edition (64-bil	t Corporation) on Windows NT 6.3	8 <x64> (Build 10586:)</x64>	
RFID Tracker			Data size: Audio size:		.23 MB .77 MB			
Text Messages								
Voice Recording								
Reports								
Event Viewer								
9 Radio Allocation		/	1					
Administration	-							

• Specify the backup details:

Database maintenance	•
Remove old data and shrink da	tabase
Path: C:\ProgramData\Neocom Software\TRB	Onet.Enterprise\Backups
Backup data	
🗹 Backup audio	
Remove	
Remove all data older than date:	10-Jul-2016 💌
Audio files	
🗹 Data	
🗹 Data	
	OK Cancel



Backup 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.

				-0	E			х
🕞 🖉 🚽 🕨 Compute	r 🕨 Local Disk (C:) 🕨 ProgramData 🕨 Neocon	Software + TRBOnet.	Enterprise + Backups		- 49	Searc	ch Bac	
Organize - Include in	library - Share with - New folder				8==		-	
	Name	Date modified	Туре	Size				•
🔶 Favorites		Date modified						
E Desktop	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB				
Downloads	7							
E Recent Places	\							
Cesktop	\							
; Libraries								
Documents	\							
Music	· · · ·							
E Pictures E								
🗧 Videos								
😹 Roman Lapin								
: Computer								
🗣 Network								
Control Panel								
Recycle Bin								
CP5_8_0_410								
🔒 Elastix								
Important docs								
Pics								
SASPlanet_120800								
B Merenausen Made								
1 item								



For TRBOnet.Plus:

G 🗨 📕 🕨 Comp	outer → Local Disk (C:) → ProgramData → I	Neocom Software 🔸 TRBOnet	Plus 🕨 Backups 🕨	
Organize 🔻 Include	e in library 🔻 Share with 👻 New fol	der		
🔶 Favorites	^ Name	Date modified	Туре	Size
E Desktop Downloads Dropbox Recent Places	TRBOnet Plus_20140528.zip	5/28/2014 7:36 PM	Compressed (zipp	208 KB
Documents Music Pictures Videos Roman Lapin Computer Network Control Panel S85 roman Config_Pics Config_Pics Config_Pics Elastix Elastix 2.20 x86 (I Floor Important docs Jenkins Licences Videos				
1 item				

Restore Database

To restore the database

• Open TRBOnet Server and stop the TRBOnet Server service.

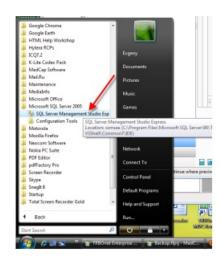
Configuration	Service	Version: 5.4.0.2210
	Service The TRBOnet Server service is installed Status: Status: Save changes and restart service Uninstall Service Uninstall Service	Version: 5.4.0.2210
Advanced Settings Privacy Slot #1 Cocal Slots CP1 Advanced Settings Privacy DDMS service Advanced Settings Advanced Settings	View Log Entries Export Configuration 2	Import Configuration
Set Defaults	Apply	OK Cancel

• Unzip the backup archive and open the folder:

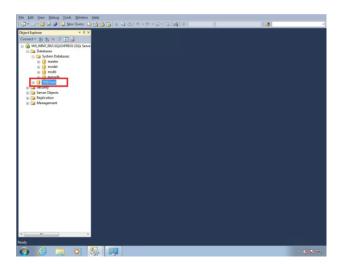


Organize 🔹 🛛 🎇 Open	Include in library Share with	New folder			10	• 🗆	
Favorites	Name	Date modified	Туре	Size			
E Desktop	🍌 Audio	8/9/2013 1:09 PM	File folder				
🐞 Downloads	📄 Info.txt 🕈	8/9/2013 12:54 PM	Text Document	1 KB			
Secent Places	TRBOnet.Enterprise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Cesktop							
🧊 Libraries							
Documents							
J Music							
E Pictures							
Videos							
📙 Roman Lapin							
: Computer							
🗣 Network							
Control Panel							
Recycle Bin							
CPS_8_0_410							
🍌 Elestix							
🍌 Important docs 📃							
Pics							
SASPlanet_12080							

• Run **SQL Server Management Studio Express** with sufficient rights to manage databases.



• Select **Database** in the navigation tree (for example, **TRBOnet**):



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



estored.						
Script - 1	Help					
Source © Database © Dgrice: Ogr Destination – Database: Bestore tec	u: labase					-
Backup sets	to restores					
Restore	Name	Component	Type	Server	Detabase	Position
						,
					Ye	ily Backup Media
	Scorpt - D Source Database Database Batare too Restore too Restore plan Bacjuop sets	Sorget - Debaren: Debaren: Debaren: Defare:	Sorry Control	Sourt - Melp Source Dataser Dataser Digitalser Dataser	Sours - Dataen Dataen Dataen Derice Derice Dataen Derice Dataen Bater Bater Retors to Retore plos Retore plos Retore Store Retore Store Retore Store Retore Store Retore Store Source Store Retore Store Source Store Sourc	Sours Sours Dadaee Dadaeee Dadaeee Dadaeee Dadaeeeeeeeeeeeeeeeeeeeeeee

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:

No backupset selected to be rest.	ored.	
Select a page	Script - Help	
4ª General	Storts Plant	
🕈 Film	Source	
P Options		
	O Qetobese:	
	Cevice:	
	Dgtabase:	
	Destination	
	Database	TRECinet
	Bestore to:	Timeline
	Select backup devic	Ces
	Freed, do have a se	da and its location for your restore operation.
	denvire randrise	depart LSN vil
	Backup media type:	No .
	Backup meda	
	sacup geda.	644
		600
		Bemove
		Contents
Connection		Cordens
VM_WIN7_002(SQLEXPRESS (VM_WIN7_002(sqLEXPRESS))		
(AM ² Mph) (Arcinoun)		
View cannection assaulties		
View connection properties		
Progress		QK Cancel Help
		QK Cancel Help
Progress		

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

Backup media type:	File	•
Backup media:		
		Add
		Remove
		Contents

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

• Click **OK** to add the directory.



No backupset selected to be rest	tored.	
Select a page	Script - Help	
에 General 에 Files 게 Options	Source © Databaser © Dgvice:	•
	Dgtabaser	
	Destination	
	Databases	TR8Onet
	Bestore to:]indine
	Select backup devia	
Connection	Backup media type Backup gedia C1/hogram/Data\Ne	Re depert LSN For LSN
VM_WINT_002\SQLEXPRESS (VM_WINT_002\admin)		
View connection properties		
Progress		QK Cancel Help +
C Ready		Lik Cancal Hep /

• Click OK.

The database is added to the list of restored databases.

Sestore Database - TRBOnet					
1 Ready					
Select a page de Carana 2º Are 2º Options 2º Options	Sorget - Dishelp Source Database Detination Database Destination Database Extreme fue Restore plan Backog units to restore Florters Assoc Conceptore	C (ProgramDera)Neccore Software(1980recEnterprise)(Backup)(198 [RBChet TR8Ond TR8Ond The last backup taken (Puesday, August 66, 2013 11:21:27)			
Cannection (M. VMC 002.04.1004155 (M. VMC 002.04000) View.commercial properties Progress Down	2 Odebar 2	Full SOUL/SQLEAPR	CX TRONE 1 24	246000000 <u>y</u> eefly Backup Media Cancel Hetp	

- 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		Vers	sion: 5.4.0.221		
🖗 Service 🗸	N					
S Network	SQL Server:	(local) \SQLEXPRESS		-		
🛱 Redundancy	Database:	TRBOnet1		-		
Database	Authentication:	TRBOnet				
Reports	Authentication:	TRBOnet				
Service Management	Login:	TRBOnet_VR				
🗶 Advanced Settings	Password:	TRBOnet1		0		
「人 Geocoding Servers	rassword.	TRBOnet2				
Radio Systems	Specify the pat	TRBOnetWatch h fo TRBOnetWatch1				
Services	y specify the pat					
Repeater #1	Path:	C: \TRBOnet\Backup \DB	3			
Advanced Settings	Use custom fold	der for audio files				
Privacy						
	Path:	C:\TRBOnet\Backup\Au	c. (indefiet packup (Addio			
	Use custom fold	der to store file attachments				
EI3 Local Slots	Path:					
PTT over Cellular	Paul:					
Advanced Settings						
TRBOnet.Mobile gatew	Test Cor	and the second se				
Remote Agents	Test Cor	inection				
Friendly Servers	Upgrade Da	atabase 🔻				
Telenhony	Create Dat	tabase 👻				
< >						
Set Defaults		Apply	ок	Cancel		



- Click **Test Connection** to check the connection to the database.
- Click **Upgrade Database** to upgrade the database if the current database was restored from the database version lower than current.
- Click the Save changes and restart service link.

Configuration	Service		Version: 5.4.0.2210
Service	^		
Network	The TRBC)net Server service is installed	l i i i i i i i i i i i i i i i i i i i
🔅 Redundancy			
Database	Status:	Service started	
Reports		Stop service	
Service Management			
X Advanced Settings	Save	changes and restart service	
Geocoding Servers			
Radio Systems	Unir	istall Service	
Services			
Repeater #1			
Advanced Settings			
Privacy			
Local Slots	-		
🛒 PTT over Cellular			
Advanced Settings			
TRBOnet.Mobile gateway #1			
Remote Agents			
Friendly Servers			
Telenhony	Y 🖹 View L	og Entries Export Configurati	on Import Configuration
< >	(m)		
Set Defaults		Appl	V OK Cancel

Restore Audio Recordings

To restore the audio file:

• Launch TRBOnet Server and stop the TRBOnet Server service.

Configuration	Service	Version: 5.4.0.2210
🔗 Service 🔺		
S Network	The TRBOnet Server service is installed	
🛱 Redundancy		
Database	Status: 🜔 Service started	
😪 Reports	Stop service	
Service Management		
🔀 Advanced Settings	Save changes and restart service	
Geocoding Servers		
🔜 Radio Systems	Uninstall Service	
Services		
IPSC 1		
Advanced Settings		
Privacy		
III Slot #1		
III Slot #2		
Local Slots		
CP1		
X Advanced Settings		
Privacy		
DDMS service		
Advanced Settings		
MNTS data service	View Log Entries Export Configuration Import Conf	iguration
< >		
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			Ver	sion: 5.4.0.2210
Service Service Service Redundancy Service Management Advanced Settings L Conservers Radio Systems Tover Cellular Renote Agents Friendy Servers Telephony Data Sources SMS License	SQL Server: Database: Authentication: Login: Password: ☑ Specify the path Path: ☑ Use custom folde Path: ☐ Use custom folde Path:	TRBONE Window for databa C:\TRB c:\TRB	ise archives Onet\βackup\DB files Onet\βackup\Audio		· · · · · · · · · · · · · · · · · · ·
	Test Conr Upgrade Dat Create Data	tabase	•		
Set Defaults			Apply	ОК	Cancel

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

Organize 🔹 🛛 🏹 Open	Include in library Share with	New folder			80.0	- 1	-
🔆 Favorites	Name	Date modified	Туре	Size			
E Desktop	실 Audio	8/9/2013 1:09 PM	File folder				
🐌 Downloads	📄 Info.bit 📫	8/9/2013 12:54 PM	Text Document	1 KB			
3 Recent Places	TRBOnet.Ente prise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Cesktop							
Cibraries							
Documents							
J Music							
Network Pictures							
🗑 Videos							
Roman Lapin							
(New Computer							
年 Network							
Control Panel							
Recycle Bin							
CPS_8_0_410							
🎉 Elastix							
Important docs							
Pics							
SASPlanet 12080							

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

Organize = Includei	in library Share with New I	older	1)III • 🛄
🗼 Downloads 🛛 *	Name	Date modified	Туре	Size	
Recent Places	2012_01_31_12	1/31/2012 12:27 PM	File folder	\	
	2012 01 31 18	1/31/2012 6:05 PM	File folder	1	
Desktop	2012 01 31 20	1/31/2012 8/13 PM	File folder	1	
Cibraries	2012 02 01 10	2/1/2012 10:48 AM	File folder	1	
Documents	2012_02_01_18	2/1/2012 6:55 PM	File folder	\	
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		
M Computer	2012 02 03 16	2/3/2012 4:10 PM	File folder		
Network :	2012_02_03_18	2/3/2012 6:43 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		
E 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		
🌡 Исходники Маф	2012_02_07_18	2/7/2012 6:34 PM	File folder		
🎍 @ono	2012_02_08_13	2/8/2012 1:47 PM	File folder		
*	1 2012 02 08 14	2/0/2012 2/0/ 214	Ella daldar		

• Click the Save changes and restart service link.





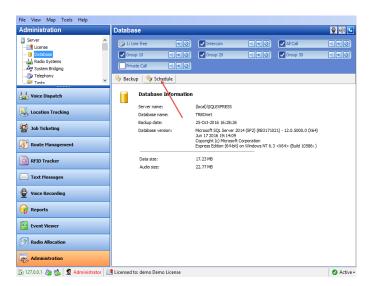
Configuration	Ser	/ice				Version	n: 5.4.0.2210
🔗 Service	^						
Network		The TRBOnet	Server service i	s installed			
🛱 Redundancy							
Database		Status:	Service sta	arted			
😪 Reports			Stop serv	ice			
🔅 Service Management							
🔀 Advanced Settings		Save char	iges and resta	rt service			
人 《Geocoding Servers							
Radio Systems		Uninstall	Service				
Services							
Repeater #1						•	
Advanced Settings							
Privacy							
III Slot #2							
Local Slots							
🖵 PTT over Cellular							
TRBOnet.Mobile gateway #	1						
Remote Agents							
Friendly Servers							
Telenhony	× 1	Niew Log E	ntries Export (Configuration	Import Co	nfiguration	
<	>						
Set Defaults				Apply		ок	Cancel

Thus, the audio files will be restored.

Schedule Backups

To set a scheduled backup for the database and audio recordings, do the following:

- In the Dispatch Console, go to **Administration** section and select **Database** in the Navigation tree:
- Click the **Schedule** button:



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



Schedule Database Backu	
Enable scheduler Scheduler:	Database Backup
Backup data Backup audio Remove Remove all data Audio files Data	● (Select Al) adf ghj rty Qwa old Qwa old Cancel _:
	OK Cancel

• Enable scheduler

Check to enable the database backup scheduler.

• Scheduler

Click the arrow button on the right, and on the drop-down list select the required scheduler(s). Or, click the plus button on the right, and create a new scheduler.

For directions on how to create schedulers, see section <u>6.4.17, 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.

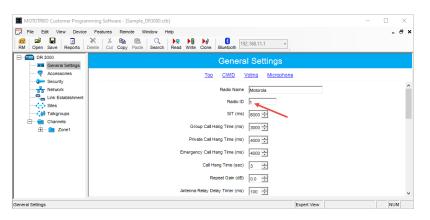
Note: No extra license per repeater is required for Digital Phone Patch from Motorola.

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 Settings page:



The Radio ID of actual repeaters in CPS must differ from the TRBOnet Peer ID. TRBOnet Dispatch Console acts as another virtual peer repeater with Peer ID (for example, IPSC network consists of 1 master and 3 peers. The repeaters' IDs (Radio IDs in CPS codeplugs for repeaters) in this case would be 1, 2, 3, 4. The TRBOnet Peer ID must differ from all the repeaters (the master and all peers, otherwise a conflict will happen in the network as peers have the same ID). The TRBOnet Radio ID is 64250.

 Open TRBOnet Dispatch Console. Go to Administration (1), Telephony (2), Radio calls configuration (3) – Configure (4) and set DTMF Access and DTMF Deaccess codes (5) to 0 and #, respectively:



File View Map Tools Help			
Administration	Telephony		🔮 🚳 🕓
Server Conse Cons	I: Line free		Repeater #1: Slot #1 •)
- System Bridging - System Bridging - Fasks - Fasks - Event/Alarm Management	Radio calls configuration Allow subscribers to make outgo Allow to use DTMF:	oing calls: Yes Yes	
Voice Dispatch	Allow to use Text Message Backward call to radio:	s: Yes, Prefix: 'sip:' Radio calls configuration	×
GPS Positioning	Initialize call to radio: Initialize call timeout: Execute Check Radio before ca	Allow subscribers to make outgoing calls	
🚰 Job Ticketing	Send Text Message if cannot e	Allow to use DTMF	
😥 Route Management	Play tone when PTT changed: DTMF Access code:	 Allow to use Text Messages Prefix: 	sip:
RFID Tracker	DTMF Deaccess code:	Play the incoming call tone on the radio: Initialize call to radio:	After the called party answ Send ring tone
Text Messages 4	Incoming calls configuratio	Initialize call timeout:	Unlimited 🜩 seconds
🔮 Voice Recording	Call to Dispatch Center: Call to external number:	 Execute Check Radio before call Send Text Message if cannot establish c 	al
🕝 Reports	Extension numbers (voice Start call automaticaly:	Play tone when PTT changed	
Event Viewer	Maximum number length: Number	DTMF Access code: 5	¢
Radio Allocation	0 1 <number></number>		OK Cancel
Administration	Configure		Active -

Programming Radios

A special setup is required for radios in MOTOTRBO CPS.

• Read a subscriber's radio in CPS and go to **Phone > System (1)**:

MOTOTRBO Customer Programming Software - [Untitled1]	
File Edit View Device Features Remote Window Help	- 5
mi 🚈 🖬 🧃 🕅 🤾 Jacobi 🧱 🔍 Na	11.1 •
E Signaling Systems ∧ Sys1	
E- Stone Top DTMF	
B MDC Gsteway ID 100	2
E 🚔 Quik-Call II Access Code 0	2
Sys1 3 Deaccess Code ⊭	
DTMF	
🧐 ea_tg3 Pretime (ms) 500	*
Phone 1 TX Tone Duration (ms) 120	÷
Encoder TX Tone Interval (ms) 80	÷
Pause Duration (ms) 4000	÷
Seq1 v	

- 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 **Channels** > **Zone**> **Channel** (1) and select the **Phone System** you have previously specified (2):

MOTOTRBO Customer Programming Soft	are - (sample_DP4oule.ctb)	- 🗆 ×
File Edit View Device Features	Remote Window Help	- 7
RM Open Save Reports Delete Cul	Copy Paste Search Read Write Clone Bluetooth	
Capacity Plus ^	Channel1	
Flexible RX List	Top RX IX	
🗄 😑 Channels	Voice Announcement File None	Ŧ
🖻 💼 Zone1	Dual Capacity Direct Mode	
Channel2	Timing Leader Preference Eligible 💌	
🖻 - 💼 Scan	Scan/Roam List None	•
🔀 List1	Auto Scan	
List1	Color Code 1	2
Capacity Plus Dice	Repeater/Time Slot 1 💌	
List1	Phone System Syst	
🖃 💼 Data	ARS Disabled	
		>

TRBOnet Enterprise — User Manual



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.

Software Requirements

Server Computer	Dispatch Computer	
TRBOnet Server installed		
MOTOTRBO Network Interface Service (MNIS)		
MOTOTRBO Device Discovery and Mobility Service (DDMS)	TRBOnet Dispatch Console installed	
MS SQL Server 2008 R2 or higher (can be installed on remote server)		

Hardware Requirements

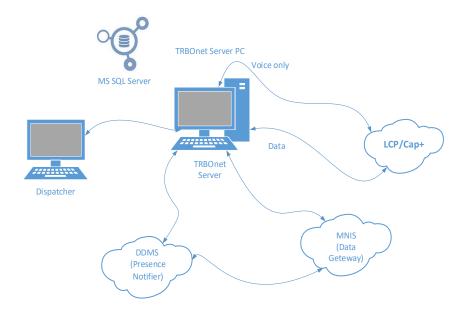
Server Computer		Dispatch Computer
CPU	Intel Core i7 or higher	Intel Core i5 or higher
Memory	3 GB	3 GB
Sound Card	_	Multi-channel Sound Card required. Recommended: 1. <u>M-Audio Delta 1010 LT</u> 2. <u>Roland OCTA CAPTURE Hi-SPEED USB</u> <u>Audio Capture</u>
Supported OS	Windows 7/8.x/10 Windows Server 2008/2012/2016	Windows 7/8.x/10
Additional devices	_	Microphone and speaker (headset)

Note: It is possible to use a virtual machine as a Server computer.



Voice and Data Flow 1

TRBOnet Voice and Data flow for NAI is represented on the following scheme:



Voice and Data Flow 2

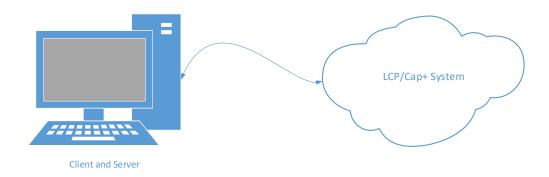
MNIS is responsible for sending/receiving Data Packages and forwarding them to TRBOnet Server.

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 **MOTOTRBO Linked Capacity Plus (LCP) - HP MSR 20-20 Router Configuration Guide**.

Single PC Installation

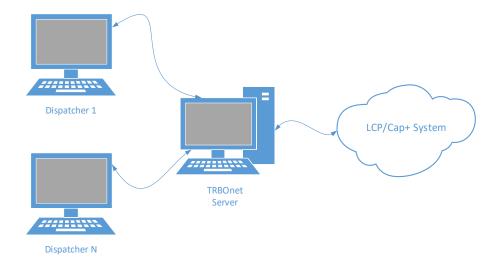
TRBOnet Server and Dispatch Console can be installed on the same computer.



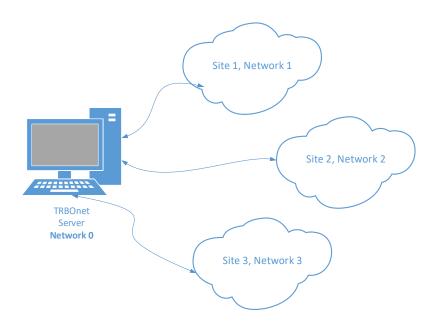


Client-Server Installation

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:

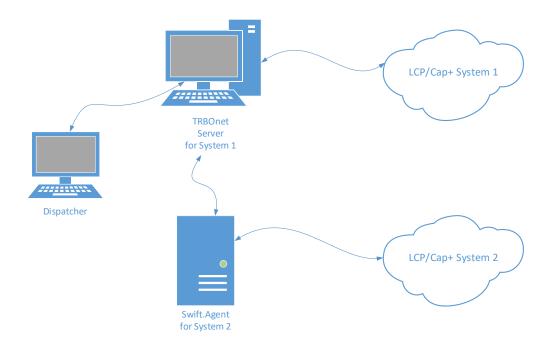


Use the recommended Routers only.

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.



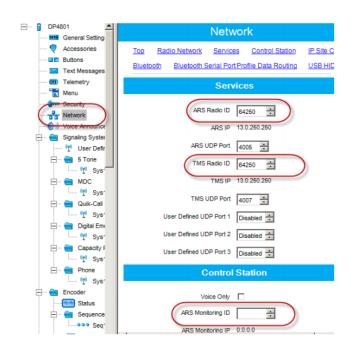


Limitations

- Logging of Radio-to-Radio TEXT is **NOT SUPPORTED**.
- Phone Interconnect is available with some limitations.
- Local Talk Group IDs must be unique per system.

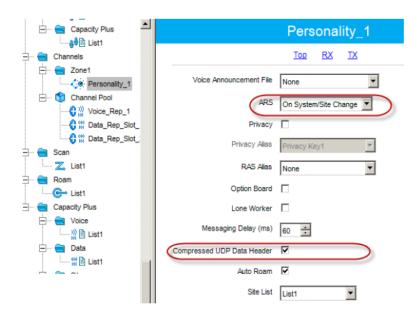
Radio Subscriber Configuration

Network Settings

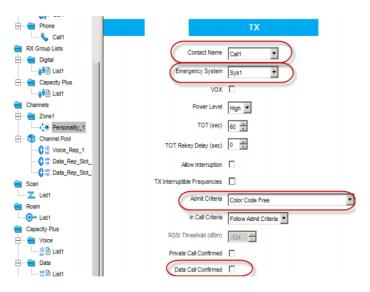




Personality Settings – 1



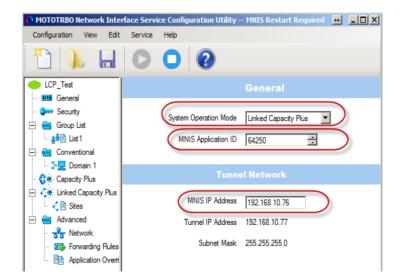
Personality Settings – 2



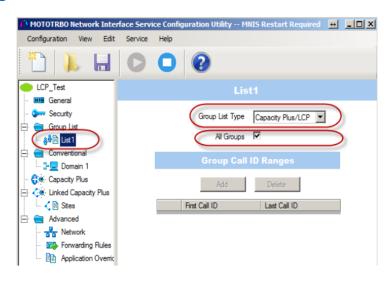


MNIS and DDMS Settings

General Settings



Talk Group Settings

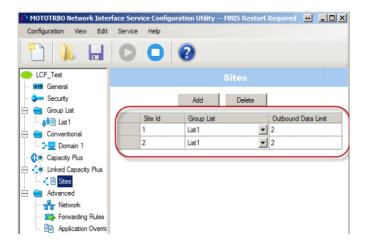




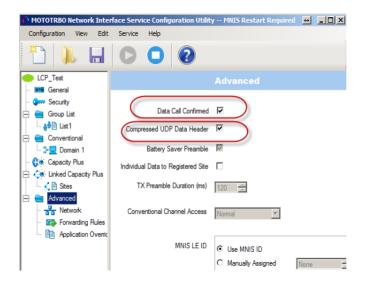
Master Repeater Settings

MOTOTRBO Network Inter	face Service Configuration Utility MNIS Restart Required 🛛 🖶 📃 🕽
Configuration View Edit	Service Help
LCP_Test	Linked Capacity Plus
🐓 Security	Master IP Address 10.10.9.55
- §∲⊞ List1 Conventional 	Master UDP Port 50011
Capacity Plus Capacity Plus Capacity Plus	MNIS LE Port C Automatically Assigned None
E 🔁 Advanced	Authentication Key
Application Overric	
- Em Application overite	Privacy Setting None

LCP Sites Settings



Advanced Settings





Network Settings

MOTOTRBO Network Interfa	Service Help			
*]		?		
Untitled Untitled General				
··· 🗊 Security		CAI Network	12 ≑	
📄 💼 Group List		CAI Group Network	225	
Conventional		s	ervices	
Capacity Plus		ARS UDP Port	4005	
🖃 💼 Advanced		TMS UDP Port	4007 🗘	
🚰 Network 🗃 Forwarding Rule		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.

🐊 MOTOTRBO DDMS	and the second	+ <u>- D ×</u>
File Action Help		
	1	
Service	ARS Settings	
E 🐺 Interfaces	PortSU	4005
- ARS Settings	PassiveMode	Off
	DeviceRefreshTime	30
- Cogging	Deregistration TO	120
	PersistenceTO	12000
	DeviceRefreshTime Device Registration duration i minute interval.Range: 0 - 64	n minutes, rounded up to the nearest 30 *60 (0=forever)
Settings for ARS/SU interface		.:



ARS TRBOnet Settings

Configuration	Service Management		Version: 5.4.0.2178		
💣 Service					
S Network	Presence service				
🛱 Redundancy	Auto request presence timeout:	5 ‡	minutes		
Database	ARS refresh interval:	1440	minutes		
😪 Reports	AKSTEILESHITTEIVEI.	¥ 110 ¥	minutes		
🔅 Service Management	Ignore unregistered Radios				
🔀 Advanced Settings	Location service				
Geocoding Servers		-			
骗 Radio Systems	GPS restart by inactivity timeout:	10 🗘	minutes		
🛒 PTT over Cellular	Dispatch Console update interval:	5 ‡	seconds		
Remote Agents	Automatic error correction				
Friendly Servers	Configure				
Telephony	Send the latest GPS data to dis	natchers on alert			
Ψ Data Sources			-		
🔀 Email	For the last:	10 🚆	minutes		
SMS	GPS points:	10 🌲			
📮 License	Indoor service				
	🗹 Remove offline radio from beac	on			
	Ignore beacon position on alarm if GPS is fixed (only K-TERM)				
Set Defaults		Apply	OK Cancel		
Set Defaults		Apply	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

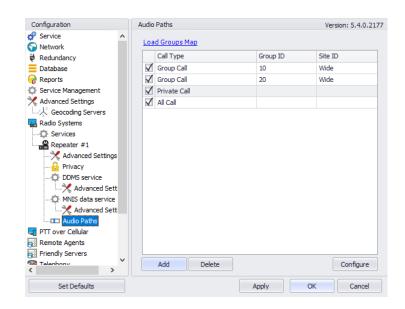
Configuration		CP1		Version: 5.4.0.2210
💣 Service	^			
Network		System Name:	Repeater #1	
🛱 Redundancy		TRBOnet Peer ID:	100	
Database		TRBOnet Radio ID:		▼ ▲
😪 Reports		TRBONET Radio ID:	64250	•
Service Management		TRBOnet Local Port:	50001	÷
💥 Advanced Settings		Master Repeater Conn	ection Info:	
Geocoding Servers		Master IP Address:	10, 10, 188, 35	•
Radio Systems		Master UDP Port:		A
Services		Master UDP Port:	50000	Test
Repeater #1		Authentication Key:	123456	
X Advanced Settings		System Type:	Linked Capacity Plus	-
		System Identifier:		
DDMS service		system ruenuner.		
Advanced Settings		🗸 Use NAI Voice		
MNIS data service		🗹 Use NAI Data (MNIS an	d DDMS)	
Advanced Settings		Use RCM for control rad	dio activity	
Audio Paths				
TT over Cellular				
Advanced Settings				
TRBOnet.Mobile gateway #1	v			
< >>				
Set Defaults			Apply	OK Cancel

Special settings:

- **TRBOnet Peer ID** any unique value.
- **TRBOnet Radio ID** the default TRBOnet ID.
- **TRBOnet Local Port** any free port on the PC.



Audio Paths



Special settings

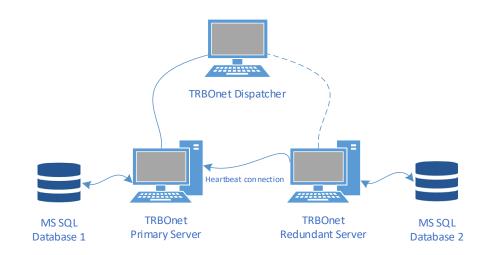
- Load Groups from Master Repeater;
- Add Local Groups manually.



Appendix G: Redundant Server

The TRBOnet Server supports a backup configuration which allows seamless switching from the primary to redundant server in the case of failure of the primary server. The Dispatch Console operation will not be interrupted.

Redundant configuration overview



- Primary and Redundant Servers are configured identically.
- Redundant Server is operating in PASSIVE mode.
- Redundant Server is monitoring Primary Server status.
- Dispatch Console is connected to Primary Server.
- In case of Primary Server failure:
 - Dispatch Console connects to Redundant Server automatically.
 - Redundant Server becomes ACTIVE.
- Once failed Primary Server is back online, Dispatch Console automatically reconnects to Primary Server.
- Primary and Redundant Servers do not exchange any data.



TRBOnet Redundant Server Configuration

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

Configuration	Redundancy	Version: 5.4.0.2178
Service Service Service Redundancy Database Reports Service Management Advanced Settings	Redundant server mode Redundancy Mode: Passive Main servers: IP Address 1 10, 10, 234, 162	
Radio Systems Renote Agents Friendly Servers Telephony Pata Sources Email SMS		
Set Defaults	Add Edit Dele	te Test A V Apply OK Cancel

• In the **Redundancy** pane, select **Redundant server mode**.

• Redundancy Mode

Select the mode for a redundant server from the drop-down list.

• To add a primary server, click Add.

Server Propertie	s	×	
IP Address:	10.10.234.162		
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.

Passive Mode

In the **Passive** mode, the Dispatch Console is connected to the primary server. In case the primary server crashes, the redundant server gets connected to the radio system and then starts recording to the database (Database 2). The Dispatch Console automatically connects to the redundant server. After the primary server is recovered, the Dispatch Console will disconnect from the redundant server and reconnect to the primary server.

Active Mode

Alternatively, in the **Active** mode, the redundant server is always connected to the radio system and records to its database, thus duplicating the primary server's database (Database 1).



The **Active** mode has some limitations that are outlined in another section (see section <u>Restrictions for Active Reserve Mode</u> on page 369).

Restrictions for Active Reserve Mode

 Go to repeater settings and make sure that **TRBOnet Peer ID** of the redundant server differs from the one set for the primary server. Each TRBOnet Server must have a unique peer ID in the radio system:

Configuration		CP1			Version: 5.4.0.2210
💣 Service	^				
S Network		System Name:	Repeater #1		
🛱 Redundancy		TRBOnet Peer ID:	100	\$	
Database		TRBOnet Radio ID:	64250	*	
Reports				•	
Service Management		TRBOnet Local Port:	50001	÷	
X Advanced Settings		Master Repeater Conn	ection Info:		
Geocoding Servers		Master IP Address:	10.10.188.35	•	
Radio Systems		Master UDP Port:	50000		Trat
Services		Master ODP Port:	50000	•	Test
Repeater #1		Authentication Key:	123456		
X Advanced Settings		System Type:	IP Site Connect		-
Privacy		System Identifier:			
I Slot #1		bystem ruentmen.			
I Slot #2		Use NAI Voice			
Local Slots		🗌 Use NAI Data (MNIS an	d DDMS)		
TT over Cellular		Use RCM for control rad	dio activity		
Advanced Settings					
TRBOnet.Mobile gateway #1	L				
Remote Agents					
Friendly Servers	U				
Telenhony					
Set Defaults			Apply		OK Cancel
occocidana			OPP17		Guncer

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 Server X		
Connect to:		
Address:	127.0.0.1 ~	
Port:	4021 Configure	
Authentication:		
Method:	TRBOnet Authentication V	
User Name:	admin	
Password:	******	
Connect on startup		
	OK Cancel	

• Click **Configure** to register the new primary server:



Register TRE	\times					
🛃 Add 💷 Edit 🔜 Delete						
Server Label		Server Address Port				
Server1		10.10.164.45	4021			
Server?	Register TRBOnet	Server			×	
	Label:	Server 3				
	Address:	127.0.0.1				
	Port:	4021				
	Redundant ser	vers:				
	Addr	ess	Port			
			1			
	Add	Delete		A		
			ок	Cancel		

- Click Add to add a new TRBOnet Server:
 - Label enter a name for the new primary server.
 - Address enter the primary server's IP Address.
 - **Port** specify the command port of the primary server.
 - **Add** click and specify the IP address and port of the redundant (backup) server for the primary server being registered.
 - Click **OK** to save settings and close the dialog box.

Console Connection to Primary and Redundant Servers

 Go to File > Connect to TRBOnet Server, and from the drop-down list select the primary server you created:

Connect to TRBOnet Server		
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.